



MotionGrade™ DIN M23/M40 Connectors and Servo Cable



 MOTIONGRADE™ Family

www.amphenol-sine.com | +1 800 394 7732

We Are Amphenol

Global Interconnect Solution Supplier

For over 80 years Amphenol has enjoyed success as the interconnection technology provider of choice for industry leading companies around the world. Our organization works with leading manufacturers across a wide range of applications - including Energy Generation & Distribution, Transportation, Heavy Equipment, Factory Automation, Wireless Outdoor, Information Technology and Data Communications Equipment, Mobile Devices, Mobile Networks, Broadband Communication, Military and Commercial Aerospace, Industrial, Automotive and Chip Card Readers - enabling smarter, faster and better technologies to connect products to customer solutions.

Our engineers design innovative combinations of industry standard connectors and application specific shielding components to create assembly systems that set the standards for performance, reliability, and cost effectiveness. Our engineering, materials, and manufacturing organizations meet the high standards imposed by ISO 9001:2008 as well as many customer specific quality systems. Our performance has earned us ship to stock and world class performance awards from many major OEMs.

We are one of the largest interconnect solution suppliers in the world and supply a wide range of product solutions globally. The industrial market footprint of Amphenol covers more than 30 countries.



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MotionGrade™ DIN M23/M40

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|--|--------------------------|-----|
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|--------------------------------|-------------------------------------|-----|
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|--|-------------------------------------|-----|
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Power

| | | |
|--|--------------------------|-----|
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Standard Products. Custom Solutions.

Our MotionGrade™ DIN Style Automation product lines, which include M23, Checkmate™, Hybrid DMC and the M40 Series, have key placement in all areas of automation. Based on our superior build quality, high-performance capabilities and compatibility with existing standard products industry-wide, our MotionGrade™ DIN Style products are the right choice for your interconnect needs.

We can custom design, engineer and manufacture cable assemblies to your exact customer specifications and produce them in large or small quantities, manufactured at the industry's highest standards. Delivered on-time and in-specification, all with a significant cost-savings over the competition.

The cost savings derived by combining Michigan based program management & engineering and our low-cost production centers in North America and Asia allows our team to work with you to design the most cost-efficient and reliable interconnect system available on the market today.

MOTIONGRADE™ Family



Features and Benefits

Superior Shielding

First quality components coupled with a simplistic design provide maximum EMI/RFI shielding capabilities while reducing assembly preparation times.

Cable Strain Relief

Your choice of the innovative design features of FlexGrip™, Metrifi™, or traditional cable strain relieving similar to existing standard systems.

For an ovemolded option, the Metrifi™ Strain Relief System provides maximum 360° EMI/RFI shielding, with advanced sealing capability

Fluid Resistance and Sealing

In combination with our strain relief systems, Amphenol utilizes advanced sealing technologies & materials to ensure highest reliability when subjected to the harshest environments.

RoHS Compliant

RoHS All materials meet the requirements of the European Directive 2002/95/EC, Issue 13.2.2003.

Approvals

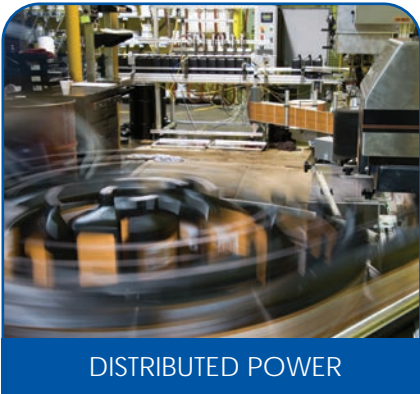
ISO 9001/2000, UL Listed, E224856, CYJV2/CYJV8

Our Standard Series M23 products have ECBT2 UL list E336860

All Elite Products are UL E491265

MotionGrade™ DIN M23/M40 Connectors and Servo Cable

Typical Applications



MotionGrade™ DIN M23/M40 Connectors and Servo Cable

Product Overview

Amphenol Sine Systems' MotionGrade™ M23 and M40 Connector Systems are designed to excel in performance and reliability in our customers' most demanding environments. Amphenol's MotionGrade™ M23 and M40 products are ideally suited for advanced servo drive encoder feedback applications, packaging, robotic, printing, machine tool, medical and automation environments where control signal transmission or power are required in a robust and compact delivery system.

INTRODUCING the ELITE™ SERIES



Starting at page 33

M23 Elite Threaded and Checkmate™ Series State-of-the-art Design Features

6, 8, 9, 12, 16 and 17 positions available

- Next Generation Single Pc Design
- Reduced Cost
- Faster Assembly
- Checkmate™ Coupling.
(See page 22 for more details)
- Compatible with other industry standard products
- Loose Pc Insert Assembly
- Ground Protection
- Industry Standard Insert Design
- 360° Shielding

M23 Standard Threaded and Checkmate™ Series Offering Expanded Connector Options

6, 8, 9, 12, 16, 17 and 19 positions available

Starting at page 149

- 10A Max Current; 160V (12 pos), 125V (16-19 pos); 18-28AWG
- 28A Max Current; 630V Power; 14-18 AWG (6 Postions)
- 30A Max Current , 630V Power; 10A Max Current / 250V Signal ; 14-28 AWG (8,9 Postions)
- High-performance, cost-effective
- Superior environmental seal retention
- Compatible with existing standard products industry-wide
- Available with Checkmate™ quick locking technology. (See page 22 for more details)

Standard Products. Custom Solutions.



Starting at page 141

M23 Hybrid Series

2 Power + PE + 1 Signal + 4 Quadrax
Ethernet Element

- 18A (2.0mm), 1A (1.0mm), 0.5A (Quad Element)
Max Current
- 850V (2.0/1.0mm Contacts), 30VDC (Quad Element)
Max. Volt.
- High-performance, cost-effective
- Superior environmental seal retention
- Ideally suited for advanced servo-drive encoder
feedback applications where POWER, SIGNAL and
COMMUNICATION are required in a robust and
compact delivery system.



Starting at page 255

M40 Series Threaded and Checkmate™ 6 and 8 positions available





Amphenol's MotionGrade™ M40 products are ideally suited for advanced servo drive encoder feedback applications, packaging, robotic, printing, machine tool, medical and automation environments where control signal transmission or power are required in a robust and compact delivery system.



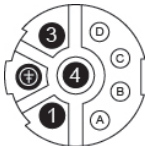
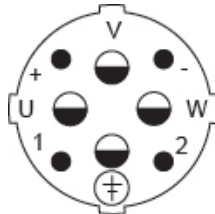
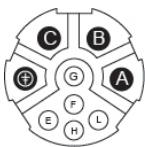
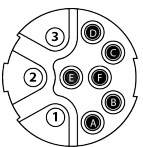
- Power: 75A Max Current; 630V Max Voltage;
8-12AWG
- Signal: 30A Max Current; 250V Max Voltage;
14-18AWG
- High-performance, cost-effective
- Superior environmental seal retention
- Compatible with existing standard products
industry-wide
- Available with Checkmate™ quick locking
technology.



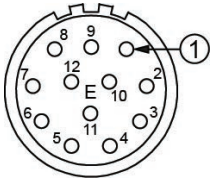
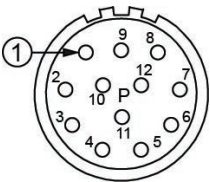
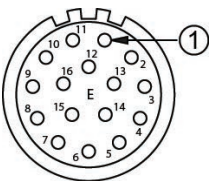
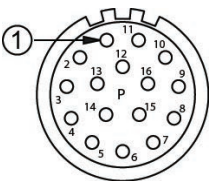
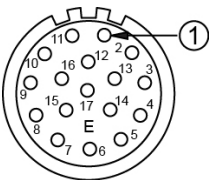
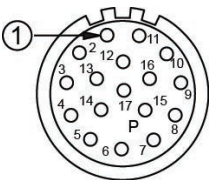
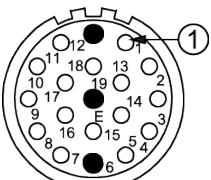
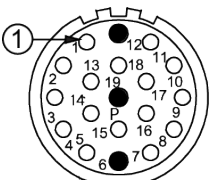
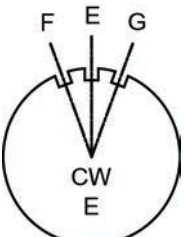
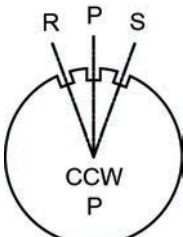
MotionGrade™ DIN M23/M40

Insert Arrangements

| | | M23 Hybrid | | | |
|------------------|---|---|---|---|--|
| contact size | 2 Power + PE (2.0mm) + 1 Signal (1.0mm), 4 Quadrax Ethernet Element (.7mm) | | | | |
| No. of Positions | Plugs | | Receptacles | | |
| 8 |  |  |  |  | |
| | female 18A PE/1A Signal/0.5A Quad /850V PE & Signal/ 30V Quadrax Checkmate™ see page 107 | female 18A PE/1A Signal/0.5A Quad /850V PE & Signal/ 30V Quadrax Threaded see page 141 | male 18A PE/1A Signal/0.5A Quad /850V PE & Signal/ 30V Quadrax Checkmate™ see page 107 | male 18A PE/1A Signal/0.5A Quad /850V PE & Signal/ 30V Quadrax Threaded see page 141 | |

| | | M23 Series | M40 Series |
|------------------|--|--|--|
| contact size | 2.0mm Power / 1.0mm Signal | | 3.6mm Power /2.0mm Signal |
| No. of Positions | | | |
| 6 |  28A /630V see pages 105,111,213 | |  75A /630V Power 30A/250V Signal see pages 251,255 |
| 8 |  30A Power/ 10A Signal 630V Power/250V Signal see 117,123,223 | |  75A /630V Power 30A/250V Signal see pages 259,263 |
| 9 |  30A-Power/ 10A Signal 630V Power/250V Signal see pages 129,135,233,243 |  30A-Power/ 10A Signal 630V Power/250V Signal see page 243 | Note: Faceviews shown on this chart are of female inserts |

Connector Guide

| | | M23 Series | |
|------------------|--|---|--|
| contact size | 1.0mm | | |
| No. of Positions | E Type | P Type | |
| 12 |  <p>10A / 160V see pages 33,39,149</p> |  <p>10A / 160V see pages 45,39,157</p> | |
| 16 |  <p>9A / 125V see pages 63,69,165</p> |  <p>9A / 125V see pages 75,81,173</p> | |
| 17 |  <p>9A / 125V see pages 81,87,181</p> |  <p>9A / 125V see pages 93,99,189</p> | |
| contact size | 1.0mm and 1.5 mm | | |
| 19 |  <p>7A / 63V see page 197</p> |  <p>7A / 63V see page 205</p> | |
| Coding Keys |  |  | |
| | <p>interconnection key "F" mates with "S", "E" mates with "P" and "G" mates with "R"</p> | | |

MotionGrade™ DIN M23/M40

M23 Elite Series Connector Configurations - Positions 12,16,17

STEP 1

Choose a Plug "P" Style ←

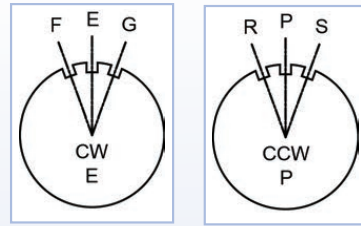
Choose a Plug "E" Style ←

MATING PARTS



STEP 2

Choose Contacts



Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.*

Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S.

interconnection key

- "E" mates with "P"
- "F" mates with "S"
- "G" mates with "R"

Connector Guide

Connector Solutions:
see page 31 for parts grouped by insert arrangement

Need a complete Cable Assembly?

See page 23 or
contact the factory for assistance
Toll Free: 1-800-394-7732

STEP 3

- Choose a Receptacle "E" Style
- Choose a Receptacle "P" Style



Rotatable 90 °



Straight,
Flange Mount
Receptacle



Receptacle
Extension



Use A
Receptacle Kit
and skip steps 4 & 5

STEP 4

Choose Contacts



STEP 5

Choose a Cord Grip

*Step 5 is only required when
utilizing the receptacle extension*



MotionGrade™ DIN M23/M40

M23 Elite Series Connector Configurations - Positions 6,8,9



Connector Guide

Connector Solutions:
see page 31 for parts grouped by insert arrangement

STEP 4

Choose Contacts



Need a complete Cable Assembly?

See page 23 or
contact the factory for assistance

Toll Free: 1-800-394-7732

STEP 5

*Step 5 is only required when utilizing
the receptacle extension*

Cord Grip



MotionGrade™ DIN M23/M40

M23 Standard Series Connector Configurations - Positions 12,16,17,19

STEP 1

Choose a Plug "P" Style ←

Choose a Plug "E" Style ←

MATING PARTS



Straight Plug



90 ° Plug

STEP 2

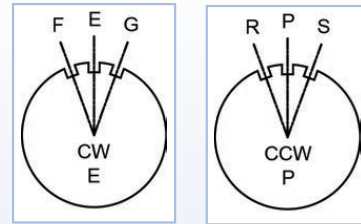
Choose Contacts



OR



Plug Kit



Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.*

Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S.

interconnection key

- "E" mates with "P"
- "F" mates with "S"
- "G" mates with "R"

STEP 3

Choose a Cord Grip



or FlexGrip™ Backshell System *details page 282*



overmolded option

Connector Guide

Connector Solutions:
see page 31 for parts grouped by insert arrangement

STEP 4

- Choose a Receptacle "E" Style
- Choose a Receptacle "P" Style



Straight,
Flange Mount
Receptacle



Rotatable 90°
Receptacle
rotates 330°



Bulkhead
Receptacle



Receptacle
Extension



overmolded option

Need a complete Cable Assembly?

See page 23 or
contact the factory for assistance
Toll Free: 1-800-394-7732

STEP 5

Choose Contacts



OR
A Receptacle Kit



STEP 6

Choose a Cord Grip

*Step 6 is only required when
utilizing the receptacle extension*



or Flex Grip™
Backshell
details page 282



MotionGrade™ DIN M23/M40

M23 Standard Series Connector Configurations - Positions 6,8,9

STEP 1

Female Plug



Straight Plug



Rotatable 90 ° Plug

Choose a Plug Kit
and skip steps 2 & 3



MATING PARTS

Need a complete Cable Assembly?

See page 23 or
contact the factory for assistance
Toll Free: 1-800-394-7732

STEP 2

Choose Contacts



STEP 3

Cord Grip



or FlexGrip™
Backshell System
details page 282



overmolded option

Connector Guide

Connector Solutions:
see page 31 for parts grouped by insert arrangement

STEP 4

Male Receptacle



Rotatable 90 °
Receptacle
rotates 330°



Straight



Bulkhead
Receptacles



Receptacle
Extension



Choose A
Receptacle Kit
and skip Steps 5 & 6

Need a complete Cable Assembly?

See page 23 or
contact the factory for assistance
Toll Free: 1-800-394-7732

STEP 5

Choose Contacts



STEP 6

Step 6 is only required when
utilizing the receptacle
extension

Cord Grip



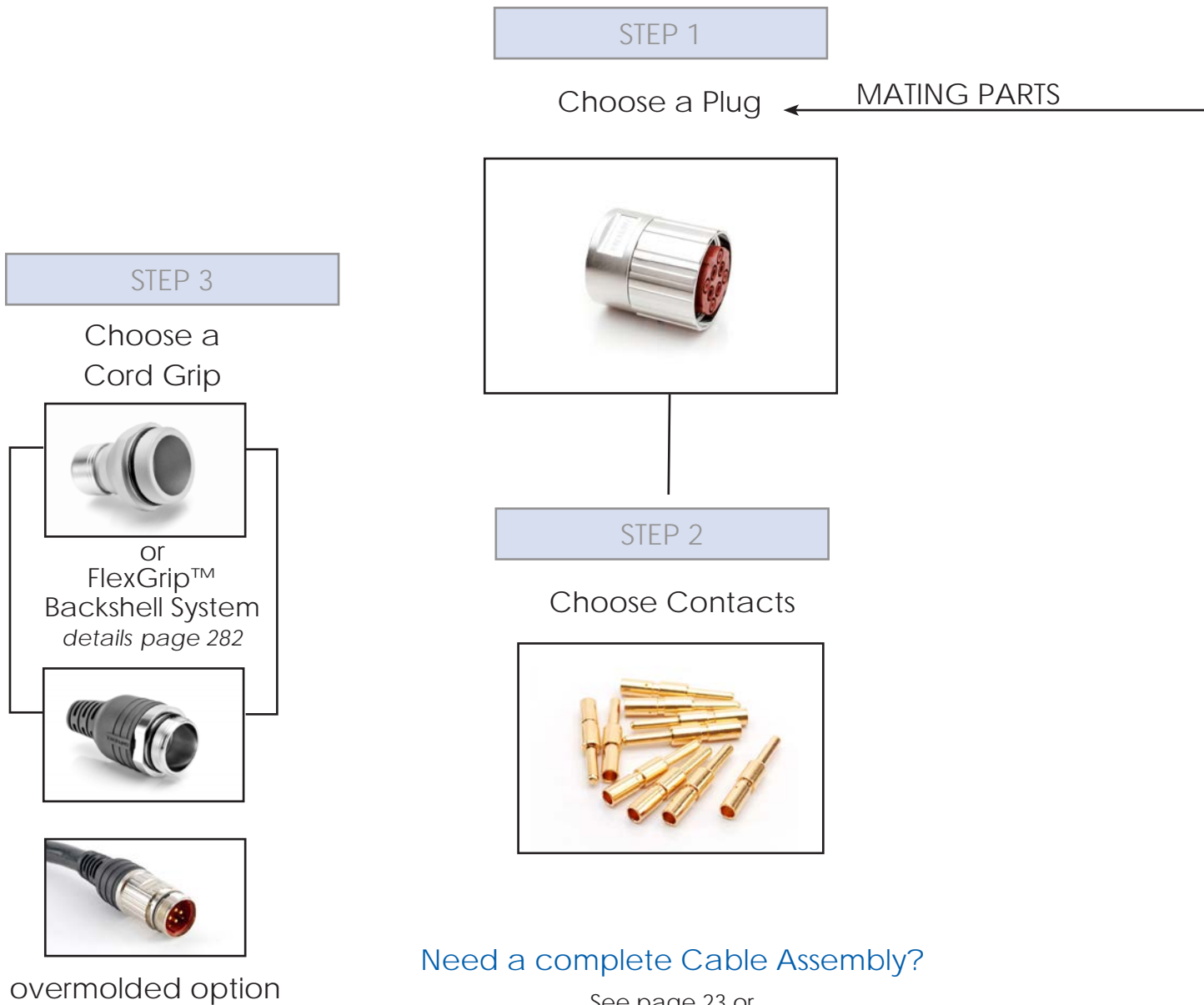
or FlexGrip™
Backshell System
details page 282



overmolded option

MotionGrade™ DIN M23/M40

M40 Connector Configurations - Positions 6, 8



Need a complete Cable Assembly?

See page 23 or
contact the factory for assistance

Toll Free: 1-800-394-7732

Connector Guide

Connector Solutions:
see page 31 for parts grouped by insert arrangement

STEP 4

Choose a Receptacle



Straight
Flange Mount



90 °
Receptacle



Receptacle
Extension

STEP 5

Choose Contacts



STEP 6

*Step 6 is only required when
utilizing the receptacle extension*

Choose a
Cord Grip



or FlexGrip™
Backshell
details page 282



overmolded option

Connector Guide



M23 Checkmate™ Quick Locking Connectors Featuring Metrifit™ Strain Relief System



Amphenol presents the M23 Checkmate™ Quick Locking connector series featuring the Metrifit™ strain relief system.

Ideally suited for the Motion marketplace, the Checkmate™ connector system's robust metal housing features add enhanced performance to today's standard systems by increasing the reliability and performance of one of the most dependable interconnect systems today.

Amphenol began with first quality components in a highly functional and intuitive design incorporating a self-aligning cam locking pathway utilizing shell coding which eliminates mis-mating, component damage, or an unintended connection even in adverse conditions. Once proper insert alignment is assured, proper contact engagement is maintained with a precision anti-vibration ratcheting coupling eliminating unintentional disconnects. This secure Quick Locking capability is accomplished in 1/8 of a turn. The resulting connection integrity ensures the highest reliability achieving vibration and shock capability up to 20g (vibration) and 50g (shock) in 3 axis.

Metrifit's integral strain relief system provides maximum 360° EMI/RFI shielding, with advanced sealing capability (IP67) suitable for harsh environments. Tamper proof design ensures a safe and secure system.



Options available for your next move.

All materials meet the requirements of ISO 9001/2008



- Enhanced next generation anti-vibration dual-ratcheting coupling system. Checkmate™ is intermateable and compatible with rival M23 quickcoupling products.
- Distinctive alignment arrows with lock/unlock identifiers (ensures a solid connection every time)
- Quick locking reliability. 1/8th turn locks the connector vs traditional threaded style coupling
- Functional design allows for rapid orientation with tactile, visual and audible confirmation.
- Vibration and shock tested up to 20g (vibration) and 50g (shock) in 3 axis
- Secure connection ensures signal integrity and longer contact life
- Superior 360° shielding available
- Compact strain relief design allows for tighter clearances
- Greater fluid resistance with IP67 sealing
- Custom colors and labeling available



Connector Guide

Bulk Cable Offerings






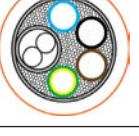


Bulk Cable Offering

Cable solutions for power supply, feedback, resolver, static and continuous flex

- PUR, TPE, DESINA styles available
- Custom cable assembly solutions available
- More cable options available. Contact the factory for more information

Power Cables, Non-Flex

| Part # | Description / Connector Options | Jacket Color Jacket Material | Flex Life Nominal Cable OD Shielding |
|---|---|-------------------------------------|---|
| KA-50960-ORG  | 4/C, 16AWG, Shielded, 90°C 600V, TYPE TC-ER, RoHS Compliant Connector Options: 6 positions pages 105,111,213 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Orange DESINA RAL 2003 TPE | <ul style="list-style-type: none"> • Non-flex • 0.36" (9.2mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-50961-ORG  | 4/C, 14AWG, Shielded, 90°C 600V, TYPE TC-ER, RoHS Compliant Connector Options: 6 positions pages 105,111,213 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Orange DESINA RAL 2003 TPE | <ul style="list-style-type: none"> • Non-flex • 0.40" (10.2mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56338  | 4/C, 16AWG 2PR, Shielded 18AWG, Overall Shielded 90°C, 600V, TYPE TC-ER, RoHS Compliant Connector Options: 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Black TPE | <ul style="list-style-type: none"> • Non-flex • 0.60" (15.2mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56578  | 4/C, 16AWG, 1PR, Shielded, 18AWG+ Overall Shield, 90°C, 600V, TYPE TC-ER, RoHS Compliant Connector Options: 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Orange DESINA RAL 2003 TPE | <ul style="list-style-type: none"> • Non-flex • 0.50" (12.7mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56579  | 4/C, 14AWG, 1PR, Shielded, 18AWG+ Overall Shield, 90°C, 600V, TYPE TC-ER, RoHS Compliant Connector Options: 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Orange DESINA RAL 2003 TPE | <ul style="list-style-type: none"> • Non-flex • 0.52" (13.3mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56580  | 4/C, 10AWG, 1PR, Shielded, 18AWG+ Braided Shield, 90°C, 600V, TYPE TC-ER, RoHS Compliant Connector Options: 6 positions (M40) pages 251,255 8 positions (M40) pages 259,263 | Orange DESINA RAL 2003 TPE | <ul style="list-style-type: none"> • Non-flex • 0.66" (16.8mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |

Power Cables, Non-Flex (con't)

| Part # | Description / Connector Options | Jacket Color Jacket Material | Flex Life Nominal Cable OD Shielding |
|---|--|------------------------------------|---|
| KA-50960  | 4/C 16AWG Shielded 90°C 600V TC-ER Connector Options: 6 positions pages 105,111,213 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Black TPE | <ul style="list-style-type: none"> • Non-Flex • 0.36" (9.2mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-50961  | 4/C 14AWG Shielded 90°C 600V TC-ER Connector Options: 6 positions pages 105,111,213 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Black TPE | <ul style="list-style-type: none"> • Non-flex • 0.40" (10.2mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56340  | 4/C, 10AWG, 2PR, Shielded, 18AWG Pairs Overall Shielded, 90°C, 600V, TYPE TC-ER, RoHS Compliant Connector Options: 8 positions (M40) pages 259,263 | Black TPE | <ul style="list-style-type: none"> • Non-flex • 0.72" (18.2mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56029  | 4/C, 14AWG, 105°C, 600V, RoHS Compliant Connector Options: 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Black TPE | <ul style="list-style-type: none"> • Non-flex • 0.40" (10.2mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56030  | 4/C, 10AWG shielded, 105°C, 600V, RoHS Compliant Connector Options: 6 positions (M40) pages 251,255 8 positions (M40) pages 259,263 | Black TPE | <ul style="list-style-type: none"> • Non-flex • 0.615" (15.6mm) • Aluminum Foil-Coverage 100% |
| KA-56339  | 4/C, 14AWG, 2PR, Shielded, 18AWG Pairs Overall Shielded, 90°C, 600V, TYPE TC-ER, RoHS Compliant Connector Options: 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Black TPE | <ul style="list-style-type: none"> • Non-flex • 0.62" (15.7mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56028  | 4/C, 16AWG Shielded, 105°C, 600V AWM Style, RoHS Compliant Connector Options: 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Black TPE | <ul style="list-style-type: none"> • Non-flex • 0.37" (9.4mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-50967  | 6/C, 16AWG Shielded, 105°C, 600V, RoHS Compliant Connector Options: 6 positions pages 105,111,213 | Black ELEXAR | <ul style="list-style-type: none"> • Non-flex • 0.45" (10.8mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |


Power Cables, Cont-Flex

| Part # | Description / Connector Options | Jacket Color Jacket Material | Flex Life Nominal Cable OD Shielding |
|---|--|----------------------------------|---|
| KA-56313-ORG  | 4/C, 16AWG Shielded 105°C, 600V, AWM Style, RoHS Compliant Connector Options: 6 positions pages 105,111,213 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Orange ELEXAR 8730 | <ul style="list-style-type: none"> • 10M Cycles @ 10X O.D. • 0.46" (11.8mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56314-ORG  | 4/C, 14AWG Shielded, 105°C 600V, RoHS Compliant Connector Options: 6 positions pages 105,111,213 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Orange ELEXAR 8730 | <ul style="list-style-type: none"> • 10M Cycles @ 10X O.D. • 0.49" (12.7mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56349  | 4/C, 16AWG, 2PR 18AWG Shielded 105°C, 600V, AWM Style, RoHS Compliant Connector Options: 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Orange DESINA RAL 2003 TPE | <ul style="list-style-type: none"> • 5M Cycles @ 15 X O.D. • 0.55" (13.9mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56351  | 4/C, 14AWG, 2PR 18AWG Shielded 105°C, 600V, AWM Style, RoHS Compliant Connector Options: 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Orange DESINA RAL 2003 TPE | <ul style="list-style-type: none"> • 10M Cycles @ 12 X O.D. • 0.61" (15.5mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56593  | 4/C, 16AWG, 1PR, Shielded, 18AWG+ Overall Shield, 105°C, 600V, AWM Style, RoHS Compliant Connector Options: 8 positions pages 117,129,135,233 9 positions (3+6) page 243 | Orange DESINA RAL 2003 TPE | <ul style="list-style-type: none"> • 10M Cycles @ 12 X O.D. • 0.46" (11.7mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56594  | 4/C, 14AWG, 1PR, Shielded, 18AWG+ Overall Shield, 90°C, 600V, UL TYPE TC-ER, RoHS Compliant Connector Options: 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Orange DESINA RAL 2003 TPE | <ul style="list-style-type: none"> • 10M Cycles @ 12 X O.D. • 0.50" (12.7mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56595  | 4/C, 10AWG, 1PR, Shielded, 18AWG+ Overall Shield, 90°C, 600V, UL TYPE TC-ER, RoHS Compliant Connector Options: 6 positions (M40) pages 251,255 8 positions (M40) pages 259,263 | Orange ELEXAR 8730 | <ul style="list-style-type: none"> • 10M Cycles @ 12 X O.D. • 0.66" (16.8mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56623  | 4/C, 16AWG (1.5mm ²) Shielded Connector Options: 6 positions pages 105,111,213 | Orange PUR | <ul style="list-style-type: none"> • 10M Cycles @ 10X O.D. • 0.43" (10.9mm) • Shielded Tinned Copper Braid-Coverage 85% |






Power Cables, Cont-Flex (con't)

| Part # | Description / Connector Options | Jacket Color Jacket Material | Flex Life Nominal Cable OD Shielding |
|----------|--|----------------------------------|---|
| KA-56624 | 4/C, 14AWG (2.5mm ²) Shielded <i>Connector Options:</i> 6 positions pages 105,111,213 | Orange PUR | <ul style="list-style-type: none"> • 10M Cycles @ 10X O.D. • 0.42" (10.6mm) • Shielded Tinned Copper Braid-Coverage 85% |
| KA-56625 | 4/C, 16AWG (1.5MM ²), 16AWG (1.5MM ²)-1PR Shielded <i>Connector Options:</i> 6 positions pages 105,111,213 | Orange PUR | <ul style="list-style-type: none"> • 10M Cycles @ 10X O.D. • 0.456" (11.6mm) • Shielded Tinned Copper Braid-Coverage 85% |
| KA-56626 | 4/C, 14AWG (2.5MM ²), 16AWG (1.5MM ²)-1PR Shielded <i>Connector Options:</i> 6 positions pages 105,111,213 | Orange PUR | <ul style="list-style-type: none"> • 10M Cycles @ 10X O.D. • 0.53" (13.4mm) • Shielded Tinned Copper Braid-Coverage 85% |
| KA-56627 | 4/C, 12AWG (4.0mm ²), 16AWG (1.5mm ²)-1PR Shielded <i>Connector Options:</i> 6 positions (M40) pages 251,255 | Orange PUR | <ul style="list-style-type: none"> • 10M Cycles @ 10X O.D. • 0.58" (14.8mm) • Shielded Tinned Copper Braid-Coverage 85% |
| KA-56645 | CBL, 1.0-4C, 22G-1PR, .75-1PR, 80°C, 1000V, AWM Style, RoHS Compliant <i>Connector Options:</i> 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Orange DESINA RAL 2003 TPE | <ul style="list-style-type: none"> • 5M Cycles @ 5 X O.D. (Static); 5M Cycles @ 7 X O.D. (Dynamic) • 0.47" (11.9mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56646 | CBL, 4X2, 5+(2 X 22AWG)C, 80°C, 1000V, AWM Style, RoHS Compliant <i>Connector Options:</i> 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Orange DESINA RAL 2003 TPE | <ul style="list-style-type: none"> • 5M Cycles @ 5 X O.D. (Single); 5M Cycles @ 7.5 X O.D. (Multiple) • 0.51" (12.9mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56647 | CBL, 2.5-4C, 22G-1PR, 1.0-1PR, 80°C, 1000V, AWM Style, RoHS Compliant <i>Connector Options:</i> 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Orange DESINA RAL 2003 TPE | <ul style="list-style-type: none"> • 5M Cycles @ 5 X O.D. (Static); 5M Cycles @ 7 X O.D. (Dynamic) • 0.55" (13.9mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56313 | 4/C, 16AWG Shielded 105°C, 600V, AWM Style, RoHS Compliant <i>Connector Options:</i> 6 positions pages 105,111,213 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Black TPE | <ul style="list-style-type: none"> • 10M Cycles @ 10 X O.D. • 0.46" (11.8mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |


Power Cables, Cont-Flex (con't)

| Part # | Description / Connector Options | Jacket Color Jacket Material | Flex Life Nominal Cable OD Shielding |
|---|--|---------------------------------|---|
| KA-56314  | 4/C, 14AWG Shielded, 105°C, 600V, AWM Style, RoHS Compliant. Connector Options: 6 positions pages 105,111,213 8 positions pages 117,123,223 9 positions (4+5) pages 129,135,233 9 positions (3+6) page 243 | Black TPE | <ul style="list-style-type: none"> • 10M @10XOD • 0.47" (11.8mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |



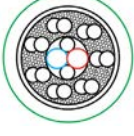

Signal Cables, Non-Flex

| Part # | Description / Connector Options | Jacket Color Jacket Material | Flex Life Nominal Cable OD Shielding |
|---|--|---------------------------------|--|
| KA-56615  | 5PR, 22AWG, shielded, 90°C, 300V, PLTC-ER, RoHS Compliant Connector Options: 12 positions pages 33,39,45,51,149,157 16 positions pages 57,63,69,75,165,173 17 positions pages 81,87,93,99,181,189 | Green RAL 6018 TPE | <ul style="list-style-type: none"> • Non-flex • 0.38" (9.7mm) • Aluminum Foil - Coverage 100% + Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-50203  | 8PR, 28AWG, 1PR 16AWG, Shielded, 105°C, 300V, VW-1 AWM Style, RoHS Compliant Connector Options: 17 positions pages 81,87,93,99,181,189 19 positions pages 197,205 | Black TPE | <ul style="list-style-type: none"> • Non-flex • 0.39" (9.9mm) • Aluminum Foil - Coverage 100% + Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-50959  | 4PR, 24AWG, 90°C, 30V, UL Recognized, AWM Style Connector Options: 12 positions pages 33,39,45,51,149,157 16 positions pages 57,63,69,75,165,173 17 positions pages 81,87,93,99,181,189 | Black TPE | <ul style="list-style-type: none"> • Non-flex • 0.255" • Aluminum Polyester tape, Aluminum Side facing In, 25% Overlap |
| KA-56133  | 1PR, 16AWG, 7PR 28AWG, 1PR 22AWG, Shielded, 105°C, 300V, VW-1 AWM Style, RoHS Compliant Connector Options: 17 positions pages 81,87,93,99,181,189 19 positions pages 197,205 | Black TPE | <ul style="list-style-type: none"> • Non-flex • 0.38" (9.7mm) • Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56441  | 8GA-4COND/14GA-1PR,TC-ER/STOOW Connector Options: 6 positions (M40) pages 251,255 | Black PVC | <ul style="list-style-type: none"> • Non-flex • 1.058" (26.8mm) • Shielded Tinned Copper Braid - Coverage 85% |

Signal Cables, Non-Flex (con't)

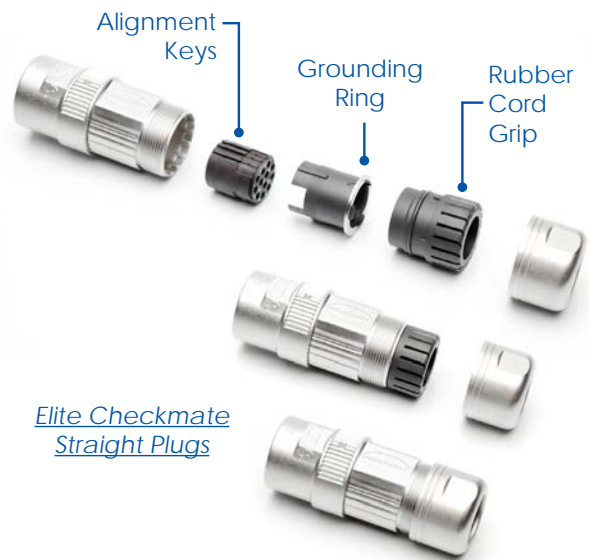
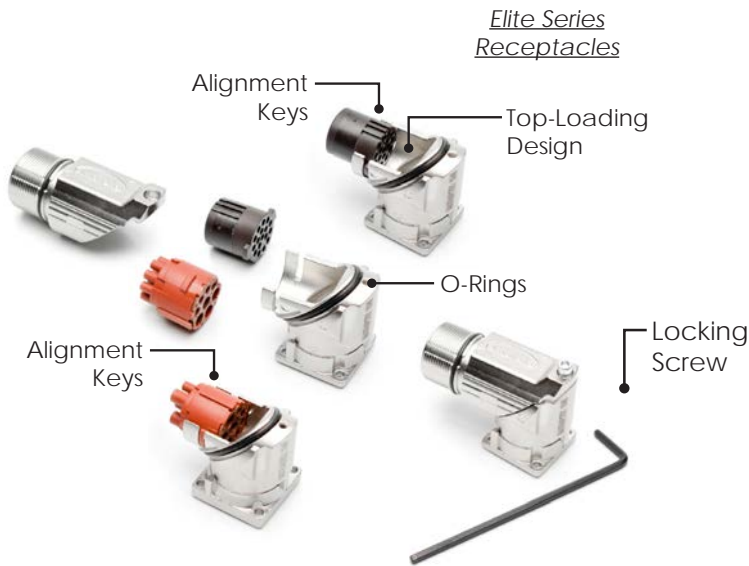
| Part # | Description / Connector Options | Jacket Color Jacket Material | Flex Life Nominal Cable OD Shielding |
|---|---|------------------------------------|---|
| <p>KA-56631</p>  | <p>CBL,12G-5C,Shielded</p> <p><i>Connector Options:</i> 6 positions pages 105,111,213</p> | <p>Black PVC</p> | <ul style="list-style-type: none"> • Non-flex 0.472" (12mm) • Aluminum Foil-Coverage 100% |

Signal Cables, Cont-Flex

| Part # | Description / Connector Options | Jacket Color Jacket Material | Flex Life Nominal Cable OD Shielding |
|---|---|------------------------------------|---|
| KA-56312-GRN  | 1PR, 16AWG, 7PR 26AWG, 1PR 22AWG, Shielded, 105°C, 300V, VW-1 AWM Style, RoHS Compliant <i>Connector Options:</i> 17 positions pages 81,87,93,99,181,189 19 positions pages 197,205 | Green RAL 6018 TPE | <ul style="list-style-type: none"> • 10M Cycles @ 10X O.D. • 0.43" (10.9mm) • "Shield Tinned Copper Braid, Double Spiral Coverage = 95% |
| KA-56592  | 5PR, 22AWG, 90°C 300V, TYPE PLTC-ER, UL AWM Style 90°C, 600V, CSA AWM I/II A/B/ FT1, RoHS Compliant <i>Connector Options:</i> 12 positions pages 39,45,51,149,157 16 positions pages 57,63,69,75,165,173 17 positions pages 81,87,93,99,181,189 | Green RAL 6018 TPE | <ul style="list-style-type: none"> • 10M Cycles @ 10 X O.D. • 0.47" (11.8mm) • Aluminum Foil - Coverage 100% + Shield Tinned Copper Braid - Coverage ≥ 85% |
| KA-56622  | 18AWG (1.0mm ²)-1PR, 22AWG (0.34mm ²)-7PR Shielded <i>Connector Options:</i> 12 positions pages 33,39,45,51,149,157 | Green PUR | <ul style="list-style-type: none"> • 10M Cycles @ 10X O.D. • 0.43" (10.9mm) • Shielded Tinned Copper Braid-Coverage 85% |
| KA-56621  | 20AWG (0.50mm ²) 4/C 22AWG (0.34mm ²)-4PR Shielded <i>Connector Options:</i> 12 positions pages 33,39,45,51,149,157 | Green RAL 6018 PUR | <ul style="list-style-type: none"> • Special-flex • 0.35" (8.9mm) • Shielded Tinned Copper Braid-Coverage 80% |

Elite Series Features & Benefits

- Faster Assembly, Less Components
- Compact Design
- Loose-Piece Insert for Hand-Held Assembly
- Top-Loading Design (for Receptacles)
- Clamshell Insert for Contact Insertion (Opens for easy contact placement)
- Alignment Keys for Guided Assembly
- Rubber Cord Grips
- Grounding Rings (for Plugs)
- No Extractions Tools Required (for Power inserts)



Connector Solutions

Connector Solutions M23 Elite Series

Signal

| | | |
|--------------------------------|---------------------------------|----|
| 12 POSITIONS 10A / 160V E type | Checkmate™ Qiuck Locking | 33 |
| 12 POSITIONS 10A / 160V E type | Threaded | 37 |
| 12 POSITIONS 10A / 160V P type | Checkmate™ Qiuck Locking | 41 |
| 12 POSITIONS 10A / 160V P type | Threaded | 45 |
| 16 POSITIONS 9A / 125V E type | Checkmate™ Qiuck Locking | 49 |
| 16 POSITIONS 9A / 125V E type | Threaded | 53 |
| 16 POSITIONS 9A / 125V P type | Checkmate™ Qiuck Locking | 57 |
| 16 POSITIONS 9A / 125V P type | Threaded | 61 |
| 17 POSITIONS 9A / 125V E type | Checkmate™ Qiuck Locking | 65 |
| 17 POSITIONS 9A / 125V E type | Threaded | 69 |
| 17 POSITIONS 9A / 125V P type | Checkmate™ Qiuck Locking | 73 |
| 17 POSITIONS 9A / 125V P type | Threaded | 77 |

Power

| | | |
|--|---------------------------------|-----|
| 6 POSITIONS 28A / 630V | Checkmate™ Qiuck Locking | 81 |
| 6 POSITIONS 28A / 630V | Threaded | 87 |
| 8 (4+4) POSITIONS Power 30A/ 630V Signal 10A/ 250V | Checkmate™ Qiuck Locking | 93 |
| 8 (4+4) POSITIONS Power 30A/ 630V Signal 10A/ 250V | Threaded | 99 |
| 9 (4+5) POSITIONS Power 30A/ 630V Signal 10A/ 250V | Checkmate™ Qiuck Locking | 105 |
| 9 (4+5) POSITIONS Power 30A/ 630V Signal 10A/ 250V | Threaded | 111 |

M23 Hybrid Series

| | |
|---|-----|
| 8 POSITIONS 18A PE/1A Signal/0.5A Quadrax / 850V PE & Signal/ 30V Quadrax | 117 |
|---|-----|

Connector Solutions M23 Standard Series

Signal

| | | |
|--------------------------------|--|-----|
| 12 POSITIONS 10A / 160V E type | Checkmate™ Qiuck Locking & Threaded | 121 |
| 12 POSITIONS 10A / 160V P type | Checkmate™ Qiuck Locking & Threaded | 129 |
| 16 POSITIONS 9A / 125V E type | Checkmate™ Qiuck Locking & Threaded | 139 |
| 16 POSITIONS 9A / 125V P type | Checkmate™ Qiuck Locking & Threaded | 147 |
| 17 POSITIONS 9A / 125V E type | Checkmate™ Qiuck Locking & Threaded | 155 |
| 17 POSITIONS 9A / 125V P type | Checkmate™ Qiuck Locking & Threaded | 165 |
| 19 POSITIONS 7A / 63V E type | Checkmate™ Qiuck Locking & Threaded | 175 |
| 19 POSITIONS 7A / 63V P type | Checkmate™ Qiuck Locking & Threaded | 181 |

Power

| | | |
|--|--|-----|
| 6 POSITIONS 28A / 630V | Checkmate™ Qiuck Locking & Threaded | 187 |
| 8 (4+4) POSITIONS Power 30A/ 630V Signal 10A/ 250V | Checkmate™ Qiuck Locking & Threaded | 197 |
| 9 (4+5) POSITIONS Power 30A/ 630V Signal 10A/ 250V | Checkmate™ Qiuck Locking & Threaded | 207 |
| 9 (3+6) POSITIONS Power 30A/ 250V Signal 10A/ 630V | Checkmate™ Qiuck Locking & Threaded | 217 |

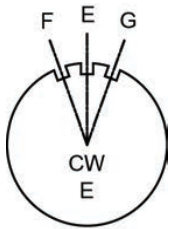
Connector Solutions M40 Series

Power

| | | |
|--|---------------------------------|-----|
| 6 (4+2) POSITIONS Power 75A/ 630V Signal 30A/ 250V | Checkmate™ Qiuck Locking | 225 |
| 6 (4+2) POSITIONS Power 75A/ 630V Signal 30A/ 250V | Threaded | 229 |
| 8 (4+4) POSITIONS Power 75A/ 630V Signal 30A/ 250V | Checkmate™ Qiuck Locking | 233 |
| 8 (4+4) POSITIONS Power 75A/ 630V Signal 30A/ 250V | Threaded | 237 |

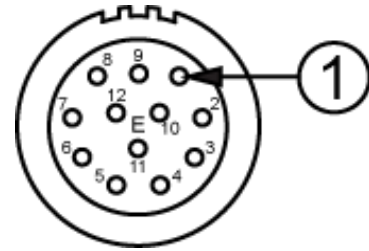
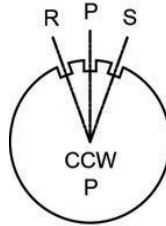
Connector Solutions M23 Elite Series

STEP 1 Choose Plug



Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.*
Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 12 for connector configurations

STEP 2 Choose Receptacle



Plugs



Receptacles



Receptacle Kits



Plug Kits



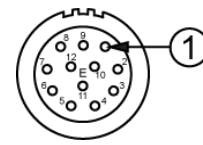
**BULK CABLE starts
on page 23**

SEE TABLE ON NEXT PAGE FOR PART DETAILS

Cord Grips (Required only for Receptacle Extension)



| Part Number | Type | Cable Range (mm) | Figure Drawings |
|-------------|-----------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 6 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 6 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 6 |



12 POSITIONS
10A / 160V
E type
Checkmate™

Style: E type Plug **Number of Contacts: 12** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**



Connector Part Numbers

| Part Number | Connector Type PLUGS | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|--------------------|---|-------|---|--------|--------------------|
| | | | | | |
| MA5CAE1200-S1 | Plug, straight, Checkmate™ 4.5-7.5mm cord grip | E | Pin | Socket | 1 |
| MA5CAE1200-S1-KIT | Plug kit, straight, Checkmate™ 4.5-7.5mm cord grip | E | Pin | | 1 |
| MA5CAE1200S-S1-KIT | Plug kit, straight, Checkmate™ 4.5-7.5mm cord grip | E | | Socket | 1 |
| MA5CAE1200-S2 | Plug, straight, Checkmate™ 7.5-11mm cord grip | E | Pin | Socket | 1 |
| MA5CAE1200-S2-KIT | Plug, straight, Checkmate™ 7.5-11mm cord grip | E | Pin | | 1 |
| MA5CAE1200S-S2-KIT | Plug, straight, Checkmate™ 7.5-11mm cord grip | E | | Socket | 1 |
| MA5CAE1200-S3 | Plug, straight, Checkmate™ 11-15mm cord grip | E | Pin | Socket | 1 |
| MA5CAE1200-S3-KIT | Plug, straight, Checkmate™ 11-15mm cord grip | E | Pin | | 1 |
| MA5CAE1200S-S3-KIT | Plug, straight, Checkmate™ 11-15mm cord grip | E | | Socket | 1 |
| RECEPTACLES | | | ↑ Mating Parts ↓ | | |
| MA5RAP1201 | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | P | Socket | Pin | 2 |
| MA5RAP1201-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | P | | Pin | 2 |
| MA5RAP1201-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | P | Socket | | 2 |
| MA5RAP1202 | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | P | Socket | Pin | 3 |
| MA5RAP1202-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | P | | Pin | 3 |
| MA5RAP1202S-Kit | Receptacle Kit, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | P | Socket | | 3 |

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 266

Complete datasheets can be found at www.amphenol-sine.com

Style: E type Plug Number of Contacts: 12 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Connector Part Numbers continued

| | | | | | |
|--|--|---|--------|-----|---|
| MA2LAP1200* | Receptacle, straight, flange mount, Checkmate™ | P | Socket | Pin | 4 |
| MA2LAP1200-KIT* | Receptacle Kit, straight, flange mount, Checkmate™ . Kit includes contacts. | P | | Pin | 4 |
| MA2LAP1200S-KIT* | Receptacle Kit, straight, flange mount, Checkmate™ . Kit includes contacts. | P | Socket | | 4 |
| MA2JAP1200* | Receptacle extension, Checkmate™ | P | Socket | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 | | | | | |

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 282

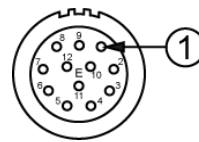
Contacts



CHART 1

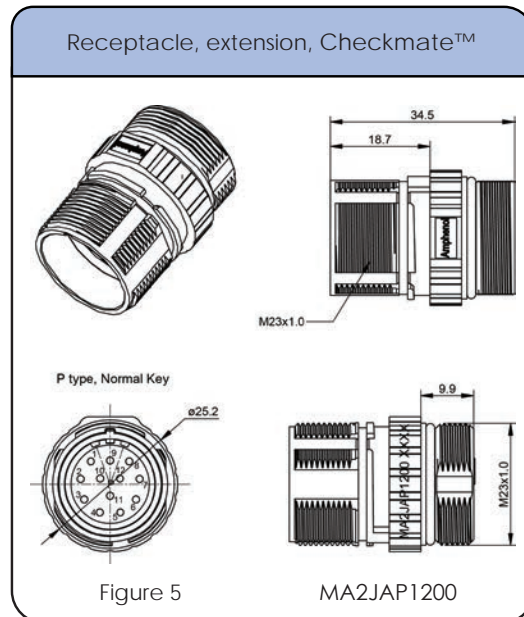
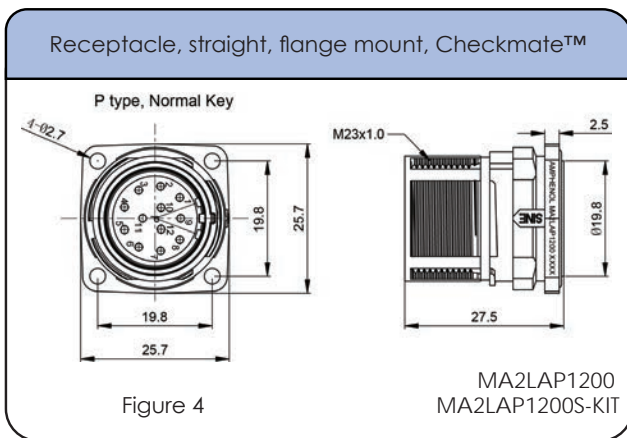
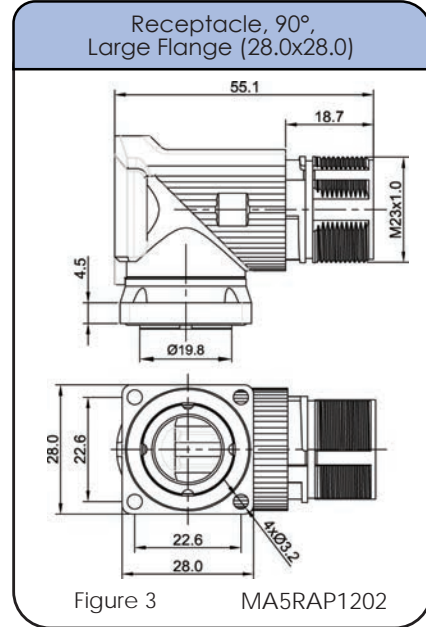
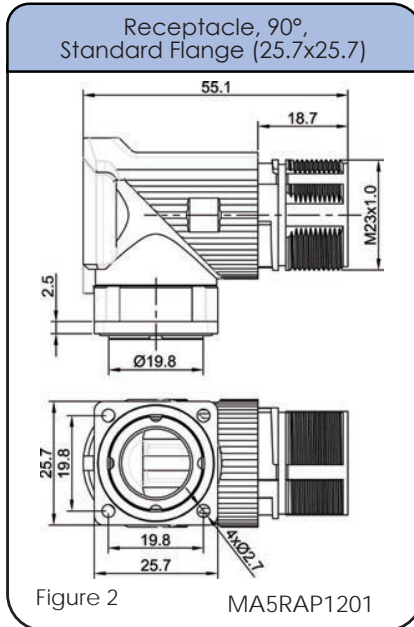
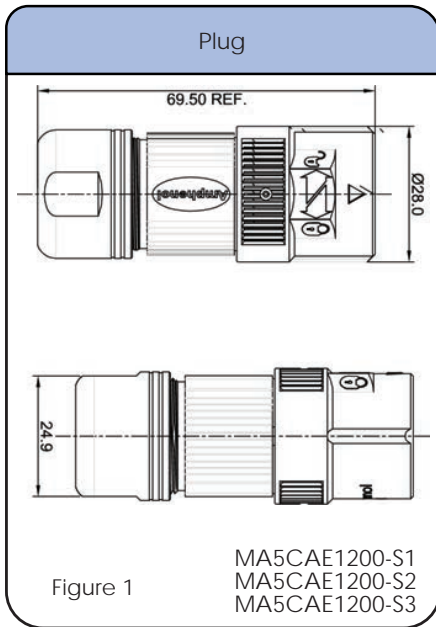
Crimp Contacts, Machined

| Part Number | Pin/Socket | AWG | mm ² | Plating |
|-------------|------------|-------|-----------------|---------|
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold |



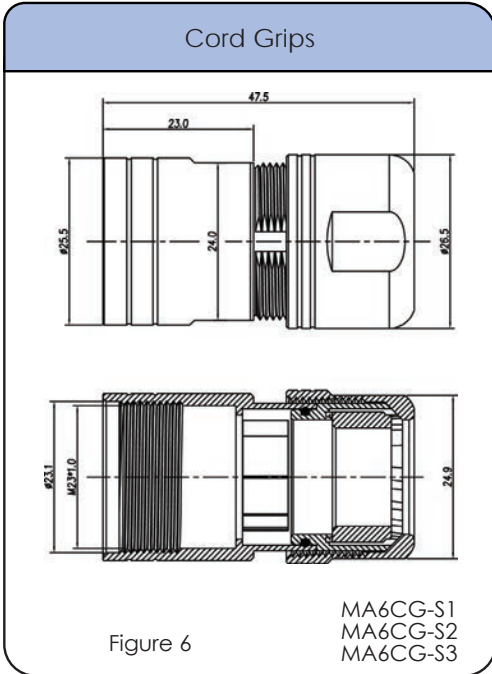
12 POSITIONS
10A / 160V
E type
Checkmate™

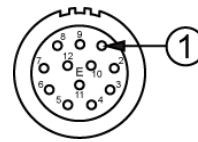
Style: E type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)



Style: E type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Connector Drawings continued











12 POSITIONS
10A / 160V
E type
Checkmate™

Style: E type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

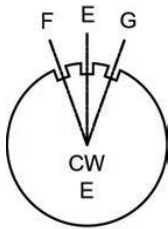
Tools & Accessories

| | | |
|---|--|---|
| <p>Universal hand crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>AFM8</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5* Wire range 12-26AWG</p>  <p>AF8</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>WA22</p> |
| <p>Universal positioner is used with crimp tools AFM8 and WA22. Wire range 20-32AWG</p>  <p>SK2-2</p> | <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5*. Wire range 12-26AWG</p>  <p>WA27F</p> |
| <p>Extraction tool. Used for removal of 1.0mm contacts from inserts.</p>  <p>50-54931-1</p> | <p>Dust Cap for Receptacle</p>  <p>P29687</p> | <p>Dust Cap for Plug</p>  <p>P31662</p> |

* The universal positioner is not included with the crimp tools and must be ordered separately.

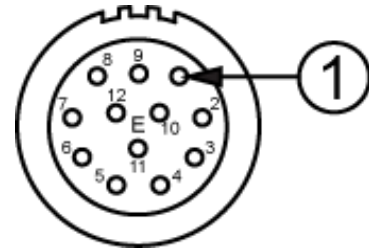
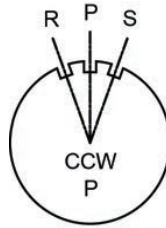
Connector Solutions M23 Elite Series

STEP 1 Choose Plug



Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.*
Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 12 for connector configurations

STEP 2 Choose Receptacle



Plugs



Receptacles



Receptacle Kits



Plug Kits



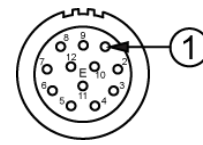
**BULK CABLE starts
on page 23**

SEE TABLE ON NEXT PAGE FOR PART DETAILS

Cord Grips (Required only for Receptacle Extension)



| Part Number | Type | Cable Range (mm) | Figure Drawings |
|-------------|-----------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 6 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 6 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 6 |



12 POSITIONS
10A / 160V
E type
Threaded

Style: E type Plug **Number of Contacts: 12** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**

Connector Part Numbers

| Part Number | Connector Type PLUGS | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|--------------------|--|-------|---|--------|-----------------|
| | | | | | |
| MA7CAE1200-S1 | Plug, straight, threaded 4.5-7.5mm cord grip | E | Pin | Socket | 1 |
| MA7CAE1200-S1-KIT | Plug kit, straight, threaded 4.5-7.5mm cord grip | E | Pin | | 1 |
| MA7CAE1200S-S1-KIT | Plug kit, straight, threaded 4.5-7.5mm cord grip | E | | Socket | 1 |
| MA7CAE1200-S2 | Plug, straight, threaded 7.5-11mm cord grip | E | Pin | Socket | 1 |
| MA7CAE1200-S2-KIT | Plug kit, straight, threaded 7.5-11mm cord grip | E | Pin | | 1 |
| MA7CAE1200S-S2-KIT | Plug kit, straight, threaded 7.5-11mm cord grip | E | | Socket | 1 |
| MA7CAE1200-S3 | Plug, straight, threaded 11-15mm cord grip | E | Pin | Socket | 1 |
| MA7CAE1200-S3-KIT | Plug kit, straight, threaded 11-15mm cord grip | E | Pin | | 1 |
| MA7CAE1200S-S3-KIT | Plug kit, straight, threaded 11-15mm cord grip | E | | Socket | 1 |
| RECEPTACLES | | | ↑ Mating Parts ↓ | | |
| MA7RAP1201 | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | P | Socket | Pin | 2 |
| MA7RAP1201-KIT | Receptacle Kit, 90° rotatable, threaded Standard Flange (25.7x25.7) | P | | Pin | 2 |
| MA7RAP1201S-KIT | Receptacle Kit, 90° rotatable, threaded Standard Flange (25.7x25.7) | P | | Pin | 2 |
| MA7RAP1202 | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | P | Socket | Pin | 3 |
| MA7RAP1202-KIT | Receptacle Kit, 90° rotatable, threaded Large Flange (28.0x28.0) | P | | Pin | 3 |
| MA7RAP1202S-KIT | Receptacle Kit, 90° rotatable, threaded Large Flange (28.0x28.0) | P | Socket | | 3 |

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 266

Complete datasheets can be found at www.amphenol-sine.com

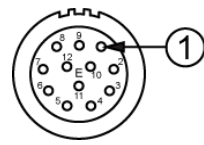
Style: E type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 -0.10 mm²)

Connector Part Numbers continued

| | | | | | |
|--|--|---|--------|-----|---|
| MA1LAP1200* | Receptacle, straight, flange mount, threaded | P | Socket | Pin | 4 |
| MA1LAP1200-KIT* | Receptacle kit, straight, threaded, flange mount. Kit includes contacts. | P | | Pin | 4 |
| MA1LAP1200S-KIT* | Receptacle kit, straight, threaded, flange mount. Kit includes contacts. | P | Socket | | 4 |
| MA1JAP1200* | Receptacle extension, threaded | P | Socket | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 | | | | | |



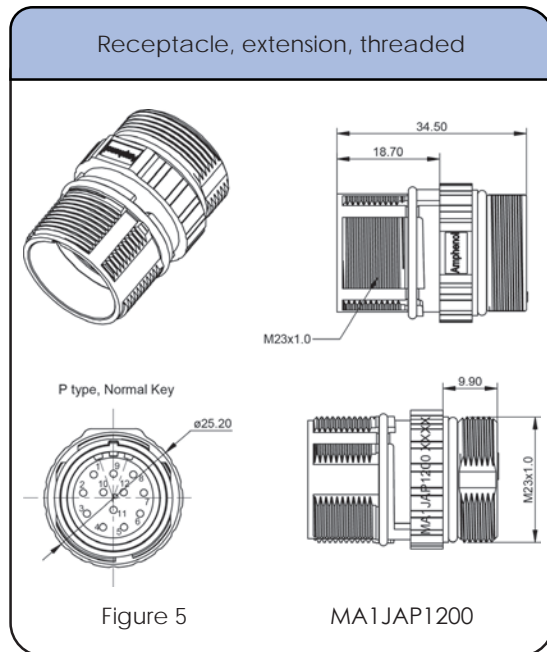
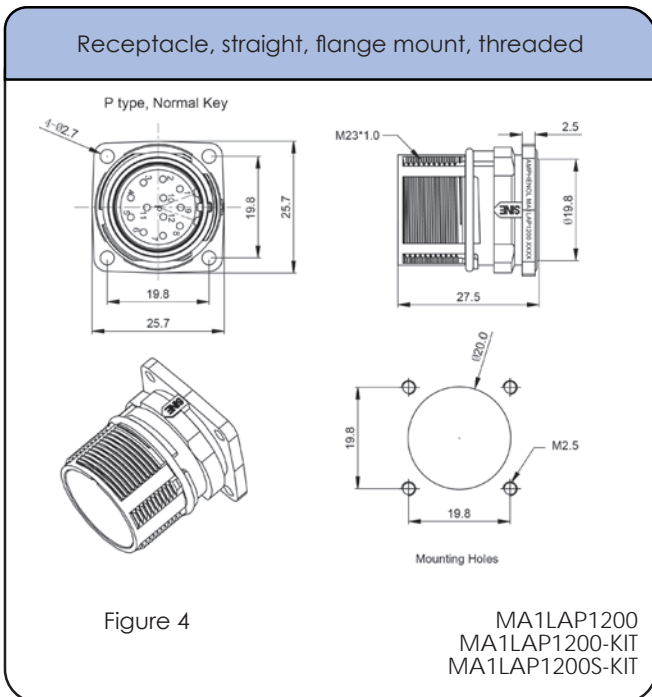
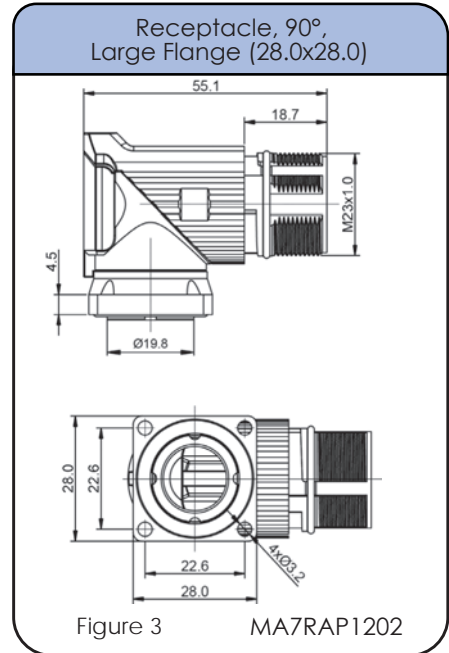
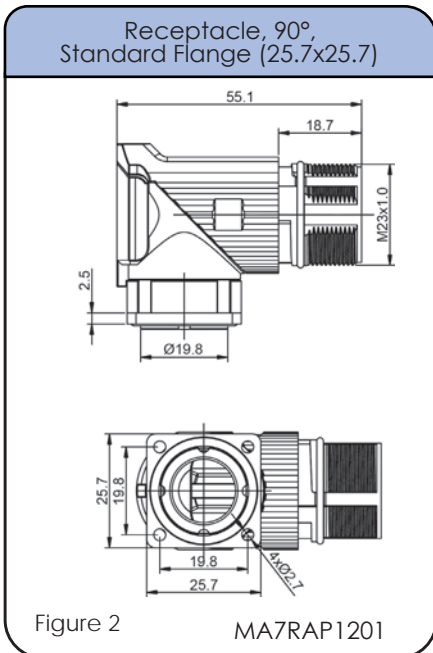
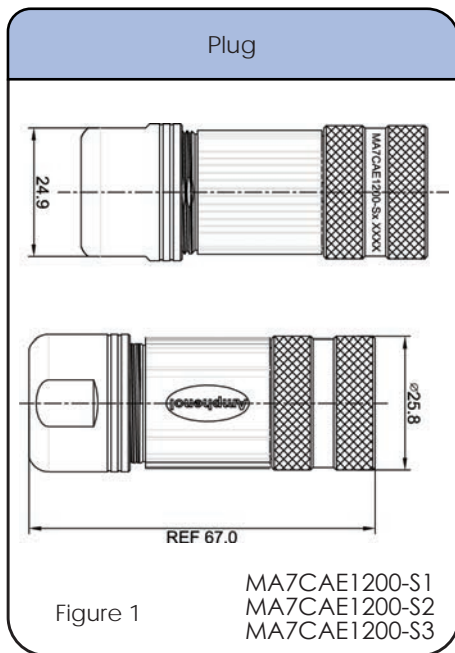
| CHART 1 | | Crimp Contacts, Machined | | | |
|-------------|------------|--------------------------|-----------------|---------|--|
| Part Number | Pin/Socket | AWG | mm ² | Plating | |
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold | |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold | |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold | |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold | |



12 POSITIONS
10A / 160V
E type
Threaded

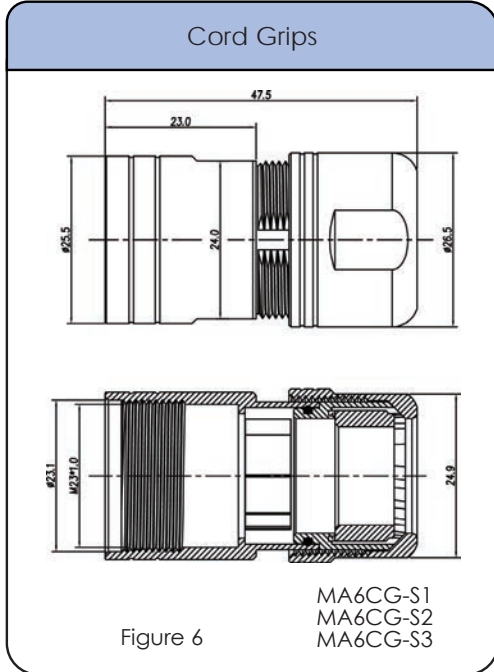
Style: E type Plug **Number of Contacts: 12** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**

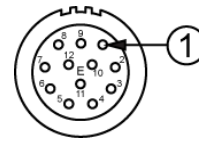
CONNECTOR SOLUTIONS



Style: E type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Connector Drawings continued





12 POSITIONS
10A / 160V
E type
Threaded

Style: E type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

CONNECTOR SOLUTIONS

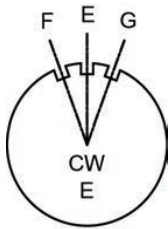
Tools & Accessories

| | | |
|---|---|---|
| <p>Universal hand crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>AFM8</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5* Wire range 12-26AWG</p>  <p>AF8</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>WA22</p> |
| <p>Universal positioner is used with crimp tools AFM8 and WA22. Wire range 20-32AWG</p>  <p>SK2-2</p> | <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5*. Wire range 12-26AWG</p>  <p>WA27F</p> |
| <p>Extraction tool. Used for removal of 1.0mm contacts from inserts.</p>  <p>50-54931-1</p> | <p>Dust Cap for Receptacle</p>  <p>P29687</p> | <p>Dust Cap for Plug, Threaded</p>  <p>P31660</p> |

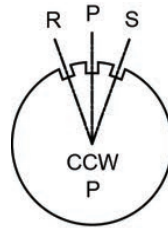
* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M23 Elite Series

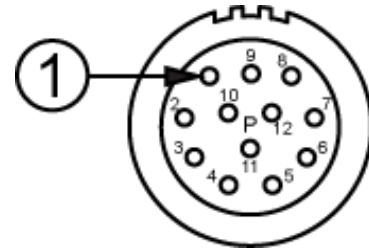
STEP 1 Choose Plug



Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.*
Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 12 for connector configurations



STEP 2 Choose Receptacle



Plugs



Receptacles



Receptacle Kits



Plug Kits



**BULK CABLE starts
on page 23**

SEE TABLE ON NEXT PAGE FOR PART DETAILS

Cord Grips (Required only for Receptacle Extension)



| Part Number | Type | Cable Range (mm) | Figure Drawings |
|-------------|-----------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 6 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 6 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 6 |



12 POSITIONS
10A / 160V
P type
Checkmate™

Style: P type Plug **Number of Contacts: 12** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**



Connector Part Numbers

CONNECTOR SOLUTIONS

| Part Number | Connector Type PLUGS | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|--------------------|--|-------|---|--------|-----------------|
| | | | | | |
| MA5CAP1200-S1 | Plug, straight, Checkmate™ 4.5-7.5mm cord grip | P | Pin | Socket | 1 |
| MA5CAP1200-S1-KIT | Plug kit, straight, Checkmate™ 4.5-7.5mm cord grip | P | Pin | | 1 |
| MA5CAP1200S-S1-KIT | Plug kit, straight, Checkmate™ 4.5-7.5mm cord grip | P | | Socket | 1 |
| MA5CAP1200-S2 | Plug, straight, Checkmate™ 7.5-11mm cord grip | P | Pin | Socket | 1 |
| MA5CAP1200-S2-KIT | Plug, straight, Checkmate™ 7.5-11mm cord grip | P | Pin | | 1 |
| MA5CAP1200S-S2-KIT | Plug, straight, Checkmate™ 7.5-11mm cord grip | P | | Socket | 1 |
| MA5CAP1200-S3 | Plug, straight, Checkmate™ 11-15mm cord grip | P | Pin | Socket | 1 |
| MA5CAP1200-S3-KIT | Plug kit, straight, Checkmate™ 11-15mm cord grip | P | Pin | | 1 |
| MA5CAP1200S-S3-KIT | Plug kit, straight, Checkmate™ 11-15mm cord grip | P | | Socket | 1 |
| RECEPTACLES | | | ↑ Mating Parts ↑ | | |
| MA5RAE1201 | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | E | Socket | Pin | 2 |
| MA5RAE1201-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | E | | Pin | 2 |
| MA5RAE1201S-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | E | Socket | | 2 |
| MA5RAE1202 | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | E | Socket | Pin | 2 |
| MA5RAE1202-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | E | | Pin | 2 |

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 266

Complete datasheets can be found at www.amphenol-sine.com

Style: P type Plug **Number of Contacts: 12** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**

Connector Part Numbers continued

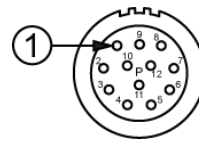
| | | | | | |
|--|---|---|--------|-----|---|
| MA5RAE1202S-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | E | Socket | | 2 |
| MA2LAE1200* | Receptacle, straight, flange mount, Checkmate™ | E | Socket | Pin | 3 |
| MA2LAE1200-KIT* | Receptacle kit, straight, flange mount, Checkmate™ | E | | Pin | 3 |
| MA2LAE1200S-KIT* | Receptacle kit, straight, flange mount, Checkmate™ | E | Socket | | 3 |
| MA2JAE1200* | Receptacle extension, Checkmate™ | E | Socket | Pin | 4 |
| ↑ Contacts supplied separately see Chart 1 page 46 | | | | | |



CHART 1

Crimp Contacts, Machined

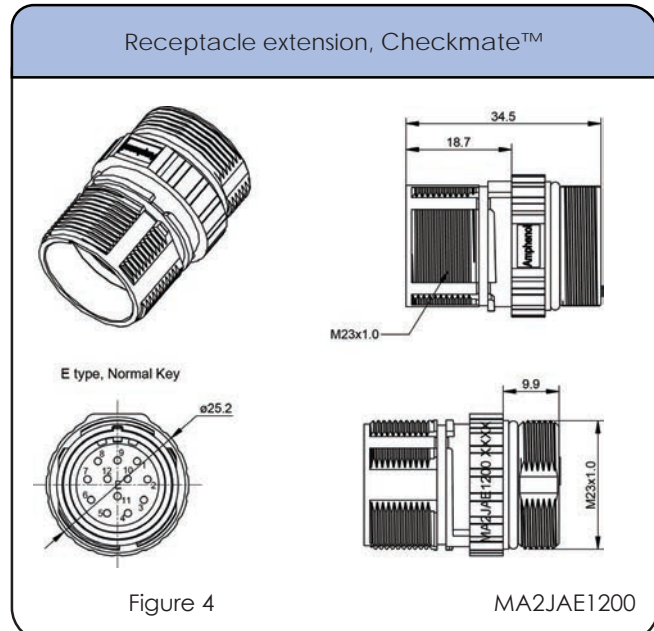
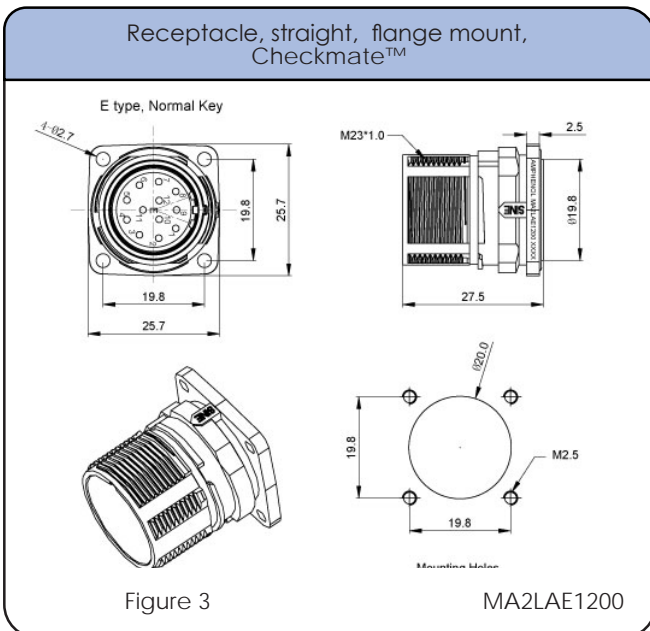
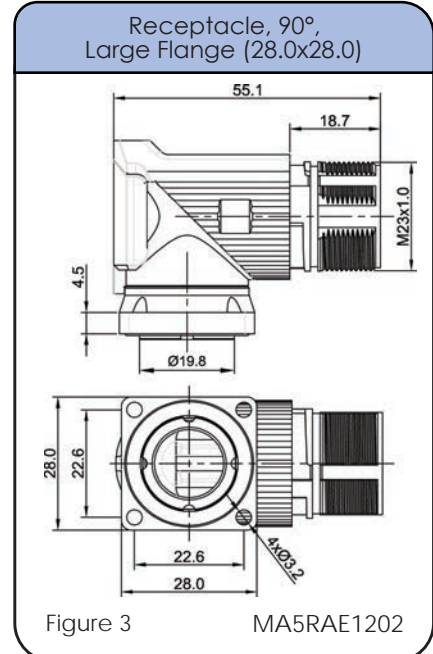
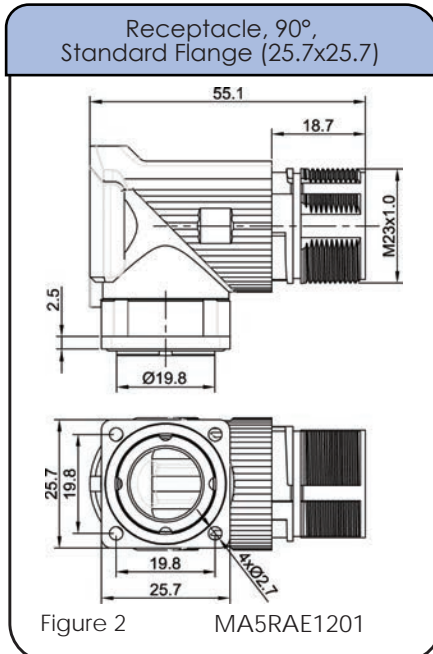
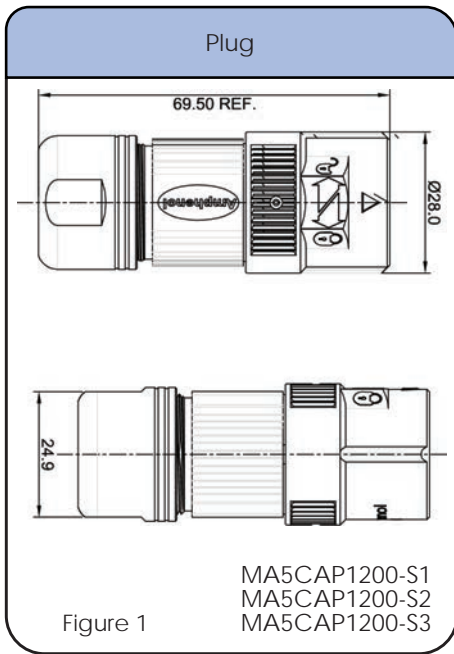
| Part Number | Pin/Socket | AWG | mm ² | Plating |
|-------------|------------|-------|-----------------|---------|
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold |



12 POSITIONS
10A / 160V
P type
Checkmate™

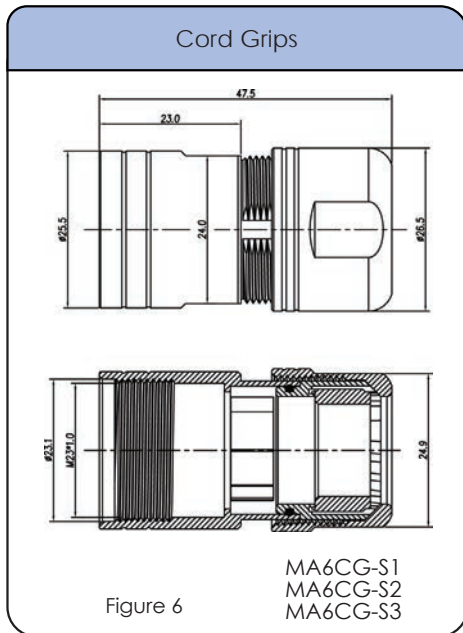
Style: P type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

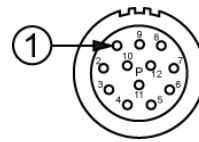
CONNECTOR SOLUTIONS



Complete datasheets can be found at www.amphenol-sine.com

Style: P type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)





12 POSITIONS
10A / 160V
P type
Checkmate™

Style: P type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

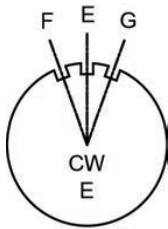
Tools & Accessories

| | | |
|---|---|--|
| <p>Universal hand crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>AFM8</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5* Wire range 12-26AWG</p>  <p>AF8</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>WA22</p> |
| <p>Universal positioner is used with crimp tools AFM8 and WA22. Wire range 20-32AWG</p>  <p>SK2-2</p> | <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5*. Wire range 12-26AWG</p>  <p>WA27F</p> |
| <p>Extraction tool. Used for removal of 1.0mm contacts from inserts.</p>  <p>50-54931-1</p> | <p>Dust Cap for Receptacle</p>  <p>P29687</p> | <p>Dust Cap for Plug, Checkmate™</p>  <p>P31662</p> |

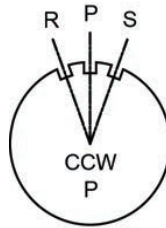
* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M23 Elite Series

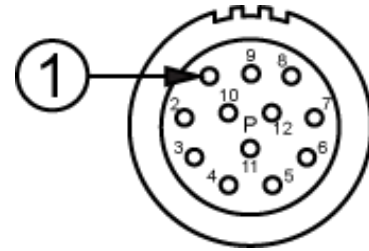
STEP 1 Choose Plug



Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.*
Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 12 for connector configurations



STEP 2 Choose Receptacle



Plugs



Plug Kits



Receptacles



Receptacle Kit



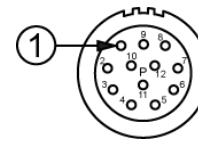
**BULK CABLE starts
on page 23**

SEE TABLE ON NEXT PAGE FOR PART DETAILS

Cord Grips (Required only for Receptacle Extension)



| Part Number | Type | Cable Range (mm) | Figure Drawings |
|-------------|-----------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 6 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 6 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 6 |



12 POSITIONS
10A / 160V
P type
Threaded

Style: P type Plug **Number of Contacts: 12** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 18-22 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**

Connector Part Numbers

| Part Number | Connector Type PLUGS | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|--------------------|--|-------|---|--------|-----------------|
| | | | | | |
| MA7CAP1200-S1 | Plug, straight, threaded 4.5-7.5mm cord grip | P | Pin | Socket | 1 |
| MA7CAP1200-S1-KIT | Plug kit, straight, threaded 4.5-7.5mm cord grip | P | Pin | | 1 |
| MA7CAP1200S-S1-KIT | Plug kit, straight, threaded 4.5-7.5mm cord grip | P | | Socket | 1 |
| MA7CAP1200-S2 | Plug, straight, threaded 7.5-11mm cord grip | P | Pin | Socket | 1 |
| MA7CAP1200-S2-KIT | Plug kit, straight, threaded 7.5-11mm cord grip | P | Pin | | 1 |
| MA7CAP1200S-S2-KIT | Plug kit, straight, threaded 7.5-11mm cord grip | P | | Socket | 1 |
| MA7CAP1200-S3 | Plug, straight, threaded 11-15mm cord grip | P | Pin | Socket | 1 |
| MA7CAP1200-S3-KIT | Plug kit, straight, threaded 11-15mm cord grip | P | Pin | | 1 |
| MA7CAP1200S-S3-KIT | Plug kit, straight, threaded 11-15mm cord grip | P | | Socket | 1 |
| RECEPTACLES | | | ↑ Mating Parts ↓ | | |
| MA7RAE1201 | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | E | Socket | Pin | 2 |
| MA7RAE1201-KIT | Receptacle Kit, 90° rotatable, threaded Standard Flange (25.7x25.7) | E | | Pin | 2 |
| MA7RAE1201S-KIT | Receptacle Kit, 90° rotatable, threaded Standard Flange (25.7x25.7) | E | Socket | | 2 |
| MA7RAE1202 | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | E | Socket | Pin | 3 |
| MA7RAE1202-KIT | Receptacle Kit, 90° rotatable, threaded Large Flange (28.0x28.0) | E | Socket | Pin | 3 |
| MA7RAE1202S-KIT | Receptacle Kit, 90° rotatable, threaded Large Flange (28.0x28.0) | E | Socket | Pin | 3 |

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 266

Complete datasheets can be found at www.amphenol-sine.com

Style: P type Plug **Number of Contacts: 12** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 18-22 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**

Connector Part Numbers continued

| | | | | | |
|--|--|---|--------|-----|---|
| MA1LAE1200* | Receptacle, straight, flange mount, threaded | E | Socket | Pin | 4 |
| MA1LAE1200-KIT* | Receptacle kit, straight, threaded. Kit includes contacts. | E | | Pin | 4 |
| MA1LAE1200S-KIT* | Receptacle kit, straight, threaded. Kit includes contacts. | E | Socket | | 4 |
| MA1JAE1200* | Receptacle extension, threaded | E | Socket | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 page 52 | | | | | |



CHART 1

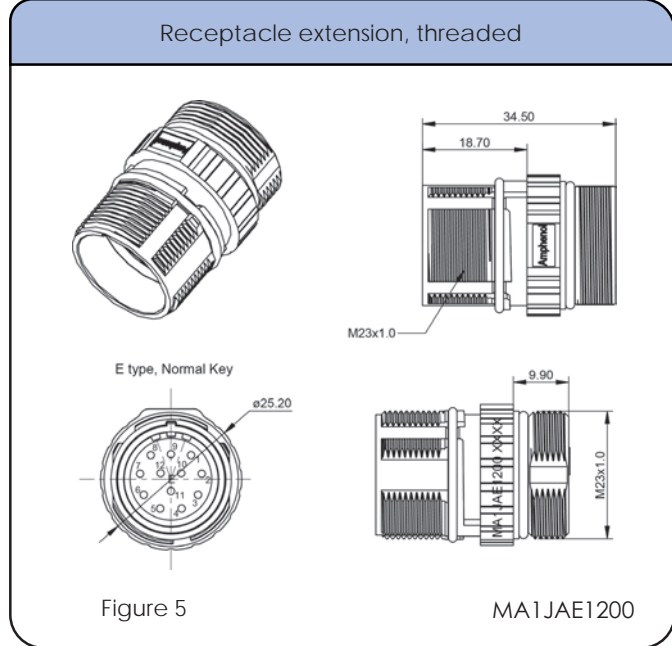
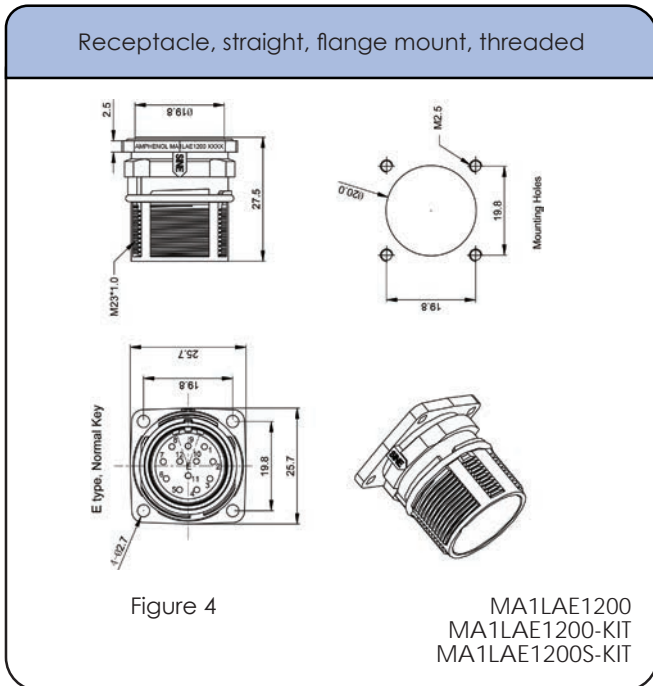
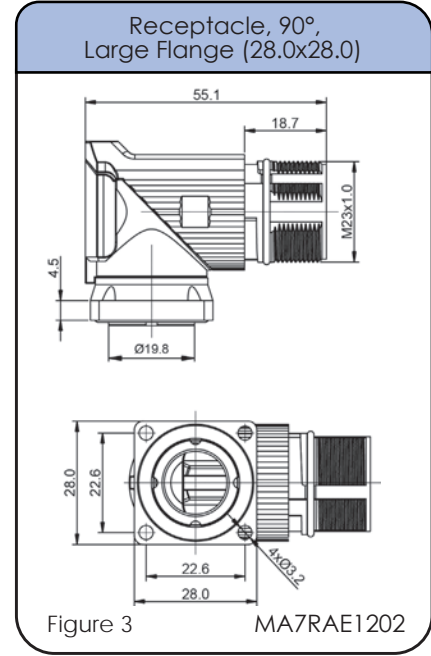
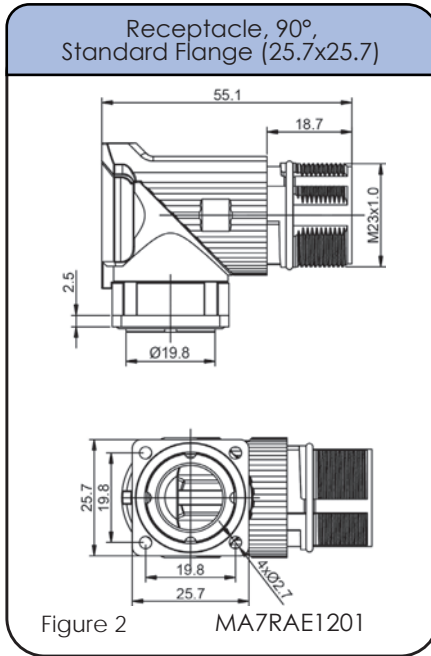
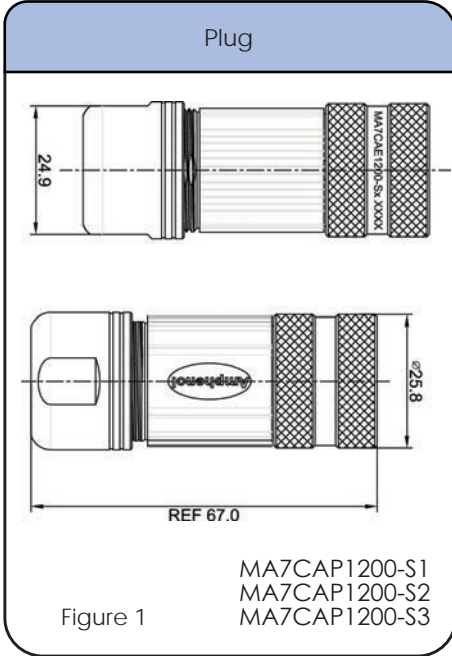
Crimp Contacts, Machined

| Part Number | Pin/Socket | AWG | mm ² | Plating |
|-------------|------------|-------|-----------------|---------|
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold |



12 POSITIONS
10A / 160V
P type
Threaded

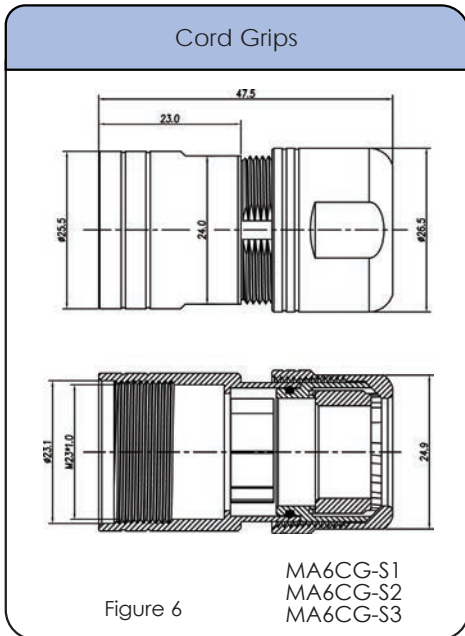
Style: P type Plug **Number of Contacts: 12** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 18-22 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**

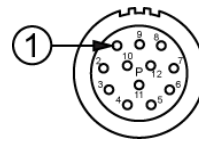


Complete datasheets can be found at www.amphenol-sine.com

Style: P type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 18-22 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Connector Drawings continued








12 POSITIONS
10A / 160V
P type
Threaded

Style: P type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 18-22 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Tools & Accessories

| | | |
|---|--|---|
| <p>Universal hand crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>AFM8</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5* Wire range 12-26AWG</p>  <p>AF8</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>WA22</p> |
| <p>Universal positioner is used with crimp tools AFM8 and WA22. Wire range 20-32AWG</p>  <p>SK2-2</p> | <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5*. Wire range 12-26AWG</p>  <p>WA27F</p> |
| <p>Extraction tool. Used for removal of 1.0mm contacts from inserts.</p>  <p>50-54931-1</p> | <p>Dust Cap for Receptacle</p>  <p>P29687</p> | <p>Dust Cap for Plug, Threaded</p>  <p>P31660</p> |

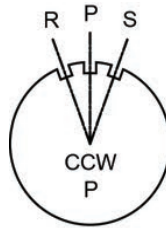
* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M23 Elite Series

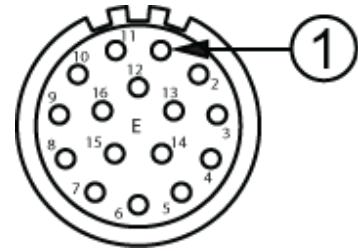
STEP 1 Choose Plug



Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.*
Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 12 for connector configurations



STEP 2 Choose Receptacle



SEE TABLE ON NEXT PAGE FOR PART DETAILS

Plugs



Receptacles



Receptacle Kit



Plug Kits



**BULK CABLE starts
on page 23**

Cord Grips (Required only for Receptacle Extension)



| Part Number | Type | Cable Range (mm) | Figure Drawings |
|-------------|-----------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 6 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 6 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 6 |



16 POSITIONS
9A / 125V
E type
Checkmate™

Style: E type Plug **Number of Contacts: 16** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**



Connector Part Numbers

| Part Number | Connector Type PLUGS | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|--------------------|--|-------|---|--------|-----------------|
| | | | | | |
| MA5CAE1600-S1 | Plug, straight, Checkmate™ 4.5-7.5mm cord grip | E | Pin | Socket | 1 |
| MA5CAE1600-S1-KIT | Plug Kit, straight, Checkmate™ 4.5-7.5mm cord grip | E | Pin | | 1 |
| MA5CAE1600S-S1-KIT | Plug Kit, straight, Checkmate™ 4.5-7.5mm cord grip | E | | Socket | 1 |
| MA5CAE1600-S2 | Plug, straight, Checkmate™ 7.5-11mm cord grip | E | Pin | Socket | 1 |
| MA5CAE1600-S2-KIT | Plug Kit, straight, Checkmate™ 7.5-11mm cord grip | E | Pin | | 1 |
| MA5CAE1600S-S2-KIT | Plug Kit, straight, Checkmate™ 7.5-11mm cord grip | E | | Socket | 1 |
| MA5CAE1600-S3 | Plug, straight, Checkmate™ 11-15mm cord grip | E | Pin | Socket | 1 |
| MA5CAE1600-S3-KIT | Plug Kit, straight, Checkmate™ 11-15mm cord grip | E | Pin | | 1 |
| MA5CAE1600S-S3-KIT | Plug Kit, straight, Checkmate™ 11-15mm cord grip | E | | Socket | 1 |
| RECEPTACLES | | | ↑ Mating Parts ↑ | | |
| MA5RAP1601 | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | P | Socket | Pin | 2 |
| MA5RAP1601-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | P | | Pin | 2 |
| MA5RAP1601S-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | P | Socket | | 2 |
| MA5RAP1602 | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | P | Socket | Pin | 3 |
| MA5RAP1602-KIT | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | P | | Pin | 3 |

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 266

Complete datasheets can be found at www.amphenol-sine.com

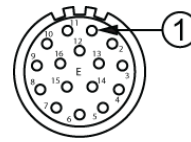
Style: E type Plug Number of Contacts: 16 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 -0.10 mm²)

Connector Part Numbers continued

| | | | | | |
|--|--|---|--------|-----|---|
| MA5RAP1602S-KIT | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | P | Socket | | 3 |
| MA2LAP1600* | Receptacle, straight, flange mount, Checkmate™ | P | Socket | Pin | 4 |
| MA2LAP1600-KIT* | Receptacle Kit, straight, flange mount, Checkmate™ | P | | Pin | 4 |
| MA2LAP1600S-KIT* | Receptacle Kit, straight, flange mount, Checkmate™ | P | Socket | | 4 |
| MA2JAP1600* | Receptacle extension, Checkmate™ | P | Socket | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 | | | | | |

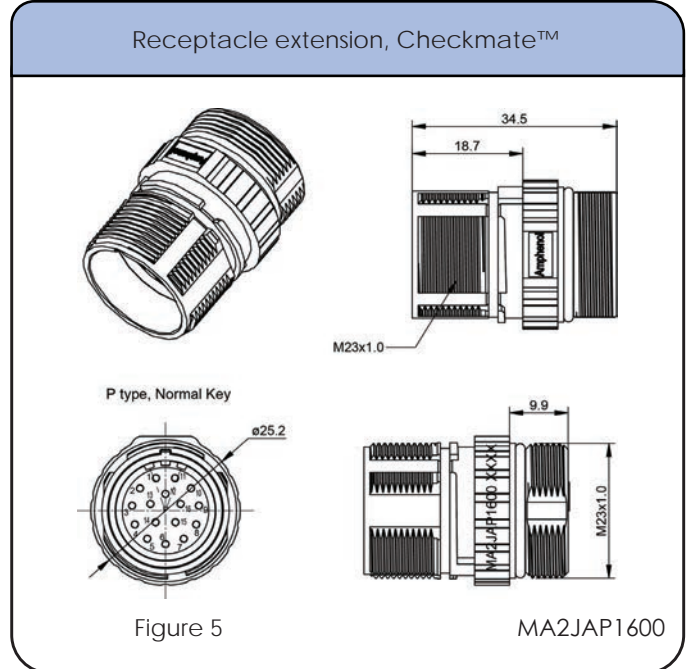
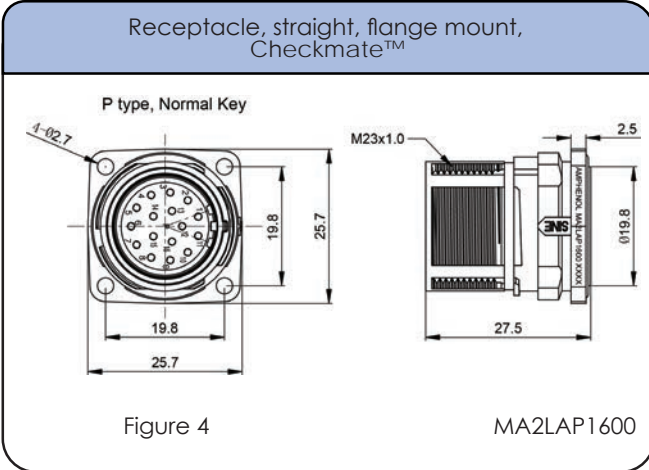
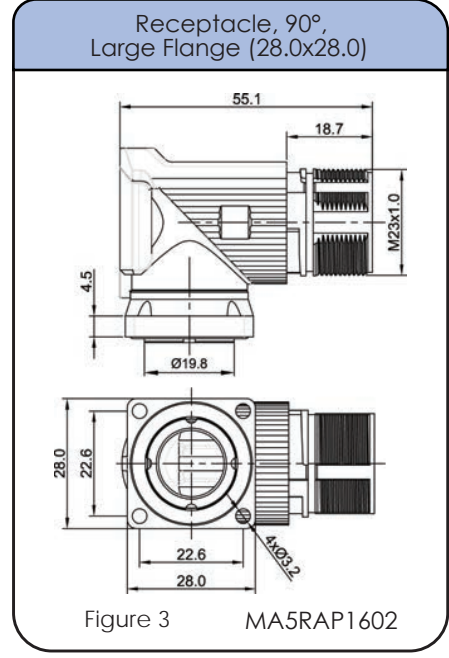
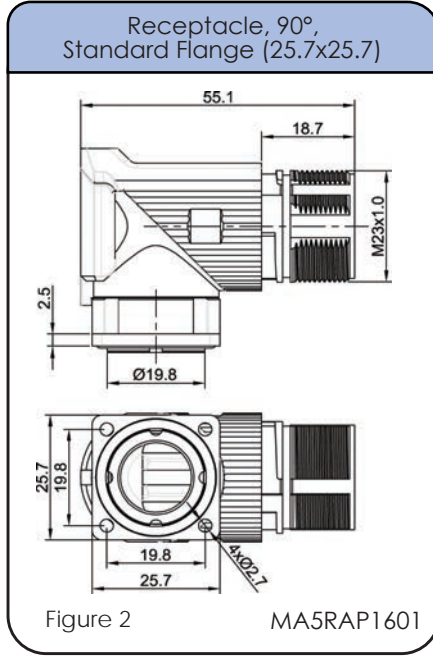
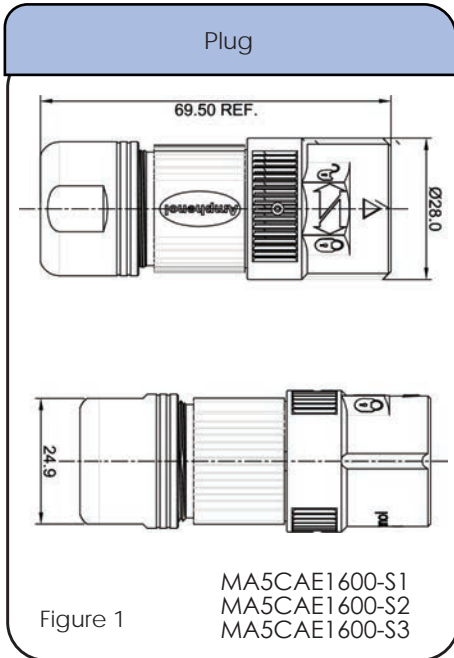


| CHART 1 | | Crimp Contacts, Machined | | | |
|-------------|------------|--------------------------|-----------------|---------|--|
| Part Number | Pin/Socket | AWG | mm ² | Plating | |
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold | |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold | |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold | |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold | |



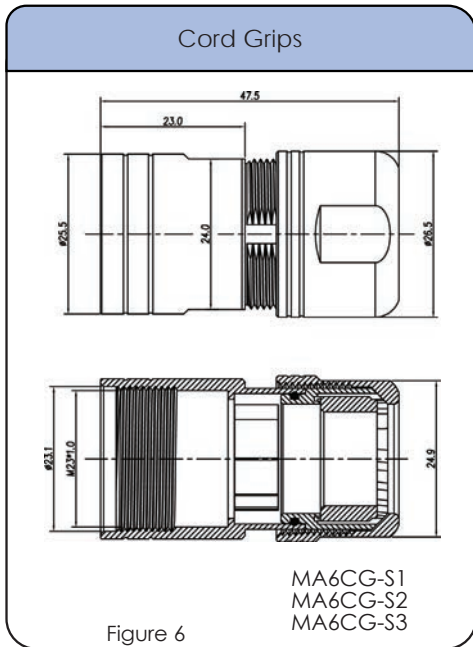
16 POSITIONS
9A / 125V
E type
Checkmate™

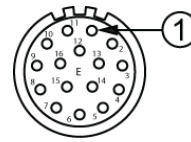
Style: E type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)



Style: E type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Connector Drawings continued














16 POSITIONS
9A / 125V
E type
Checkmate™

Style: E type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

CONNECTOR SOLUTIONS

Tools & Accessories

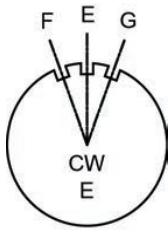
| | | |
|---|--|---|
| <p>Universal hand crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>AFM8</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5* Wire range 12-26AWG</p>  <p>AF8</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>WA22</p> |
| <p>Universal positioner is used with crimp tools AFM8 and WA22. Wire range 20-32AWG</p>  <p>SK2-2</p> | <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5*. Wire range 12-26AWG</p>  <p>WA27F</p> |
| <p>Extraction tool. Used for removal of 1.0mm contacts from inserts.</p>  <p>50-54931-1</p> | <p>Dust Cap for Receptacle</p>  <p>P29687</p> | <p>Dust Cap for Plug, Checkmate™</p>  <p>P31662</p> |

* The universal positioner is not included with the crimp tools and must be ordered separately.

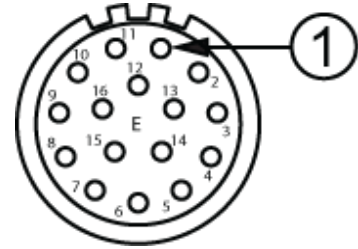
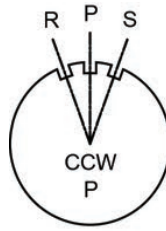
Connector Solutions M23 Elite Series

STEP 1
Choose Plug

STEP 2
Choose Receptacle



Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.*
Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 23 for connector configurations



Plugs



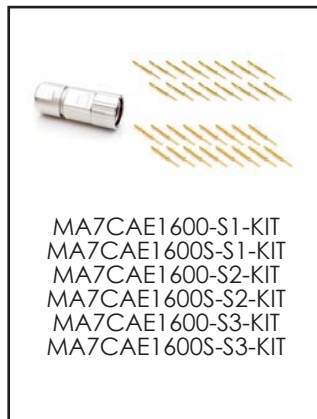
Receptacles



Receptacle Kit



Plug Kits



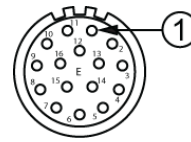
**BULK CABLE starts
on page 23**

SEE TABLE ON NEXT PAGE FOR PART DETAILS

Cord Grips (Required only for Receptacle Extension)



| Part Number | Type | Cable Range (mm) | Figure Drawings |
|-------------|-----------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 6 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 6 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 6 |



16 POSITIONS
9A / 125V
E type
Threaded

Style: E type Plug **Number of Contacts: 16** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**

Connector Part Numbers

| Part Number | Connector Type PLUGS | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|--------------------|--|-------|---|--------|-----------------|
| | | | | | |
| MA7CAE1600-S1 | Plug, straight, threaded 4.5-7.5mm cord grip | E | Pin | Socket | 1 |
| MA7CAE1600-S1-KIT | Plug Kit, straight, threaded 4.5-7.5mm cord grip | E | Pin | | 1 |
| MA7CAE1600S-S1-KIT | Plug Kit, straight, threaded 4.5-7.5mm cord grip | E | | Socket | 1 |
| MA7CAE1600-S2 | Plug, straight, threaded 7.5-11mm cord grip | E | Pin | Socket | 1 |
| MA7CAE1600-S2-KIT | Plug Kit, straight, threaded 7.5-11mm cord grip | E | Pin | | 1 |
| MA7CAE1600S-S2-KIT | Plug Kit, straight, threaded 7.5-11mm cord grip | E | | Socket | 1 |
| MA7CAE1600-S3 | Plug, straight, threaded 11-15mm cord grip | E | Pin | Socket | 1 |
| MA7CAE1600-S3-KIT | Plug Kit, straight, threaded 11-15mm cord grip | E | Pin | | 1 |
| MA7CAE1600S-S3-KIT | Plug Kit, straight, threaded 11-15mm cord grip | E | | Socket | 1 |
| RECEPTACLES | | | ↑ Mating Parts ↑ | | |
| MA7RAP1601 | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | P | Socket | Pin | 2 |
| MA7RAP1601-KIT | Receptacle Kit, 90° rotatable, threaded Standard Flange (25.7x25.7) | P | | Pin | 2 |
| MA7RAP1601S-KIT | Receptacle Kit, 90° rotatable, threaded Standard Flange (25.7x25.7) | P | Socket | | 2 |
| MA7RAP1602 | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | P | Socket | Pin | 3 |
| MA7RAP1602-KIT | Receptacle Kit, 90° rotatable, threaded Large Flange (28.0x28.0) | P | | Pin | 3 |
| MA7RAP1602S-KIT | Receptacle Kit, 90° rotatable, threaded Large Flange (28.0x28.0) | P | Socket | | 3 |
| MA1LAP1600* | Receptacle, straight, flange mount, threaded | P | Socket | Pin | 4 |

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 266
 Complete datasheets can be found at www.amphenol-sine.com

Style: E type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Connector Part Numbers continued

| | | | | | |
|--|---|---|--------|-----|---|
| MA1LAP1600-KIT* | Receptacle Kit, threaded. Kit includes contacts. | P | | Pin | 4 |
| MA1LAP1600S-KIT* | Receptacle Kit, threaded. Kit includes contacts. | P | Socket | | 4 |
| MA1JAP1600* | Receptacle extension, threaded | P | Socket | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 page 64 | | | | | |



CHART 1

Crimp Contacts, Machined

| Part Number | Pin/Socket | AWG | mm ² | Plating |
|-------------|------------|-------|-----------------|---------|
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold |



16 POSITIONS
9A / 125V
E type
Threaded

Style: E type Plug **Number of Contacts: 16** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**

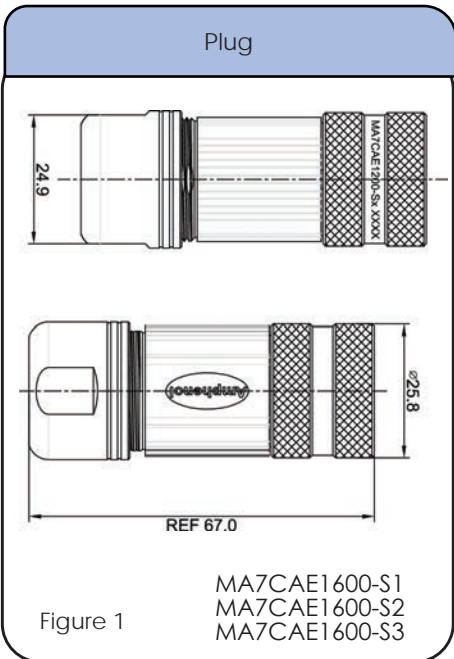


Figure 1

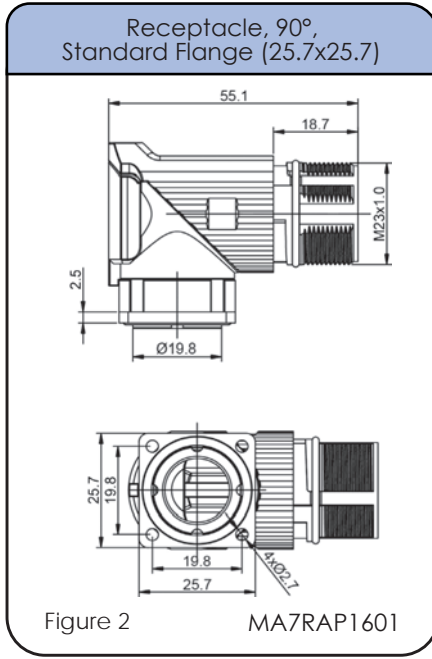


Figure 2

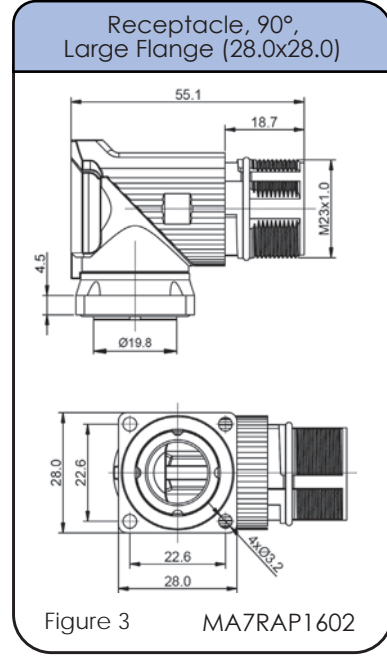


Figure 3

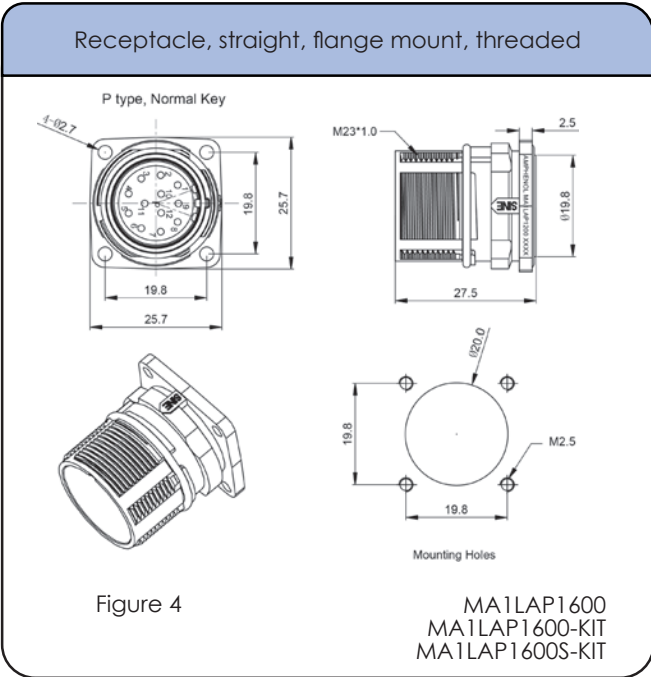


Figure 4

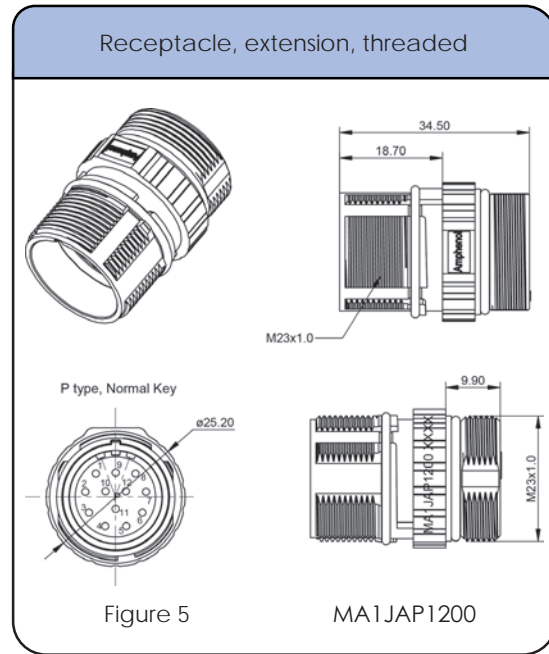
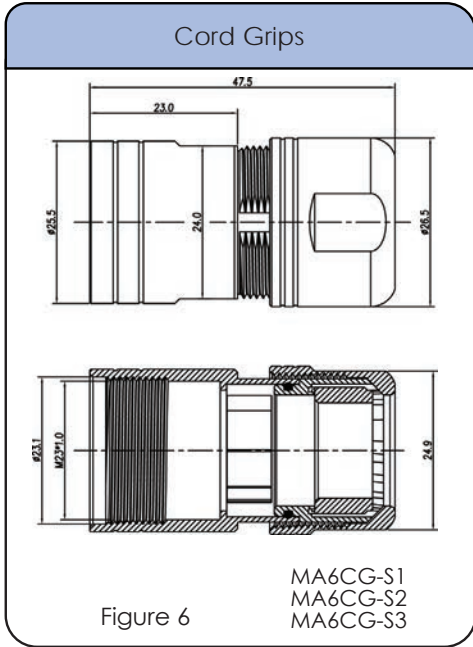
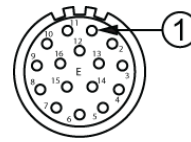


Figure 5

Style: E type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Connector Drawings continued






16 POSITIONS
9A / 125V
E type
Threaded

Style: E type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Tools & Accessories

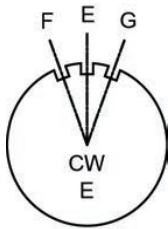
| | | |
|---|---|--|
| <p>Universal hand crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>AFM8</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5* Wire range 12-26AWG</p>  <p>AF8</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>WA22</p> |
| <p>Universal positioner is used with crimp tools AFM8 and WA22. Wire range 20-32AWG</p>  <p>SK2-2</p> | <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5* Wire range 12-26AWG</p>  <p>WA27F</p> |
| <p>Extraction tool. Used for removal of 1.0mm contacts from inserts.</p>  <p>50-54931-1</p> | <p>Dust Cap for Receptacle</p>  <p>P29687</p> | <p>Dust Cap for Plug, Threaded</p>  <p>P31660</p> |

* The universal positioner is not included with the crimp tools and must be ordered separately.

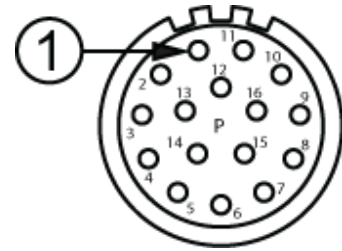
Connector Solutions M23 Elite Series

STEP 1
Choose Plug

STEP 2
Choose Receptacle



Standard connector parts mate "E"
Plugs with "P" Receptacles, Mating
parts use opposite contact types.
*example: plug with pin contacts
mates with a receptacle using socket
contacts.*
Other key code options available
not listed here. Please call customer
service for assistance when ordering
F,G,R,S. See page 23 for connector
configurations



SEE TABLE ON NEXT PAGE FOR PART DETAILS

Plugs



Receptacles



Receptacle Kit



Plug Kits

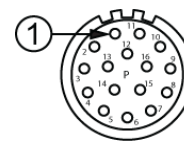


**BULK CABLE starts
on page 23**

Cord Grips (Required only for Receptacle Extension)



| Part Number | Type | Cable Range (mm) | Figure Drawings |
|-------------|-----------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 6 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 6 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 6 |



16 POSITIONS
9A / 125V
P type
Checkmate™

Style: P type Plug **Number of Contacts: 16** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**



Connector Part Numbers

| Part Number | Connector Type PLUGS | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|--------------------|--|-------|---|-----|--------------------|
| MA5CAP1600-S1 | Plug, straight, Checkmate™ 4.5-7.5mm cord grip | P | Socket | Pin | 1 |
| MA5CAP1600-S1-KIT | Plug Kit, straight, Checkmate™ 4.5-7.5mm cord grip | P | | Pin | 1 |
| MA5CAP1600S-S1-KIT | Plug Kit, straight, Checkmate™ 4.5-7.5mm cord grip | P | Socket | | 1 |
| MA5CAP1600-S2 | Plug, straight, Checkmate™ 7.5-11mm cord grip | P | Socket | Pin | 1 |
| MA5CAP1600-S2-KIT | Plug Kit, straight, Checkmate™ 7.5-11mm cord grip | P | | Pin | 1 |
| MA5CAP1600S-S2-KIT | Plug Kit, straight, Checkmate™ 7.5-11mm cord grip | P | Socket | | 1 |
| MA5CAP1600-S3 | Plug, straight, Checkmate™ 11-15mm cord grip | P | Socket | Pin | 1 |
| MA5CAP1600-S3-KIT | Plug Kit, straight, Checkmate™ 11-15mm cord grip | P | | Pin | 1 |
| MA5CAP1600S-S3-KIT | Plug Kit, straight, Checkmate™ 11-15mm cord grip | P | Socket | | 1 |
| RECEPTACLES | | | ↑ Mating Parts ↑ | | |
| MA5RAE1601 | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | E | Socket | Pin | 2 |
| MA5RAE1601-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | E | | Pin | 2 |
| MA5RAE1601S-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | E | Socket | | 2 |
| MA5RAE1602 | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | E | Socket | Pin | 3 |
| MA5RAE1602-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | E | | Pin | 3 |
| MA5RAE1602S-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | E | Socket | | 3 |

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 266
 Complete datasheets can be found at www.amphenol-sine.com

Style: P type Plug Number of Contacts: 16 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Connector Part Numbers continued

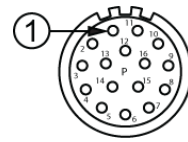
| | | | | | |
|--|--|---|--------|-----|---|
| MA2LAE1600* | Receptacle, straight, flange mount, Checkmate™ | E | Socket | Pin | 4 |
| MA2LAE1600-KIT* | Receptacle Kit, straight, flange mount, Checkmate™ | E | Socket | Pin | 4 |
| MA2LAE1600S-KIT* | Receptacle Kit, straight, flange mount, Checkmate™ | E | Socket | Pin | 4 |
| MA2JAE1600* | Receptacle extension, Checkmate™ | E | Socket | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 | | | | | |



CHART 1

Crimp Contacts, Machined

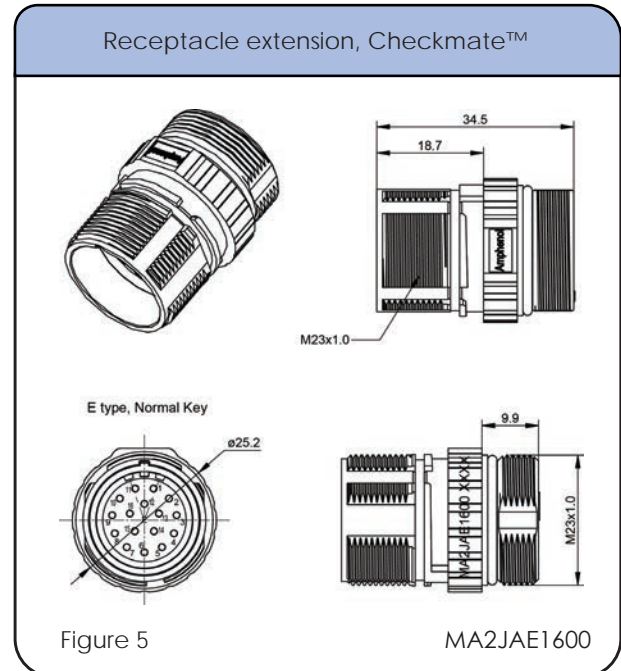
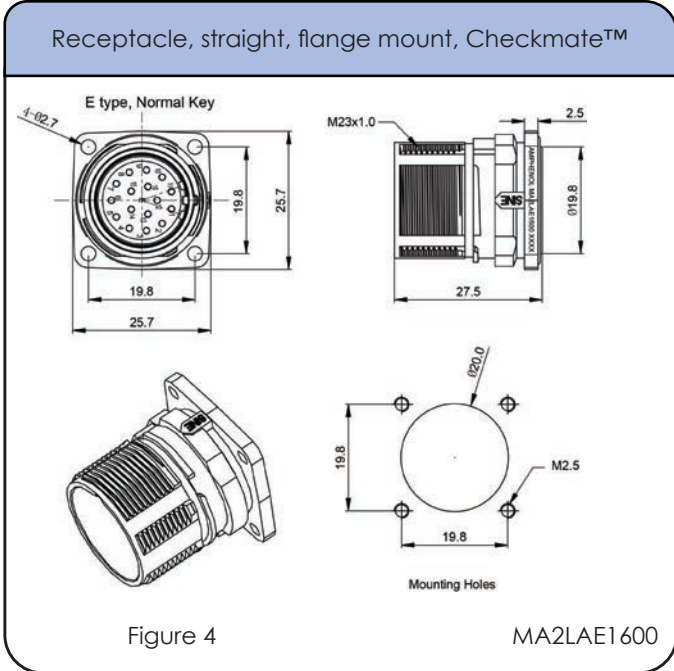
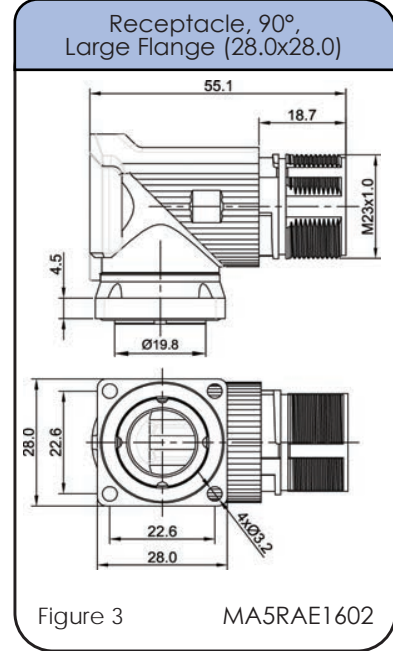
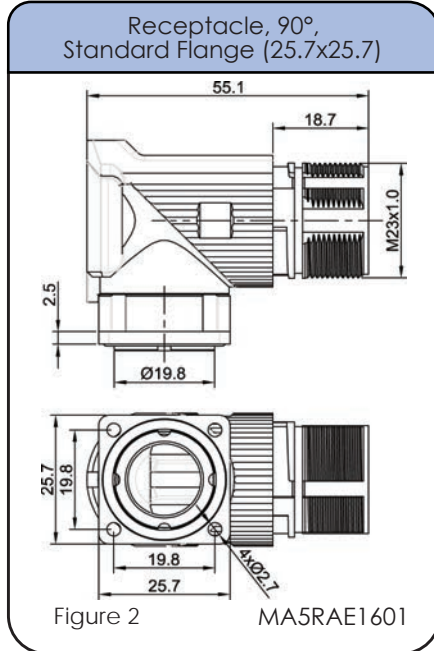
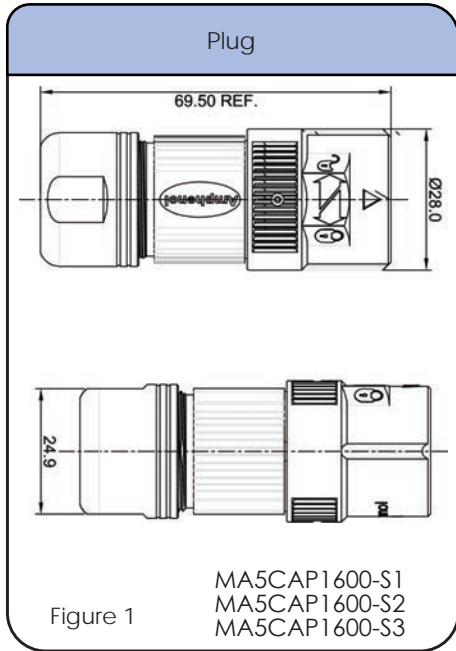
| Part Number | Pin/Socket | AWG | mm ² | Plating |
|-------------|------------|-------|-----------------|---------|
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold |



16 POSITIONS
9A / 125V
P type
Checkmate™

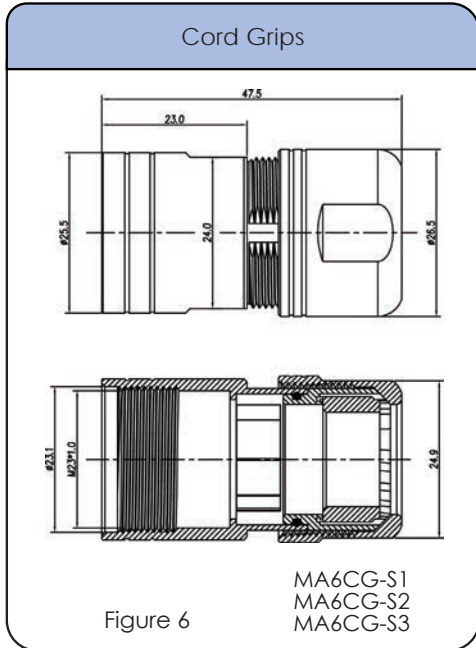
Style: P type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

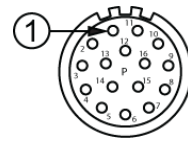
CONNECTOR SOLUTIONS



Style: P type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Connector Drawings continued





16 POSITIONS
9A / 125V
P type
Checkmate™

Style: P type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

CONNECTOR SOLUTIONS

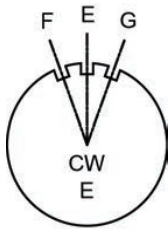
Tools & Accessories

| | | |
|---|--|---|
| <p>Universal hand crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>AFM8</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5* Wire range 12-26AWG</p>  <p>AF8</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>WA22</p> |
| <p>Universal positioner is used with crimp tools AFM8 and WA22. Wire range 20-32AWG</p>  <p>SK2-2</p> | <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5*. Wire range 12-26AWG</p>  <p>WA27F</p> |
| <p>Extraction tool. Used for removal of 1.0mm contacts from inserts.</p>  <p>50-54931-1</p> | <p>Dust Cap for Receptacle</p>  <p>P29687</p> | <p>Dust Cap for Plug, Checkmate™</p>  <p>P31662</p> |

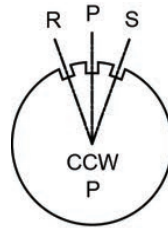
* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M23 Elite Series

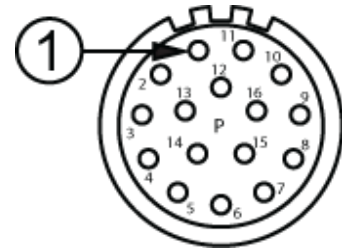
STEP 1 Choose Plug



Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.*
Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 12 for connector configurations



STEP 2 Choose Receptacle



SEE TABLE ON NEXT PAGE FOR PART DETAILS

Plugs



Receptacles



Receptacle Kit



Plug Kits

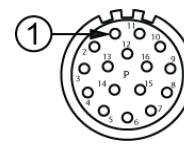


**BULK CABLE starts
on page 23**

Cord Grips (Required only for Receptacle Extension)



| Part Number | Type | Cable Range (mm) | Figure Drawings |
|-------------|-----------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 6 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 6 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 6 |



16 POSITIONS
9A / 125V
P type
Threaded

Style: P type Plug **Number of Contacts: 16** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.39 mm²) / 28-24 (0.25 - 0.10 mm²)**

Connector Part Numbers

| Part Number | Connector Type PLUGS | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|--------------------|--|-------|---|--------|-----------------|
| | | | | | |
| MA7CAP1600-S1 | Plug, straight, threaded 4.5-7.5mm cord grip | P | Pin | Socket | 1 |
| MA7CAP1600-S1-KIT | Plug Kit, straight, threaded 4.5-7.5mm cord grip | P | Pin | | 1 |
| MA7CAP1600S-S1-KIT | Plug Kit, straight, threaded 4.5-7.5mm cord grip | P | | Socket | 1 |
| MA7CAP1600-S2 | Plug, straight, threaded 7.5-11mm cord grip | P | Pin | Socket | 1 |
| MA7CAP1600-S2-KIT | Plug Kit, straight, threaded 7.5-11mm cord grip | P | Pin | | 1 |
| MA7CAP1600S-S2-KIT | Plug Kit, straight, threaded 7.5-11mm cord grip | P | | Socket | 1 |
| MA7CAP1600-S3 | Plug, straight, threaded 11-15mm cord grip | P | Pin | Socket | 1 |
| MA7CAP1600-S3-KIT | Plug Kit, straight, threaded 11-15mm cord grip | P | Pin | | 1 |
| MA7CAP1600S-S3-KIT | Plug Kit, straight, threaded 11-15mm cord grip | P | | Socket | 1 |
| RECEPTACLES | | | ↑ Mating Parts ↑ | | |
| MA7RAE1601 | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | E | Socket | Pin | 2 |
| MA7RAE1601-KIT | Receptacle Kit, 90° rotatable, threaded Standard Flange (25.7x25.7) | E | | Pin | 2 |
| MA7RAE1601S-KIT | Receptacle Kit, 90° rotatable, threaded Standard Flange (25.7x25.7) | E | Socket | | 2 |
| MA7RAE1602 | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | E | Socket | Pin | 3 |
| MA7RAE1602-KIT | Receptacle KIT, 90° rotatable, threaded Large Flange (28.0x28.0) | E | | Pin | 3 |
| MA7RAE1602S-KIT | Receptacle KIT, 90° rotatable, threaded Large Flange (28.0x28.0) | E | Socket | | 3 |
| MA1LAE1600* | Receptacle, straight, flange mount, threaded | E | Socket | Pin | 4 |

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 266

Complete datasheets can be found at www.amphenol-sine.com

Style: P type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Connector Part Numbers continued

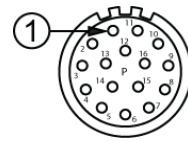
| | | | | | |
|--|---|---|--------|-----|---|
| MA1LAE1600-KIT* | Receptacle kit, straight, threaded. Kit includes contacts. | E | | Pin | 4 |
| MA1LAE1600S-KIT* | Receptacle kit, straight, threaded. Kit includes contacts. | E | Socket | | 4 |
| MA1JAE1600* | Receptacle extension, threaded | E | Socket | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 page 76 | | | | | |



CHART 1

Crimp Contacts, Machined

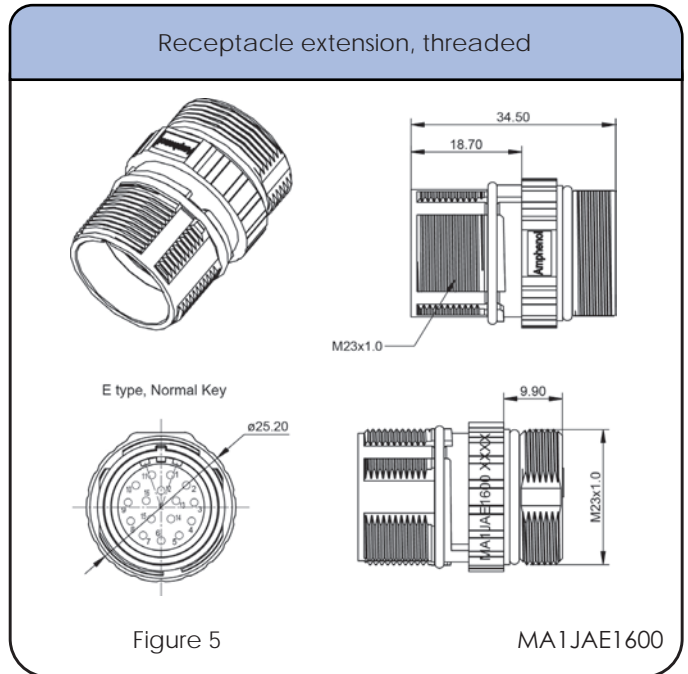
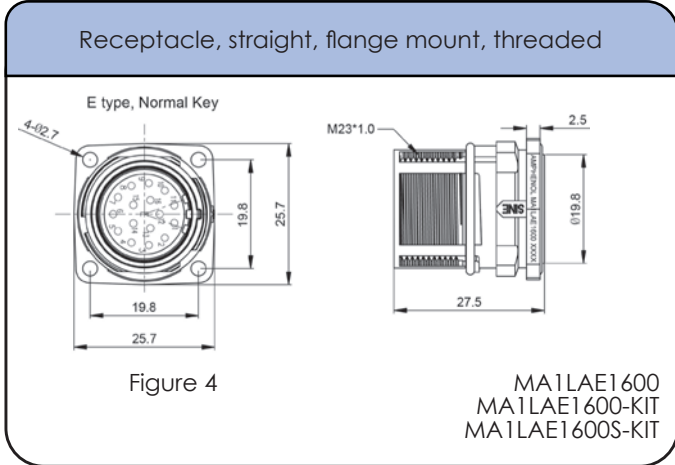
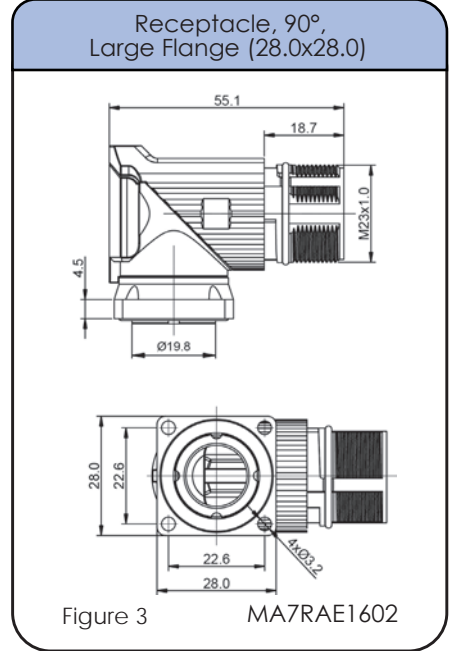
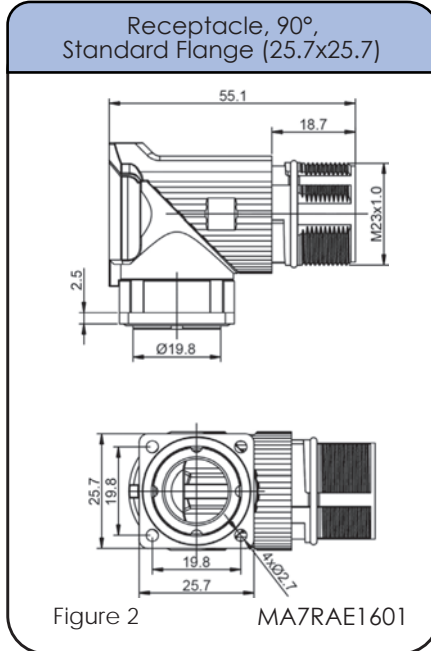
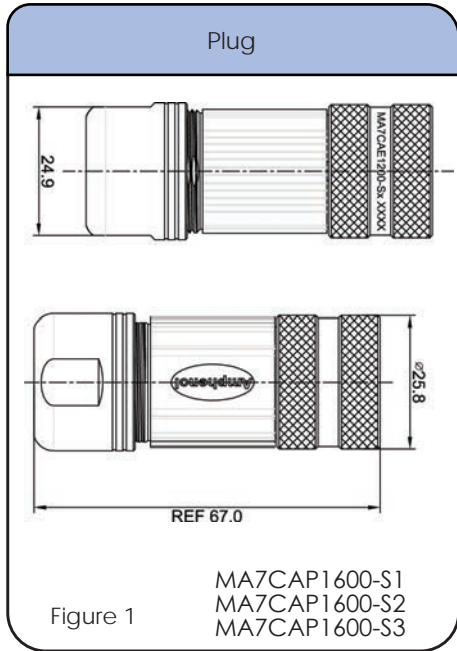
| Part Number | Pin/Socket | AWG | mm ² | Plating |
|-------------|------------|-------|-----------------|---------|
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold |



16 POSITIONS
9A / 125V
P type
Threaded

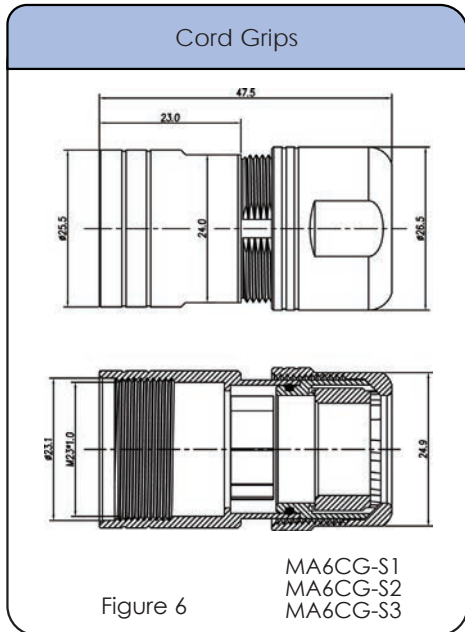
Style: P type Plug **Number of Contacts: 16** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**

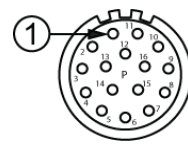
CONNECTOR SOLUTIONS



Style: P type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Connector Drawings continued








16 POSITIONS
9A / 125V
P type
Threaded

Style: P type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

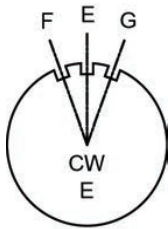
Tools & Accessories

| | | |
|---|--|---|
| <p>Universal hand crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>AFM8</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5* Wire range 12-26AWG</p>  <p>AF8</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>WA22</p> |
| <p>Universal positioner is used with crimp tools AFM8 and WA22. Wire range 20-32AWG</p>  <p>SK2-2</p> | <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5*. Wire range 12-26AWG</p>  <p>WA27F</p> |
| <p>Extraction tool. Used for removal of 1.0mm contacts from inserts.</p>  <p>50-54931-1</p> | <p>Dust Cap for Receptacle</p>  <p>P29687</p> | <p>Dust Cap for Plug, Threaded</p>  <p>P31660</p> |

* The universal positioner is not included with the crimp tools and must be ordered separately.

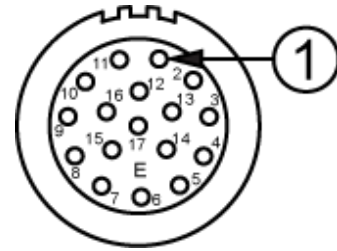
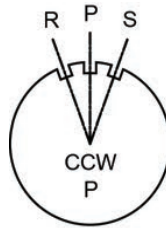
Connector Solutions M23 Elite Series

STEP 1 Choose Plug



Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.*
Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 12 for connector configurations

STEP 2 Choose Receptacle



Plugs



Receptacles



Receptacles Kits



Plug Kits



**BULK CABLE starts
on page 23**

SEE TABLE ON NEXT PAGE FOR PART DETAILS

Cord Grips (Required only for Receptacle Extension)



| Part Number | Type | Cable Range (mm) | Figure Drawings |
|-------------|-----------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 6 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 6 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 6 |



17 POSITIONS
9A / 125V
E type
Checkmate™

Style: E type Plug **Number of Contacts: 17** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**



Connector Part Numbers

| Part Number | Connector Type PLUGS | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|--------------------|--|-------|---|--------|-----------------|
| | | | | | |
| MA5CAE1700-S1 | Plug, straight, Checkmate™ 4.5-7.5mm cord grip | E | Pin | Socket | 1 |
| MA5CAE1700-S1-KIT | Plug kit, straight, Checkmate™ 4.5-7.5mm cord grip | E | Pin | | 1 |
| MA5CAE1700S-S1-KIT | Plug kit, straight, Checkmate™ 4.5-7.5mm cord grip | E | | Socket | 1 |
| MA5CAE1700-S2 | Plug, straight, Checkmate™ 7.5-11mm cord grip | E | Pin | Socket | 1 |
| MA5CAE1700-S2-KIT | Plug kit, straight, Checkmate™ 7.5-11mm cord grip | E | Pin | | 1 |
| MA5CAE1700S-S2-KIT | Plug kit, straight, Checkmate™ 7.5-11mm cord grip | E | | Socket | 1 |
| MA5CAE1700-S3 | Plug, straight, Checkmate™ 11-15mm cord grip | E | Pin | Socket | 1 |
| MA5CAE1700-S3-KIT | Plug kit, straight, Checkmate™ 11-15mm cord grip | E | Pin | | 1 |
| MA5CAE1700S-S3-KIT | Plug kit, straight, Checkmate™ 11-15mm cord grip | E | | Socket | 1 |
| RECEPTACLES | | | ↑ Mating Parts ↑ | | |
| MA5RAP1701 | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | P | Socket | Pin | 2 |
| MA5RAP1701-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | P | | Pin | 2 |
| MA5RAP1701S-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | P | Socket | | 2 |
| MA5RAP1702 | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | P | Socket | Pin | 3 |
| MA5RAP1702-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | P | | Pin | 3 |
| MA5RAP1702S-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | P | Socket | | 3 |

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 266
 Complete datasheets can be found at www.amphenol-sine.com

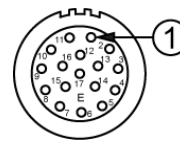
Style: E type Plug Number of Contacts: 17 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 -0.10 mm²)

Connector Part Numbers continued

| | | | | | |
|--|---|---|--------|-----|---|
| MA2LAP1700* | Receptacle, straight, flange mount Checkmate™ | P | Socket | Pin | 4 |
| MA2LAP1700-KIT* | Receptacle kit, straight, flange mount Checkmate™ | P | | Pin | 4 |
| MA2LAP1700S-KIT* | Receptacle kit, straight, flange mount Checkmate™ | P | Socket | | 4 |
| MA2JAP1700* | Receptacle extension, Checkmate™ | P | Socket | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 | | | | | |



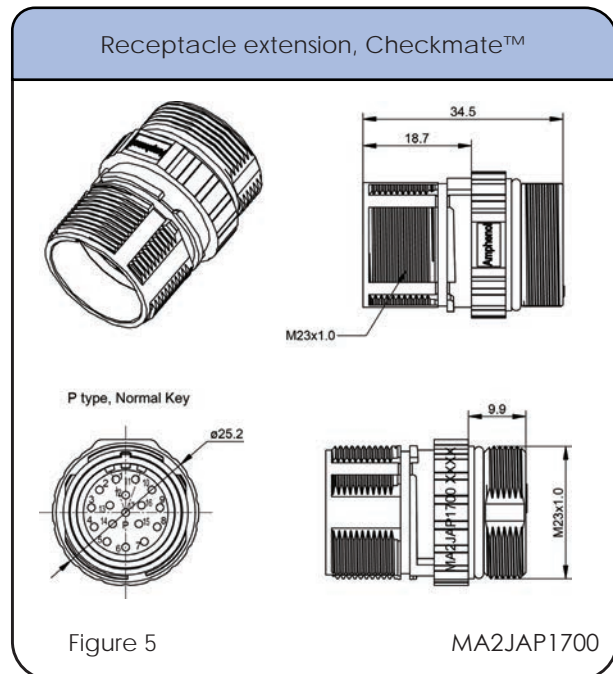
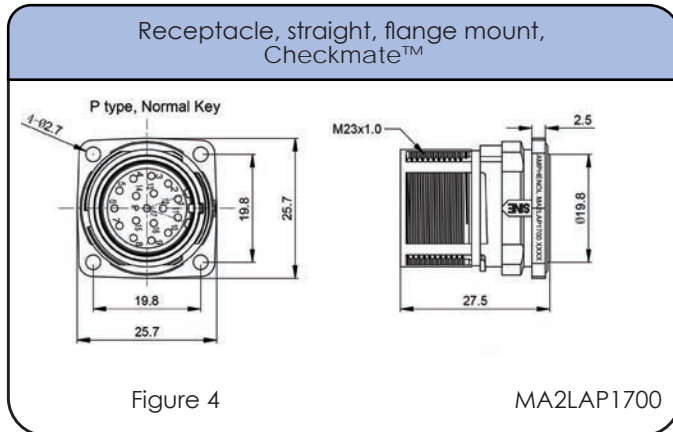
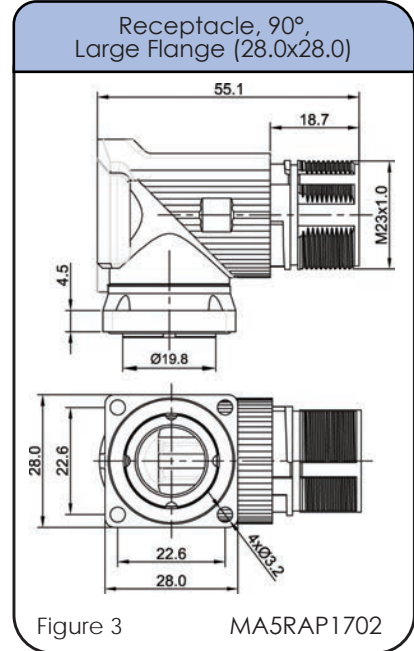
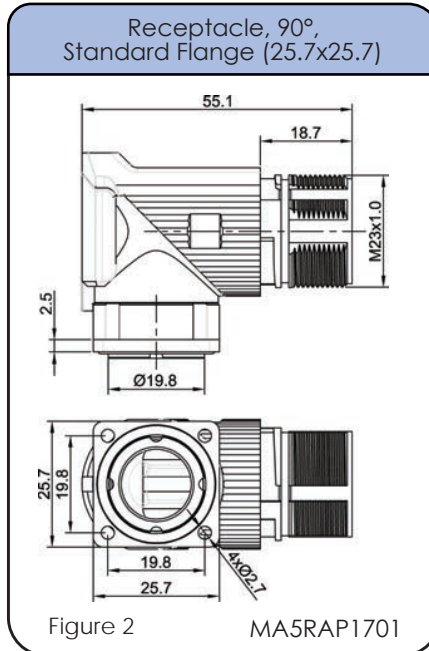
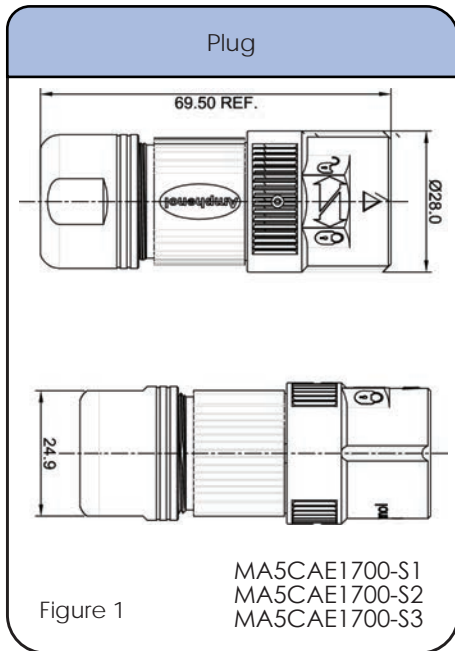
| CHART 1 | | Crimp Contacts, Machined | | | |
|-------------|------------|--------------------------|-----------------|---------|--|
| Part Number | Pin/Socket | AWG | mm ² | Plating | |
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold | |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold | |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold | |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold | |



17 POSITIONS
9A / 125V
E type
Checkmate™

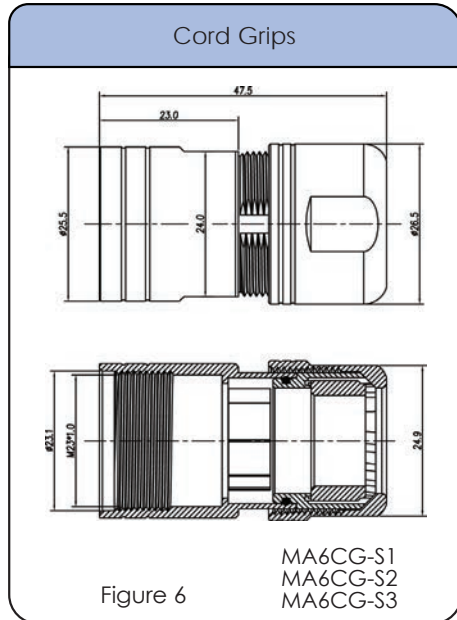
Style: E type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

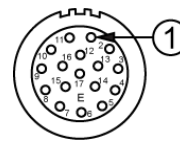
CONNECTOR SOLUTIONS



Style: E type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Connector Drawings continued











17 POSITIONS
9A / 125V
E type
Checkmate™

Style: E type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

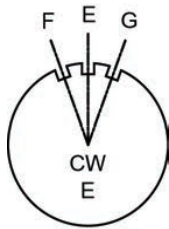
Tools & Accessories

| | | |
|---|--|---|
| <p>Universal hand crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>AFM8</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5* Wire range 12-26AWG</p>  <p>AF8</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>WA22</p> |
| <p>Universal positioner is used with crimp tools AFM8 and WA22. Wire range 20-32AWG</p>  <p>SK2-2</p> | <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5*. Wire range 12-26AWG</p>  <p>WA27F</p> |
| <p>Extraction tool. Used for removal of 1.0mm contacts from inserts.</p>  <p>50-54931-1</p> | <p>Dust Cap for receptacle</p>  <p>P29687</p> | <p>Dust Cap for Plug, Checkmate™</p>  <p>P31662</p> |

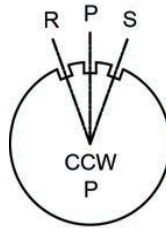
* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M23 Elite Series

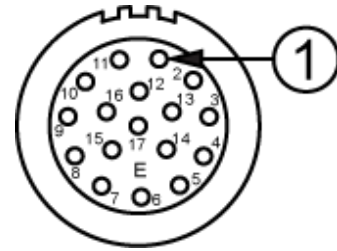
STEP 1 Choose Plug



Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.*
Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 12 for connector configurations



STEP 2 Choose Receptacle



Plugs



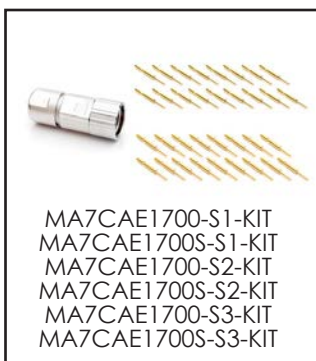
Receptacles



Receptacle Kits



Plug Kits



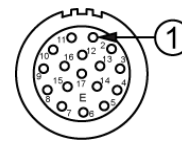
**BULK CABLE starts
on page 23**

SEE TABLE ON NEXT PAGE FOR PART DETAILS

Cord Grips (Required only for Receptacle Extension)



| Part Number | Type | Cable Range (mm) | Figure Drawings |
|-------------|-----------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 6 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 6 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 6 |



17 POSITIONS
9A / 125V
E type
Threaded

Style: E type Plug **Number of Contacts: 17** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**

Connector Part Numbers

| Part Number | Connector Type PLUGS | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|--------------------|--|-------|---|--------|-----------------|
| | | | | | |
| MA7CAE1700-S1 | Plug, straight, threaded 4.5-7.5mm cord grip | E | Pin | Socket | 1 |
| MA7CAE1700-S1-KIT | Plug kit, straight, threaded 4.5-7.5mm cord grip | E | Pin | | 1 |
| MA7CAE1700S-S1-KIT | Plug kit, straight, threaded 4.5-7.5mm cord grip | E | | Socket | 1 |
| MA7CAE1700-S2 | Plug, straight, threaded 7.5-11mm cord grip | E | Pin | Socket | 1 |
| MA7CAE1700-S2-KIT | Plug kit, straight, threaded 7.5-11mm cord grip | E | Pin | | 1 |
| MA7CAE1700S-S2-KIT | Plug kit, straight, threaded 7.5-11mm cord grip | E | | Socket | 1 |
| MA7CAE1700-S3 | Plug, straight, threaded 11-15mm cord grip | E | Pin | Socket | 1 |
| MA7CAE1700-S3-KIT | Plug kit, straight, threaded 11-15mm cord grip | E | Pin | Socket | 1 |
| MA7CAE1700S-S3-KIT | Plug kit, straight, threaded 11-15mm cord grip | E | | Socket | 1 |
| RECEPTACLES | | | ↑ Mating Parts ↓ | | |
| MA7RAP1701 | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | P | Socket | Pin | 2 |
| MA7RAP1701-KIT | Receptacle Kit, 90° rotatable, threaded Standard Flange (25.7x25.7) | P | | Pin | 2 |
| MA7RAP1701S-KIT | Receptacle Kit, 90° rotatable, threaded Standard Flange (25.7x25.7) | P | Socket | | 2 |
| MA7RAP1702 | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | P | Socket | Pin | 3 |
| MA7RAP1702-KIT | Receptacle Kit, 90° rotatable, threaded Large Flange (28.0x28.0) | P | | Pin | 3 |
| MA7RAP1702S-KIT | Receptacle Kit, 90° rotatable, threaded Large Flange (28.0x28.0) | P | Socket | | 3 |
| MA1LAP1700* | Receptacle, straight, flange mount, threaded | P | Socket | Pin | 4 |

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 266

Complete datasheets can be found at www.amphenol-sine.com

Style: E type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 -0.10 mm²)

Connector Part Numbers continued

| | | | | | |
|--|---|---|--------|-----|---|
| MA1LAP1700-KIT* | Receptacle kit, straight, threaded. Kit includes contacts. | P | | Pin | 4 |
| MA1LAP1700S-KIT* | Receptacle kit, straight, threaded. Kit includes contacts. | P | Socket | | 4 |
| MA1JAP1700* | Receptacle extension, threaded | P | Socket | Pin | 5 |
| ↑ Contacts supplied separately see Chart | | | | | |



CHART 1

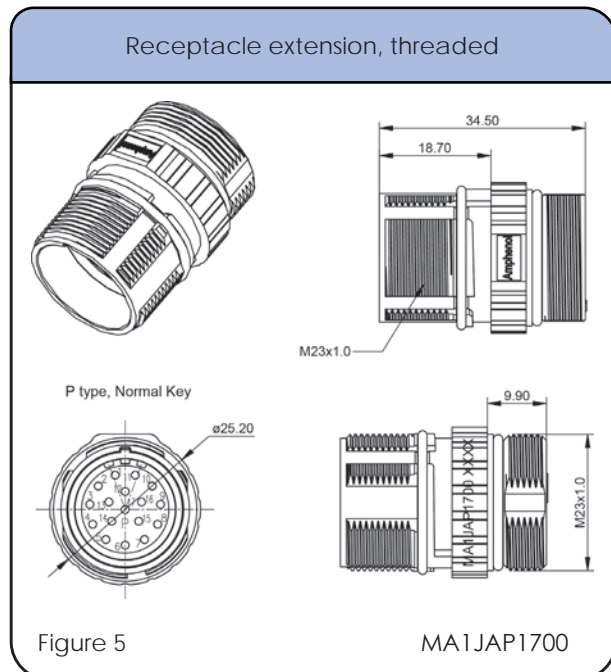
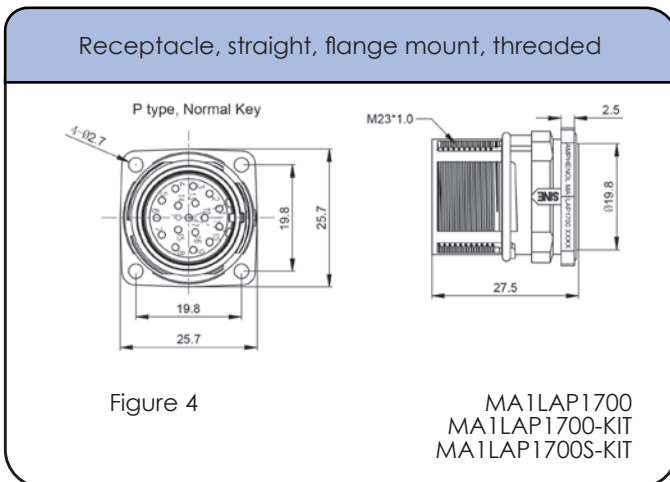
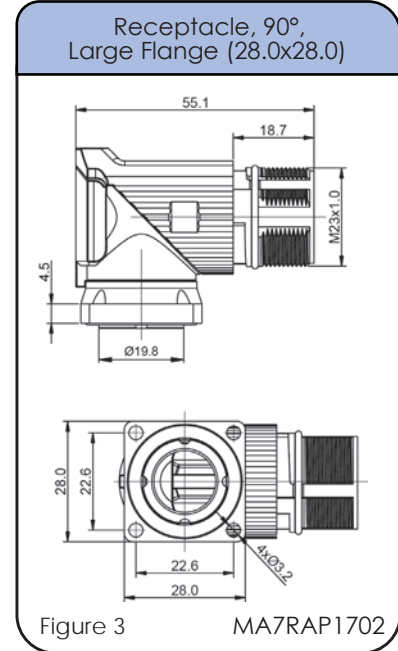
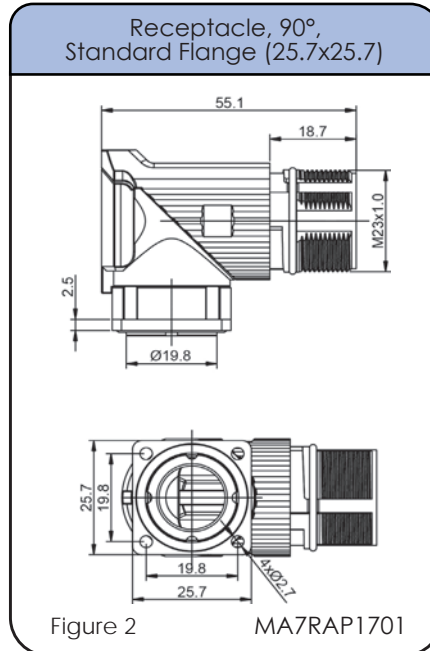
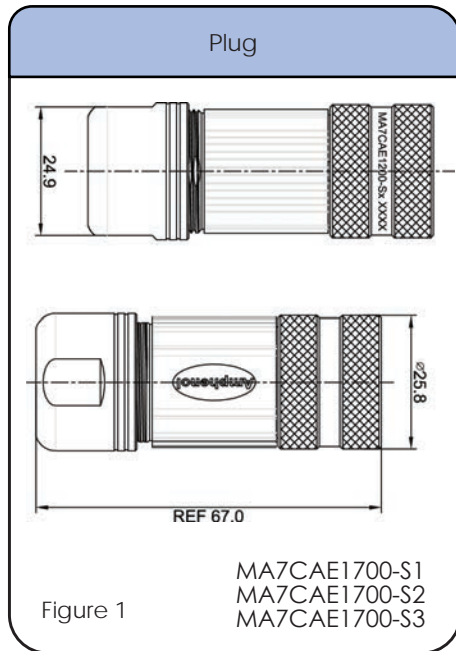
Crimp Contacts, Machined

| Part Number | Pin/Socket | AWG | mm ² | Plating |
|-------------|------------|-------|-----------------|---------|
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold |



17 POSITIONS
9A / 125V
E type
Threaded

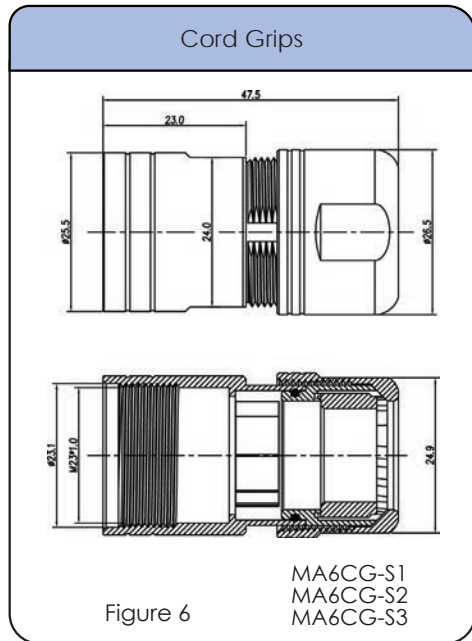
Style: E type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

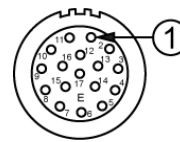


Complete datasheets can be found at www.amphenol-sine.com

Style: E type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Connector Drawings continued













17 POSITIONS
9A / 125V
E type
Threaded

Style: E type Plug **Number of Contacts: 17** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**

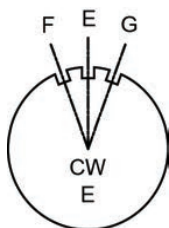
Tools & Accessories

| | | |
|---|---|---|
| <p>Universal hand crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>AFM8</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5* Wire range 12-26AWG</p>  <p>AF8</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>WA22</p> |
| <p>Universal positioner is used with crimp tools AFM8 and WA22. Wire range 20-32AWG</p>  <p>SK2-2</p> | <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5*. Wire range 12-26AWG</p>  <p>WA27F</p> |
| <p>Extraction tool. Used for removal of 1.0mm contacts from inserts.</p>  <p>50-54931-1</p> | <p>Dust Cap for Receptacle</p>  <p>P29687</p> | <p>Dust Cap for Plug, Threaded</p>  <p>P31660</p> |

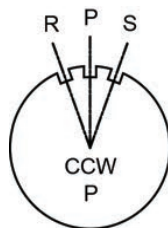
* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M23 Elite Series

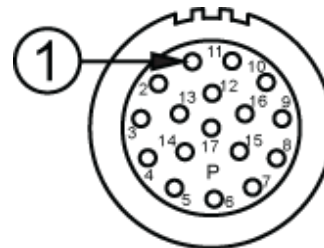
STEP 1 Choose Plug



Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.*
Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 12 for connector configurations



STEP 2 Choose Receptacle



SEE TABLE ON NEXT PAGE FOR PART DETAILS

Plugs



Receptacles



Receptacle Kit



Plugs Kit

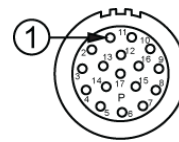


**BULK CABLE starts
on page 23**

Cord Grips (Required only for Receptacle Extension)



| Part Number | Type | Cable Range (mm) | Figure Drawings |
|-------------|-----------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 6 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 6 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 6 |



17 POSITIONS
9A / 125V
P type
Checkmate™

Style: P type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)



CONNECTOR SOLUTIONS

Connector Part Numbers

| Part Number | Connector Type PLUGS | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|--------------------|--|-------|---|--------|--------------------|
| | | | | | |
| MA5CAP1700-S1 | Plug, straight, Checkmate™ 4.5-7.5mm cord grip | P | Pin | Socket | 1 |
| MA5CAP1700-S1-KIT | Plug, kit straight, Checkmate™ 4.5-7.5mm cord grip | P | Pin | | 1 |
| MA5CAP1700S-S1-KIT | Plug kit, straight, Checkmate™ 4.5-7.5mm cord grip | P | | Socket | 1 |
| MA5CAP1700-S2 | Plug, straight, Checkmate™ 7.5-11mm cord grip | P | Pin | Socket | 1 |
| MA5CAP1700-S2-KIT | Plug kit, straight, Checkmate™ 7.5-11mm cord grip | P | Pin | | 1 |
| MA5CAP1700S-S2-KIT | Plug kit, straight, Checkmate™ 7.5-11mm cord grip | P | | Socket | 1 |
| MA5CAP1700-S3 | Plug, straight, Checkmate™ 11-15mm cord grip | P | Pin | Socket | 1 |
| MA5CAP1700-S3-KIT | Plug kit, straight, Checkmate™ 11-15mm cord grip | P | Pin | | 1 |
| MA5CAP1700S-S3-KIT | Plug kit, straight, Checkmate™ 11-15mm cord grip | P | | Socket | 1 |
| RECEPTACLES | | | ↑ Mating Parts ↑ | | |
| MA5RAE1701 | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | E | Socket | Pin | 2 |
| MA5RAE1701-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | E | | Pin | 2 |
| MA5RAE1701S-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | E | Socket | | 2 |
| MA5RAE1702 | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | E | Socket | Pin | 3 |
| MA5RAE1702-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | E | | Pin | 3 |
| MA5RAE1702S-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | E | Socket | | 3 |

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
See Assembly Instructions starting on page 266

Complete datasheets can be found at www.amphenol-sine.com

Style: P type Plug Number of Contacts: 17 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Connector Part Numbers continued

| | | | | | |
|------------------|---|---|--------|-----|---|
| MA2LAE1700* | Receptacle, straight, flange mount, Checkmate™ | E | Socket | Pin | 4 |
| MA2LAE1700-KIT* | Receptacle kit, straight, flange mount, Checkmate™ | E | | Pin | 4 |
| MA2LAE1700S-KIT* | Receptacle kit, straight, flange mount, Checkmate™ | E | Socket | | 4 |
| MA2JAE1700* | Receptacle extension, Checkmate™ | E | Socket | Pin | 5 |

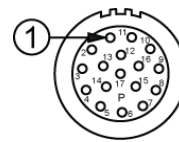
↑ Contacts supplied separately see Chart 1



CHART 1

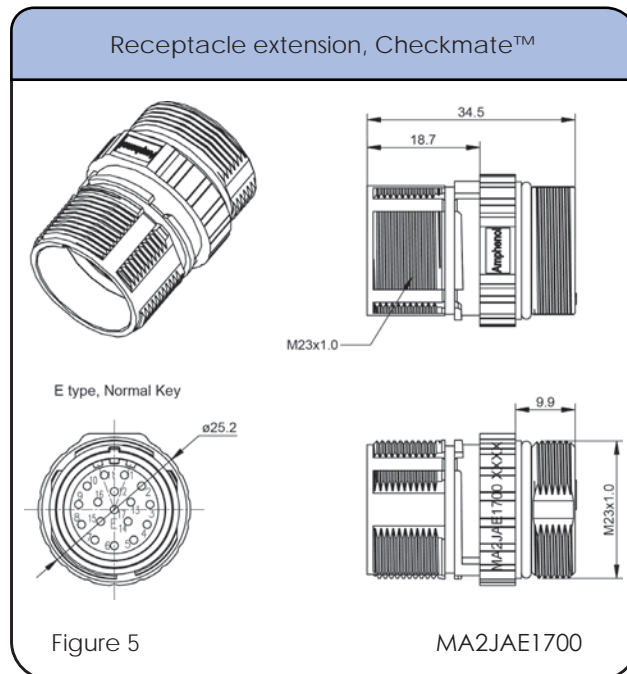
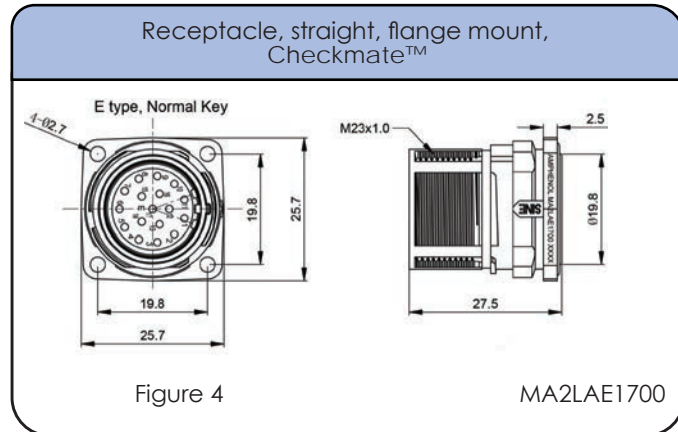
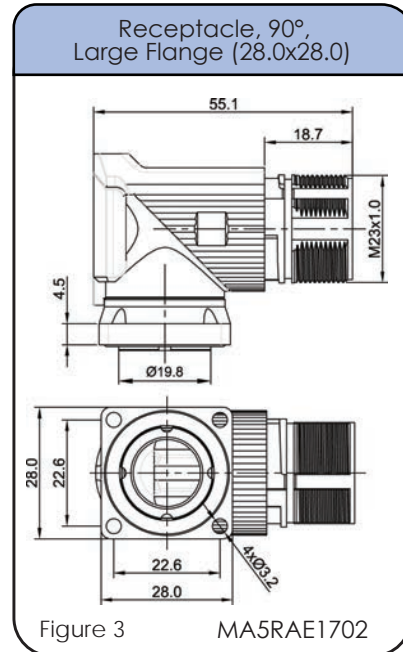
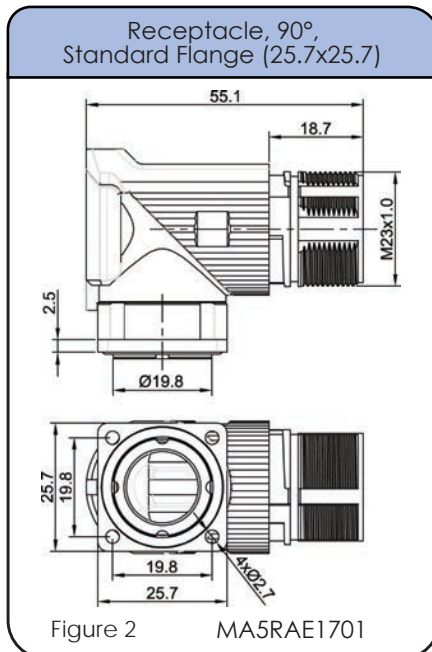
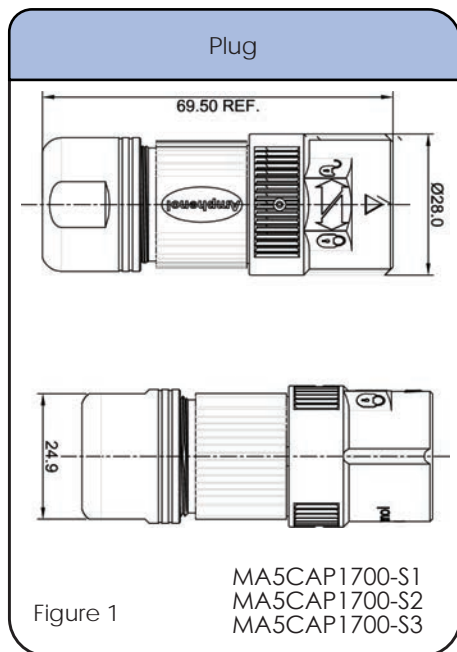
Crimp Contacts, Machined

| Part Number | Pin/Socket | AWG | mm ² | Plating |
|-------------|------------|-------|-----------------|---------|
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold |



17 POSITIONS
9A / 125V
P type
Checkmate™

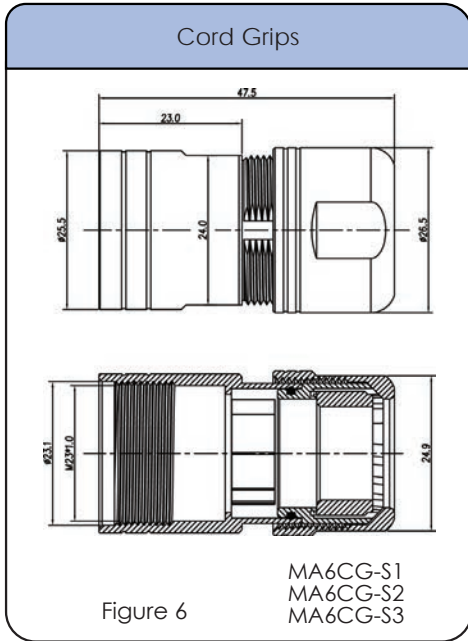
Style: P type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

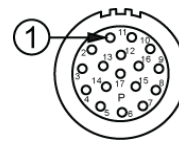


Complete datasheets can be found at www.amphenol-sine.com

Style: P type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 -0.10 mm²)

Connector Drawings continued














17 POSITIONS
9A / 125V
P type
Checkmate™

Style: P type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

CONNECTOR SOLUTIONS

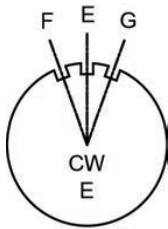
Tools & Accessories

| | | |
|---|--|---|
| <p>Universal hand crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>AFM8</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5* Wire range 12-26AWG</p>  <p>AF8</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>WA22</p> |
| <p>Universal positioner is used with crimp tools AFM8 and WA22. Wire range 20-32AWG</p>  <p>SK2-2</p> | <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5*. Wire range 12-26AWG</p>  <p>WA27F</p> |
| <p>Extraction tool. Used for removal of 1.0mm contacts from inserts.</p>  <p>50-54931-1</p> | <p>Dust Cap for Receptacle</p>  <p>P29687</p> | <p>Dust Cap for Plug, Checkmate™</p>  <p>P31662</p> |

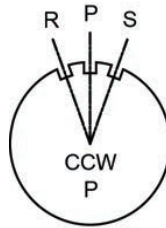
* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M23 Elite Series

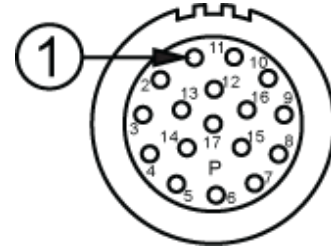
STEP 1 Choose Plug



Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.*
Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 12 for connector configurations



STEP 2 Choose Receptacle



Plugs



Receptacles



Receptacle Kits



Plug Kits



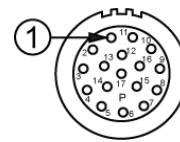
**BULK CABLE starts
on page 23**

SEE TABLE ON NEXT PAGE FOR PART DETAILS

Cord Grips (Required only for Receptacle Extension)



| Part Number | Type | Cable Range (mm) | Figure Drawings |
|-------------|-----------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 6 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 6 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 6 |



17 POSITIONS
9A / 125V
P type
Threaded

Style: P type Plug **Number of Contacts: 17** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.39 mm²) / 28-24 (0.25 - 0.10 mm²)**

Connector Part Numbers

| Part Number | Connector Type PLUGS | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|--------------------|--|-------|---|--------|-----------------|
| | | | | | |
| MA7CAP1700-S1 | Plug, straight, threaded 4.5-7.5mm cord grip | P | Pin | Socket | 1 |
| MA7CAP1700-S1-KIT | Plug kit, straight, threaded 4.5-7.5mm cord grip | P | Pin | | 1 |
| MA7CAP1700S-S1-KIT | Plug kit, straight, threaded 4.5-7.5mm cord grip | P | | Socket | 1 |
| MA7CAP1700-S2 | Plug, straight, threaded 7.5-11mm cord grip | P | Pin | Socket | 1 |
| MA7CAP1700-S2-KIT | Plug kit, straight, threaded 7.5-11mm cord grip | P | Pin | | 1 |
| MA7CAP1700S-S2-KIT | Plug kit, straight, threaded 7.5-11mm cord grip | P | | Socket | 1 |
| MA7CAP1700-S3 | Plug, straight, threaded 11-15mm cord grip | P | Pin | Socket | 1 |
| MA7CAP1700-S3-KIT | Plug kit, straight, threaded 11-15mm cord grip | P | Pin | | 1 |
| MA7CAP1700S-S3-KIT | Plug kit, straight, threaded 11-15mm cord grip | P | | Socket | 1 |
| RECEPTACLES | | | ↑ Mating Parts ↑ | | |
| MA7RAE1701 | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | E | Socket | Pin | 2 |
| MA7RAE1701-KIT | Receptacle Kit, 90° rotatable, threaded Standard Flange (25.7x25.7) | E | | Pin | 2 |
| MA7RAE1701S-KIT | Receptacle Kit, 90° rotatable, threaded Standard Flange (25.7x25.7) | E | Socket | | 2 |
| MA7RAE1702 | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | E | Socket | Pin | 3 |
| MA7RAE1702-KIT | Receptacle Kit, 90° rotatable, threaded Large Flange (28.0x28.0) | E | | Pin | 3 |
| MA7RAE1702S-KIT | Receptacle Kit, 90° rotatable, threaded Large Flange (28.0x28.0) | E | Socket | | 3 |
| MA1LAE1700* | Receptacle, straight, threaded, flange mount | E | Socket | Pin | 4 |

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 266

Complete datasheets can be found at www.amphenol-sine.com

Style: P type Plug **Number of Contacts: 17** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)**

Connector Part Numbers continued

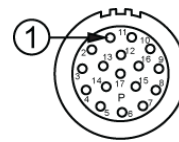
| | | | | | |
|---|---|---|--------|-----|---|
| MA1LAE1700-KIT* | Receptacle kit, straight, threaded. Kit includes contacts. | E | | Pin | 4 |
| MA1LAE1700S-KIT* | Receptacle kit, straight, threaded. Kit includes contacts. | E | Socket | | 4 |
| MA1JAE1700* | Receptacle extension, threaded | E | Socket | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 page 100 | | | | | |



CHART 1

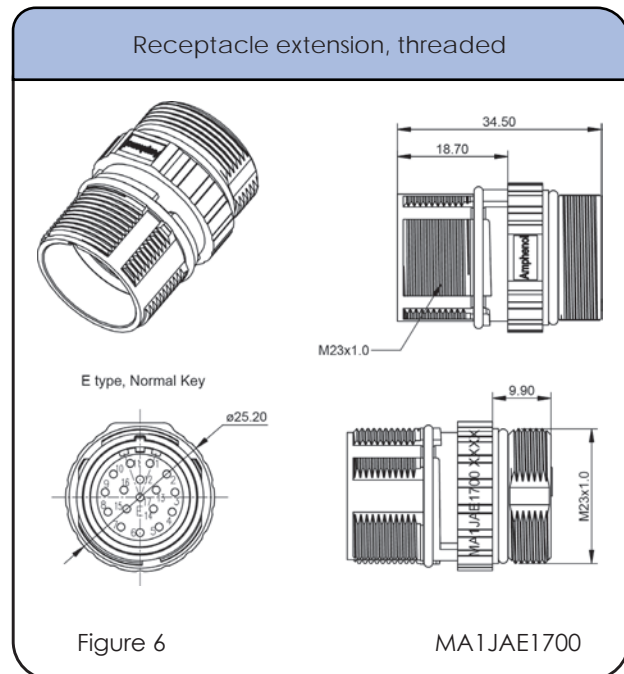
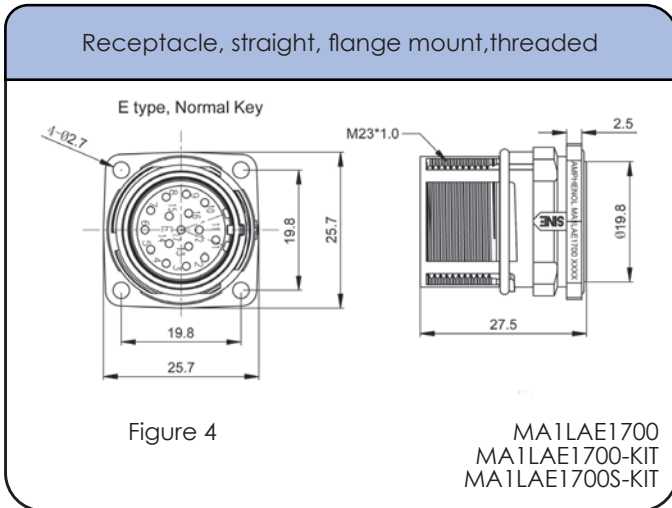
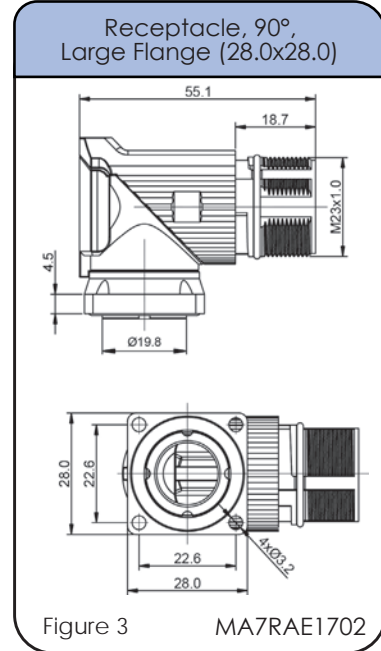
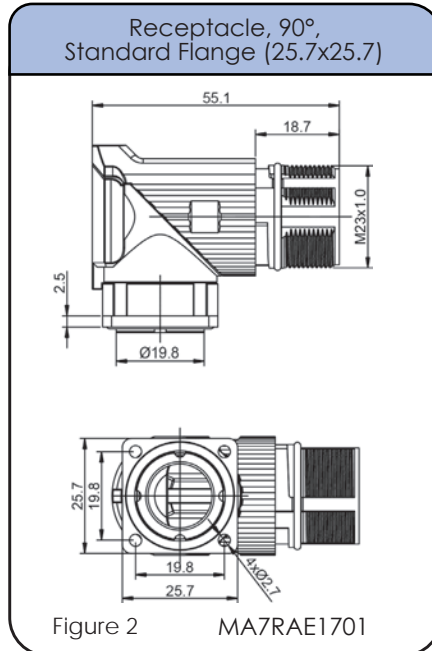
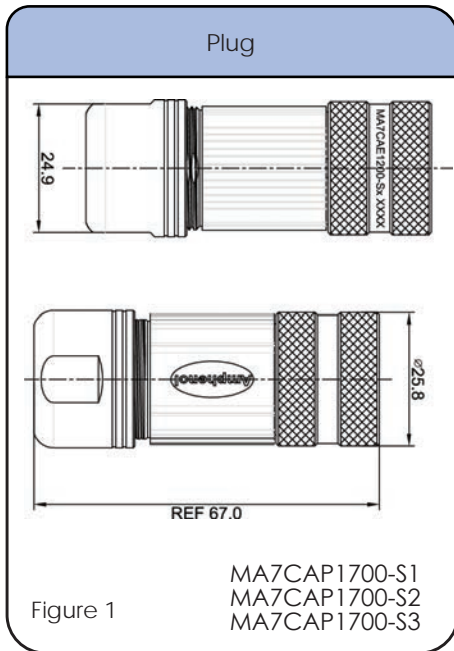
Crimp Contacts, Machined

| Part Number | Pin/Socket | AWG | mm ² | Plating |
|-------------|------------|-------|-----------------|---------|
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold |



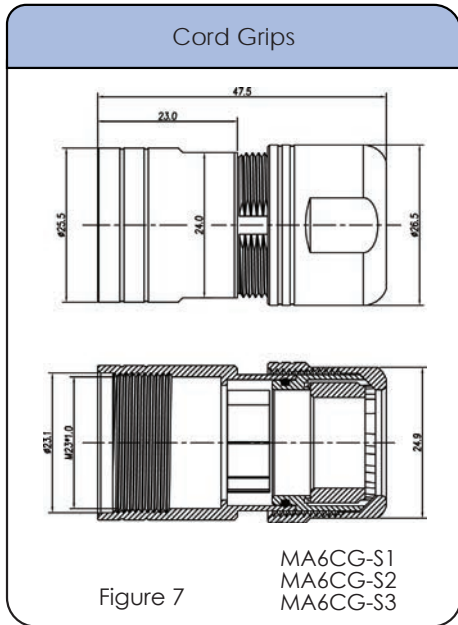
17 POSITIONS
9A / 125V
P type
Threaded

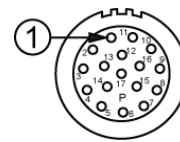
Style: P type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)



Style: P type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Connector Drawings continued





17 POSITIONS
9A / 125V
P type
Threaded

Style: P type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 28-24 (0.25 - 0.10 mm²)

Tools & Accessories

Universal hand crimp tool. Uses universal positioner part no. SK2-2*
Wire range 20-32AWG



AFM8

Universal hand crimp tool. Uses universal positioner part no. UH2-5*
Wire range 12-26AWG



AF8

Pneumatic crimp tool. Uses universal positioner part no. SK2-2*
Wire range 20-32AWG



WA22

Universal positioner is used with crimp tools AFM8 and WA22.
Wire range 20-32AWG



SK2-2

Universal positioner is used with the universal hand crimp tool (AF8).
Wire range 12-26AWG



UH2-5

Pneumatic crimp tool. Uses universal positioner part no. UH2-5*.
Wire range 12-26AWG



WA27F

Extraction tool. Used for removal of 1.0mm contacts from inserts.



50-54931-1

Dust Cap



P29687

Dust Cap for Plug, Threaded



P31660

* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M23 Elite Series

STEP 1
Choose Plug

STEP 2
Choose Receptacle

Plugs



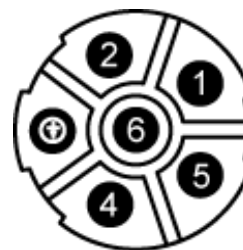
Plug Kits



Receptacles



Receptacle Kits



See page 14 for connector configurations

Receptacle Extension



BULK CABLE
starts on page
23

SEE TABLE ON NEXT PAGE FOR PART DETAILS

Complete datasheets can be found at www.amphenol-sine.com



6 POSITIONS
28A / 630V
Checkmate™

Number of Contacts: 6 Contact Size: 2.0mm
Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)



Connector Part Numbers

| Part Number | Connector Type | Contact Type | Figure Drawings |
|---|--|-------------------------------|-----------------|
| | PLUGS | male = pin female = socket | |
| MB5CKN0600-S1 | Plug, straight, Checkmate™ 7.0-11.0mm cord grip | Socket | 1 |
| MB5CKN0600-S1-KIT | Plug kit, straight, Checkmate™ 7.0-11.0mm cord grip | Socket | 1 |
| MB5CKN0600-S2 | Plug, straight, Checkmate™ 11.0-14.5mm cord grip | Socket | 1 |
| MB5CKN0600-S2-KIT | Plug kit, straight, Checkmate™ 11.0-14.5mm cord grip | Socket | 1 |
| MB5CKN0600-S3 | Plug, straight, Checkmate™ 14.5-17.0mm cord grip | Socket | 1 |
| MB5CKN0600-S3-KIT | Plug kit, straight, Checkmate™ 14.5-17.0mm cord grip | Socket | 1 |
| ↑ Contacts supplied separately see Chart 1 page 108 | | | |

| Part Number | Connector Type | Contact Type | Figure Drawings |
|---|---|-------------------------------|-----------------|
| | RECEPTACLES | male = pin female = socket | |
| MB5RJN0601 | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | Pin | 2 |
| MB5RJN0601-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | Pin | 2 |
| MB5RJN0602 | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | Pin | 3 |
| MB5RJN0602-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | Pin | 3 |
| MB5JJN0600-S1 | Receptacle Extension, Checkmate™ , 7.5-11.0mm Cable OD Range | Pin | 4 |
| MB5JJN0600-S2 | Receptacle Extension, Checkmate™ , 11.0-14.5mm Cable OD Range | Pin | 4 |
| MB5JJN0600-S3 | Receptacle Extension, Checkmate™ , 14.5-17.0mm Cable OD Range | Pin | 4 |
| ↑ Contacts supplied separately see Chart 2 page 108 | | | |
| MB2LLN0600* | Receptacle, straight flange mount, Checkmate™ | Pin | 5 |

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
See Assembly Instructions starting on page 266

Style: Number of Contacts: 6 Contact Size: 2.0mm
 Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

Connector Part Numbers continued

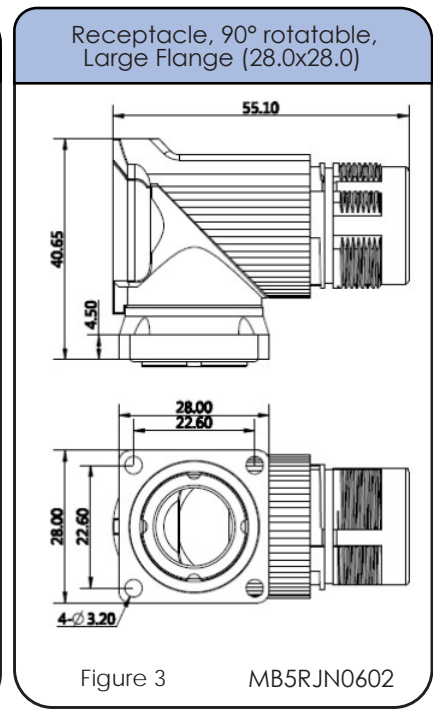
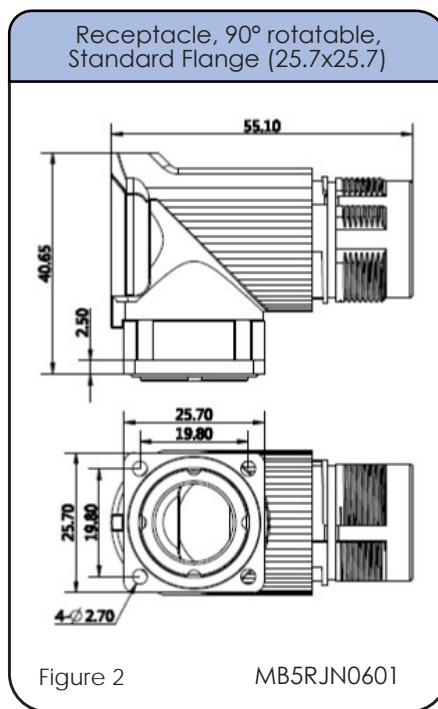
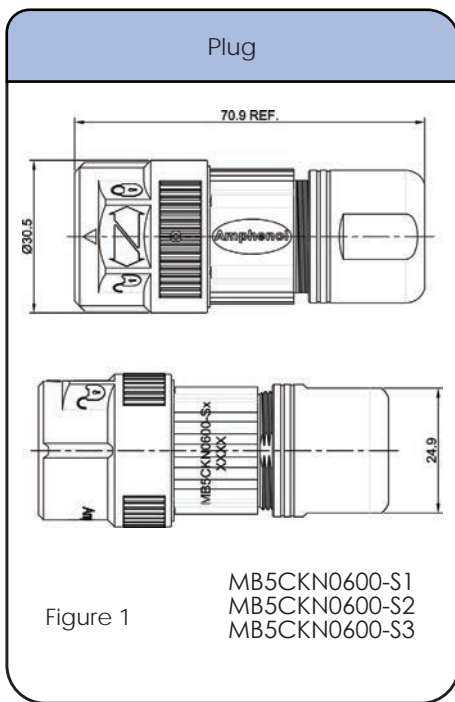
| Part Number | Connector Type | Contact Type | Figure Drawings |
|-----------------|--|-------------------------------|-----------------|
| | RECEPTACLES | male = pin female = socket | |
| MB2LLN0600-KIT* | Receptacle kit, straight, Checkmate™ Kit includes contacts | Pin | 5 |
| MB2LKN0600* | Receptacle, straight, Checkmate™ | Pin | 6 |

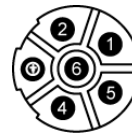
↑ Contacts supplied separately see Chart 3 page 108

Dimensions

See Chart 1 for contacts options

See Chart 2 for contacts options for 90° Rotatable Receptacles



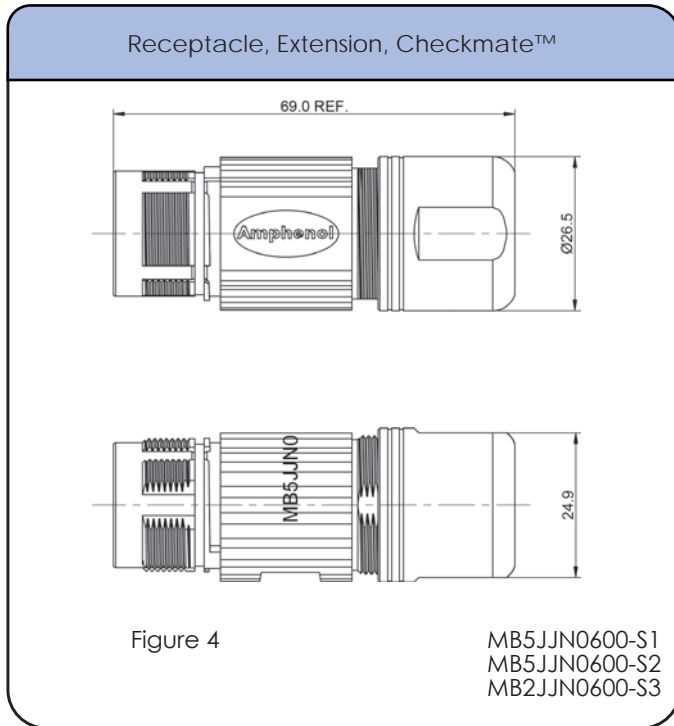


6 POSITIONS
28A / 630V
Checkmate™

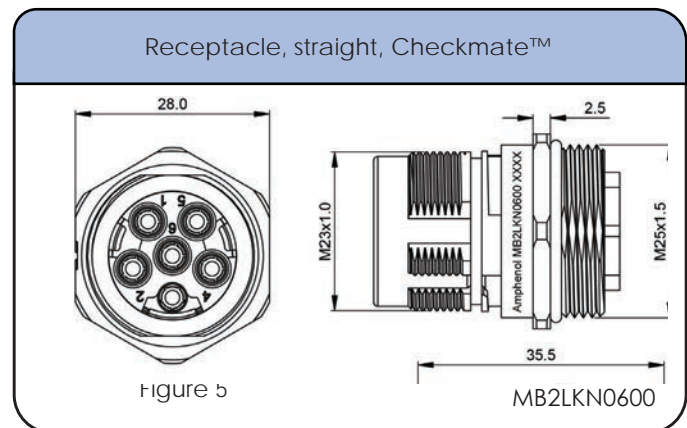
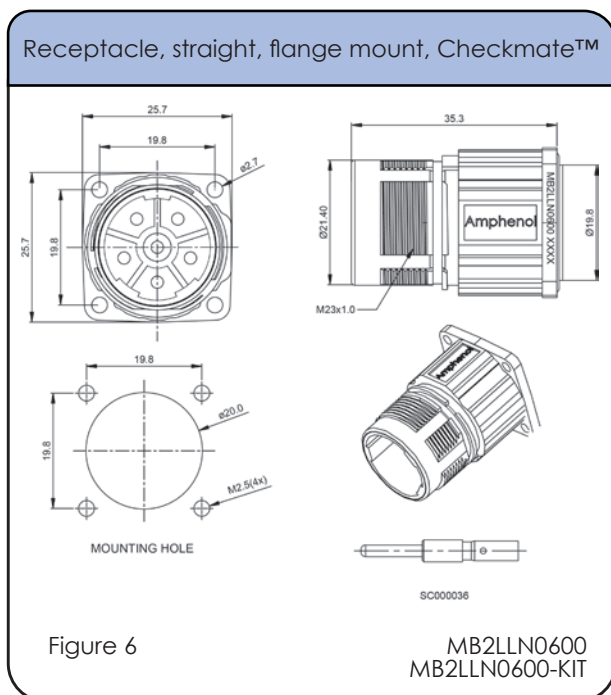
Style: Number of Contacts: 6 Contact Size: 2.0mm
Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

Dimensions

See Chart 2 for contacts options



See Chart 3 for contacts options



Style: Number of Contacts: 6 Contact Size: 2.0mm
 Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

Contacts



CHART 1 Crimp Contacts, Machined

For parts: MB5CKN0600-S1, MB5CKN0600-S2, MB5CKN0800-S3

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|--------|-------|-----------------|---------|
| SC000260 | 2.0mm | Socket | 18-20 | 2.5 - 0.5 | Gold |

CHART 2 Crimp Contacts, Machined

For parts: MB5RJN0601, MB5RJN0602, MB5JJN0600-S1, S2, S3

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|------|-------|-----------------|---------|
| SC000262 | 2.0mm | Pin | 18-14 | 0.75 - 2.5 | Gold |

CHART 3 Crimp Contacts, Machined

For Parts: MB2LLN0600, MB2LKN0600, MB2LLN0600-KIT

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|------|-------|-----------------|---------|
| SC000036 | 2.0mm | Pin | 18-14 | 1.5 - 0.75 | Gold |



6 POSITIONS
28A / 630V
Checkmate™

Style: Number of Contacts: 6 Contact Size: 2.0mm
Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

Tools & Accessories

Universal hand crimp tool. Uses universal positioner part no. UH2-5*
Wire Range 12-26AWG



AF8

Pneumatic crimp tool. Uses universal positioner part no. UH2-5*
Wire Range 12-26AWG



WA27F

Extraction tool. Used for removal of 2.0mm contacts from inserts.




50-54931-2

Universal positioner is used with the universal hand crimp tool (AF8).
Wire range 12-26AWG



UH2-5

Dust Cap



P29687

Dust Cap for Plug, Checkmate™



P31661-06

* The universal positioner is not included with the crimp tools and must be ordered separately.

* The extraction tool is only required to remove contacts from part numbers beginning with MB2

Connector Solutions M23 Elite Series

STEP 1
Choose Plug

STEP 2
Choose Receptacle

Plugs



Receptacles



See page 14 for connector configurations

Plug Kits



Receptacle Extension



Receptacle Kits



**BULK CABLE starts
on page 23**

SEE TABLE ON NEXT PAGE FOR PART DETAILS

Complete datasheets can be found at www.amphenol-sine.com



6 POSITIONS
28A / 630V
Threaded

Number of Contacts: 6 Contact Size: 2.0mm
Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

Connector Part Numbers

| Part Number | Connector Type | Contact Type male = pin female = socket | Figure Drawings |
|---|---|---|-----------------|
| | PLUGS | | |
| MB7CKN0600-S1 | Plug, straight, threaded 7.0-11.0mm cord grip | Socket | 1 |
| MB7CKN0600-S1-KIT | Plug kit, straight, threaded 7.0-11.0mm cord grip | Socket | 1 |
| MB7CKN0600-S2 | Plug, straight, threaded 11.0-14.5mm cord grip | Socket | 1 |
| MB7CKN0600-S2-KIT | Plug kit, straight, threaded 11.0-14.5mm cord grip | Socket | 1 |
| MB7CKN0600-S3 | Plug, straight, threaded 14.5-17.0mm cord grip | Socket | 1 |
| MB7CKN0600-S3-KIT | Plug kit, straight, threaded 14.5-17.0mm cord grip | Socket | 1 |
| ↑ Contacts supplied separately see Chart 1 page 114 | | | |

| Part Number | Connector Type | Contact Type male = pin female = socket | Figure Drawings |
|---|--|---|-----------------|
| | RECEPTACLES | | |
| MB7RJN0601 | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | Pin | 2 |
| MB7RJN0601-KIT | Receptacle Kit, 90° rotatable, threaded Standard Flange (25.7x25.7) | Pin | 2 |
| MB7RJN0602 | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | Pin | 3 |
| MB7RJN0602-KIT | Receptacle Kit, 90° rotatable, threaded Large Flange (28.0x28.0) | Pin | 3 |
| MB7JJN0600-S1 | Receptacle extension, threaded, 7.5-11.0mm Cable OD Range | Pin | 4 |
| MB7JJN0600-S2 | Receptacle extension, threaded, 11.0-14.5mm Cable OD Range | Pin | 4 |
| MB7JJN0600-S3 | Receptacle extension, threaded, 14.5-17.0mm Cable OD Range | Pin | 4 |
| ↑ Contacts supplied separately see Chart 2 page 114 | | | |

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 266

Style: Number of Contacts: 6 Contact Size: 2.0mm
 Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

Connector Part Numbers continued

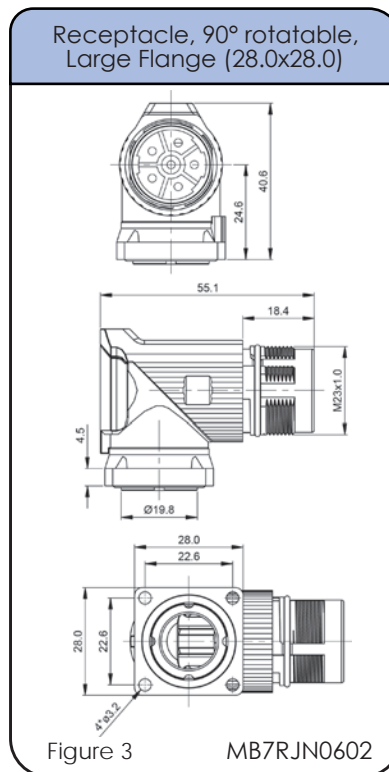
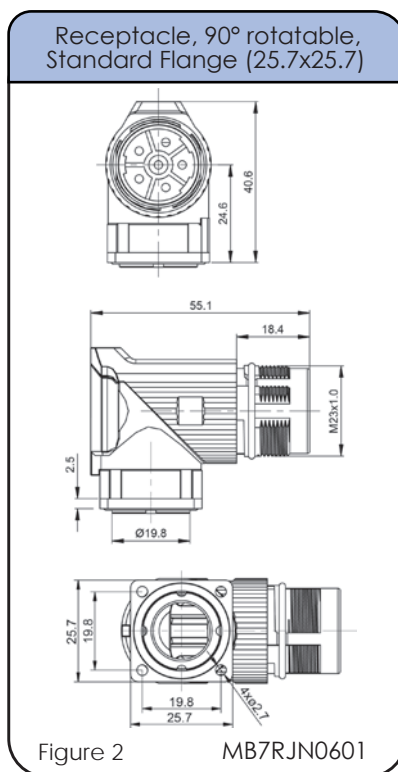
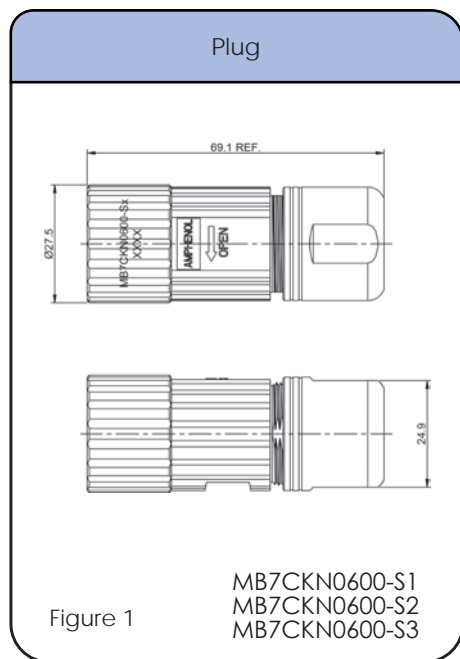
| Part Number | Connector Type RECEPTACLES | Contact Type male = pin female = socket | Figure Drawings |
|-----------------|---|---|-----------------|
| MB1LLN0600* | Receptacle, straight, flange mount, threaded | Pin | 5 |
| MB1LLN0600-KIT* | Receptacle kit, straight, threaded. Kit includes contacts. | Pin | 5 |
| MB1LKN0600* | Receptacle, straight, threaded | Pin | 6 |

↑ Contacts supplied separately see Chart 3 page 114

Dimensions

See Chart 1 for contacts options

See Chart 2 for contacts options for 90° Rotatable Receptacles



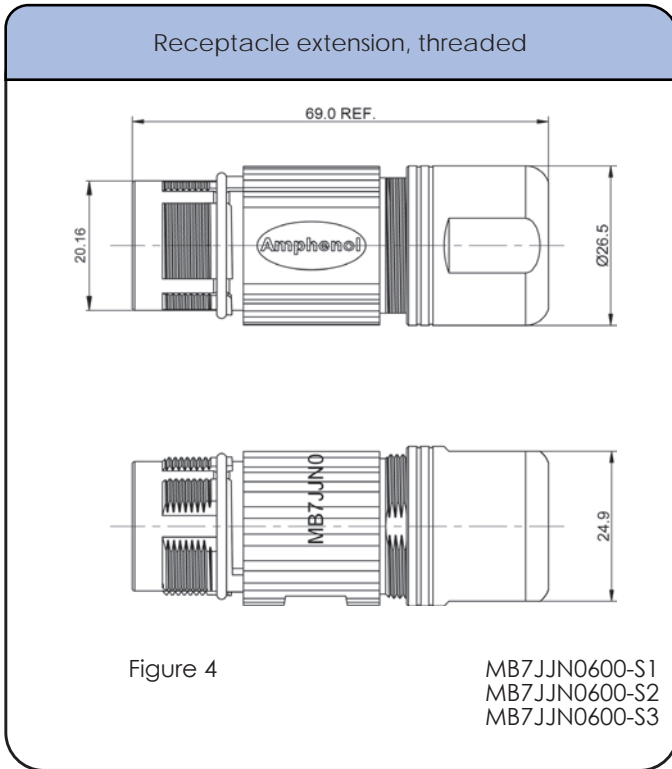


6 POSITIONS
28A / 630V
Threaded

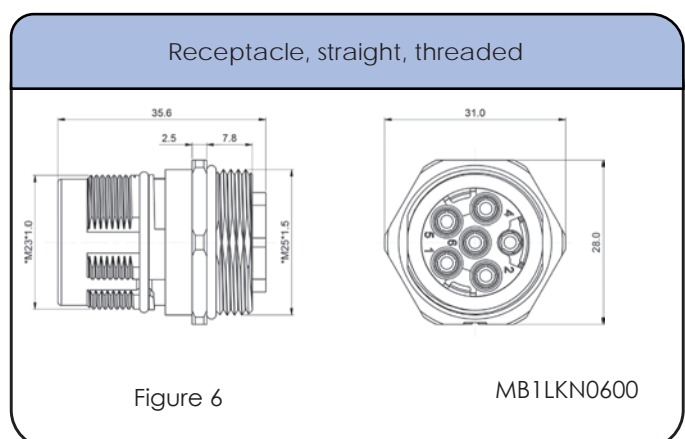
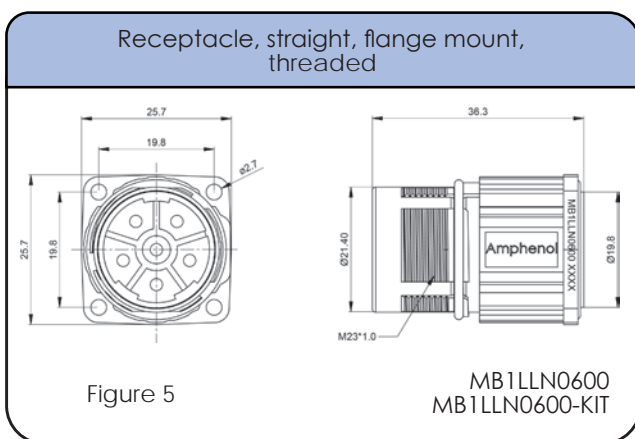
Style: Number of Contacts: 6 Contact Size: 2.0mm
Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

Dimensions

See Chart 2 for contacts options



See Chart 3 for contacts options for all straight receptacles



Style: Number of Contacts: 6 Contact Size: 2.0mm
 Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

Contacts



CHART 1 Crimp Contacts, Machined

For parts: MB7CKN0600-S1, MB7CKN0600-S2, MB7CKN0800-S3

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|--------|-------|-----------------|---------|
| SC000260 | 2.0mm | Socket | 18-20 | 2.5 - 5.0 | Gold |

CHART 2 Crimp Contacts, Machined

For parts: MB7RJN0601, MB7RJN0602, MB7JJN0600-S1,S2,S3

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|------|-------|-----------------|---------|
| SC000262 | 2.0mm | Pin | 18-14 | 0.75 - 2.5 | Gold |

CHART 3 Crimp Contacts, Machined

For Parts: MB1LLN0600, MB1LKN0600, MB1LLN0600-KIT

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|------|-------|-----------------|---------|
| SC000036 | 2.0mm | Pin | 18-14 | 1.5 - 0.75 | Gold |



6 POSITIONS
28A / 630V
Threaded

Style: Number of Contacts: 6 Contact Size: 2.0mm
Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

Tools & Accessories

Universal hand crimp tool. Uses universal positioner part no. UH2-5*
Wire Range 12-26AWG



AF8

Pneumatic crimp tool. Uses universal positioner part no. UH2-5*
Wire Range 12-26AWG



WA27F

Extraction tool. Used for removal of 2.0mm contacts from inserts.



50-54931-2

Universal positioner is used with the universal hand crimp tool (AF8).
Wire range 12-26AWG



UH2-5

Dust Cap for Receptacle



P29687

Dust Cap for Plug, Threaded



P30663-06

* The universal positioner is not included with the crimp tools and must be ordered separately.

* The extraction tool is only required to remove contacts from part numbers beginning with MB1

Connector Solutions M23 Elite Series

STEP 1
Choose Plug

STEP 2
Choose Receptacle

Plugs



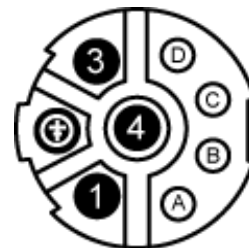
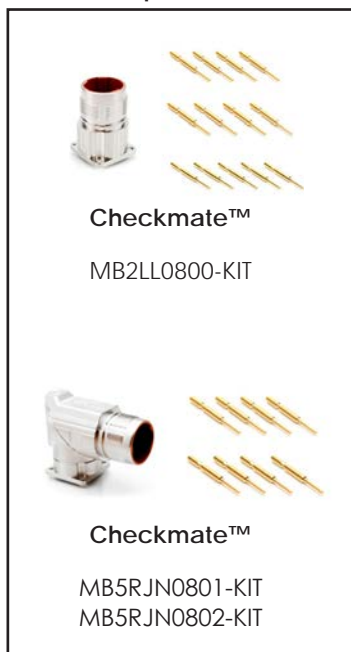
Plug Kits



Receptacles



Receptacle Kits



See page 14 for connector configurations

Receptacle Extension



BULK CABLE starts
on page 23

SEE TABLE ON NEXT PAGE FOR PART DETAILS



8 (4+4) POSITIONS
Power 30A/ 630V
Signal 10A/ 250V
Checkmate™

Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75-0.37) / 24-28 (0.25 - 0.10mm²)



Connector Part Numbers

| Part Number | Connector Type | Contact Type male = pin female = socket | Figure Drawings |
|-------------------|--|---|-----------------|
| | PLUGS | | |
| MB5CKN0800-S1 | Plug, straight, Checkmate™ 7.0-11.0mm cord grip | Socket | 1 |
| MB5CKN0800-S1-KIT | Plug kit, straight, Checkmate™ 7.0-11.0mm cord grip | Socket | 1 |
| MB5CKN0800-S2 | Plug, straight, Checkmate™ 11.0-14.5mm cord grip | Socket | 1 |
| MB5CKN0800-S2-KIT | Plug kit, straight, Checkmate™ 11.0-14.5mm cord grip | Socket | 1 |
| MB5CKN0800-S3 | Plug, straight, Checkmate™ 14.5-17.0mm cord grip | Socket | 1 |
| MB5CKN0800-S3-KIT | Plug kit, straight, Checkmate™ 14.5-17.0mm cord grip | Socket | 1 |

↑ Contacts supplied separately see Chart 1 page 120

| Part Number | Connector Type | Contact Type male = pin female = socket | Figure Drawings |
|----------------|---|---|-----------------|
| | RECEPTACLES | | |
| MB5RJN0801 | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | Pin | 2 |
| MB5RJN0801-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | Pin | 2 |
| MB5RJN0802 | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | Pin | 3 |
| MB5RJN0802-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | Pin | 3 |
| MB5JJN0800-S1 | Receptacle extension, Checkmate™ 7.5-11.0mm Cable OD Range | Pin | 4 |
| MB5JJN0800-S2 | Receptacle extension, Checkmate™ 11.0-14.5mm Cable OD Range | Pin | 4 |
| MB5JJN0800-S3 | Receptacle extension, Checkmate™ 14.5-17.0mm Cable OD Range | Pin | 4 |

↑ Contacts supplied separately see Chart 2 page 120

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 266

Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75-0.37) / 24-28 (0.25 - 0.10mm²)

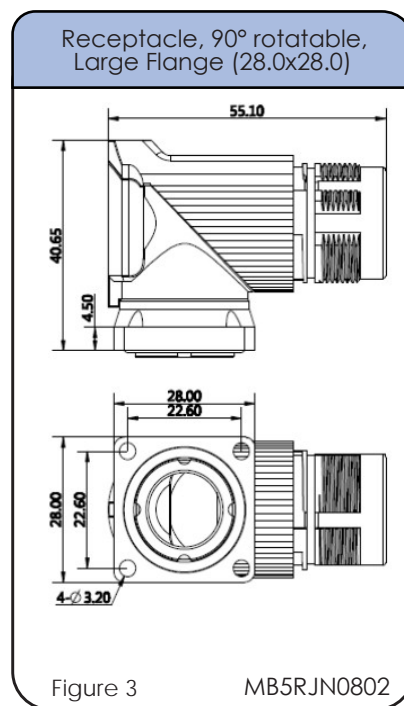
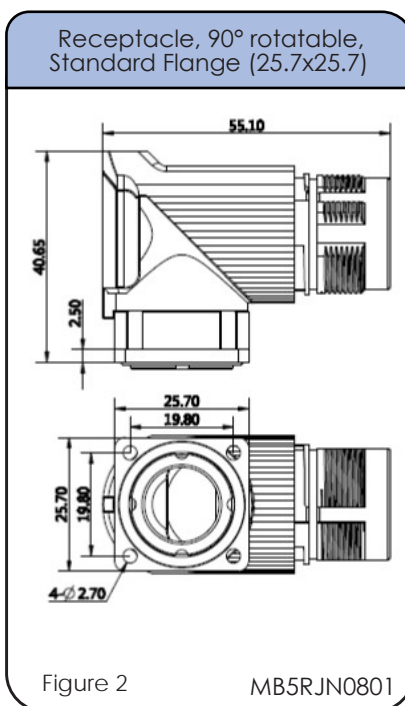
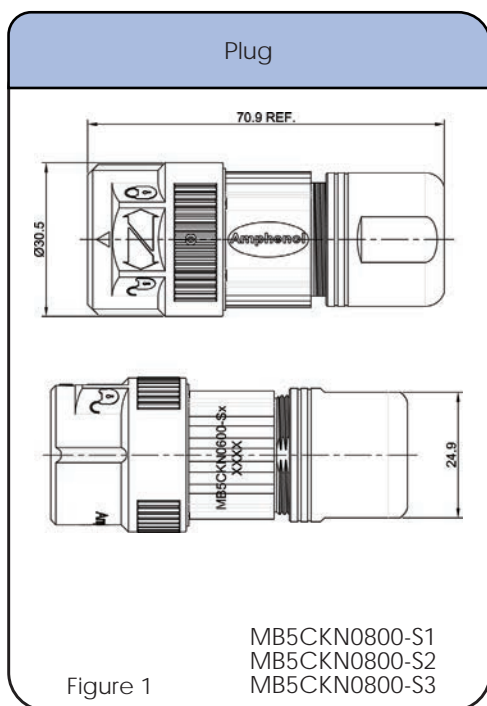
Connector Part Numbers continued

| Part Number | Connector Type | Contact Type male = pin female = socket | Figure Drawings |
|---|--|---|-----------------|
| | RECEPTACLES | | |
| MB2LLN0800* | Receptacle, straight, flange mount, Checkmate™ | Pin | 5 |
| MB2LLN0800-KIT* | Receptacle Kit, straight, Checkmate™ Kit includes contacts | Pin | 7 |
| MB2LKN0800* | Receptacle, straight, M25, Checkmate™ | Pin | 6 |
| ↑ Contacts supplied separately see Chart 3 page 120 | | | |

Dimensions

See Chart 1 for contacts options

See Chart 2 for contacts options for 90° Rotatable Receptacles





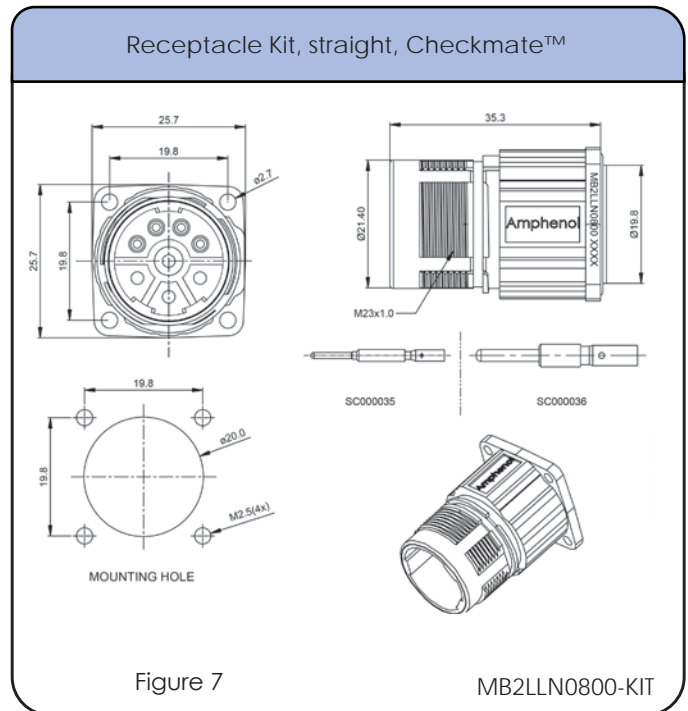
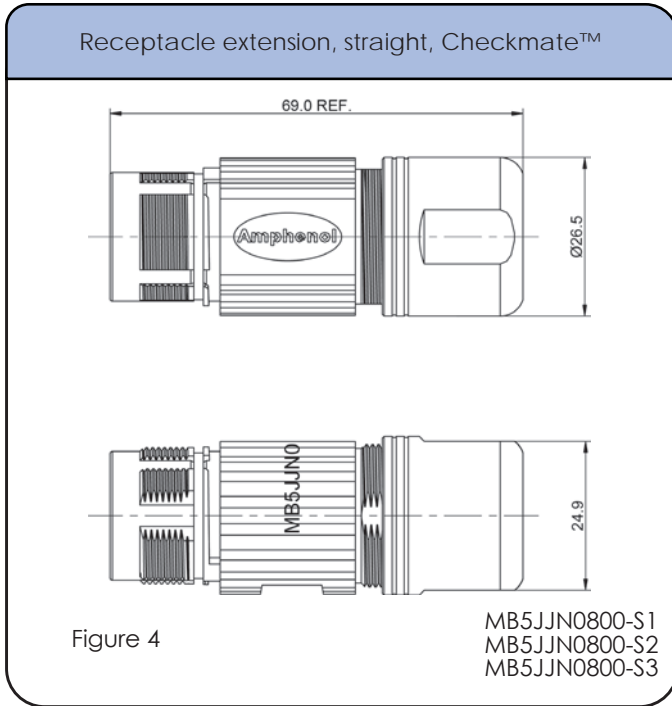
8 (4+4) POSITIONS
Power 30A/ 630V
Signal 10A/250V
Checkmate™

Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75-0.37) / 24-28 (0.25 - 0.10mm²)

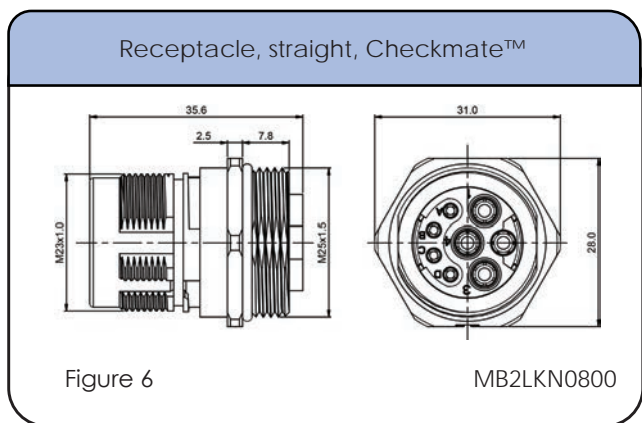
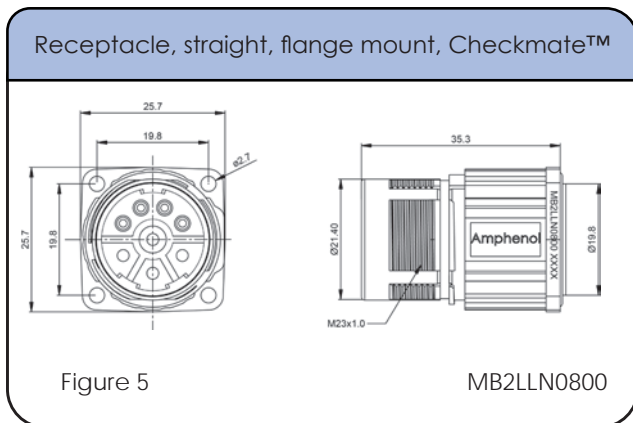
Dimensions

See Chart 2 for contacts options

See Chart 3 for contacts options



See Chart 3 for contacts options for all straight receptacles



Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75-0.37) / 24-28 (0.25 - 0.10mm²)

Contacts



CHART 1 Crimp Contacts, Machined

For parts: MB5CKN0800-S1, MB5CKN0800-S2, MB5CKN0800-S3

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|--------|-------|-----------------|---------|
| SC000259 | 1.0mm | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000385 | 1.0mm | Socket | 28-24 | 0.10 - 0.25 | Gold |
| SC000260 | 2.0mm | Socket | 18-14 | 0.75 - 2.5 | Gold |

CHART 2 Crimp Contacts, Machined

For parts: MB5RJN0801, MB5RJN0802, MB5JJN0800-S1,S2,S3

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|------|-------|-----------------|---------|
| SC000261 | 1.0mm | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000386 | 1.0mm | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000262 | 2.0mm | Pin | 18-14 | 0.75 - 2.5 | Gold |

CHART 3 Crimp Contacts, Machined

For Parts: MB2LLN0800, MB2LKN0800, MB2LLN0800-KIT

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|------|-------|-----------------|---------|
| SC000035 | 1.0mm | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | 1.0mm | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000036 | 2.0mm | Pin | 18-14 | 1.5 - 0.75 | Gold |



8 (4+4) POSITIONS
Power 30A/ 630V
Signal 10A/250V
Checkmate™

Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75-0.37) / 24-28 (0.25 - 0.10mm²)

Tools & Accessories

Pneumatic crimp tool. Uses universal positioner part no. SK2-2*
Wire Range 20-32AWG



WA22

Pneumatic crimp tool. Uses universal positioner part no. UH2-5*
Wire Range 12-26AWG



WA27F

Extraction tool. Used for removal of 1.0mm contacts from inserts.



50-54931-1

Universal hand crimp tool. Uses universal positioner part no. UH2-5*
Wire Range 12-26AWG



AF8

Universal positioner is used with the universal hand crimp tool (AF8).
Wire range 12-26AWG



UH2-5

Extraction tool. Used for removal of 2.0mm contacts from inserts.




50-54931-2

Universal hand crimp tool. Uses universal positioner part no. SK2-2*
Wire Range 20-32AWG



AFM8

Universal positioner is used with crimp tools AFM8 and WA22.
Wire range 20-32AWG



SK2-2

Dust Cap for Receptacle



P29687

Dust Cap for Plug, Checkmate™



P31661-08

* The Extraction tools are required only for part numbers beginning with MB2

* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M23 Elite Series

STEP 1
Choose Plug

STEP 2
Choose Receptacle

Plugs



Plug Kits



Receptacles



Receptacle Kits



See page 14 for
connector configurations

Receptacle Extension



**BULK CABLE starts
on page 23**

SEE TABLE ON NEXT PAGE FOR PART DETAILS



8 (4+4) POSITIONS
Power 30A/ 630V
Signal 10A/ 250V
Threaded

Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37) / 24-28 (0.25-0.10)

Connector Part Numbers

| Part Number | Connector Type | Contact Type male = pin female = socket | Figure Drawings |
|-------------------|---|---|-----------------|
| | PLUGS | | |
| MB7CKN0800-S1 | Plug, straight, threaded 7.0-11.0mm cord grip | Socket | 1 |
| MB7CKN0800-S1-KIT | Plug kit, straight, threaded 7.0-11.0mm cord grip | Socket | 1 |
| MB7CKN0800-S2 | Plug, straight, threaded 11.0-14.5mm cord grip | Socket | 1 |
| MB7CKN0800-S2-KIT | Plug kit, straight, threaded 11.0-14.5mm cord grip | Socket | 1 |
| MB7CKN0800-S3 | Plug, straight, threaded 14.5-17.0mm cord grip | Socket | 1 |
| MB7CKN0800-S3-KIT | Plug kit, straight, threaded 14.5-17.0mm cord grip | Socket | 1 |

↑ Contacts supplied separately. See Chart 1 on page 126

| Part Number | Connector Type | Contact Type male = pin female = socket | Figure Drawings |
|----------------|--|---|-----------------|
| | RECEPTALCES | | |
| MB7RJN0801 | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | Pin | 2 |
| MB7RJN0801-KIT | Receptacle Kit, 90° rotatable, threaded Standard Flange (25.7x25.7) | Pin | 2 |
| MB7RJN0802 | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | Pin | 3 |
| MB7RJN0802-KIT | Receptacle Kit, 90° rotatable, threaded Large Flange (28.0x28.0) | Pin | 3 |
| MB7JJN0800-S1 | Receptacle extension, threaded 7.5-11.0mm Cable OD Range | Pin | 4 |
| MB7JJN0800-S2 | Receptacle extension, threaded 11.0-14.5mm Cable OD Range | Pin | 4 |
| MB7JJN0800-S3 | Receptacle extension, threaded 14.5-17.0mm Cable OD Range | Pin | 4 |

↑ Contacts supplied separately. See Chart 2 on page 126

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 266

Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37) / 24-28 (0.25-0.10)

Connector Part Numbers continued

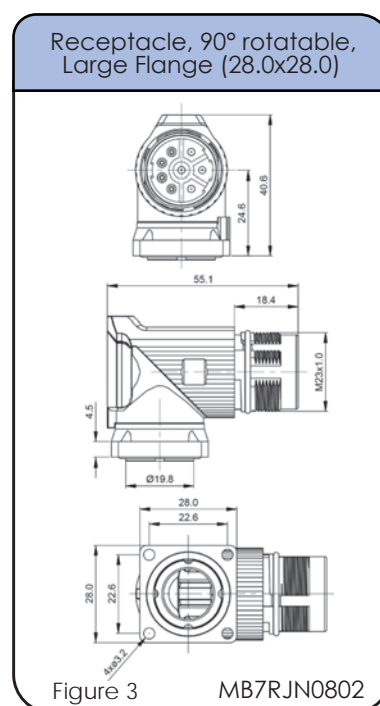
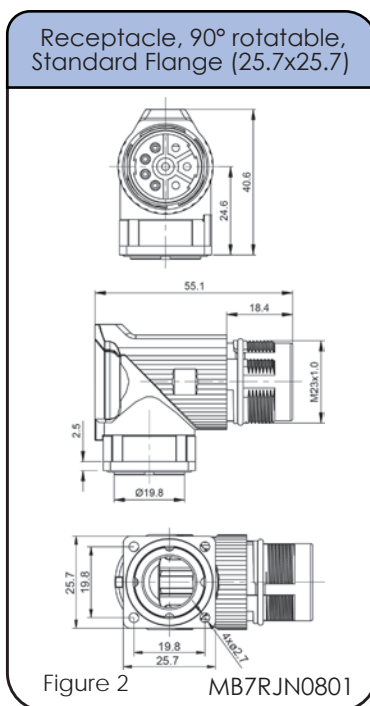
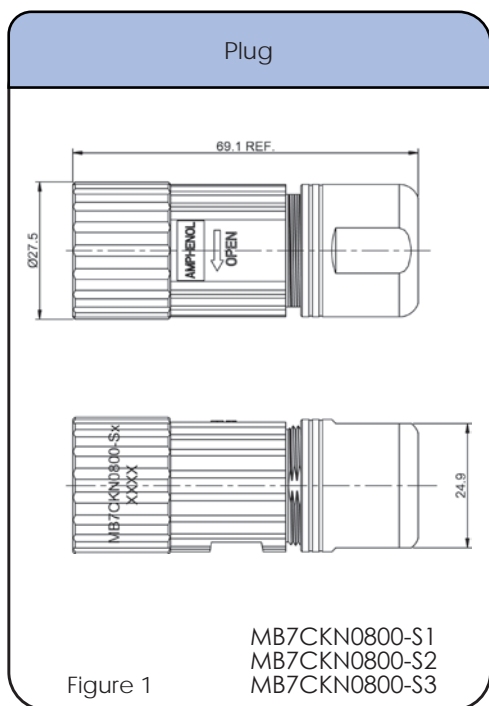
| Part Number | Connector Type RECEPTALCES | Contact Type male = pin female = socket | Figure Drawings |
|-----------------|---|---|-----------------|
| MB1LLN0800* | Receptacle, straight, flange mount, threaded | Pin | 5 |
| MB1LLN0800-KIT* | Receptacle Kit, straight, threaded Kit includes contacts | Pin | 5 |
| MB1LKN0800* | Receptacle, straight, M25, threaded | Pin | 6 |

↑ Contacts supplied separately. See Chart 3 on page 126

Dimensions

See Chart 1 for contacts options

See Chart 2 for contacts options for 90° Rotatable Receptacles



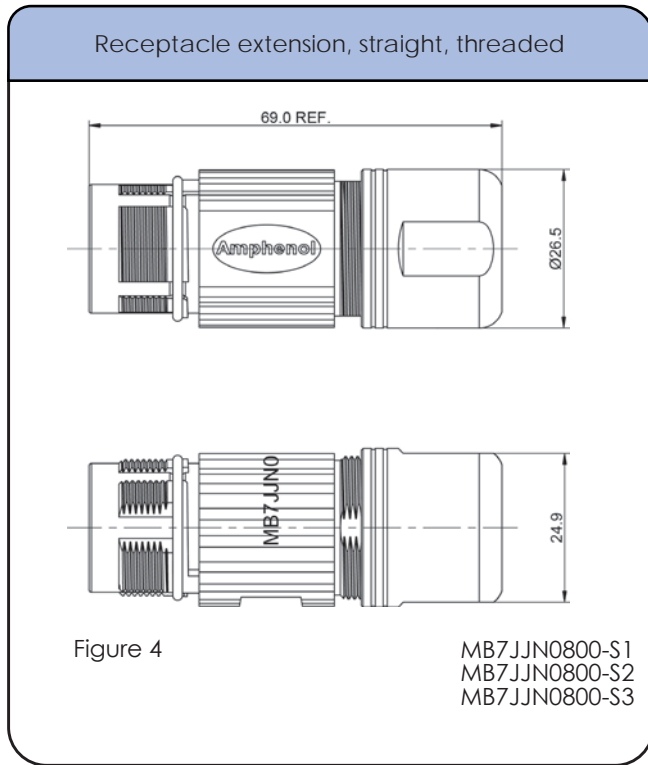


8 (4+4) POSITIONS
Power 30A/ 630V
Signal 10A/ 250V
Threaded

Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37) / 24-28 (0.25-0.10)

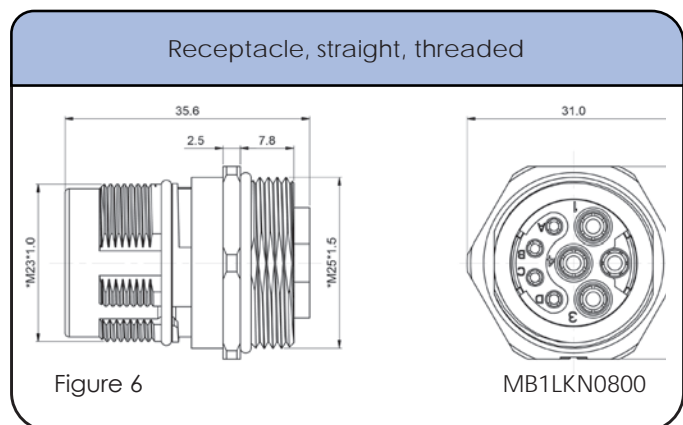
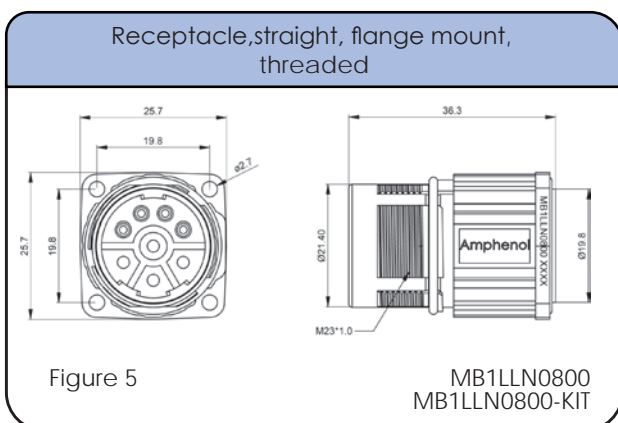
Dimensions

See Chart 2 for contacts options



See Chart 3 for contacts options for all straight receptacles

See Chart 2 for contacts options



Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37) / 24-28 (0.25-0.10)

Contacts



CHART 1 Crimp Contacts, Machined

For parts: MB7CKN0800-S1, MB7CKN0800-S2, MB7CKN0800-S3

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|--------|-------|-----------------|---------|
| SC000259 | 1.0mm | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000385 | 1.0mm | Socket | 28-24 | 0.10 - 0.25 | Gold |
| SC000260 | 2.0mm | Socket | 18-20 | 2.5 - 0.5 | Gold |

CHART 2 Crimp Contacts, Machined

For parts: MB7RJN0801, MB7RJN0802, MB7JJN0800-S1,S2,S3

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|------|-------|-----------------|---------|
| SC000261 | 1.0mm | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000386 | 1.0mm | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000262 | 2.0mm | Pin | 18-14 | 0.75 - 2.5 | Gold |

CHART 3 Crimp Contacts, Machined

For Parts: MB1LLN0800, MB1LKN0800, MB1LLN0800-KIT

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|------|-------|-----------------|---------|
| SC000035 | 1.0mm | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | 1.0mm | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000036 | 2.0mm | Pin | 18-14 | 1.5 - 0.75 | Gold |



8 (4+4) POSITIONS
Power 30A/ 630V
Signal 10A/ 250V
Threaded

Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37) / 24-28 (0.25-0.10)

Tools & Accessories

Pneumatic crimp tool. Uses universal positioner part no. SK2-2*
Wire Range 20-32AWG



WA22

Pneumatic crimp tool. Uses universal positioner part no. UH2-5*
Wire Range 12-26AWG



WA27F

Extraction tool. Used for removal of 1.0mm contacts from inserts.



50-54931-1

Universal hand crimp tool. Uses universal positioner part no. UH2-5*
Wire Range 12-26AWG



AF8

Universal positioner is used with the universal hand crimp tool (AF8).
Wire range 12-26AWG



UH2-5

Extraction tool. Used for removal of 2.0mm contacts from inserts.



50-54931-2

Universal hand crimp tool. Uses universal positioner part no. SK2-2*
Wire Range 20-32AWG



AFM8

Universal positioner is used with crimp tools AFM8 and WA22.
Wire range 20-32AWG



SK2-2

Dust Cap for Receptacle



P29687

Dust Cap for Plug, Threaded



P30663-08

* The Extraction tools are required only for part numbers beginning with MB1

* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M23 Elite Series

STEP 1
Choose Plug

STEP 2
Choose Receptacle

Plugs



Plug Kits



Receptacles



Receptacle Kits



See page 14 for
connector configurations

Receptacle Extension



**BULK CABLE starts
on page 23**

SEE TABLE ON NEXT PAGE FOR PART DETAILS



9 (4+5) POSITIONS
Power 30A/ 630V
Signal 10A/ 250V
Checkmate™

Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37) / 24-28 (0.25-0.10)



Connector Part Numbers

| Part Number | Connector Type | Contact Type male = pin female = socket | Figure Drawings |
|-------------------|--|---|-----------------|
| | PLUGS | | |
| MB5CKN0900-S1 | Plug, straight, Checkmate™ 7.0-11.0mm cord grip | Socket | 1 |
| MB5CKN0900-S1-KIT | Plug kit, straight, Checkmate™ 7.0-11.0mm cord grip | Socket | 1 |
| MB5CKN0900-S2 | Plug, straight, Checkmate™ 11.0-14.5mm cord grip | Socket | 1 |
| MB5CKN0900-S2-KIT | Plug kit, straight, Checkmate™ 11.0-14.5mm cord grip | Socket | 1 |
| MB5CKN0900-S3 | Plug, straight, Checkmate™ 14.5-17.0mm cord grip | Socket | 1 |
| MB5CKN0900-S3-KIT | Plug kit, straight, Checkmate™ 14.5-17.0mm cord grip | Socket | 1 |

↑ Contacts supplied separately see Chart 1 page 132

| Part Number | Connector Type | Contact Type male = pin female = socket | Figure Drawings |
|----------------|---|---|-----------------|
| | RECEPTACLS | | |
| MB5RJN0901 | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | Pin | 2 |
| MB5RJN0901-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | Pin | 2 |
| MB5RJN0902 | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | Pin | 3 |
| MB5RJN0902-KIT | Receptacle Kit, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | Pin | 3 |
| MB5JJN0900-S1 | Receptacle extension, Checkmate™ 7.5-11.0mm Cable OD Range | Pin | 4 |
| MB5JJN0900-S2 | Receptacle extension, Checkmate™ 11.0-14.5mm Cable OD Range | Pin | 4 |
| MB5JJN0900-S3 | Receptacle extension, Checkmate™ 14.5-17.0mm Cable OD Range | Pin | 4 |

↑ Contacts supplied separately see Chart 2 page 132

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 266

Complete datasheets can be found at www.amphenol-sine.com

Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37) / 24-28 (0.25-0.10)

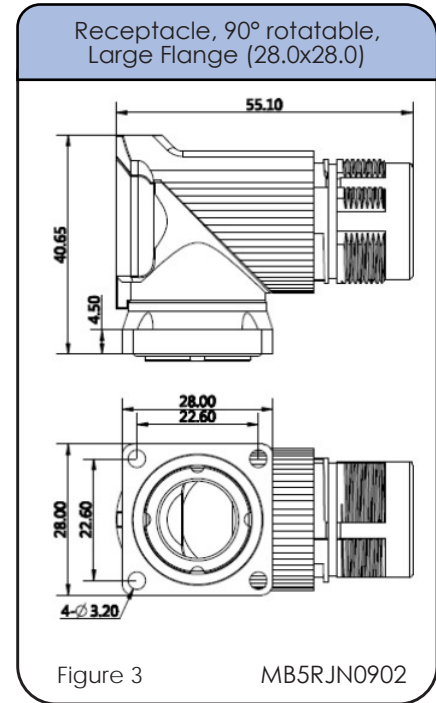
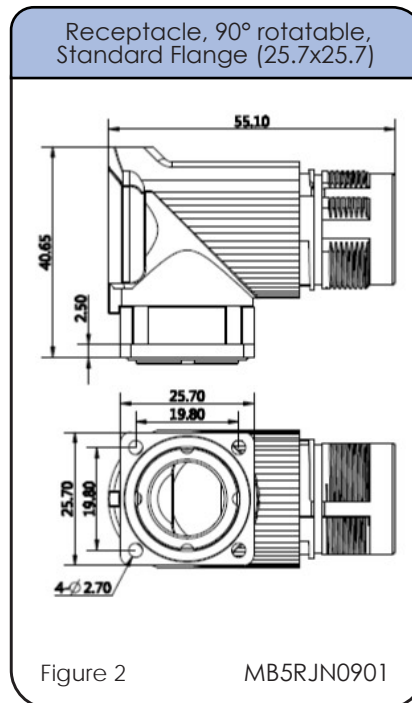
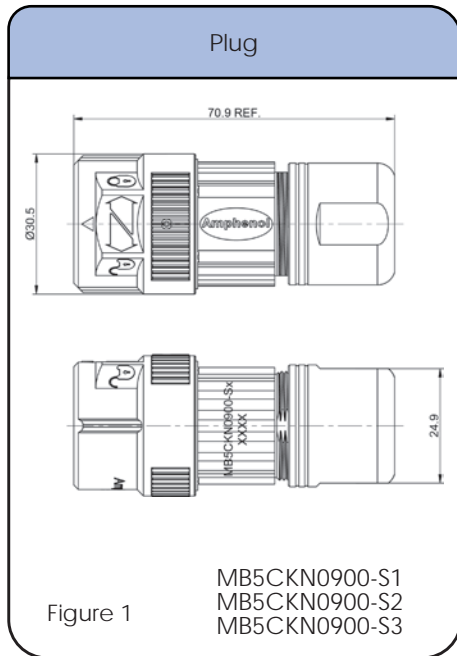
Connector Part Numbers continued

| Part Number | Connector Type RECEPTACLS | Contact Type male = pin female = socket | Figure Drawings |
|---|---|---|-----------------|
| MB2LLN0900* | Receptacle, straight, flange mount, Checkmate™ | Pin | 5 |
| MB2LLN0900-KIT* | Receptacle kit, straight, Checkmate™ Kit includes contacts | Pin | 7 |
| MB2LKN0900* | Receptacle, straight, M25, Checkmate™ | Pin | 6 |
| ↑ Contacts supplied separately see Chart 3 page 132 | | | |

Dimensions

See Chart 1 for contacts options

See Chart 2 for contacts options for 90° Rotatable Receptacles





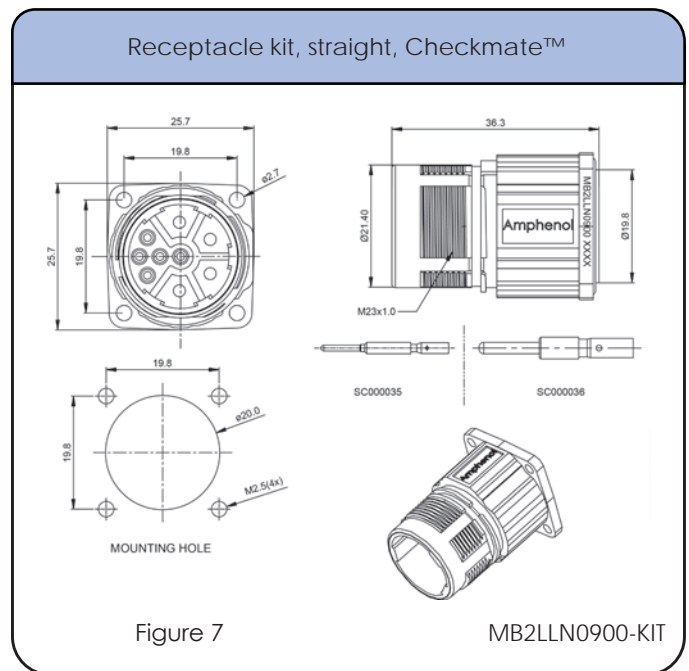
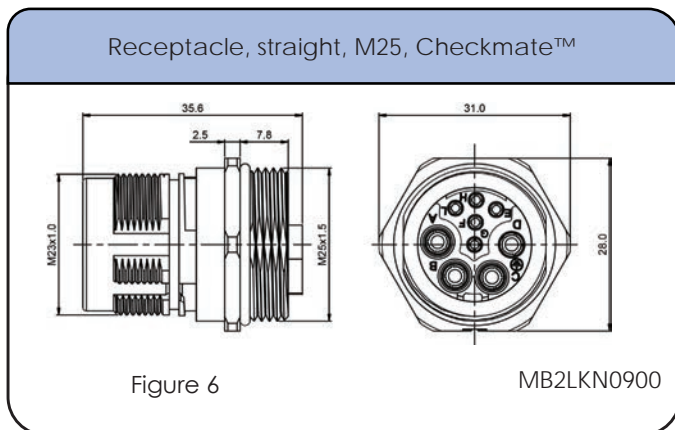
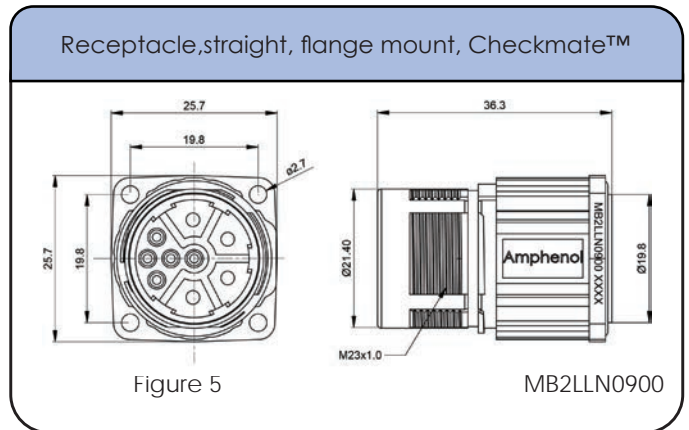
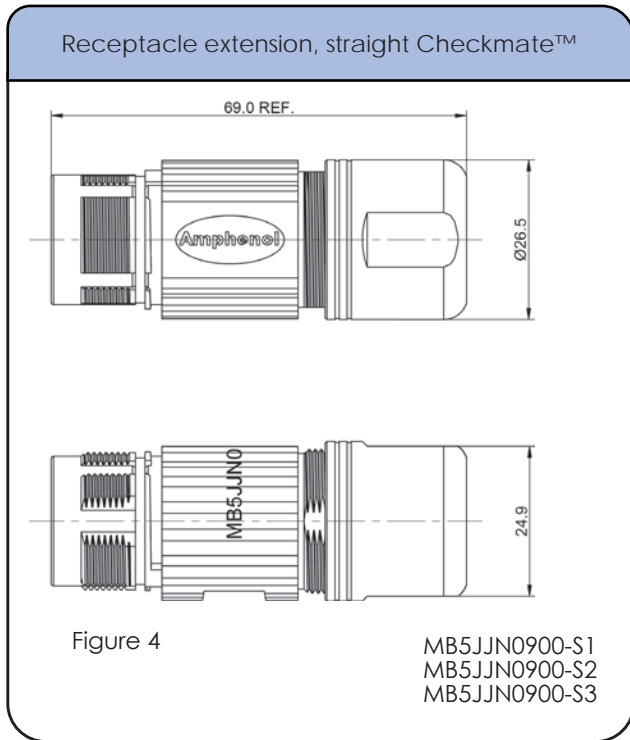
9 (4+5) POSITIONS
 Power 30A/ 630V
 Signal 10A/250V
 Checkmate™

Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37) / 24-28 (0.25-0.10)

Dimensions

See Chart 2 for contacts options

See Chart 3 for contacts options



Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37) / 24-28 (0.25-0.10)

Contacts



CHART 1 Crimp Contacts, Machined

For parts: MB5CKN0900-S1, MB5CKN0900-S2, MB5CKN0900-S3

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|--------|-------|-----------------|---------|
| SC000259 | 1.0mm | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000385 | 1.0mm | Socket | 28-24 | 0.10 - 0.25 | Gold |
| SC000260 | 2.0mm | Socket | 20-14 | 2.5 - 0.5 | Gold |

CHART 2 Crimp Contacts, Machined

For parts: MB5RJN0901, MB5RJN0902, MB5JJN0900-S1,S2,S3

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|------|-------|-----------------|---------|
| SC000261 | 1.0mm | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000386 | 1.0mm | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000262 | 2.0mm | Pin | 18-14 | 0.75 - 2.5 | Gold |

CHART 3 Crimp Contacts, Machined

For Parts: MB2LLN0900, MB2LKN0900, MB2LLN0900-KIT

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|------|-------|-----------------|---------|
| SC000035 | 1.0mm | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | 1.0mm | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000036 | 2.0mm | Pin | 18-14 | 1.5 - 0.75 | Gold |



9 (4+5) POSITIONS
 Power 30A/ 630V
 Signal 10A/250V
 Checkmate™

Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37) / 24-28 (0.25-0.10)

Tools & Accessories

Pneumatic crimp tool. Uses universal positioner part no. SK2-2*
 Wire Range 20-32AWG

WA22

Pneumatic crimp tool. Uses universal positioner part no. UH2-5*
 Wire Range 12-26AWG

WA27F

Extraction tool. Used for removal of 1.0mm contacts from inserts.

50-54931-1

Universal hand crimp tool. Uses universal positioner part no. UH2-5*
 Wire Range 12-26AWG

AF8

Universal positioner is used with the universal hand crimp tool (AF8).
 Wire range 12-26AWG

UH2-5

Extraction tool. Used for removal of 2.0mm contacts from inserts.

50-54931-2

Universal hand crimp tool. Uses universal positioner part no. SK2-2*
 Wire Range 20-32AWG

AFM8

Universal positioner is used with crimp tools AFM8 and WA22.
 Wire range 20-32AWG

SK2-2

Dust Cap for Receptacle

P29687

Dust Cap for Plug, Checkmate™

P31661-09

* The Extraction tools are required only for part numbers beginning with MB2

* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M23 Elite Series

STEP 1
Choose Plug

STEP 2
Choose Receptacle

Plugs



Receptacles



See page 14 for
connector configurations

Plugs Kits



Receptacle Extension



Receptacle Kits



**BULK CABLE starts
on page 23**

SEE TABLE ON NEXT PAGE FOR PART DETAILS



9 (4+5) POSITIONS
Power 30A/ 630V
Signal 10A/ 250V
Threaded

Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37) / 24-28 (0.25-0.10)

Connector Part Numbers

| Part Number | Connector Type | Contact Type male = pin female = socket | Figure Drawings |
|---|---|---|-----------------|
| | PLUGS | | |
| MB7CKN0900-S1 | Plug, straight, threaded 7.0-11.0mm cord grip | Socket | 1 |
| MB7CKN0900-S1-KIT | Plug kit, straight, threaded 7.0-11.0mm cord grip | Socket | 1 |
| MB7CKN0900-S2 | Plug, straight, threaded 11.0-14.5mm cord grip | Socket | 1 |
| MB7CKN0900-S2-KIT | Plug kit, straight, threaded 11.0-14.5mm cord grip | Socket | 1 |
| MB7CKN0900-S3 | Plug, straight, threaded 14.5-17.0mm cord grip | Socket | 1 |
| MB7CKN0900-S3-KIT | Plug, straight, threaded 14.5-17.0mm cord grip | Socket | 1 |
| ↑ Contacts supplied separately see Chart 1 page 138 | | | |

| Part Number | Connector Type | Contact Type male = pin female = socket | Figure Drawings |
|---|--|---|-----------------|
| | RECEPTACLES | | |
| MB7RJN0901 | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | Pin | 2 |
| MB7RJN0901-KIT | Receptacle Kit, 90° rotatable, threaded Standard Flange (25.7x25.7) | Pin | |
| MB7RJN0902 | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | Pin | 3 |
| MB7RJN0902-KIT | Receptacle Kit, 90° rotatable, threaded Large Flange (28.0x28.0) | Pin | |
| MB7JJN0900-S1 | Receptacle extension, threaded 7.5-11.0mm Cable OD Range | Pin | 4 |
| MB7JJN0900-S2 | Receptacle extension, threaded 11.0-14.5mm Cable OD Range | Pin | 4 |
| MB7JJN0900-S3 | Receptacle extension, threaded 14.5-17.0mm Cable OD Range | Pin | 4 |
| ↑ Contacts supplied separately see Chart 2 page 138 | | | |

*Standard Series receptacles are offered here as additional options for mating with Elite Series plugs.
 See Assembly Instructions starting on page 266

Complete datasheets can be found at www.amphenol-sine.com

Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37) / 24-28 (0.25-0.10)

Connector Part Numbers continued

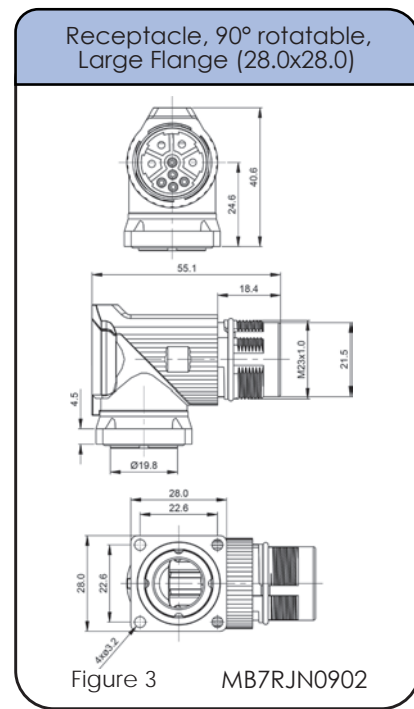
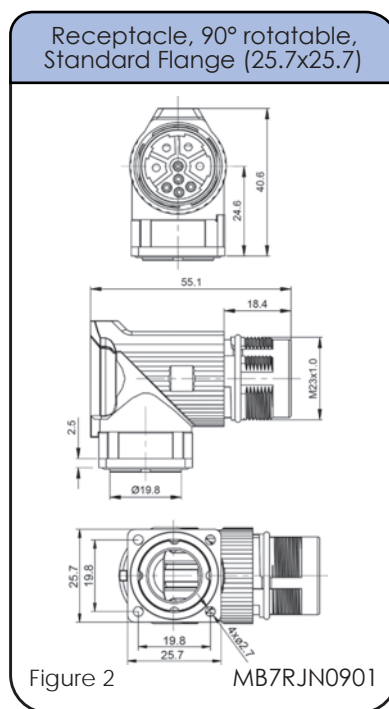
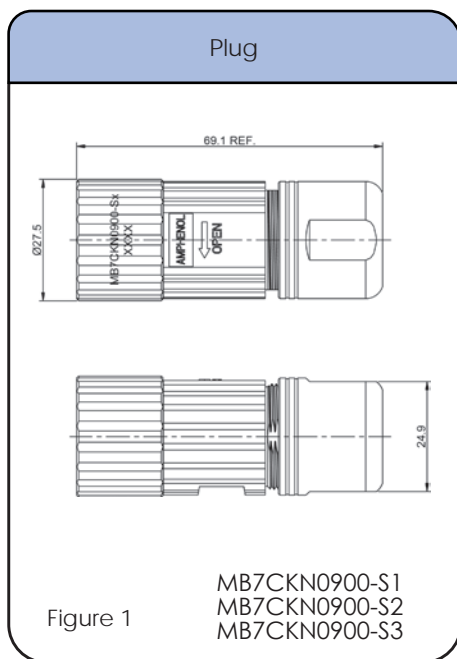
| Part Number | Connector Type | Contact Type | Figure Drawings |
|-----------------|---|-------------------------------|-----------------|
| | RECEPTACLES | male = pin female = socket | |
| MB1LLN0900* | Receptacle, straight, flange mount, threaded | Pin | 4 |
| MB1LLN0900-KIT* | Receptacle kit, straight, threaded Kit includes contacts | Pin | 4 |
| MB1LKN0900* | Receptacle, straight, M25, threaded | Pin | 5 |

↑ Contacts supplied separately see Chart 3 page 138

Dimensions

See Chart 1 for contacts options

See Chart 2 for contacts options for 90° Rotatable Receptacles





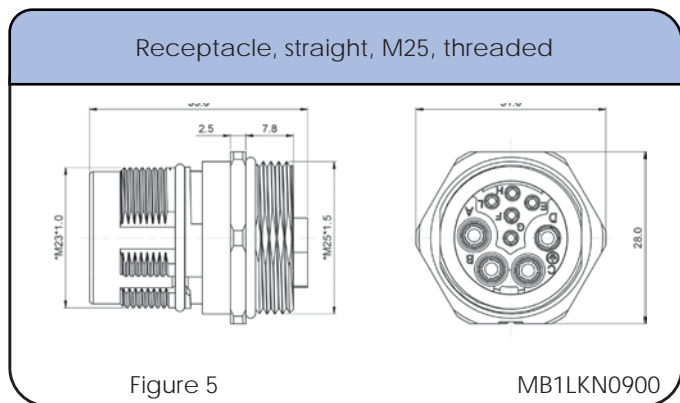
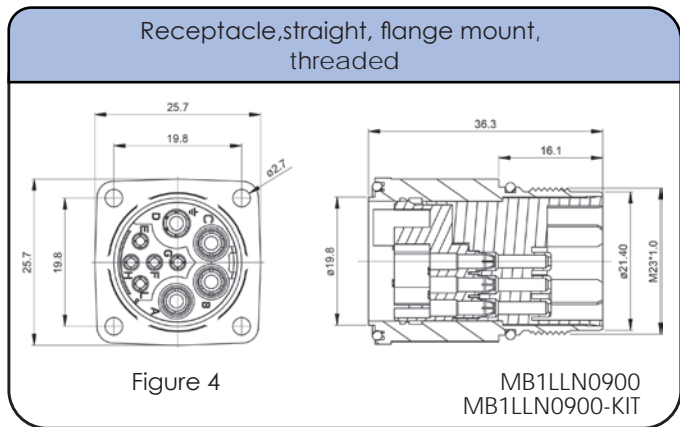
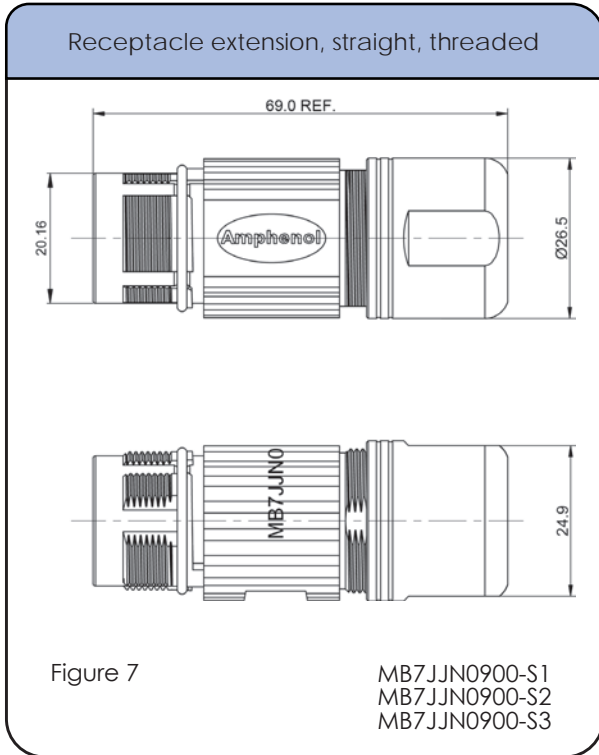
9 (4+5) POSITIONS
 Power 30A/ 630V
 Signal 10A/ 250V
 Threaded

Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37) / 24-28 (0.25-0.10)

Dimensions

See Chart 2 for contacts options

See Chart 3 for contacts options for all straight receptacles



Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37) / 24-28 (0.25-0.10)

Contacts



CHART 1 Crimp Contacts, Machined

For parts: MB7CKN0900-S1, MB7CKN0900-S2, MB7CKN0900-S3

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|--------|-------|-----------------|---------|
| SC000259 | 1.0mm | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000385 | 1.0mm | Socket | 28-24 | 0.10 - 0.25 | Gold |
| SC000260 | 2.0mm | Socket | 20-14 | 2.5 - 0.5 | Gold |

CHART 2 Crimp Contacts, Machined

For parts: MB7RJN0901, MB7RJN0902, MB7JJN0900-S1,S2,S3

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|------|-------|-----------------|---------|
| SC000261 | 1.0mm | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000386 | 1.0mm | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000262 | 2.0mm | Pin | 18-14 | 0.75 - 2.5 | Gold |

CHART 3 Crimp Contacts, Machined

For Parts: MB1LLN0900, MB1LKN0900, MB1LLN0900-KIT

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|------|-------|-----------------|---------|
| SC000035 | 1.0mm | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | 1.0mm | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000036 | 2.0mm | Pin | 18-14 | 1.5 - 0.75 | Gold |



9 (4+5) POSITIONS
Power 30A/ 630V
Signal 10A/ 250V
Threaded

Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37) / 24-28 (0.25-0.10)

Tools & Accessories

Pneumatic crimp tool. Uses universal positioner part no. SK2-2*
 Wire Range 20-32AWG



WA22

Pneumatic crimp tool. Uses universal positioner part no. UH2-5*
 Wire Range 12-26AWG



WA27F

Extraction tool. Used for removal of 1.0mm contacts from inserts.




50-54931-1

Universal hand crimp tool. Uses universal positioner part no. UH2-5*
 Wire Range 12-26AWG



AF8

Universal positioner is used with the universal hand crimp tool (AF8).
 Wire range 12-26AWG



UH2-5

Extraction tool. Used for removal of 2.0mm contacts from inserts.



50-54931-2

Universal hand crimp tool. Uses universal positioner part no. SK2-2*
 Wire Range 20-32AWG



AFM8

Universal positioner is used with crimp tools AFM8 and WA22.
 Wire range 20-32AWG



SK2-2

Dust Cap for Receptacle



P29687

Dust Cap for Plug, Threaded



P30663-09

* The Extraction tools are required only for part numbers beginning with MB1

* The universal positioner is not included with the crimp tools and must be ordered separately.

CONNECTOR SOLUTIONS

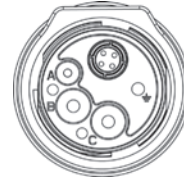
M23 Hybrid Series

STEP 1
Choose Plug

STEP 2
Choose Receptacle



Plugs



Receptacles



MB1WSN8H00



MB1YSN8H00



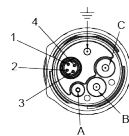
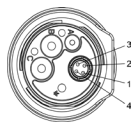
MB3XSN8HS1
MB3XSN8HS2
MB3XSN8HS3



MB3ZSN8HS1
MB3ZSN8HS2
MB3ZSN8HS3

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 107



**8 POSITIONS 18A PE/1A
Signal/0.5A Quadrax / 850V
PE & Signal/ 30V Quadrax**

Number of Contacts: 8 Sealing: IP66/67

Contact Size: 2 Power + PE (2.0mm) + 1 Signal (1.0mm), 4 Quadrax Ethernet Element (.7mm)

AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75-- 0.37 mm²) / 22-28 (0.37 - 0.10 mm²)

Connector Part Numbers

| Part Number | Connector Type | Contact Type male = pin female = socket | Cable Diameter | Amps /Volts | Figure Drawings |
|-------------|---|---|----------------|---|-----------------|
| MB1WSN8H00 | Plug, hybrid, straight, panel mount, threaded | Socket | | 1A signal, 18A power, 0.5A Quadrax 850V PE & Signal 30V Quadrax | 1 |
| MB3XSN8HS1 | Plug, hybrid, straight, threaded | Socket | 7.5-11.0mm | | 2 |
| MB3XSN8HS2 | Plug, hybrid, straight, threaded | Socket | 11.0-14.0mm | | 2 |
| MB3XSN8HS3 | Plug, hybrid, straight, threaded | Socket | 14.5-17.0mm | | 2 |
| MB1YSN8H00 | Receptacle, hybrid, straight, panel mount, threaded | Pin | | 1A signal, 18A power, 0.5A Quadrax 850V PE & Signal 30V Quadrax | 3 |
| MB3ZSN8HS1 | Receptacle extension, hybrid, threaded | Pin | 7.5-11.0mm | | 4 |
| MB3ZSN8HS2 | Receptacle extension, hybrid, threaded | Pin | 11.0-14.0mm | | 4 |
| MB3ZSN8HS3 | Receptacle extension, hybrid, threaded | Pin | 14.5-17.0mm | | 4 |

Contacts supplied separately see page 143

BULK CABLE starts on page 23

Complete datasheets can be found at www.amphenol-sine.com

Style: Pin Number of Contacts: 8 Sealing: IP66/67

Contact Size: 2 Power + PE (2.0mm) + 1 Signal (1.0mm), 4 Quadrax Ethernet Element (.7mm)

AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75-- 0.37 mm²) / 22--28 (0.37 - 0.10 mm²)

Dimensional Drawings Plugs & Receptacles

Plug, hybrid, straight, panel mount, threaded

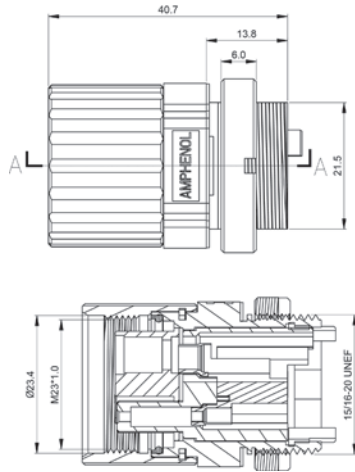


Figure 1

MB1WSN8H00

Plug, hybrid, straight, threaded

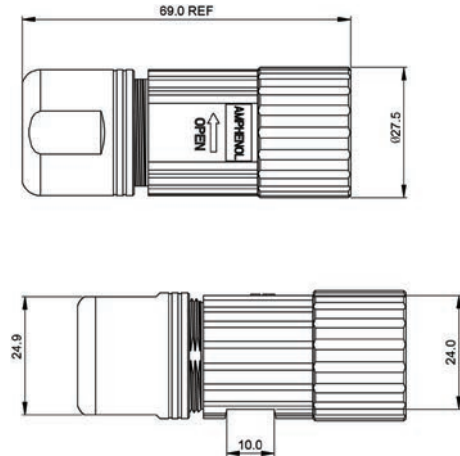


Figure 2

MB3XSN8HS1
MB3XSN8HS2
MB3XSN8HS3

Receptacle, hybrid, straight, panel mount, threaded

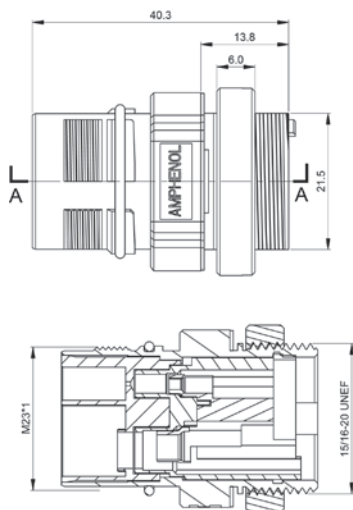


Figure 3

MB1YSN8H00

Receptacle extension, hybrid, threaded

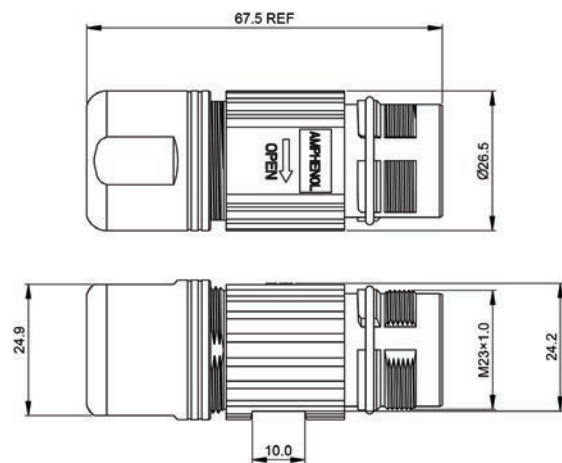
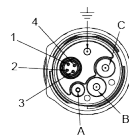
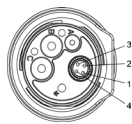


Figure 1

MB3ZSN8HS1
MB3ZSN8HS2
MB3ZSN8HS3



8 POSITIONS 18A PE/1A
Signal/0.5A Quadrax / 850V
PE & Signal/ 30V Quadrax

Style: Pin Number of Contacts: 8 Sealing: IP66/67

Contact Size: 2 Power + PE (2.0mm) + 1 Signal (1.0mm), 4 Quadrax Ethernet Element (.7mm)

AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75-- 0.37 mm²) / 22-28 (0.37 - 0.10 mm²)

Contacts



Hybrid Contacts

| Part Number | Pin/Socket | AWG | mm ² | Size | Plating |
|-------------|------------|-------|-----------------|-------|---------|
| SC000259 | Socket | 18-22 | 0.75 - 0.37 | 1.0mm | Gold |
| SC000260 | Socket | 14-20 | 2.5 - 0.5 | 2.0mm | Gold |
| SC000264 | Socket | 22-28 | 0.37 - 0.10 | 0.7mm | Gold |
| SC000261 | Pin | 18-22 | 0.75 - 0.37 | 1.0mm | Gold |
| SC000262 | Pin | 14-18 | 2.5 - 0.75 | 2.0mm | Gold |
| SC000263 | Pin | 22-28 | 0.37 - 0.10 | 0.7mm | Gold |

Tools

Universal hand crimp tool. Uses universal positioner part no. UH2-5. Wire crimp range 12-26AWG



AF8

Universal hand crimp tool. Uses universal positioner part no. SK2-2. Wire range 20-32AWG



AFM8

Pneumatic crimp tool. Uses universal positioner part no. SK2-2. Wire range 20-32AWG



WA22

Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG



UH2-5

Universal positioner is used with crimp tools AFM8 and WA22. Wire range 20-32AWG




SK2-2

Pneumatic crimp tool. Uses universal positioner part no. WA23-101DA and MFX-3966.



WA23

Die Assembly, Size 10, is used with the Pneumatic crimp tool. WA23



WA23-101DA

M23 Hybrid Series

STEP 1
Choose Plug

STEP 2
Choose Receptacle



Plugs



MB5CKN15H00-S1
MB5CKN15H00-S2
MB5CKN15H00-S3



Receptacles



MB5RJN15H01

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 107



**15 POSITIONS
EARTHNET & SIGNAL 1.2A
/30V POWER 30A/30V**

Number of Contacts: 8 Sealing: IP66/67

Contact Size: 0.6mm, 1.0mm, 2.0mm

AWG: 14-26



Connector Part Numbers

| Part Number | Connector Type | Contact Type male = pin female = socket | Cable Diameter | Amps /Volts | Figure Drawings |
|----------------|---|---|----------------|--------------------------------------|-----------------|
| MB5CKN15H00-S1 | Female plug, 15 positions, (5+6+4), straight, CheckMate™ | Socket | 7.5-11.0mm | 30V Earthnet, 30V Signal, 630V Power | 1 |
| MB5CKN15H00-S2 | Female plug, 15 positions, (5+6+4), straight, CheckMate™ | Socket | 11.0-14.0mm | 30V Earthnet, 30V Signal, 630V Power | 1 |
| MB5CKN15H00-S3 | Female plug, 15 positions, (5+6+4), straight, 14.5-17.0mm cord grip, CheckMate™ | Socket | 14.5-17.0mm | 30V Earthnet, 30V Signal, 630V Power | 1 |
| MB5RJN15H01 | Male receptacle, 90 deg, 15 pos (5+6+4), flange mount, CheckMate™ | Male | | 30V Earthnet, 30V Signal, 630V Power | 2 |

Contacts supplied separately see page 147

BULK CABLE starts on page 23

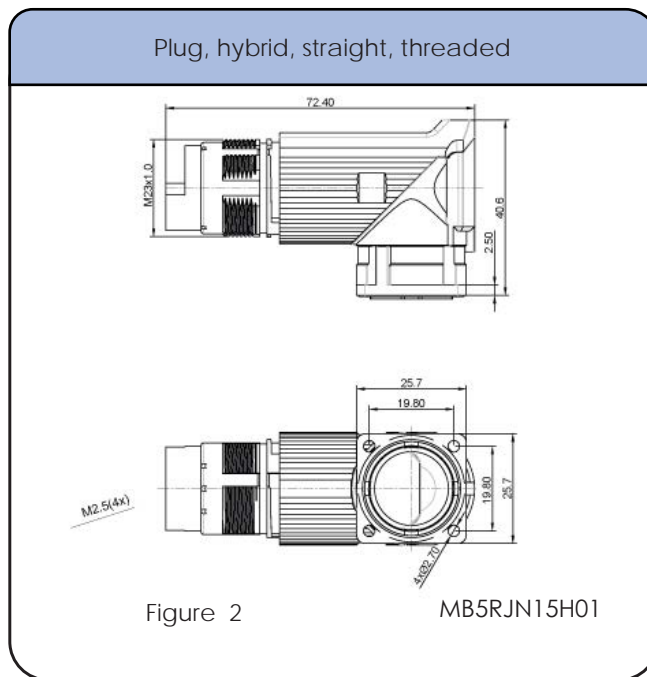
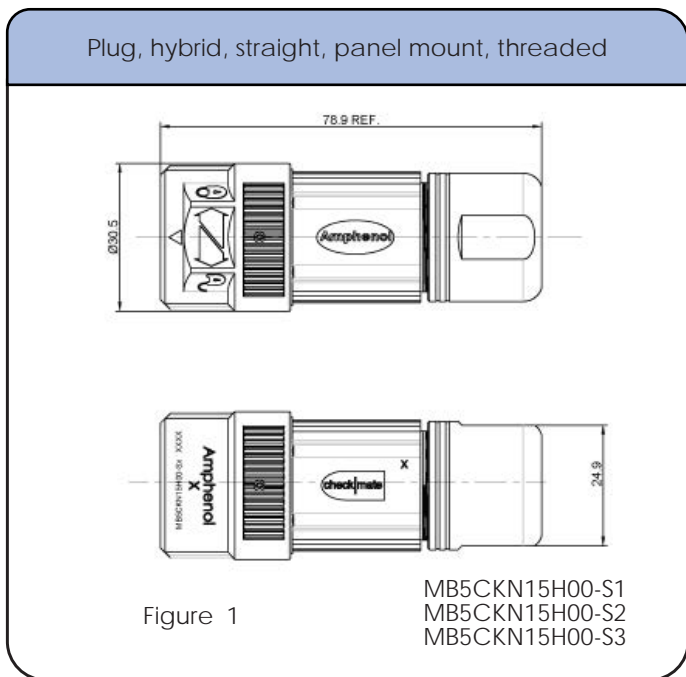
Complete datasheets can be found at www.amphenol-sine.com

Number of Contacts: 8 Sealing: IP66/67

Contact Size: 0.6mm, 1.0mm, 2.0mm

AWG: 14-26

Dimensional Drawings Plugs & Receptacles





15 POSITIONS
EARTHNET & SIGNAL 1.2A
/30V POWER 30A/30V

Number of Contacts: 8 Sealing: IP66/67

Contact Size: 0.6mm, 1.0mm, 2.0mm

AWG: 14-26

Contacts



Hybrid Contacts

| Part Number | Pin/Socket | AWG | Size | Plating |
|-------------|------------|-------|-------|---------|
| SC000459 | Pin | 22-26 | 0.6mm | Gold |
| SC000460 | Socket | 22-26 | 0.6mm | Gold |
| SC000462 | Socket | 22-26 | 2.0mm | Gold |
| SC000463 | Pin | 14-18 | 2.0mm | Gold |
| SC000465 | Pin | 18-22 | 1.0mm | Gold |
| SC000466 | Socket | 18-22 | 1.0mm | Gold |

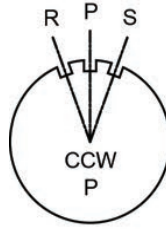
Connector Solutions M23 Standard Series

STEP 1
Choose Plug

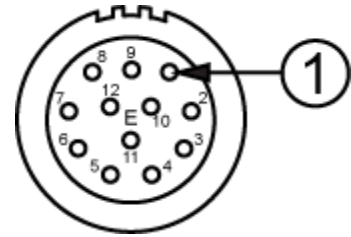


Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.* Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 16 for connector configurations

STEP 2
Choose Receptacle



STEP 3
Choose Backshell/Cord Grip



Plugs



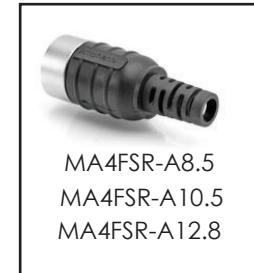
Receptacles



Cord Grips



FlexGrip™ Backshell System



more about FlexGrip™ on page 282

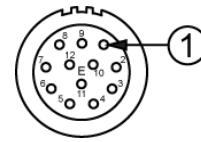
BULK CABLE starts on page 23

Receptacle Kits



SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 150



12 POSITIONS
10A / 160V
E type

Style: E type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)



Quick Locking Connectors

Checkmate™ Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|-----------------|---|-------|---|--------|-----------------|
| | | | | | |
| MA2CAE1200 | Plug, straight, Checkmate™ | E | Pin | Socket | 1 |
| MA2LAP1200 | Receptacle, straight, flange mount, Checkmate™ | P | Socket | Pin | 2 |
| MA2LAP1200-KIT | Receptacle Kit, straight, flange mount, Checkmate™ . Kit includes contacts. | P | | Pin | 2 |
| MA2LAP1200S-KIT | Receptacle Kit, straight, flange mount, Checkmate™ . Kit includes contacts. | P | Socket | | 2 |
| MA2JAP1200 | Receptacle extension, Checkmate™ | P | Socket | Pin | 3 |
| MA5RAP1201* | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | P | Socket | Pin | 4 |
| MA5RAP1202* | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | P | Socket | Pin | 5 |

↑ Contacts supplied separately see Chart 1 page 150

Threaded Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|-----------------|---|-------|---|--------|-----------------|
| | | | | | |
| MA1CAE1200 | Plug, straight, threaded | E | Pin | Socket | 6 |
| MA1EAE1200 | Plug, 90° rotatable, threaded | E | Pin | Socket | 7 |
| MA1LAP1200 | Receptacle, straight, flange mount, threaded | P | | Pin | 8 |
| MA1LAP1200-KIT | Receptacle kit, straight, threaded, flange mount Kit includes contacts | P | | Pin | 8 |
| MA1LAP1200S-KIT | Receptacle kit, straight, threaded, flange mount. Kit includes contacts | P | Socket | | 8 |
| MA3TNP1200-S1 | Receptacle, bulkhead, threaded | P | Socket | Pin | 9 |
| MA3TNP1200-S2 | Receptacle, bulkhead, threaded | P | Socket | Pin | 10 |
| MA3TNP1200-S3 | Receptacle, bulkhead, threaded | P | Socket | Pin | 11 |
| MA1JAP1200 | Receptacle extension, threaded | P | Socket | Pin | 12 |
| MA7RAP1201* | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | P | Socket | Pin | 13 |
| MA7RAP1202* | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | P | Socket | Pin | 14 |

↑ Contacts supplied separately see Chart 1 page 150

*Elite Series receptacles are offered here as additional options for mating with Standard Series plugs. See Assembly Instructions starting on page 266

Style: E type Plug Number of Contacts: 12 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Cord Grips and Backshells

| Part Number | Type | Cable Range (mm) | Figure Drawings |
|---------------|----------------------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 15 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 15 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 15 |
| MA4FSR-A8.5* | Flex Grip™ backshell | 7.5-8.5mm | 16 |
| MA4FSR-A10.5* | Flex Grip™ backshell | 9.5-10.5mm | 16 |
| MA4FSR-A12.8* | Flex Grip™ backshell | 11.5-12.8mm | 16 |

*Must be potted to achieve IP67 ratings.

Contacts

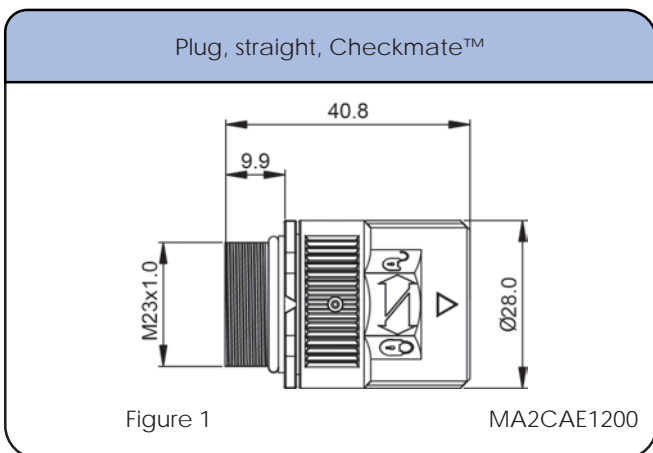


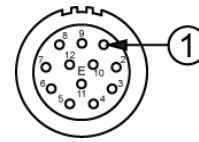
CHART 1 Crimp Contacts, Machined

| Part Number | Pin/Socket | AWG | mm ² | Plating |
|-------------|------------|-------|-----------------|---------|
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold |

Checkmate™ Dimensions Straight Plugs

See Chart 1 for contacts options



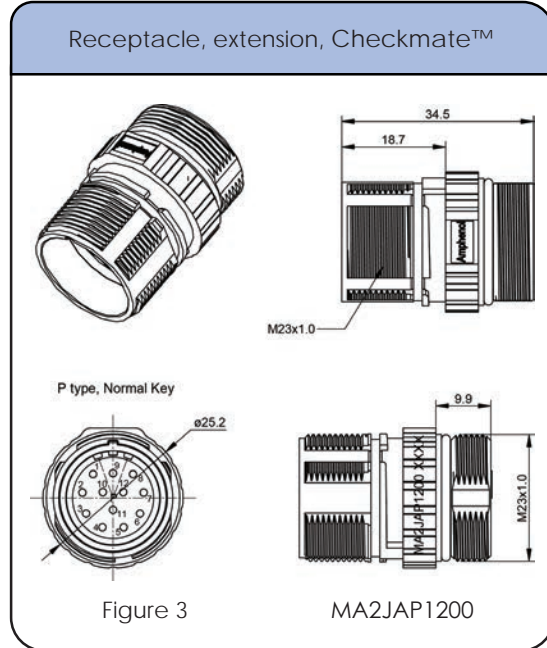
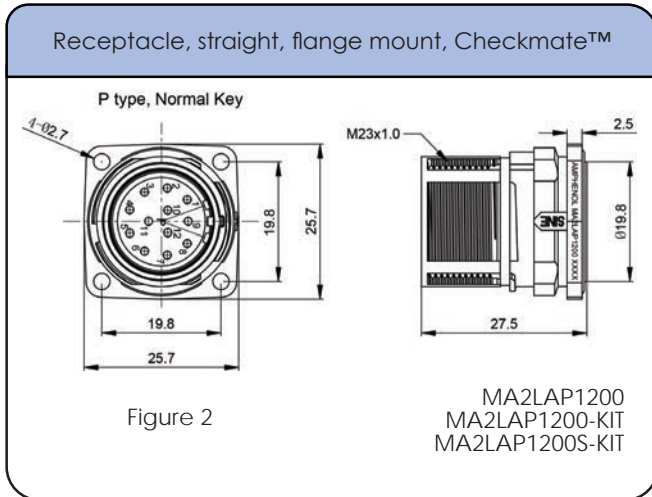


12 POSITIONS
10A / 160V
E type

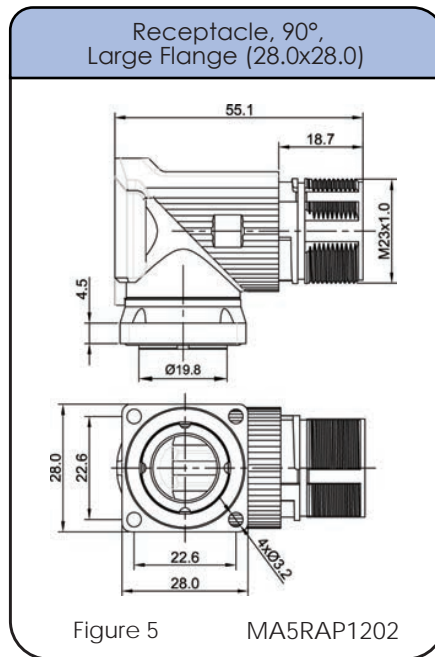
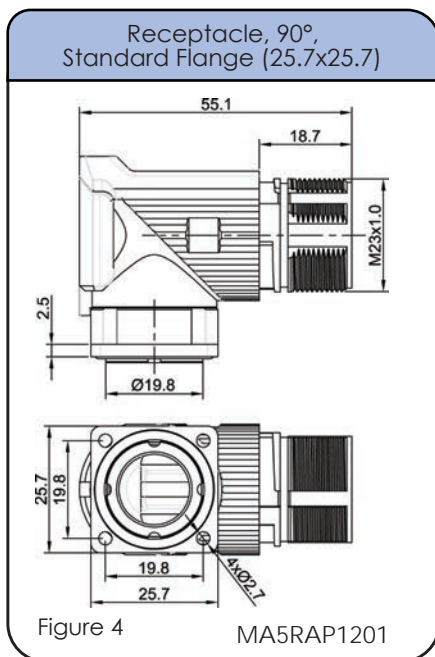
Style: E type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

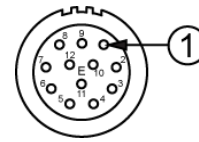
Checkmate™ Dimensions Receptacles

See Chart 1 for contacts options



See Chart 1 for contacts options

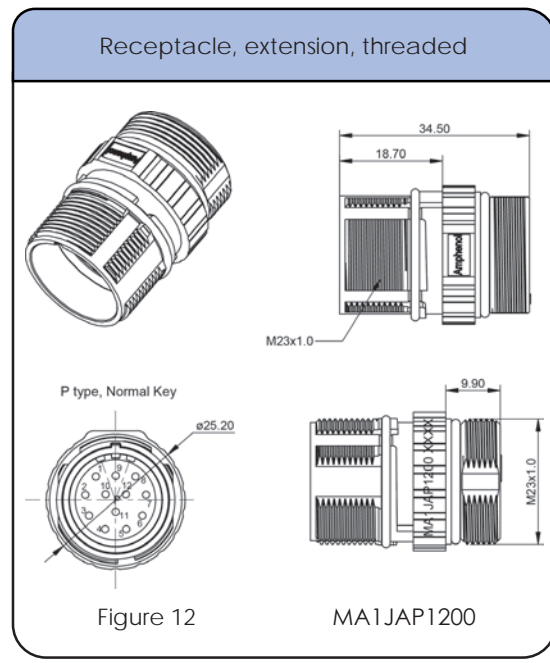
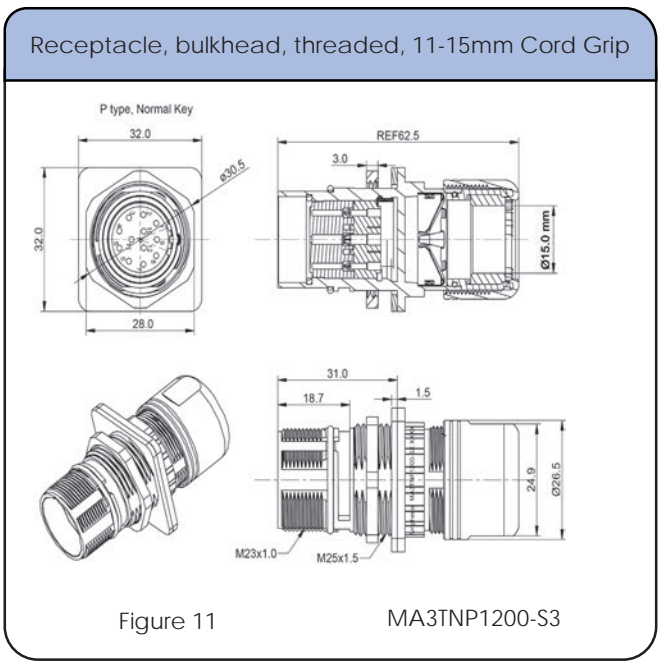
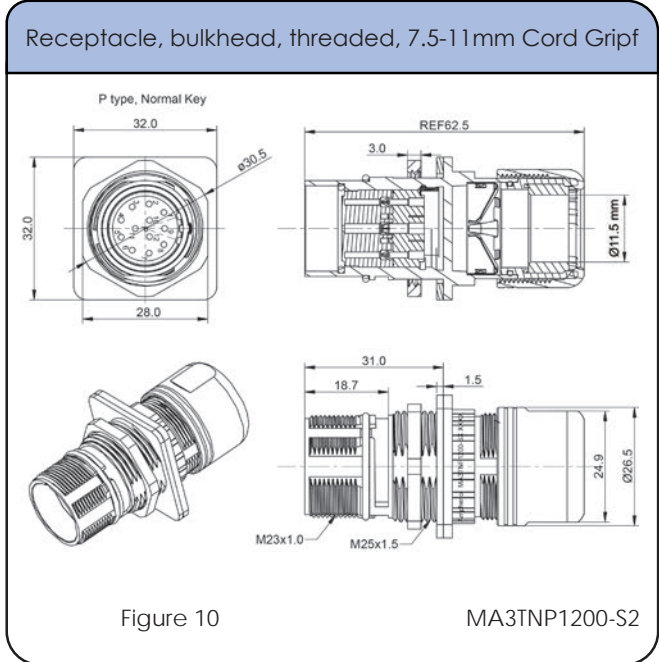
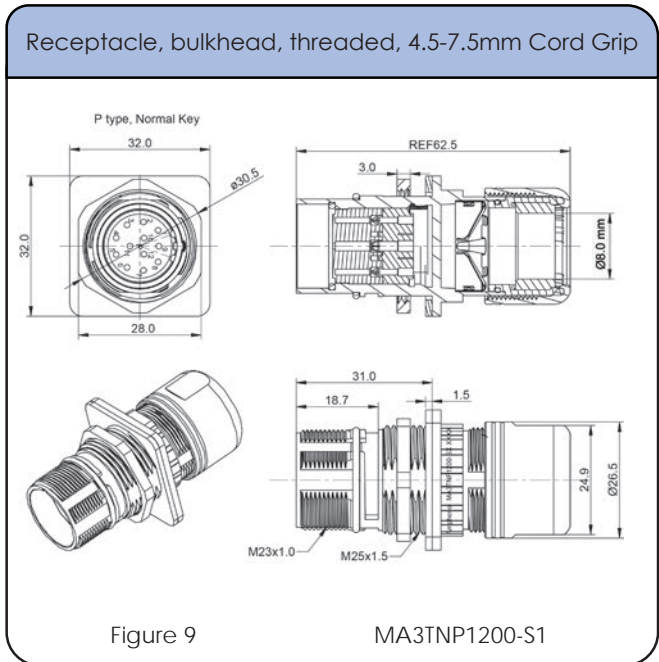




12 POSITIONS
10A / 160V
E type

Style: E type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Threaded Dimensions Bulkhead Receptacles / Receptacle Extension
See Chart 1 for contacts options

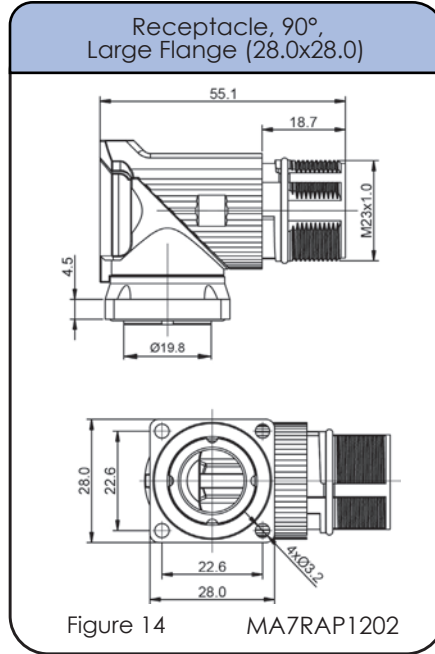
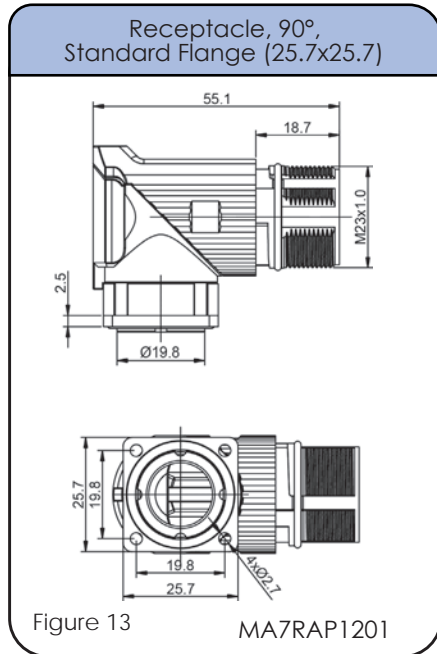


Complete datasheets can be found at www.amphenol-sine.com

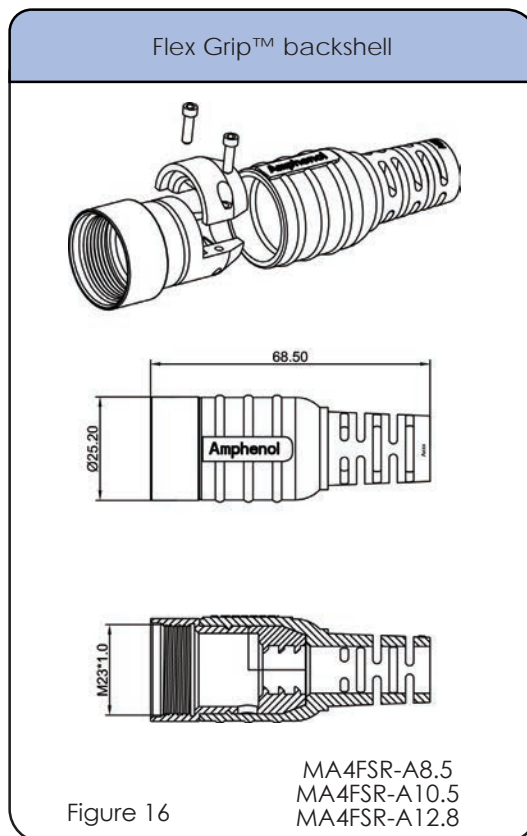
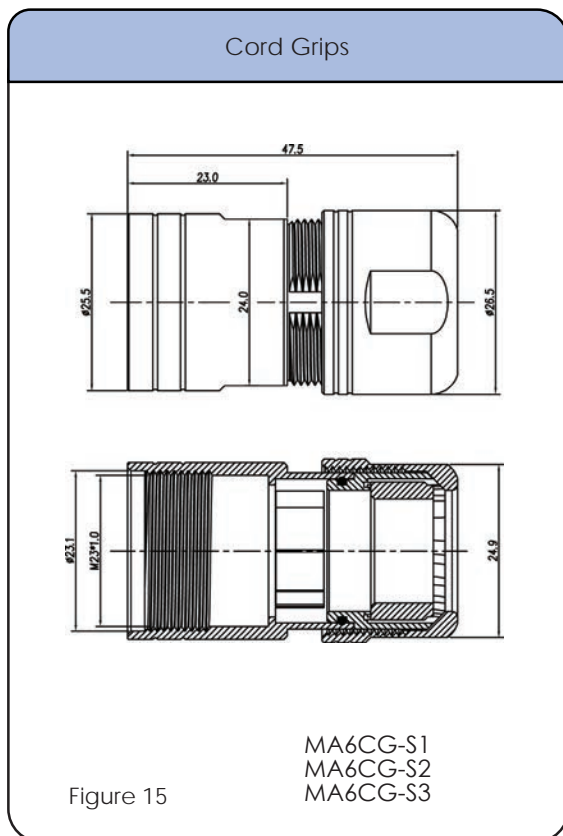
Style: E type Plug Number of Contacts: 12 Contact Size: 1.0mm
 Sealing: IP66/67 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Threaded Dimensions 90° Rotatable Receptacles

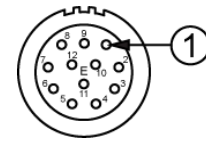
See Chart 1 for contacts options



Dimensions Cord Grips / Backshells



Complete datasheets can be found at www.amphenol-sine.com



12 POSITIONS
10A / 160V
E type

Style: E type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

CONNECTOR SOLUTIONS

Tools & Accessories

Universal hand crimp tool. Uses universal positioner part no. SK2-2*
Wire range 20-32AWG



AFM8

Universal hand crimp tool. Uses universal positioner part no. UH2-5*
Wire range 12-26AWG



AF8

Pneumatic crimp tool. Uses universal positioner part no. SK2-2*
Wire range 20-32AWG



WA22

Universal positioner is used with crimp tools AFM8 and WA22.
Wire range 20-32AWG



SK2-2

Universal positioner is used with the universal hand crimp tool (AF8).
Wire range 12-26AWG



UH2-5

Pneumatic crimp tool. Uses universal positioner part no. UH2-5*.
Wire range 12-26AWG



WA27F

Extraction tool. Used for removal of 1.0mm contacts from inserts.



50-54931-1

Dust Cap for Receptacle




P29687

Dust Cap for Plug, threaded



P31660

Dust Cap for Plug, Checkmate™



P31660

* The universal positioner is not included with the crimp tools and must be ordered separately.

Complete datasheets can be found at www.amphenol-sine.com

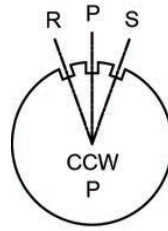
Connector Solutions M23 Standard Series

STEP 1
Choose Plug

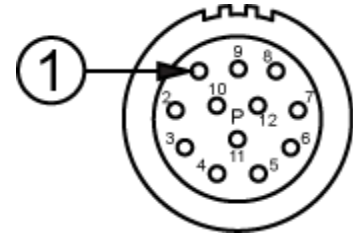


Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.* Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 16 for connector configurations

STEP 2
Choose Receptacle



STEP 3
Choose Backshell/Cord Grip



Plugs



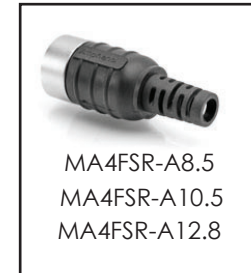
Receptacles



Cord Grips



FlexGrip™ Backshell System



more about FlexGrip™ on page 282

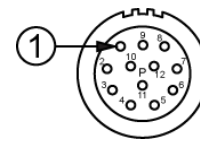
BULK CABLE starts on page 23

Receptacle Kits



SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 158



12 POSITIONS
10A / 160V
P type

Style: P type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)



Checkmate™ Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|---|---|-------|---|--------|-----------------|
| | | | | | |
| MA2CAP1200 | Plug, straight, Checkmate™ | P | Pin | Socket | 1 |
| MA2LAE1200 | Receptacle, straight, flange mount, Checkmate™ | E | Socket | Pin | 2 |
| MA2LAE1200-KIT | Receptacle kit, straight, flange mount, Checkmate™ Kit includes contacts | E | | Pin | 2 |
| MA2LAE1200S-KIT | Receptacle kit, straight, flange mount, Checkmate™ Kit includes contacts | E | Socket | | 2 |
| MA2JAE1200 | Receptacle extension, Checkmate™ | E | Socket | Pin | 3 |
| MA5RAE1201* | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | E | Socket | Pin | 4 |
| MA5RAE1202* | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | E | Socket | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 page 158 | | | | | |

CONNECTOR SOLUTIONS

Threaded Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|---|---|-------|---|--------|-----------------|
| | | | | | |
| MA1CAP1200 | Plug, straight, threaded | P | Pin | Socket | 6 |
| MA1EAP1200 | Plug, 90° rotatable, threaded | P | Pin | Socket | 7 |
| MA1LAE1200 | Receptacle, straight, flange mount, threaded | E | Socket | Pin | 8 |
| MA1LAE1200-KIT | Receptacle kit, straight, threaded. Contacts included | E | | Pin | 8 |
| MA1LAE1200S-KIT | Receptacle kit, straight, threaded. Contacts included | E | Socket | | 8 |
| MA3TNE1200-S1 | Receptacle, bulkhead, threaded, 4.5-7.5mm | E | Socket | Pin | 9 |
| MA3TNE1200-S2 | Receptacle, bulkhead, threaded, 7.5-11mm | E | Socket | Pin | 10 |
| MA3TNE1200-S3 | Receptacle, bulkhead, threaded, 11.0-15mm | E | Socket | Pin | 11 |
| MA1JAE1200 | Receptacle extension, threaded | E | Socket | Pin | 12 |
| MA7RAE1201* | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | E | Socket | Pin | 13 |
| MA7RAE1202* | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | E | Socket | Pin | 14 |
| ↑ Contacts supplied separately see Chart 1 page 158 | | | | | |

*Elite Series receptacles are offered here as additional options for mating with Standard Series plugs. See Assembly Instructions starting on page 266

part numbers continued on next page

Style: P type Plug Number of Contacts: 12 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Cord Grips and Backshells

| Part Number | Type | Cable Range (mm) | Figure Drawings |
|---------------|----------------------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 15 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 15 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 15 |
| MA4FSR-A8.5* | Flex Grip™ backshell | 7.5-8.5mm | 16 |
| MA4FSR-A10.5* | Flex Grip™ backshell | 9.5-10.5mm | 16 |
| MA4FSR-A12.8* | Flex Grip™ backshell | 11.5-12.8mm | 16 |

*Must be potted to achieve IP67 ratings.

Contacts



CHART 1

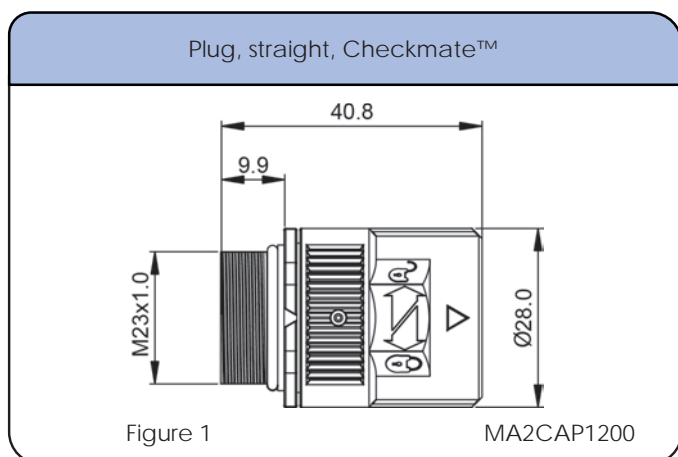
Crimp Contacts, Machined

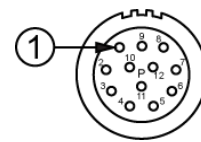
| Part Number | Pin/Socket | AWG | mm ² | Plating |
|-------------|------------|-------|-----------------|---------|
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold |

Machined Contacts

Checkmate™ Dimensions Straight Plugs

See Chart 1 for contacts options



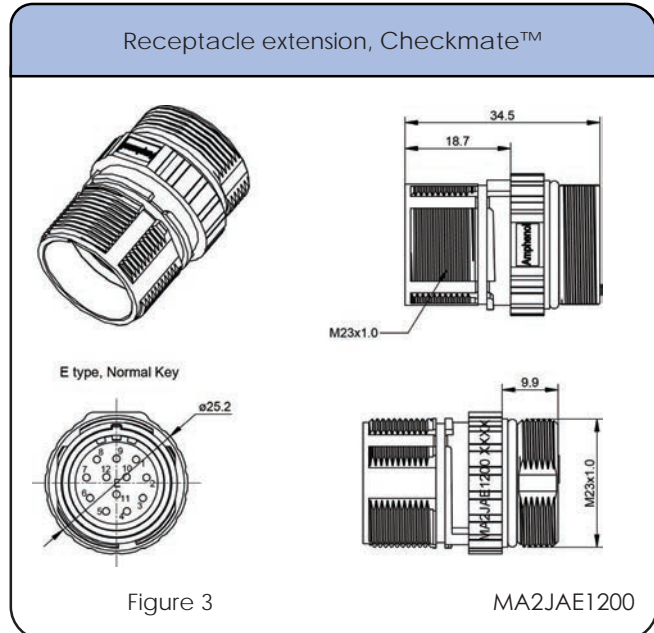
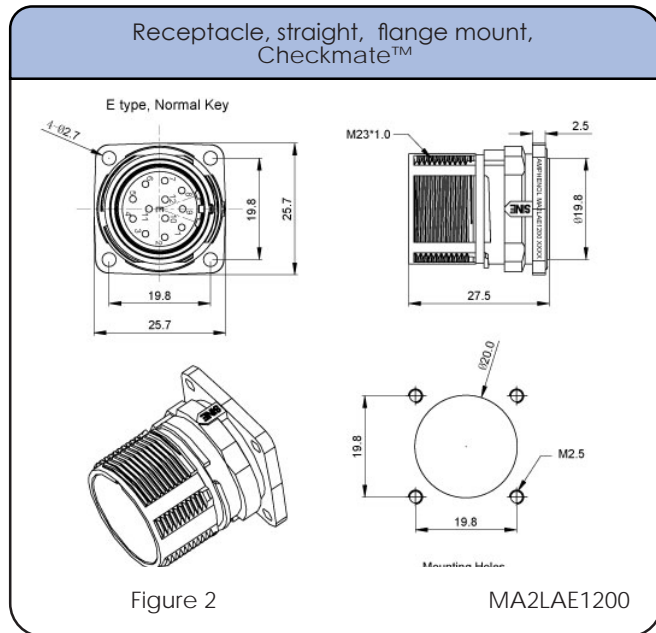


12 POSITIONS
10A / 160V
P type

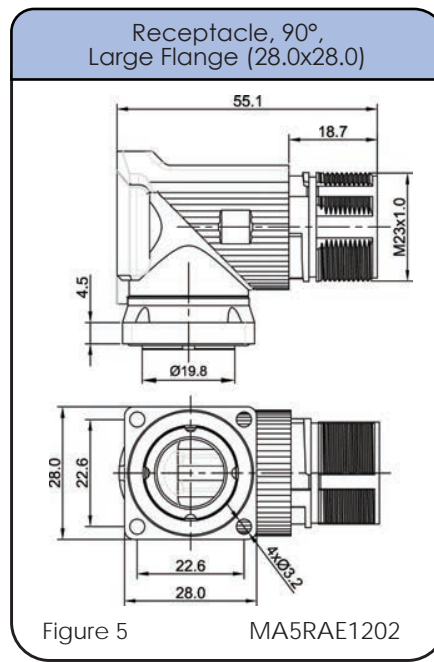
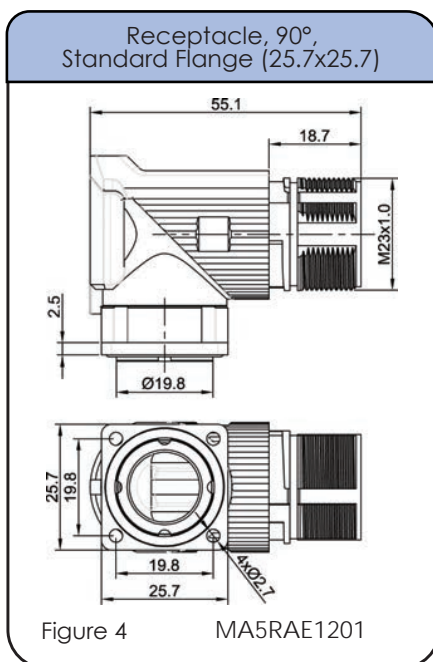
Style: P type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Checkmate™ Dimensions Receptacles

See Chart 1 for contacts options



See Chart 1 for contacts options

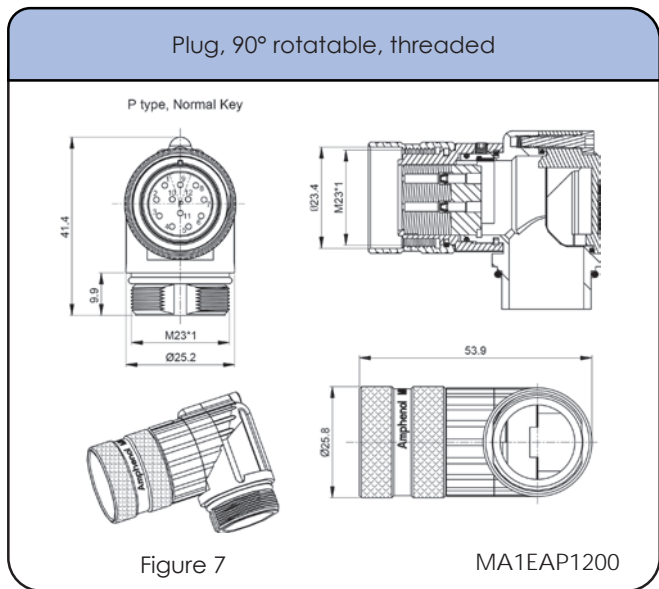
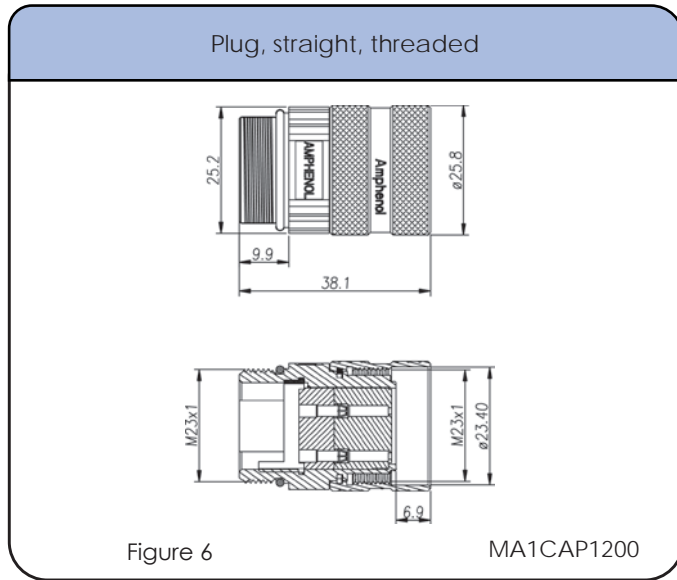


Complete datasheets can be found at www.amphenol-sine.com

Style: P type Plug Number of Contacts: 12 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

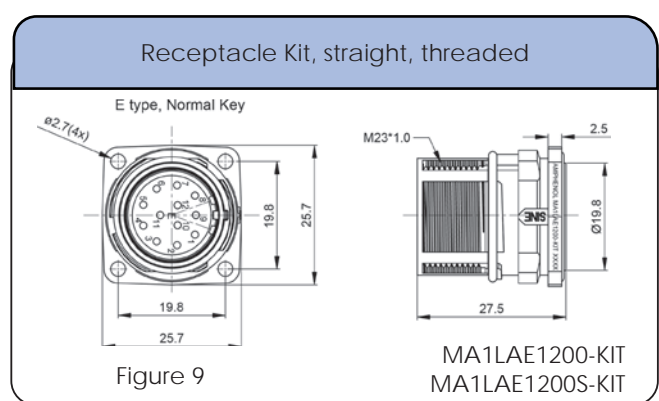
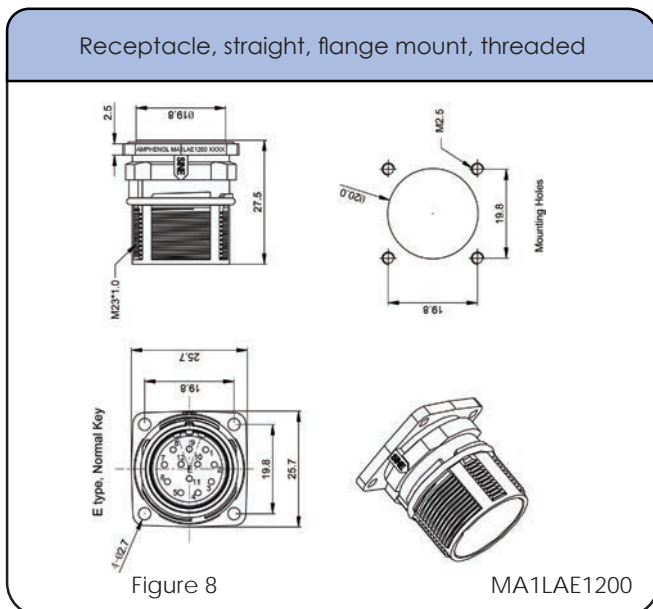
Threaded Dimensions Plugs

See Chart 1 for contacts options

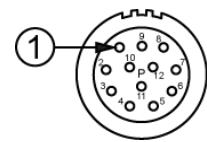


Threaded Dimensions Straight Receptacles

See Chart 1 for contacts options



Complete datasheets can be found at www.amphenol-sine.com



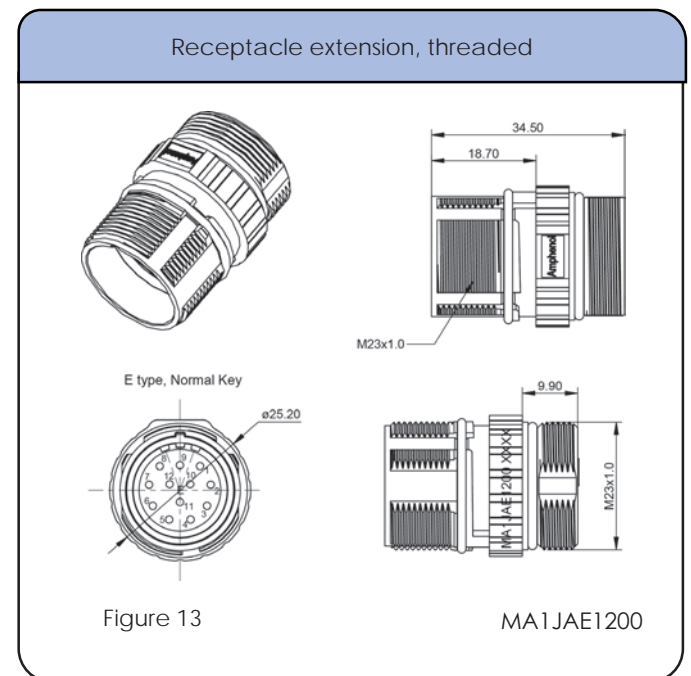
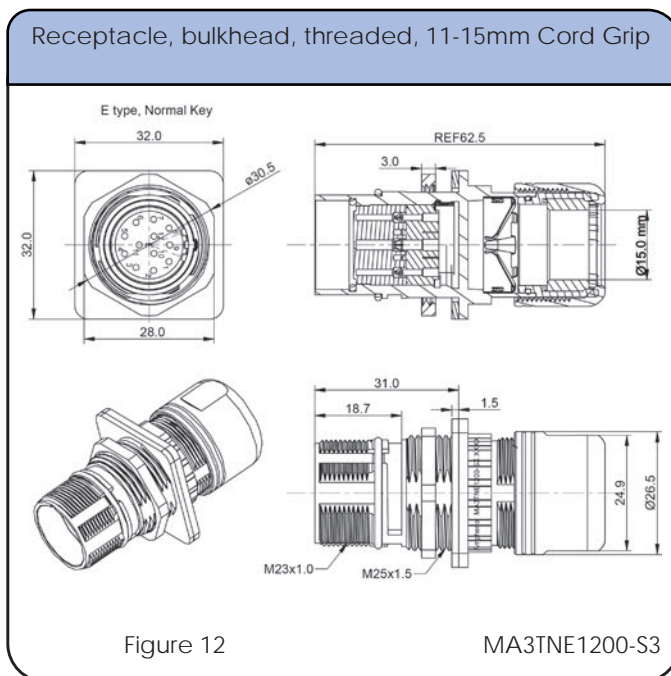
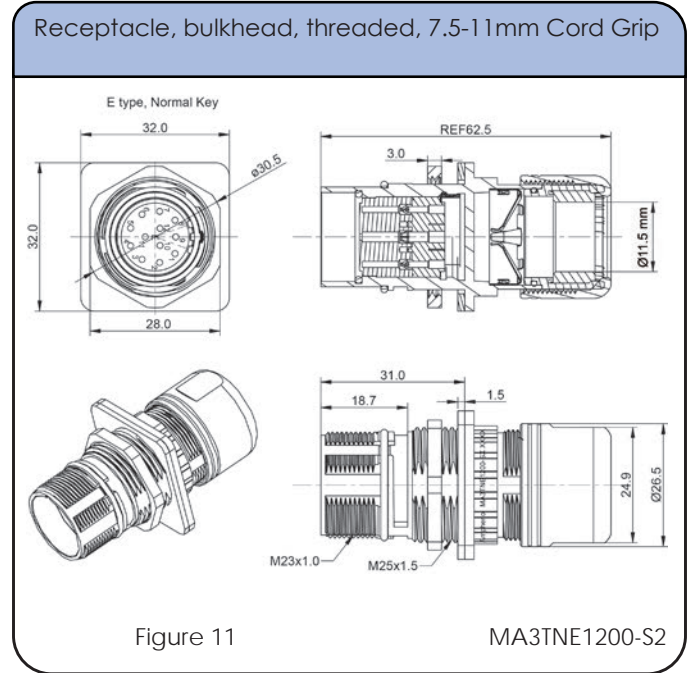
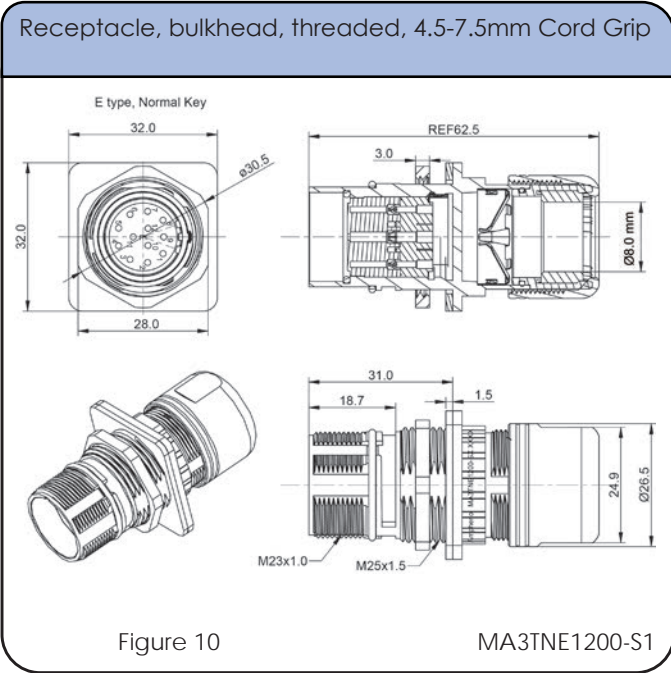
12 POSITIONS
10A / 160V
P type

Style: P type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Threaded Bulkhead Receptacles

See Chart 1 for contacts options

CONNECTOR SOLUTIONS



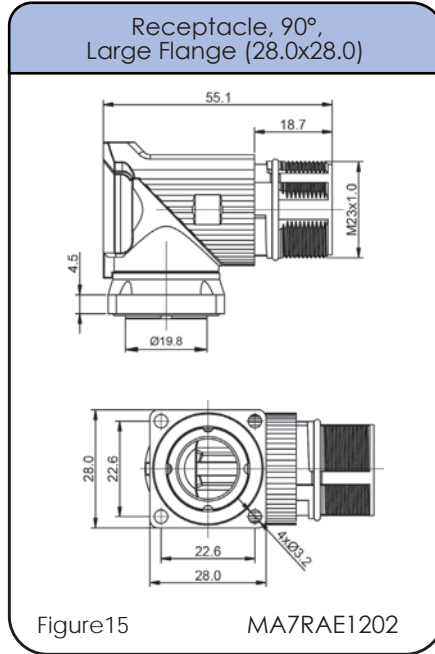
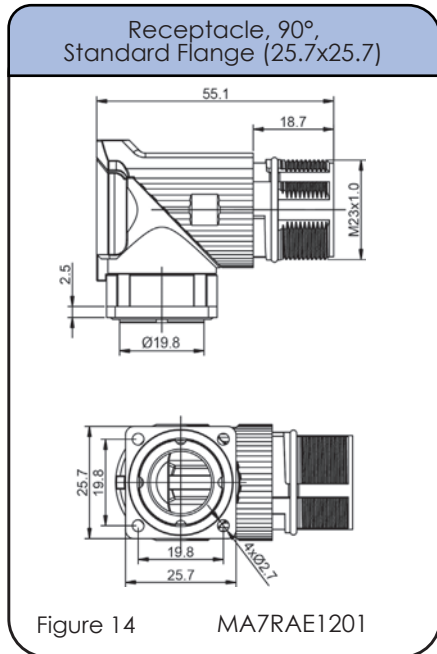
Complete datasheets can be found at www.amphenol-sine.com

Complete datasheets can be found at www.amphenol-sine.com

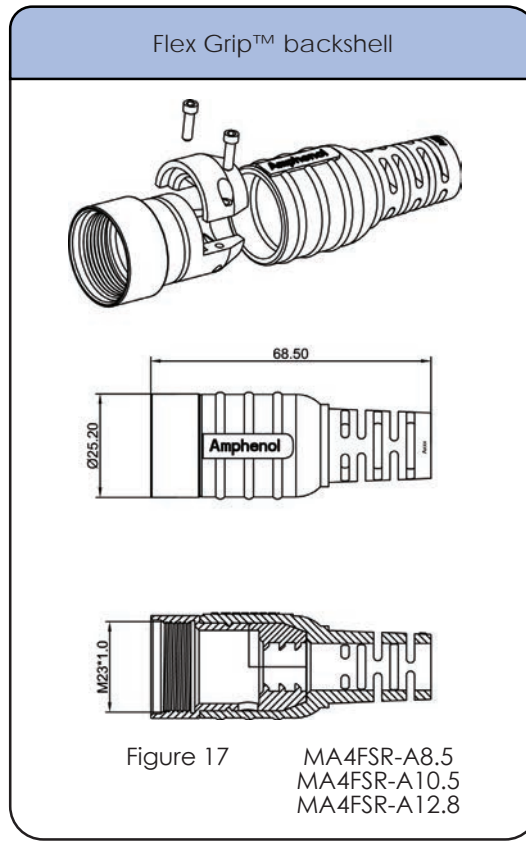
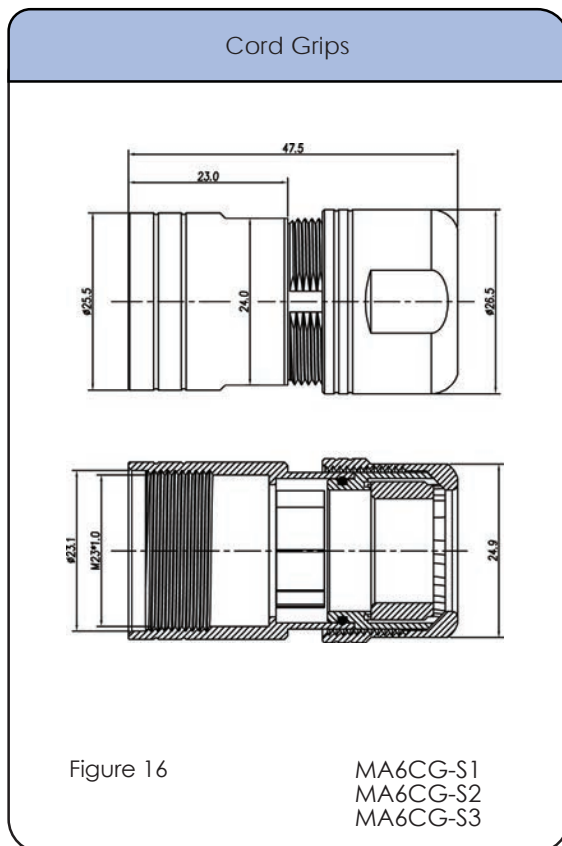
Style: P type Plug Number of Contacts: 12 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Threaded Dimensions 90° Rotatable Receptacles

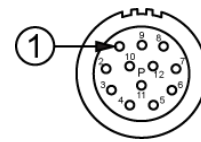
See Chart 1 for contacts options



Cord Grips / Backshells



Complete datasheets can be found at www.amphenol-sine.com



12 POSITIONS
10A / 160V
P type

Style: P type Plug Number of Contacts: 12 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Tools & Accessories

| | | |
|---|---|--|
| <p>Universal hand crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>AFM8</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5* Wire range 12-26AWG</p>  <p>AF8</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>WA22</p> |
| <p>Universal positioner is used with the crimp tools WA22 and AFM8. Wire range 20-32AWG</p>  <p>SK2-2</p> | <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5*. Wire range 12-26AWG</p>  <p>WA27F</p> |
| <p>Extraction tool. Used for removal of 1.0mm contacts from inserts.</p>  <p>50-54931-1</p> | <p>Dust Cap for Receptacle</p>  <p>P29687</p> | <p>Dust Cap for Plug, Threaded</p>  <p>P31660</p> |
| <p>Dust Cap for Plug, Checkmate™</p>  <p>P31662</p> | | |

* The universal positioner is not included with the crimp tools and must be ordered separately.

Complete datasheets can be found at www.amphenol-sine.com

Connector Solutions M23 Standard Series

STEP 1
Choose Plug

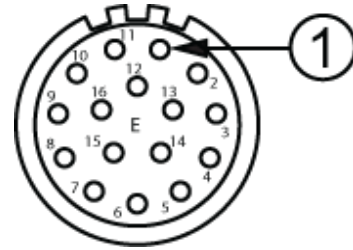


Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.* Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 16 for connector configurations

STEP 2
Choose Receptacle



STEP 3
Choose Backshell/Cord Grip



Plugs



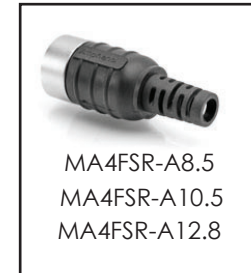
Receptacles



Cord Grips



FlexGrip™ Backshell System



more about FlexGrip™ on page 281

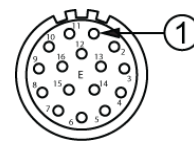
BULK CABLE starts on page 23

Receptacle Kits



SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 166



16 POSITIONS
9A / 125V
E type

Style: E type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Checkmate™ Connector Part Numbers



| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|---|---|-------|---|--------|-----------------|
| | | | | | |
| MA2CAE1600 | Plug, straight, Checkmate™ | E | Pin | Socket | 1 |
| MA2LAP1600 | Receptacle, straight, flange mount, Checkmate™ | P | Socket | Pin | 2 |
| MA2LAP1600-KIT | Receptacle Kit, straight, flange mount, Checkmate™ | P | Pin | | 2 |
| MA2LAP1600S-KT | Receptacle Kit, straight, flange mount, Checkmate™ | P | Socket | | 2 |
| MA2JAP1600 | Receptacle extension, Checkmate™ | P | Socket | Pin | 3 |
| MA5RAP1601* | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | P | Socket | Pin | 4 |
| MA5RAP1602* | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | P | Socket | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 page 166 | | | | | |

Threaded Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|---|---|-------|---|--------|-----------------|
| | | | | | |
| MA1CAE1600 | Plug, straight, threaded | E | Pin | Socket | 6 |
| MA1EAE1600 | Plug, 90° rotatable, threaded | E | Socket | Pin | 7 |
| MA1LAP1600 | Receptacle, straight, flange mount, threaded | P | Socket | Pin | 8 |
| MA1LAP1600-KIT | Receptacle kit, threaded. Kit includes contacts | P | | Pin | 8 |
| MA1LAP1600S-KIT | Receptacle kit, threaded. Kit includes contacts | P | Socket | | 8 |
| MA3TNP1600-S1 | Receptacle, bulkhead, threaded, 4.5-7.5mm | P | Socket | Pin | 9 |
| MA3TNP1600-S2 | Receptacle, bulkhead, threaded, 7.5-11mm | P | Socket | Pin | 10 |
| MA3TNP1600-S3 | Receptacle, bulkhead, threaded, 11-15mm | P | Socket | Pin | 11 |
| MA1JAP1600 | Receptacle extension, threaded | P | Socket | Pin | 12 |
| MA7RAP1601* | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | P | Socket | Pin | 13 |
| MA7RAP1602* | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | P | Socket | Pin | 14 |
| ↑ Contacts supplied separately see Chart 1 page 166 | | | | | |

*Elite Series receptacles are offered here as additional options for mating with Standard Series plugs. See Assembly Instructions starting on page 266

Style: E type Plug Number of Contacts: 16 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Cord Grips and Backshells

| Part Number | Type | Cable Range (mm) | Figure Drawings |
|---------------|----------------------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 15 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 15 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 15 |
| MA4FSR-A8.5* | Flex Grip™ backshell | 7.5-8.5mm | 16 |
| MA4FSR-A10.5* | Flex Grip™ backshell | 9.5-10.5mm | 16 |
| MA4FSR-A12.8* | Flex Grip™ backshell | 11.5-12.8mm | 16 |

*Must be potted to achieve IP67 ratings.

Contacts

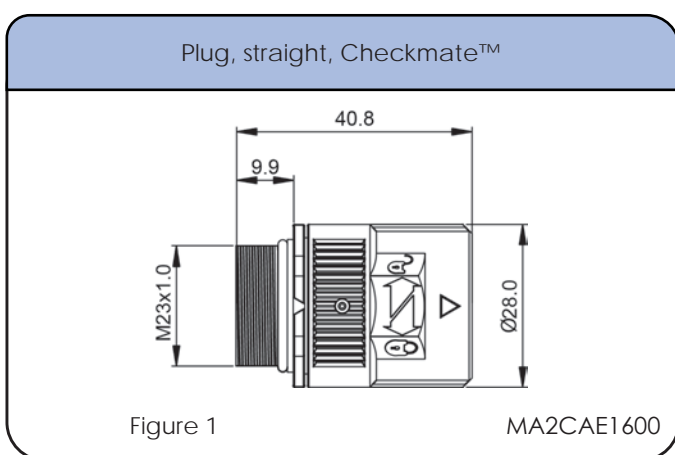


CHART 1 Crimp Contacts, Machined

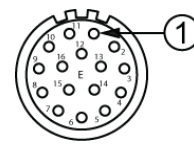
| Part Number | Pin/Socket | AWG | mm ² | Plating |
|-------------|------------|-------|-----------------|---------|
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold |

Checkmate™ Dimensions Straight Plug

See Chart 1 for contacts options



Complete datasheets can be found at www.amphenol-sine.com

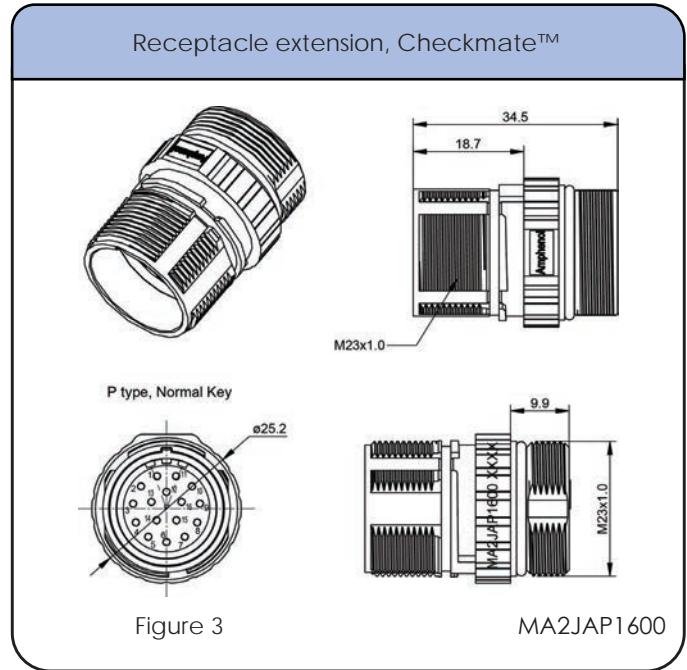
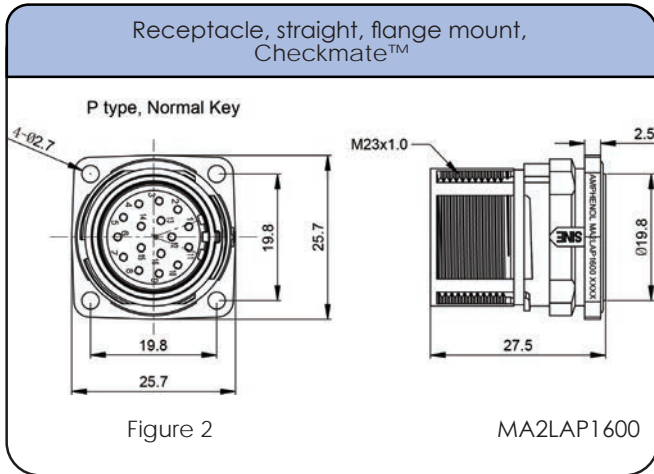


16 POSITIONS
9A / 125V
E type

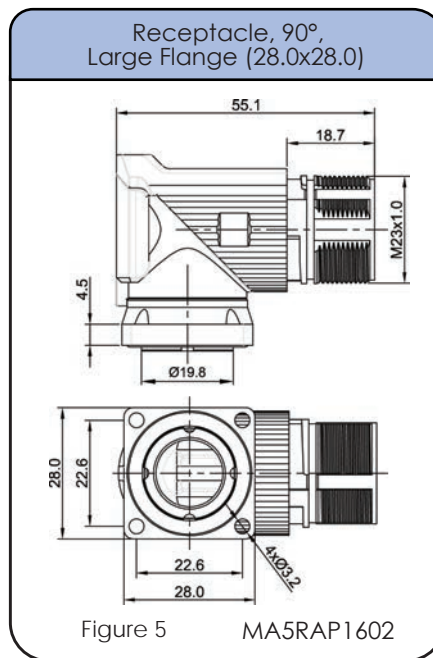
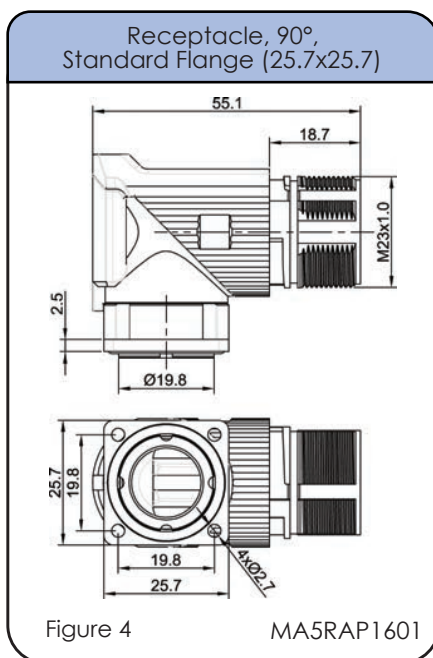
Style: E type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Checkmate™ Dimensions Receptacles

See Chart 1 for contacts options



See Chart 1 for contacts options

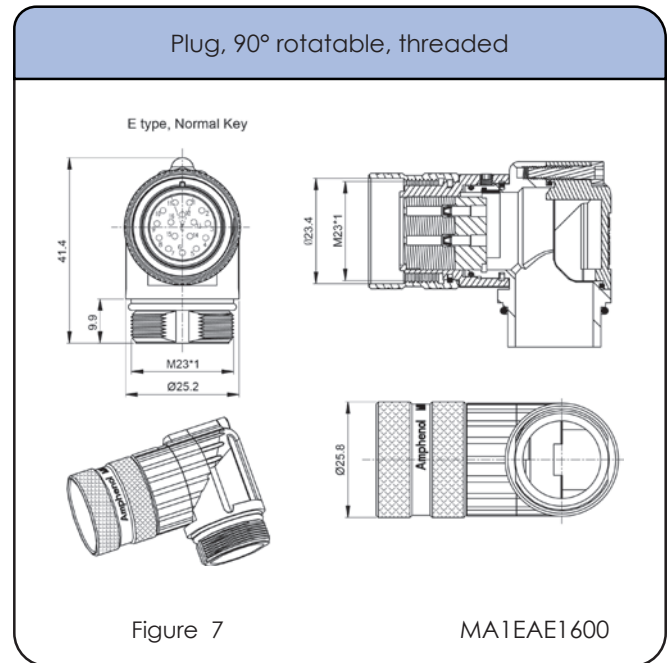
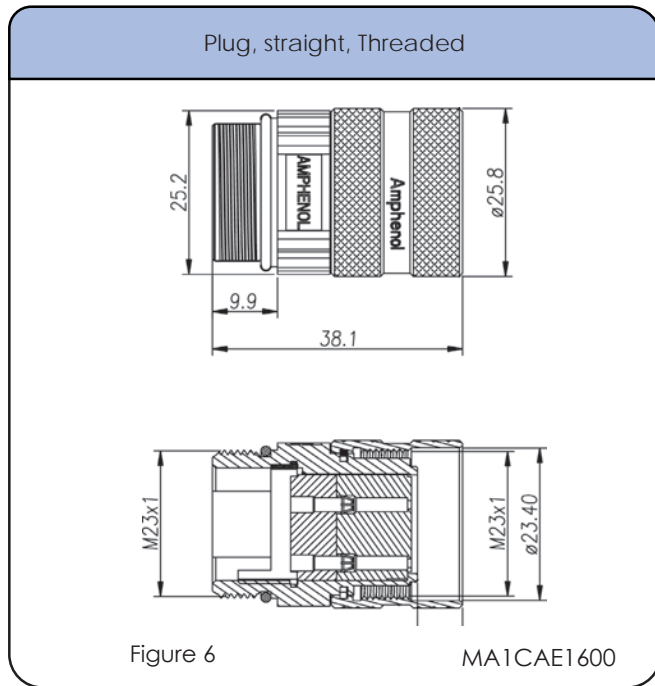


Complete datasheets can be found at www.amphenol-sine.com

Style: E type Plug Number of Contacts: 16 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

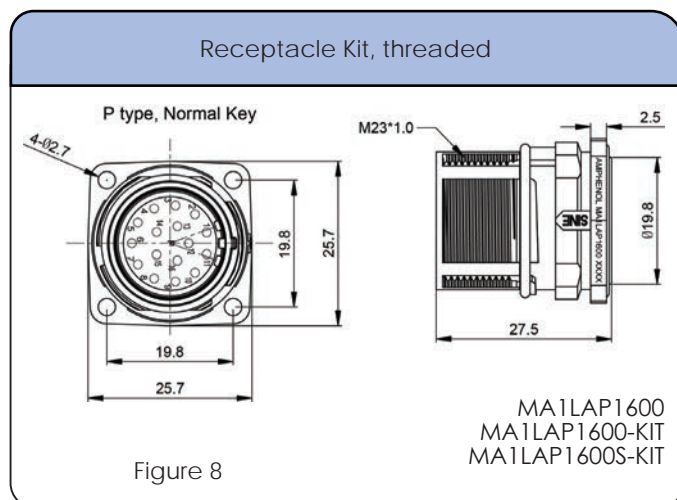
Threaded Dimensions Straight Plug/ Plug Kits

See Chart 1 for contacts options

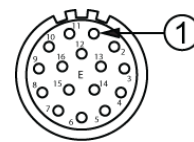


Threaded Dimensions Straight Receptacle / Receptacle Kit

See Chart 1 for contacts options



Complete datasheets can be found at www.amphenol-sine.com



16 POSITIONS
9A / 125V
E type

Style: E type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Threaded Dimensions / Bulkhead Receptacles / Receptacle Extension
See Chart 1 for contacts options

Receptacle, bulkhead, threaded, 4.5-7.5 mm Cord Grip

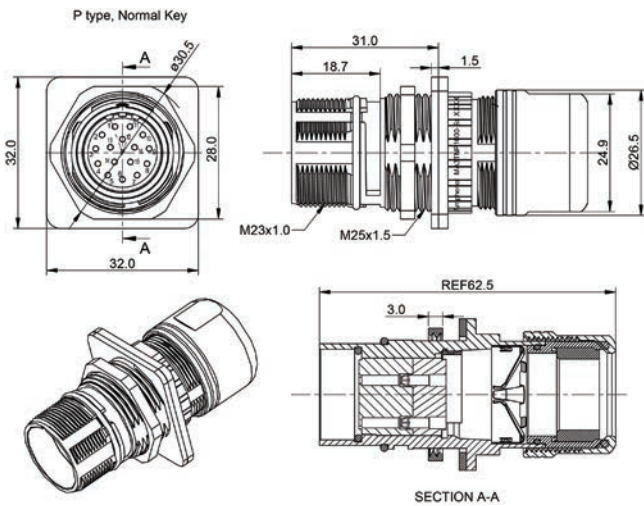


Figure 9

MA3TNP1600-S1

Receptacle, bulkhead, threaded, 7.5-11 mm Cord Grip

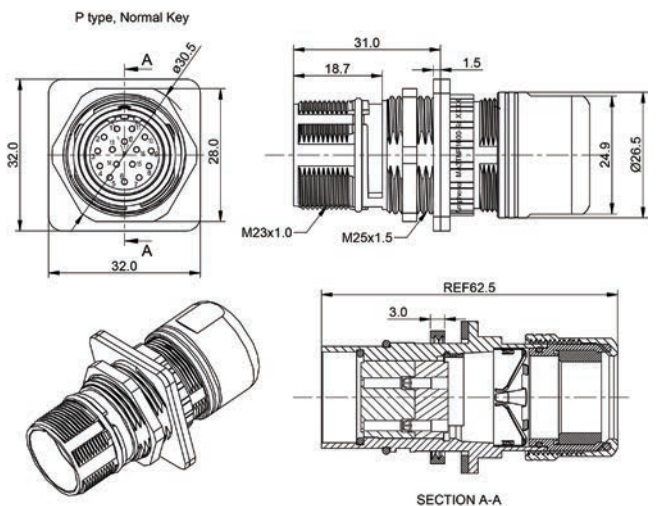


Figure 10

MA3TNP1600-S2

Receptacle, bulkhead, threaded, 11-15 mm Cord Grip

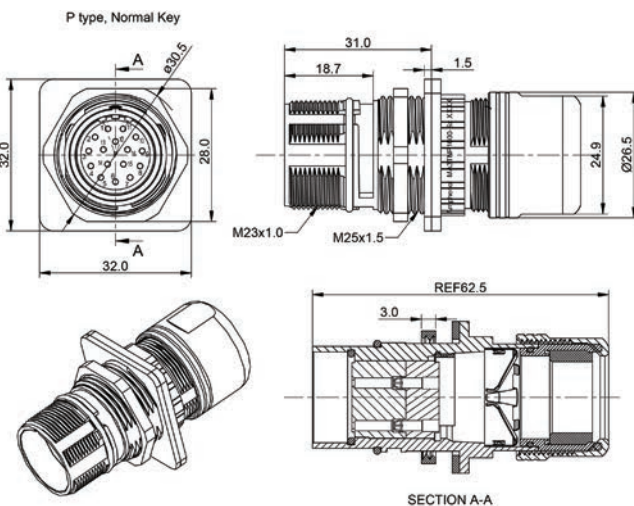


Figure 11

MA3TNP1600-S3

Receptacle extension, threaded

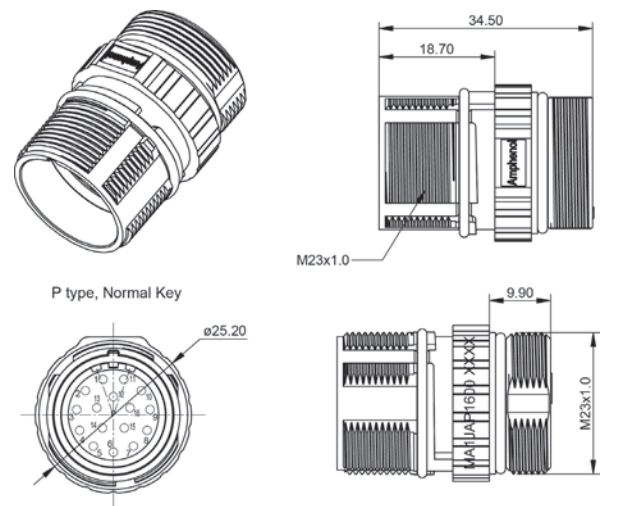


Figure 12

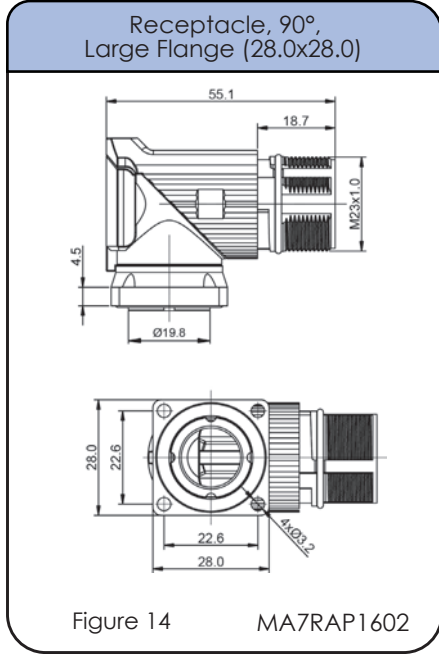
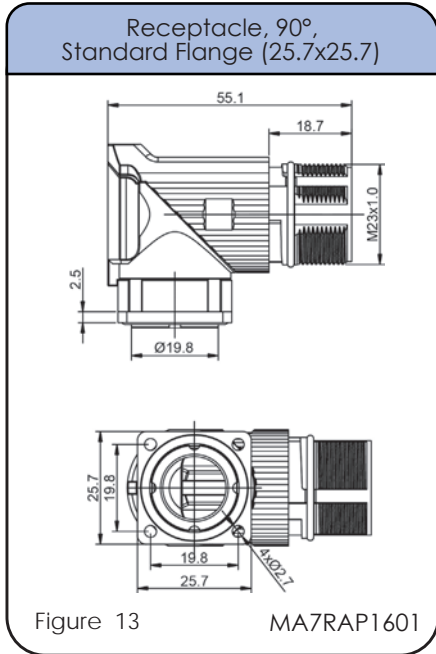
MA1JAP1600

Complete datasheets can be found at www.amphenol-sine.com

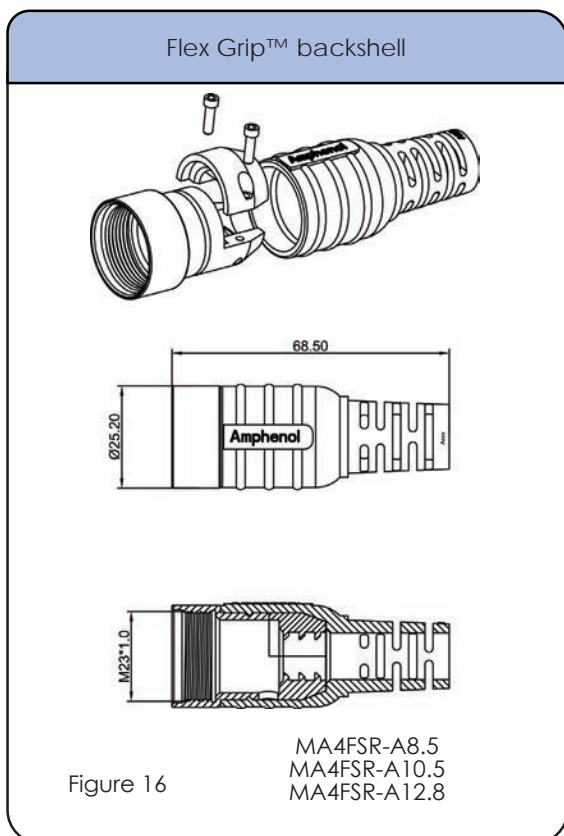
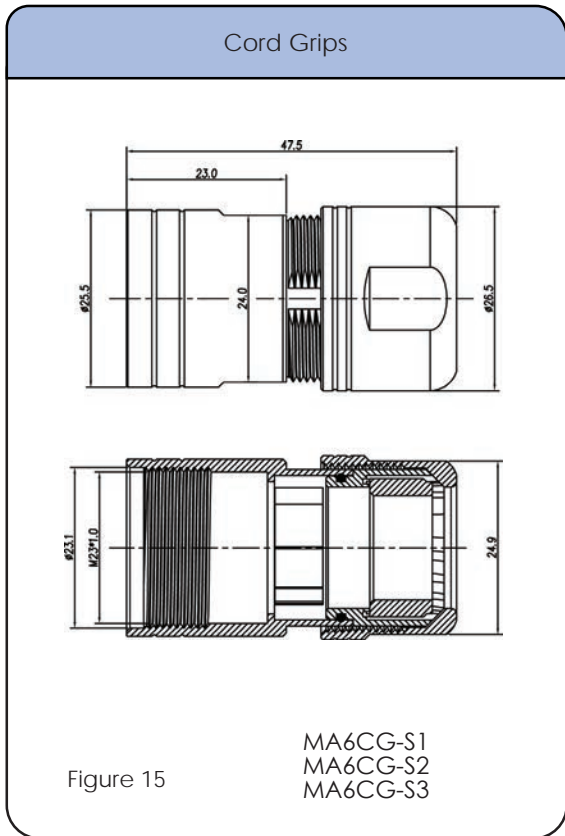
Style: E type Plug Number of Contacts: 16 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

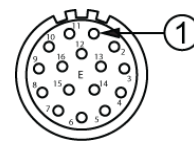
Threaded Dimensions 90° Rotatable Receptacles

See Chart 1 for contacts options



Dimensions Cord Grips / Backshells





16 POSITIONS
9A / 125V
E type

Style: E type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Tools & Accessories

Universal hand crimp tool. Uses universal positioner part no. SK2-2*
Wire range 20-32AWG



AFM8

Universal hand crimp tool. Uses universal positioner part no. UH2-5*
Wire range 12-26AWG



AF8

Pneumatic crimp tool. Uses universal positioner part no. SK2-2*
Wire range 20-32AWG



WA22

Universal positioner is used with crimp tools AFM8 and WA22.
Wire range 20-32AWG



SK2-2

Universal positioner is used with the universal hand crimp tool (AF8).
Wire range 12-26AWG



UH2-5

Pneumatic crimp tool. Uses universal positioner part no. UH2-5*.
Wire range 12-26AWG



WA27F

Extraction tool. Used for removal of 1.0mm contacts from inserts.



50-54931-1

Dust Cap for Receptacle



P29687

Dust Cap for Plug, threaded



P31660

Dust Cap for Plug, Checkmate™



P31662

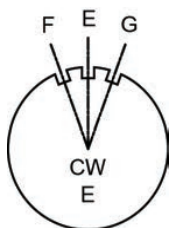
* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M23 Standard Series

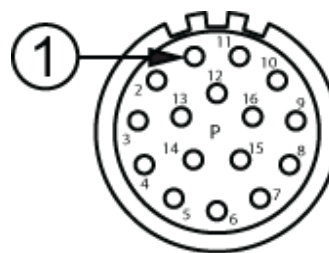
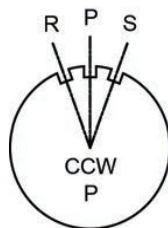
STEP 1
Choose Plug

STEP 2
Choose Receptacle

STEP 3
Choose Backshell/Cord Grip



Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.*
Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 16 for connector configurations



Plugs



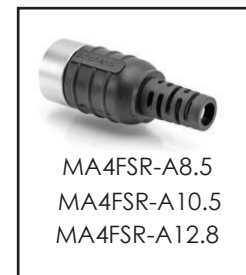
Receptacles



Cord Grips



FlexGrip™ Backshell System



more about FlexGrip™ on page 282

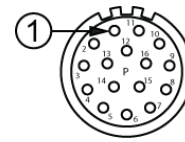
BULK CABLE starts on page 23

Receptacle Kits



SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 174



16 POSITIONS
9A / 125V
P type

Style: P type Plug **Number of Contacts: 16** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)**



Checkmate™ Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|-----------------|---|-------|---|--------|-----------------|
| MA2CAP1600 | Plug, straight Checkmate™ | P | Pin | Socket | 1 |
| MA2LAE1600 | Receptacle, straight, flange mount, Checkmate™ | E | Socket | Pin | 2 |
| MA2LAE1600-KIT | Receptacle Kit, straight, flange mount, Checkmate™ | E | Pin | | 2 |
| MA2LAE1600S-KIT | Receptacle Kit, straight, flange mount, Checkmate™ | E | | Socket | 2 |
| MA2JAE1600 | Receptacle extension, Checkmate™ | E | Socket | Pin | 3 |
| MA5RAE1601* | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | E | Socket | Pin | 4 |
| MA5RAE1602* | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | E | Socket | Pin | 5 |

↑ Contacts supplied separately see Chart 1 page 174

Threaded Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|-----------------|---|-------|---|--------|-----------------|
| MA1CAP1600 | Plug, straight, threaded | P | Pin | Socket | 6 |
| MA1EAP1600 | Plug, 90° rotatable, threaded | P | Pin | Socket | 7 |
| MA1LAE1600 | Receptacle, straight, flange mount, threaded | E | Socket | Pin | 8 |
| MA1LAE1600-KIT | Receptacle kit, straight, threaded. Contacts Included | E | | Pin | 8 |
| MA1LAE1600S-KIT | Receptacle kit, straight, threaded. Contacts included | E | Socket | | 8 |
| MA3TNE1600-S1 | Receptacle, bulkhead, threaded, 4.5-7.5mm | E | Socket | Pin | 9 |
| MA3TNE1600-S2 | Receptacle, bulkhead, threaded, 7.5-11.0mm | E | Socket | Pin | 10 |
| MA3TNE1600-S3 | Receptacle, bulkhead, threaded, 11.0-15.0mm | E | Socket | Pin | 11 |
| MA7RAE1601* | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | E | Socket | Pin | 12 |
| MA7RAE1602* | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | E | Socket | Pin | 13 |
| MA1JAE1600 | Receptacle extension, threaded | E | Socket | Pin | 14 |

↑ Contacts supplied separately see Chart 1 page 174

*Elite Series receptacles are offered here as additional options for mating with Standard Series plugs. See Assembly Instructions starting on page 266

Style: P type Plug Number of Contacts: 16 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Cord Grips and Backshells

| Part Number | Type | Cable Range (mm) | Figure Drawings |
|---------------|----------------------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 15 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 15 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 15 |
| MA4FSR-A8.5* | Flex Grip™ backshell | 7.5-8.5mm | 16 |
| MA4FSR-A10.5* | Flex Grip™ backshell | 9.5-10.5mm | 16 |
| MA4FSR-A12.8* | Flex Grip™ backshell | 11.5-12.8mm | 16 |

*Must be potted to achieve IP67 ratings.

Contacts

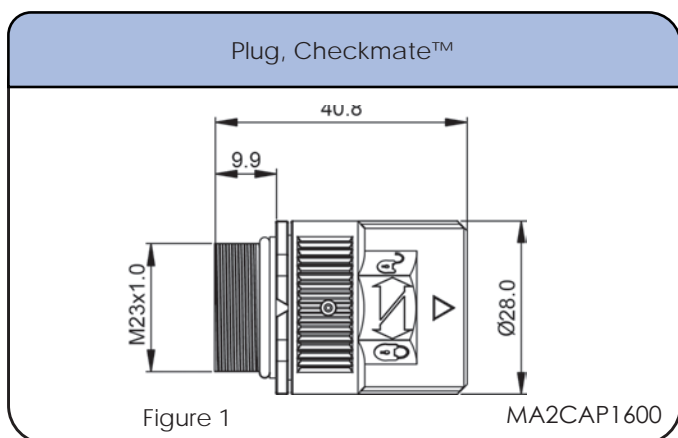


CHART 1 Crimp Contacts, Machined

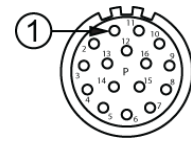
| Part Number | Pin/Socket | AWG | mm ² | Plating |
|-------------|------------|-------|-----------------|---------|
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold |

Checkmate™ Dimensions Straight Plug

See Chart 1 for contacts options



Complete datasheets can be found at www.amphenol-sine.com

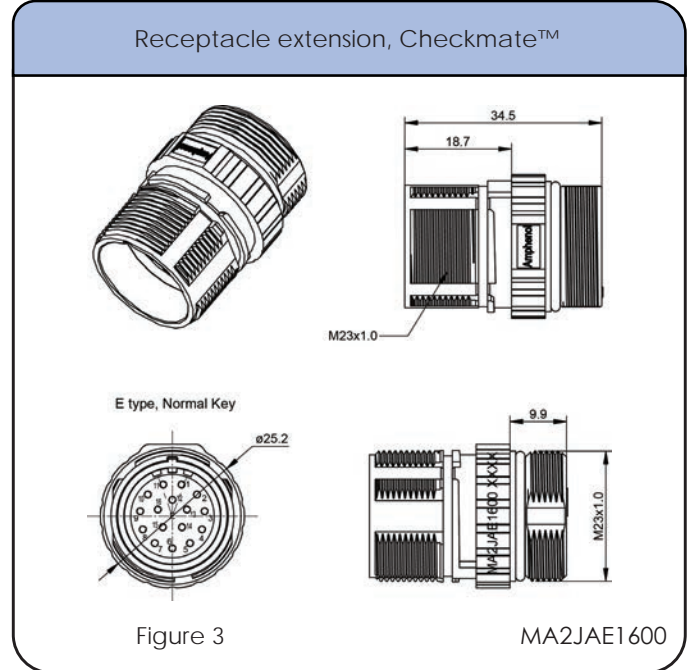
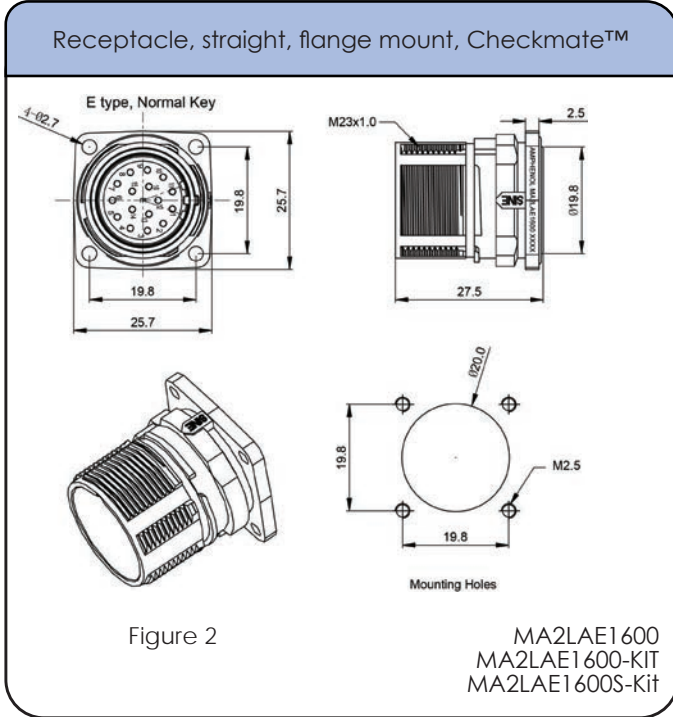


16 POSITIONS
9A / 125V
P type

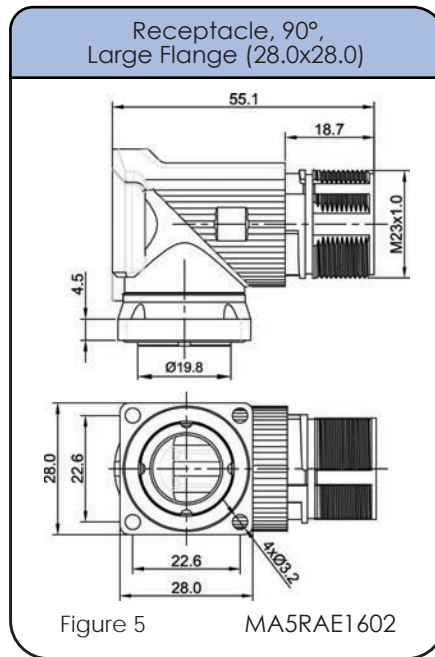
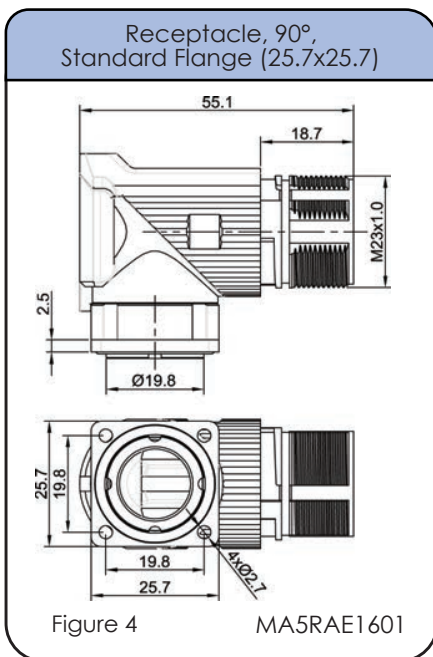
Style: P type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Checkmate™ Dimensions Receptacles

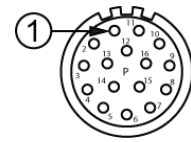
See Chart 1 for contacts options



See Chart 1 for contacts options



Complete datasheets can be found at www.amphenol-sine.com

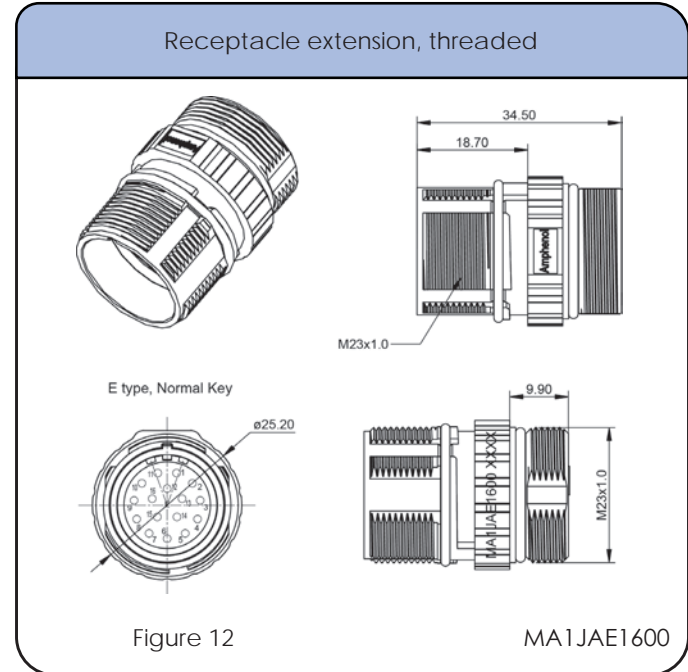
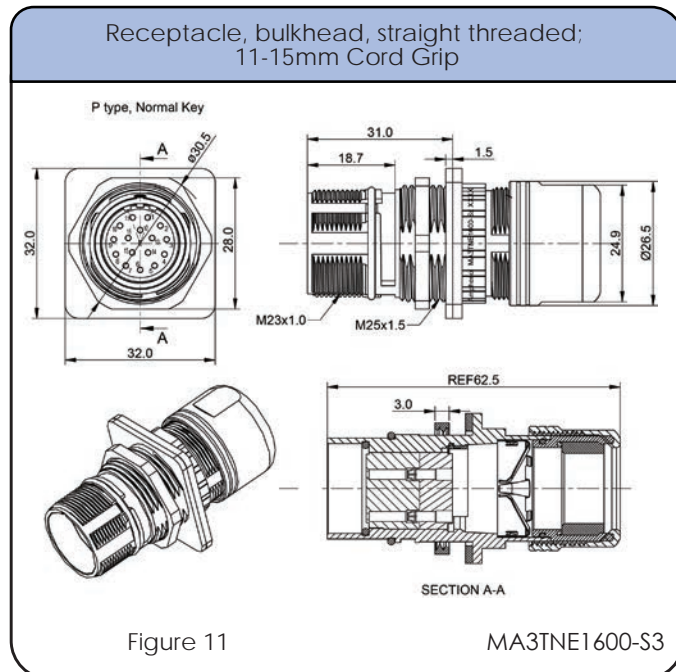
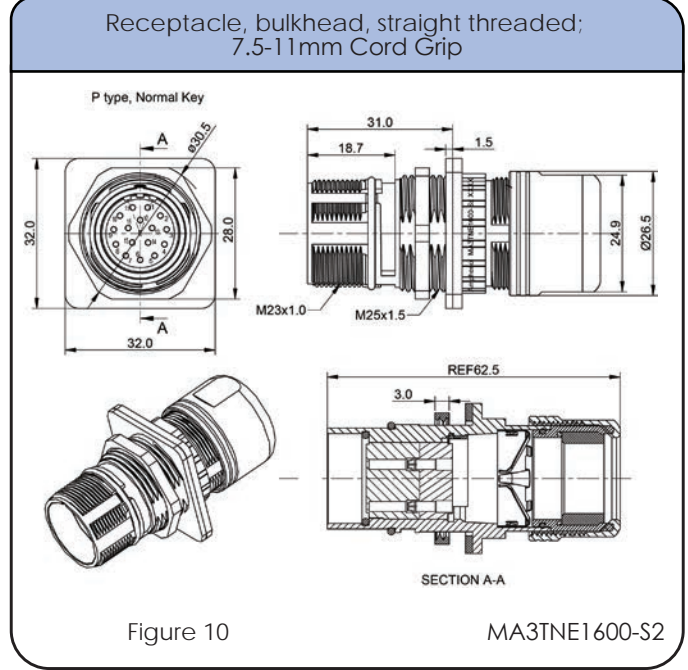
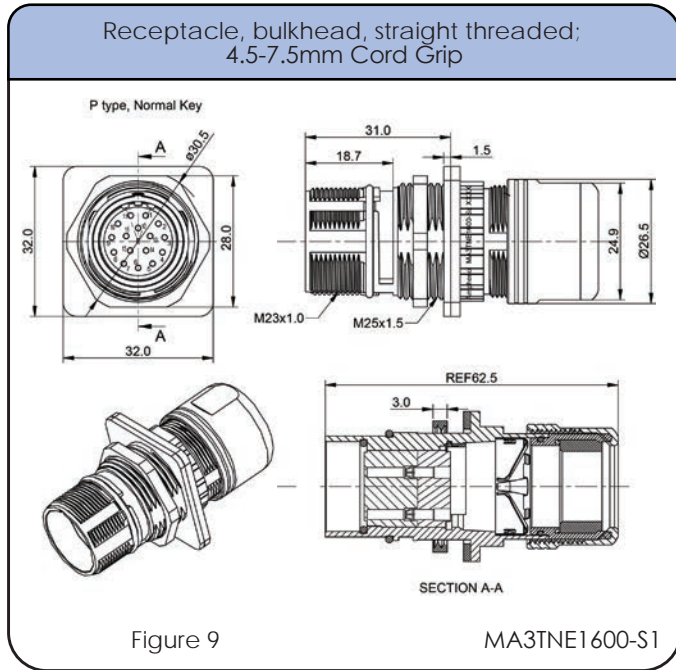


16 POSITIONS
9A / 125V
P type

Style: P type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Threaded Dimensions Receptacles

See Chart 1 for contacts options

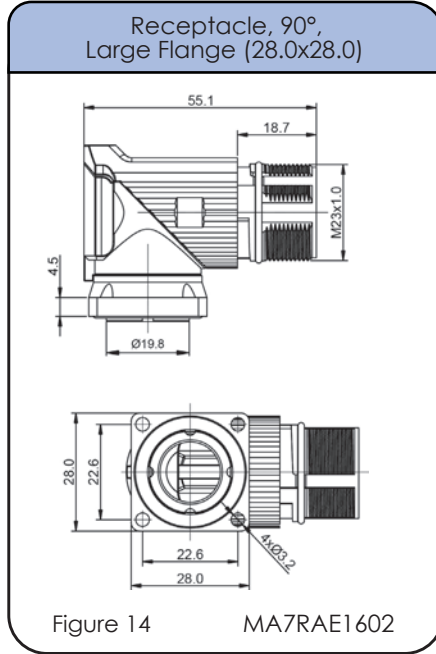
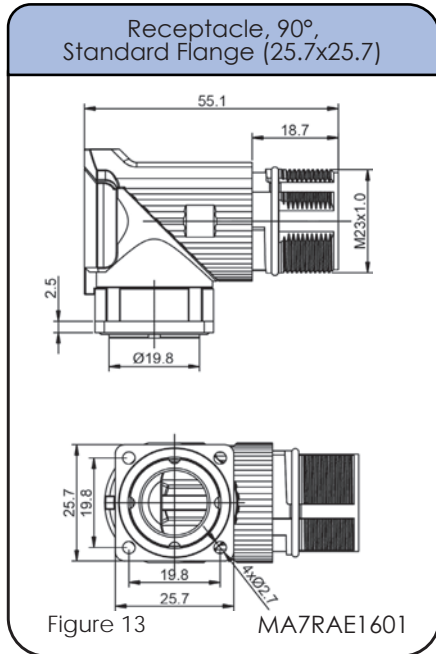


Complete datasheets can be found at www.amphenol-sine.com

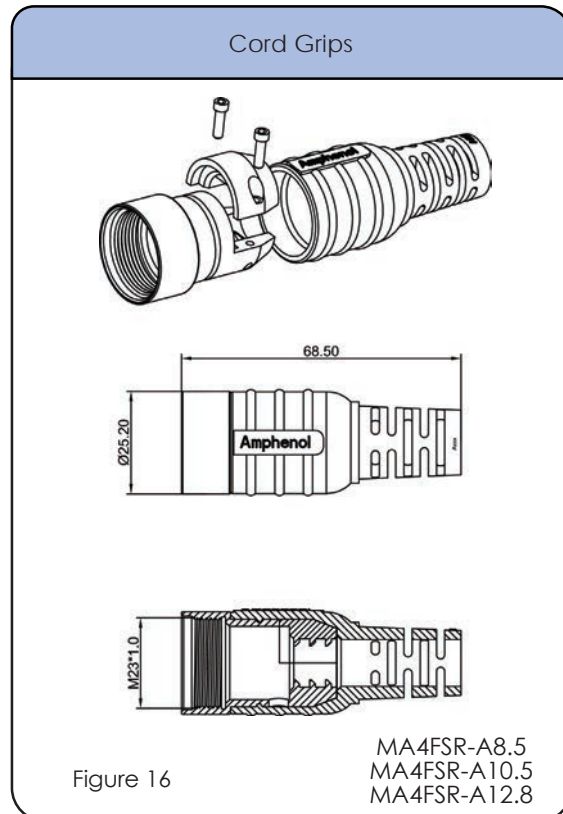
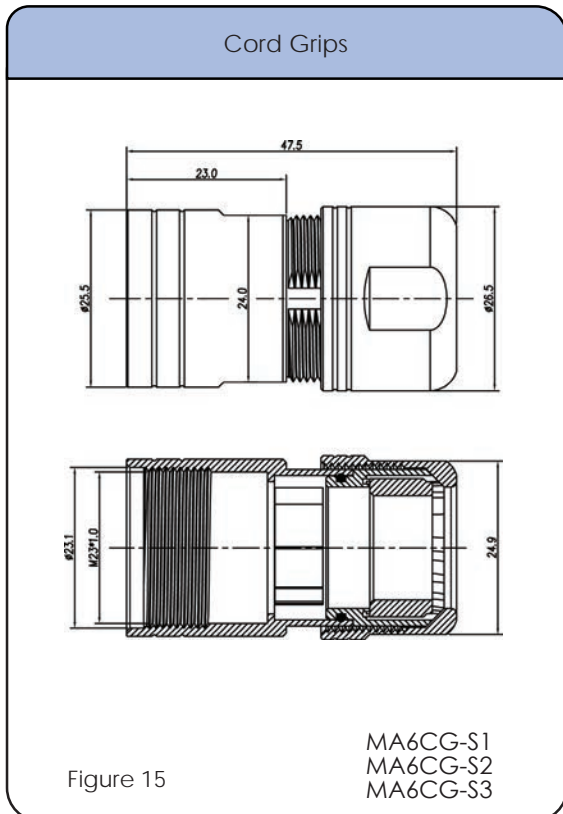
Style: P type Plug Number of Contacts: 16 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Threaded Dimensions 90° Rotatable Receptacles

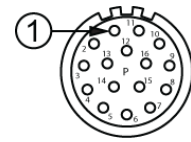
See Chart 1 for contacts options



Dimensions Cord Grips / Backshells



Complete datasheets can be found at www.amphenol-sine.com



16 POSITIONS
9A / 125V
P type Plug

Style: P type Plug Number of Contacts: 16 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

CONNECTOR SOLUTIONS

Tools & Accessories

Universal hand crimp tool. Uses universal positioner part no. SK2-2*
 Wire range 20-32AWG



AFM8

Universal hand crimp tool. Uses universal positioner part no. UH2-5*
 Wire range 12-26AWG



AF8

Pneumatic crimp tool. Uses universal positioner part no. SK2-2*
 Wire range 20-32AWG



WA22

Universal positioner is used with crimp tools AFM8 and WA22.
 Wire range 20-32AWG



SK2-2

Universal positioner is used with the universal hand crimp tool (AF8).
 Wire range 12-26AWG



UH2-5

Pneumatic crimp tool. Uses universal positioner part no. UH2-5*.
 Wire range 12-26AWG




WA27F

Extraction tool. Used for removal of 1.0mm contacts from inserts.



50-54931-1

Dust Cap for Receptacle



P29687

Dust Cap for Plug, threaded



P31660

Dust Cap for Plug, Checkmate™



P31662

* The universal positioner is not included with the crimp tools and must be ordered separately.

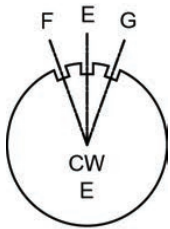
Complete datasheets can be found at www.amphenol-sine.com

Connector Solutions M23 Standard Series

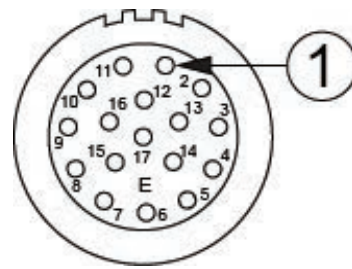
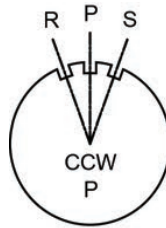
STEP 1
Choose Plug

STEP 2
Choose Receptacle

STEP 3
Choose Backshell/Cord Grip



Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.* Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 16 for connector configurations



Plugs



MA1CAE1700



MA1EAE1700



MA2CAE1700

Receptacles



MA1LAP1700



MA7RAP1701
MA7RAP1702



MA1JAP1700



MA3TNP1700-S1
MA3TNP1700-S2
MA3TNP1700-S3



MA2LAP1700



MA5RAP1701
MA5RAP1702



MA2JAP1700

Cord Grips



MA6CG-S1
MA6CG-S2
MA6CG-S3

FlexGrip™ Backshell System



MA4FSR-A8.5
MA4FSR-A10.5
MA4FSR-A12.8

more about FlexGrip™ on page 282

BULK CABLE starts on page 23

Receptacle Kits

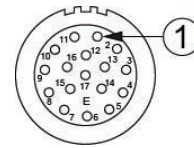


MA1LAP1700-KIT
MA1LAP1700S-KIT

MA2LAP1700-KIT
MA2LAP1700S-KIT

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 182



17 POSITIONS
9A / 125V
E type

Style: E type Plug **Number of Contacts: 17** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)**



Checkmate™ Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|---|---|-------|---|--------|-----------------|
| MA2CAE1700 | Plug, straight, Checkmate™ | E | Pin | Socket | 1 |
| MA2LAP1700 | Receptacle, straight, flange mount Checkmate™ | P | Socket | Pin | 2 |
| MA2LAP1700-KIT | Receptacle kit, straight, flange mount Checkmate™ | P | | Pin | 2 |
| MA2LAP1700S-KIT | Receptacle kit, straight, flange mount Checkmate™ | P | Socket | | 2 |
| MA2JAP1700 | Receptacle extension, Checkmate™ | P | Socket | Pin | 3 |
| MA5RAP1701* | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | P | Socket | Pin | 4 |
| MA5RAP1702* | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | P | Socket | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 page 182 | | | | | |

Threaded Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|---|---|-------|---|--------|-----------------|
| MA1CAE1700 | Plug, straight, threaded | E | Pin | Socket | 6 |
| MA1EAE1700 | Plug, 90° rotatable, threaded | E | Pin | Socket | 7 |
| MA1LAP1700 | Receptacle, straight, flange mount, threaded | P | Socket | Pin | 8 |
| MA1LAP1700-KIT | Receptacle kit, straight, threaded. Contacts included | P | | Pin | 8 |
| MA1LAP1700S-KIT | Receptacle kit, straight, threaded. Contacts included | P | Socket | | 8 |
| MA3TNP1700-S1 | Receptacle, bulkead, threaded, 4.5-7.5mm | P | Socket | Pin | 9 |
| MA3TNP1700-S2 | Receptacle, bulkead, threaded, 7.5-11.0mm | P | Socket | Pin | 10 |
| MA3TNP1700-S3 | Receptacle, bulkead, threaded, 11.0-15.0mm | P | Socket | Pin | 11 |
| MA1JAP1700 | Receptacle extension, threaded | P | Socket | Pin | 12 |
| MA7RAP1701* | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | P | Socket | Pin | 13 |
| MA7RAP1702* | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | P | Socket | Pin | 14 |
| ↑ Contacts supplied separately see Chart 1 page 182 | | | | | |

*Elite Series receptacles are offered here as additional options for mating with Standard Series plugs. See Assembly Instructions starting on page 266

Style: E type Plug Number of Contacts: 17 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Cord Grips and Backshells

| Part Number | Type | Cable Range (mm) | Figure Drawings |
|---------------|----------------------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 15 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 15 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 15 |
| MA4FSR-A8.5* | Flex Grip™ backshell | 7.5-8.5mm | 16 |
| MA4FSR-A10.5* | Flex Grip™ backshell | 9.5-10.5mm | 16 |
| MA4FSR-A12.8* | Flex Grip™ backshell | 11.5-12.8mm | 16 |

*Must be potted to achieve IP67 ratings.



CHART 1

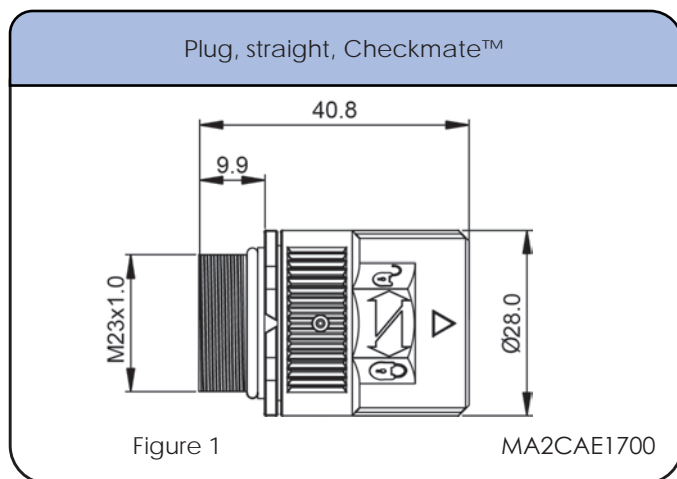
Crimp Contacts, Machined

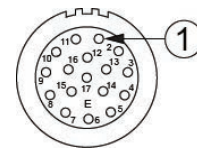
| Part Number | Pin/Socket | AWG | mm ² | Plating |
|-------------|------------|-------|-----------------|---------|
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold |

Machined Contacts

Checkmate™ Dimensions Straight Plug/ Plug Kits

See Chart 1 for contacts options



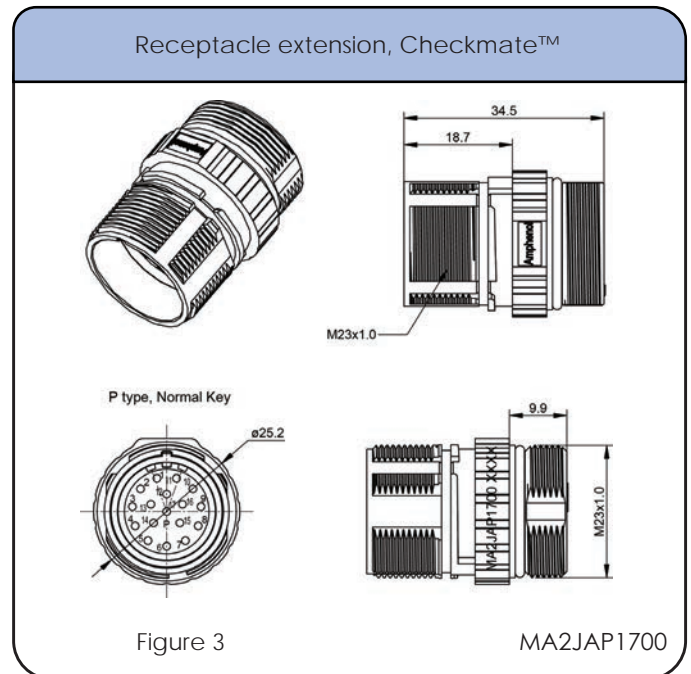
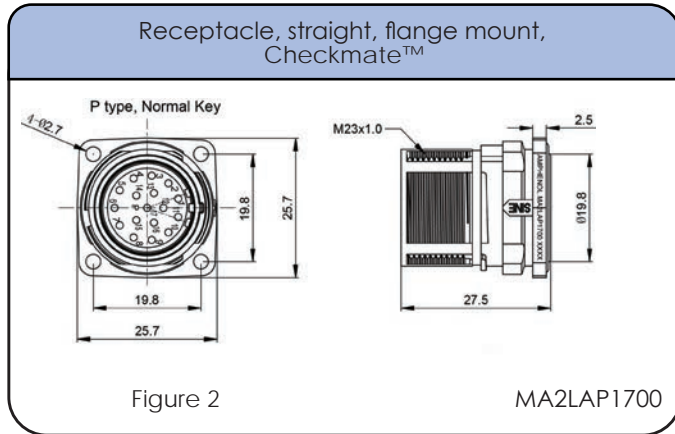


17 POSITIONS
9A / 125V
E type

Style: E type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

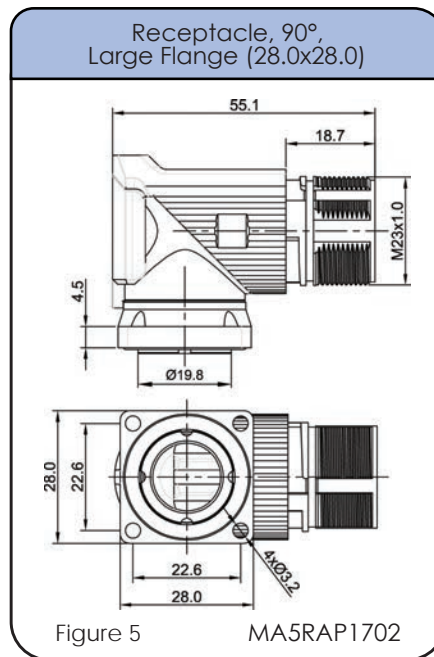
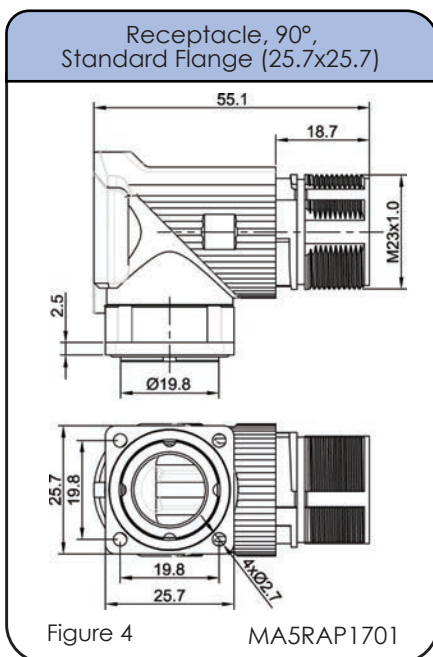
Checkmate™ Dimensions Receptacles

See Chart 1 for contacts options

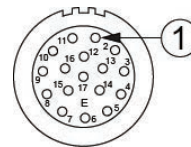


Checkmate™ Dimensions 90° Receptacles

See Chart 1 for contacts options



Complete datasheets can be found at www.amphenol-sine.com



17 POSITIONS
9A / 125V
E type

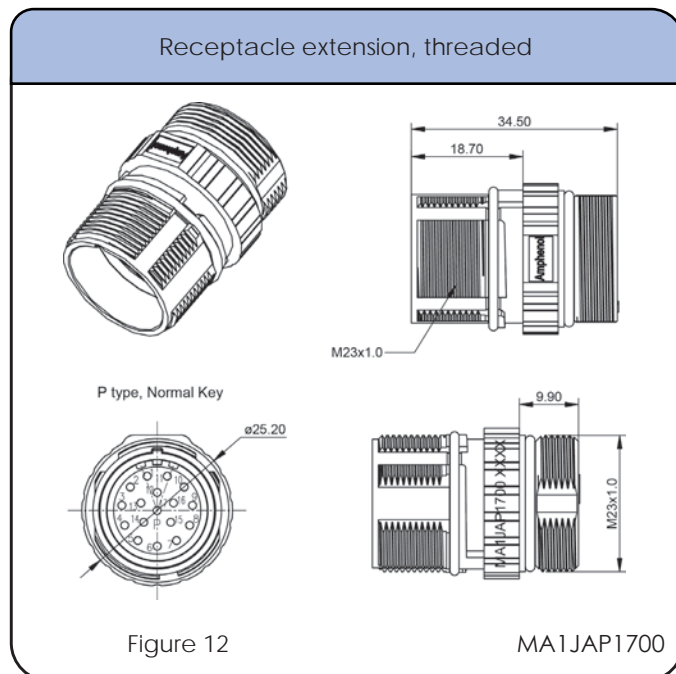
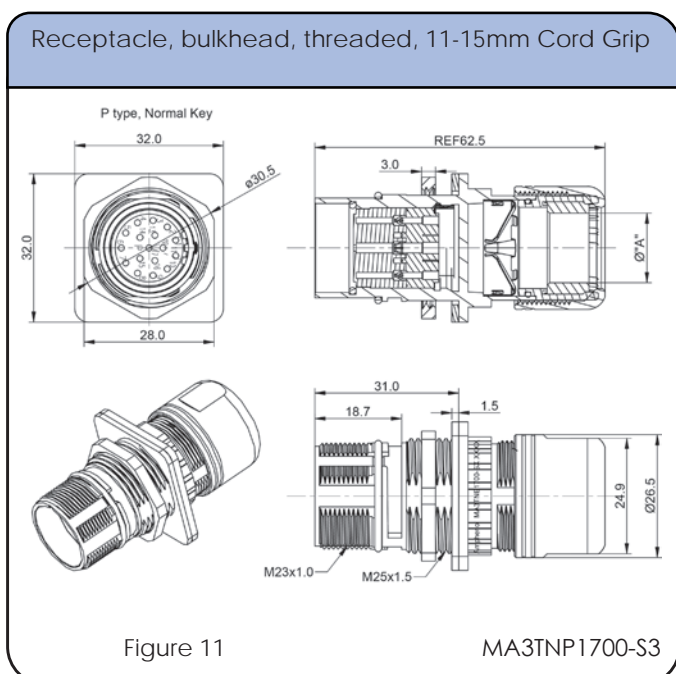
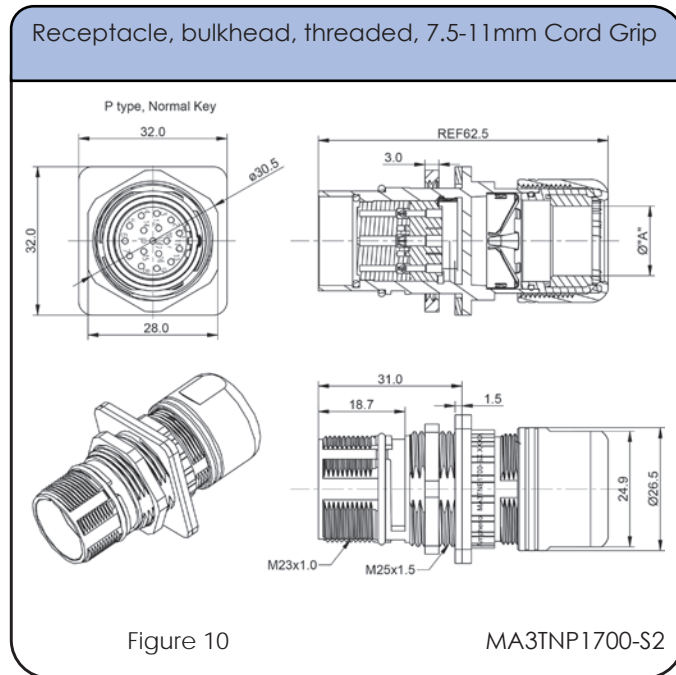
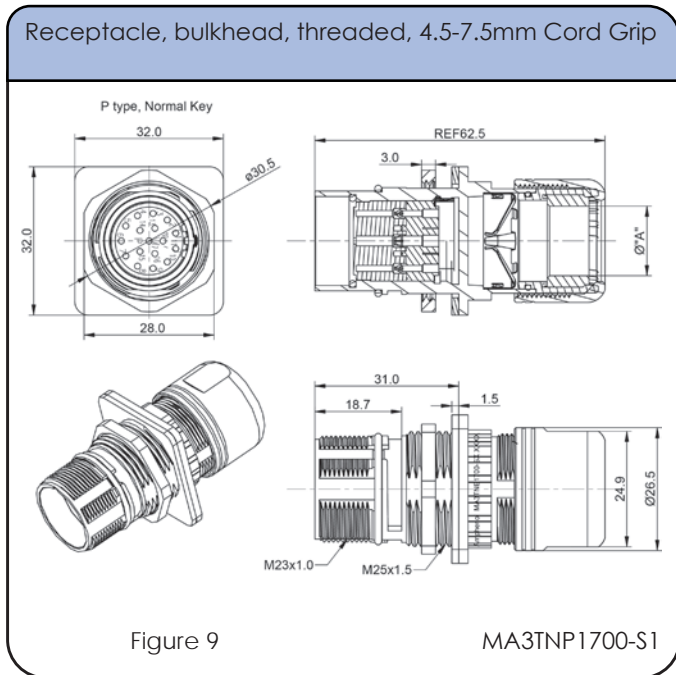
Style: E type Plug
Sealing: IP66/67

Number of Contacts: 17
AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Contact Size: 1.0mm

Threaded Dimensions Bulkhead Receptacles / Receptacle Extension

See Chart 1 for contacts options

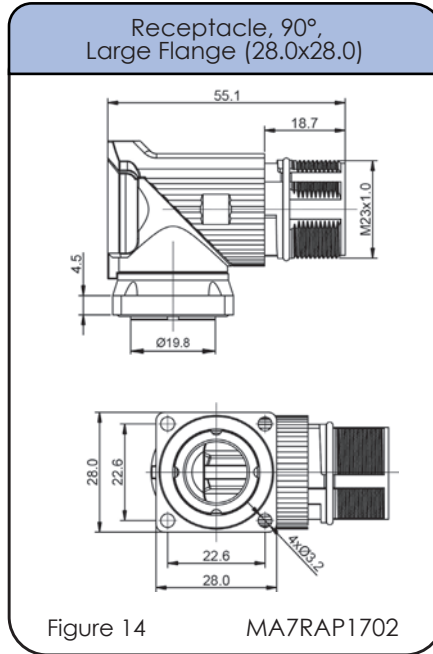
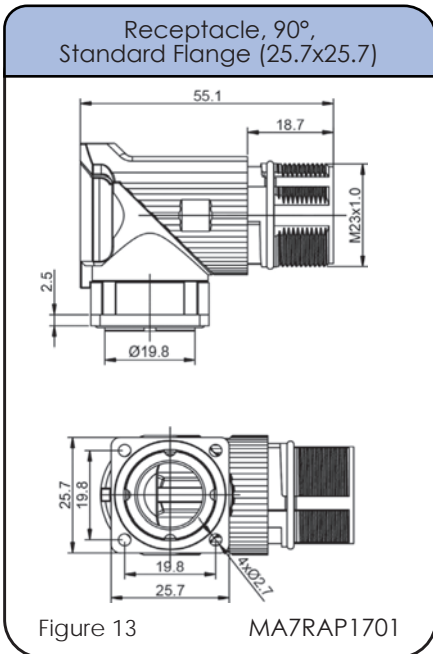


Complete datasheets can be found at www.amphenol-sine.com

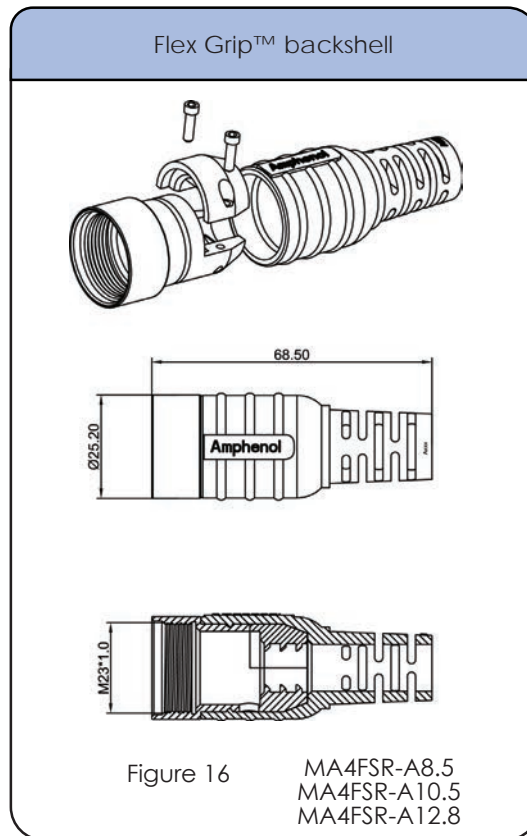
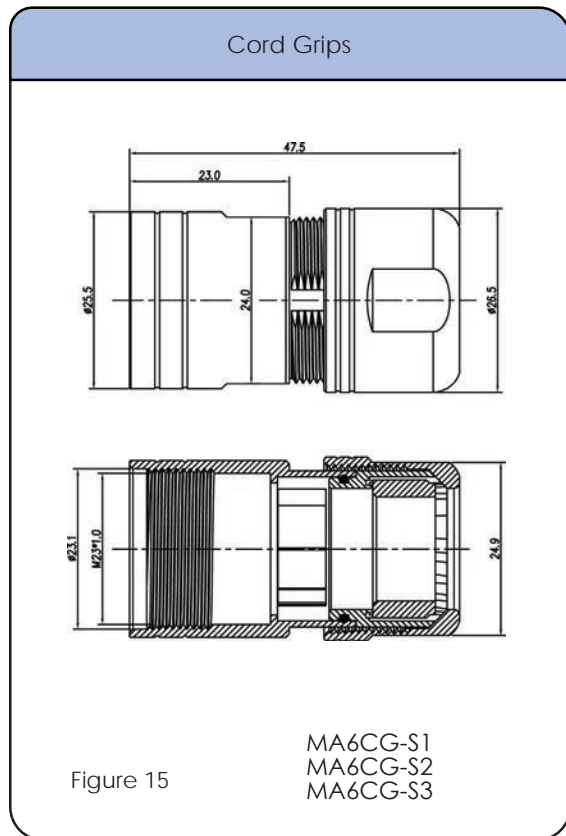
Style: E type Plug Number of Contacts: 17 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Threaded Dimensions 90° Rotatable Receptacles

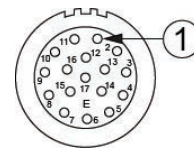
See Chart 1 for contacts options



Dimensions Cord Grips / Backshells



Complete datasheets can be found at www.amphenol-sine.com



17 POSITIONS
9A / 125V
E type

Style: E type Plug **Number of Contacts: 17** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)**

Tools & Accessories

| | | |
|---|---|--|
| <p>Universal hand crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>AFM8</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5* Wire range 12-26AWG</p>  <p>AF8</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>WA22</p> |
| <p>Universal positioner is used with crimp tools AFM8 and WA22. Wire range 20-32AWG</p>  <p>SK2-2</p> | <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5*. Wire range 12-26AWG</p>  <p>WA27F</p> |
| <p>Extraction tool. Used for removal of 1.0mm contacts from inserts.</p>  <p>50-54931-1</p> | <p>Dust Cap</p>  <p>P29687</p> | <p>Dust Cap for Plug, Checkmate™</p>  <p>P31662</p> |
| <p>Dust Cap for Plug, Threaded</p>  <p>P31660</p> | <p>* The universal positioner is not included with the crimp tools and must be ordered separately.</p> | |

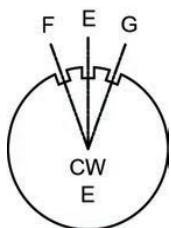
Complete datasheets can be found at www.amphenol-sine.com

Connector Solutions M23 Standard Series

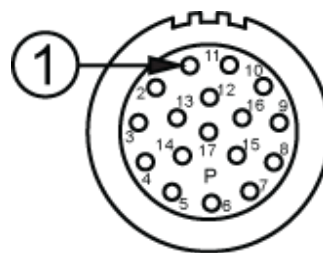
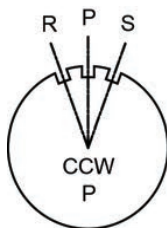
STEP 1
Choose Plug

STEP 2
Choose Receptacle

STEP 3
Choose Backshell/Cord Grip



Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.* Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 16 for connector configurations



Plugs



MA1CAP1700



MA1EAP1700



MA2CAP1700

Receptacles



MA1LAE1700



MA7RAE1701
MA7RAE1702



MA1JAE1700



MA3TNE1700-S1
MA3TNE1700-S2
MA3TNE1700-S3



MA2LAE1700



MA5RAE1701
MA5RAE1702



MA2JAE1700

Cord Grips



MA6CG-S1
MA6CG-S2
MA6CG-S3

FlexGrip™ Backshell System



MA4FSR-A8.5
MA4FSR-A10.5
MA4FSR-A12.8

more about FlexGrip™ on page 282

BULK CABLE starts on page 23

Receptacle Kits



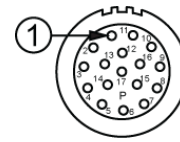
MA1LAE1700-KIT
MA1LAE1700S-KIT



MA2LAE1700-KIT
MA2LAE1700S-KIT

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 190



17 POSITIONS
9A / 125V
P type

Style: P type Plug **Number of Contacts: 17** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)**



Checkmate™ Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|---|---|-------|---|--------|-----------------|
| | | | | | |
| MA2CAP1700 | Plug, straight, Checkmate™ | P | Pin | Socket | 1 |
| MA2LAE1700 | Receptacle, straight, flange mount, Checkmate™ | E | Socket | Pin | 2 |
| MA2LAE1700-KIT | Receptacle kit, straight, flange mount, Checkmate™ | E | | Pin | 2 |
| MA2LAE1700S-KIT | Receptacle kit, straight, flange mount, Checkmate™ | E | Socket | | 2 |
| MA2JAE1700 | Receptacle extension, Checkmate™ | E | Socket | Pin | 3 |
| MA5RAE1701* | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | E | Socket | Pin | 4 |
| MA5RAE1702* | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | E | Socket | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 page 190 | | | | | |

Threaded Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|---|---|-------|---|--------|-----------------|
| | | | | | |
| MA1CAP1700 | Plug, straight, threaded | P | Pin | Socket | 6 |
| MA1EAP1700 | Plug, 90° rotatable threaded | P | Pin | Socket | 7 |
| MA1LAE1700 | Receptacle, straight, threaded, flange mount | E | Socket | Pin | 8 |
| MA1LAE1700-KIT | Receptacle kit, straight, threaded. Contacts included | E | | Pin | 8 |
| MA1LAE1700S-KIT | Receptacle kit, straight, threaded. Contacts included | E | Socket | | 8 |
| MA3TNE1700-S1 | Receptacle, bulkhead, threaded, 4.5-7.5mm | E | Socket | Pin | 9 |
| MA3TNE1700-S2 | Receptacle, bulkhead, threaded, 7.5-11mm | E | Socket | Pin | 10 |
| MA3TNE1700-S3 | Receptacle, bulkhead, threaded, 11.0-15mm | E | Socket | Pin | 11 |
| MA1JAE1700 | Receptacle extension, threaded | E | Socket | Pin | 12 |
| MA7RAE1701* | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | E | Socket | Pin | 13 |
| MA7RAE1702* | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | E | Socket | Pin | 14 |
| ↑ Contacts supplied separately see Chart 1 page 190 | | | | | |

*Elite Series receptacles are offered here as additional options for mating with Standard Series plugs. See Assembly Instructions starting on page 266

Style: P type Plug Number of Contacts: 17 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Cord Grips and Backshells

| Part Number | Type | Cable Range (mm) | Figure Drawings |
|---------------|----------------------|------------------|-----------------|
| MA6CG-S1 | Cord grip | 4.5-7.5mm | 15 |
| MA6CG-S2 | Cord grip | 7.5-11.0mm | 15 |
| MA6CG-S3 | Cord grip | 11.0-15.0mm | 15 |
| MA4FSR-A8.5* | Flex Grip™ backshell | 7.5-8.5mm | 16 |
| MA4FSR-A10.5* | Flex Grip™ backshell | 9.5-10.5mm | 16 |
| MA4FSR-A12.8* | Flex Grip™ backshell | 11.5-12.8mm | 16 |

*Must be potted to achieve IP67 ratings.

Contacts



Machined Contacts

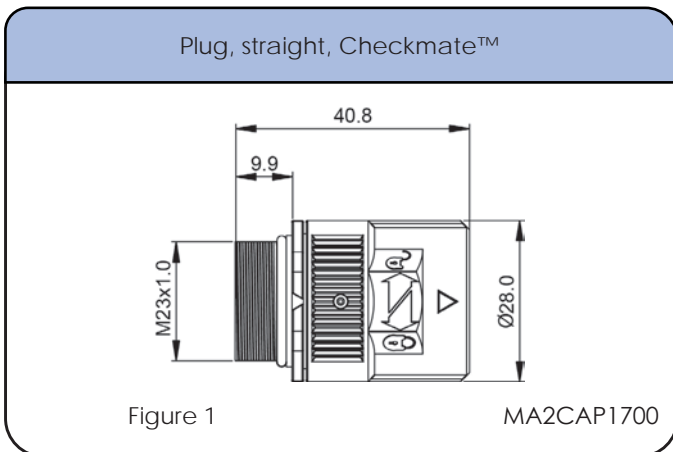
CHART 1

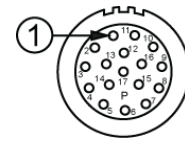
Crimp Contacts, Machined

| Part Number | Pin/Socket | AWG | mm ² | Plating |
|-------------|------------|-------|-----------------|---------|
| SC000035 | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000044 | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | Socket | 28-24 | 0.10 - 0.25 | Gold |

Checkmate™ Dimensions Straight Plug/ Plug Kits

See Chart 1 for contacts options



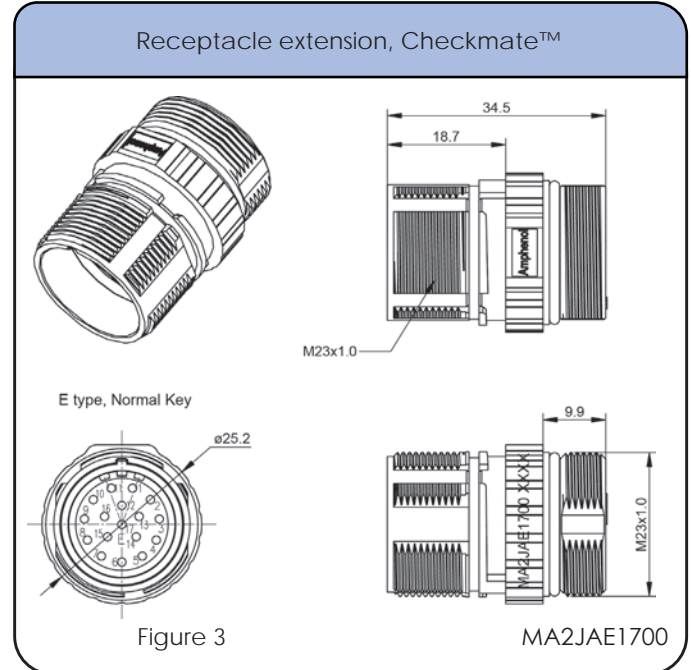
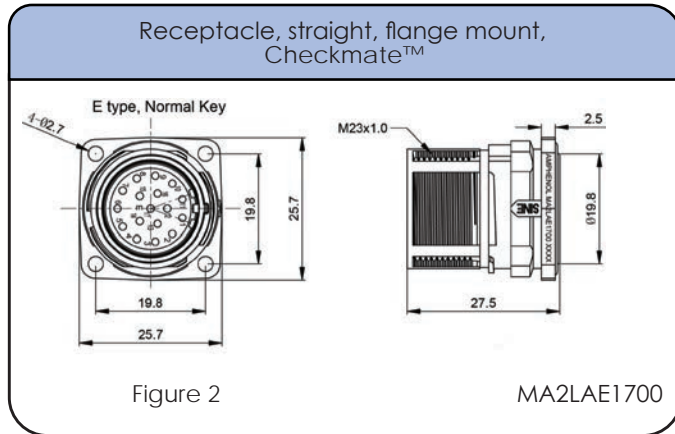


17 POSITIONS
9A / 125V
P type

Style: P type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

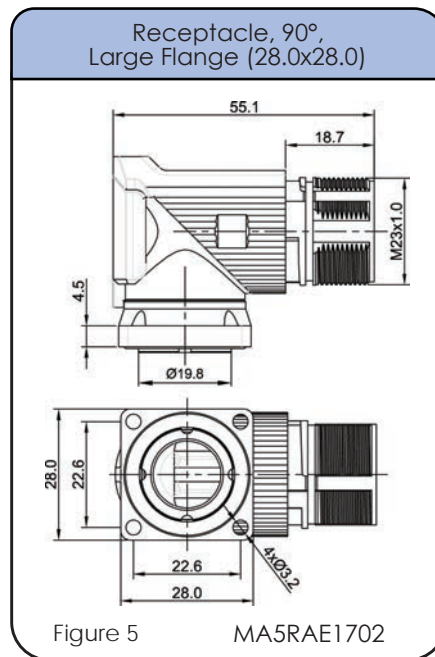
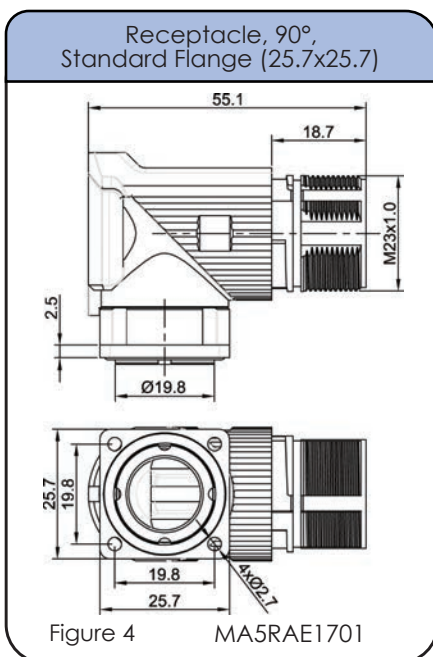
Checkmate™ Dimensions Receptacles

See Chart 1 for contacts options



Checkmate™ Dimensions 90° Receptacles

See Chart 1 for contacts options

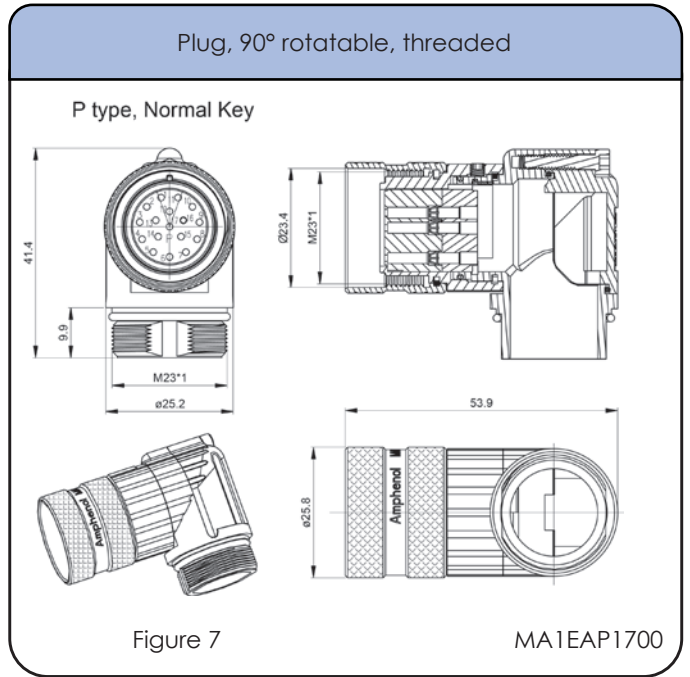
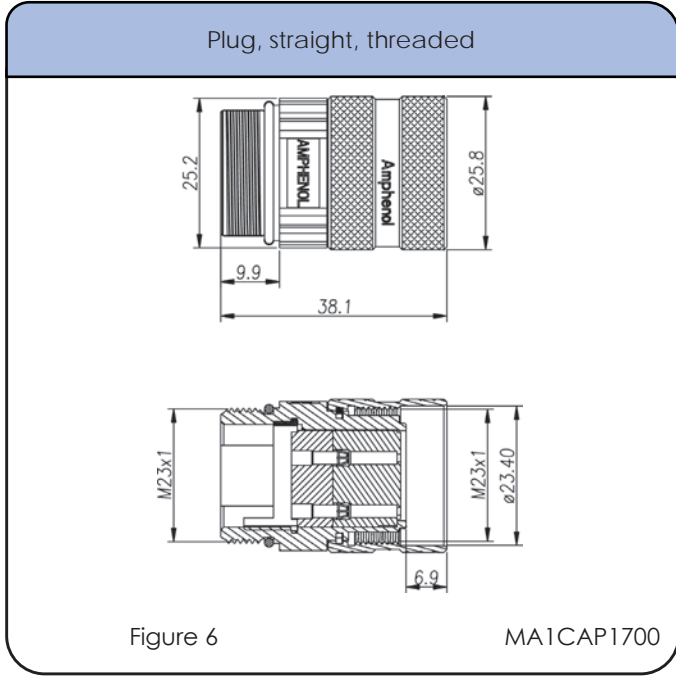


Complete datasheets can be found at www.amphenol-sine.com

Style: P type Plug Number of Contacts: 17 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

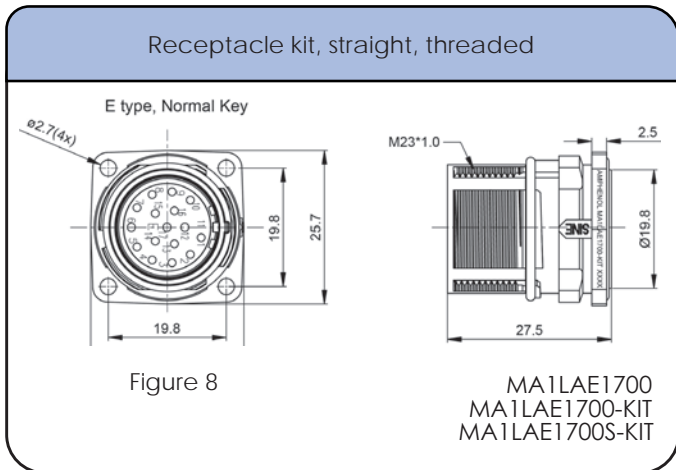
Threaded Dimensions Straight Plug/ Plug Kits

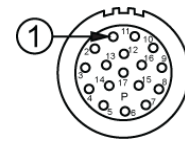
See Chart 1 for contacts options



Threaded Dimensions Straight Receptacles /Receptacle Kits

See Chart 1 for contacts options



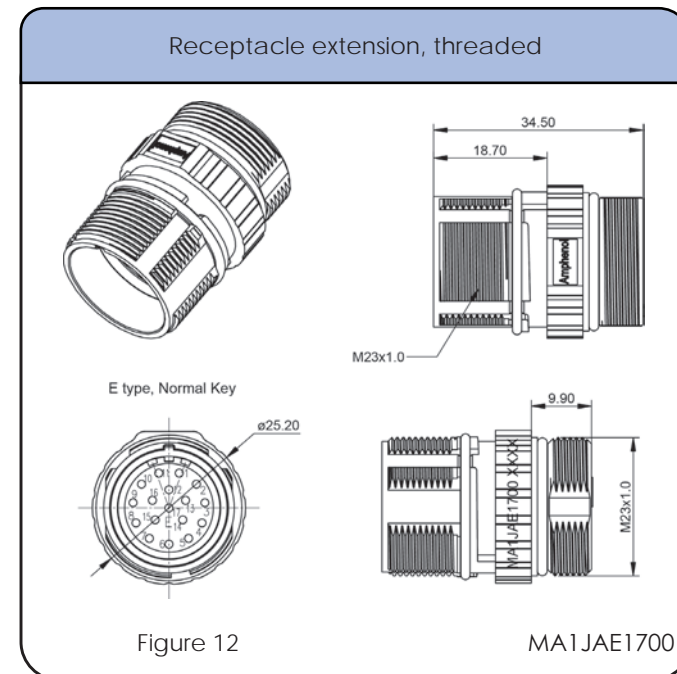
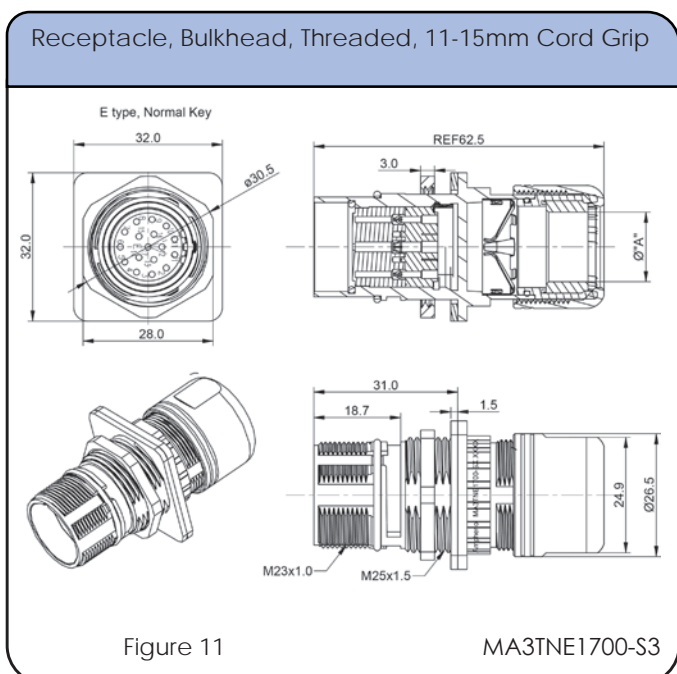
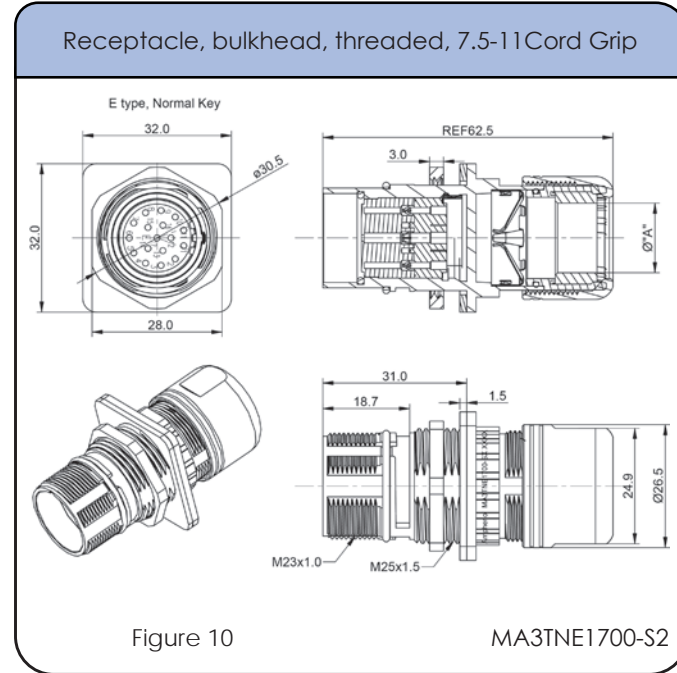
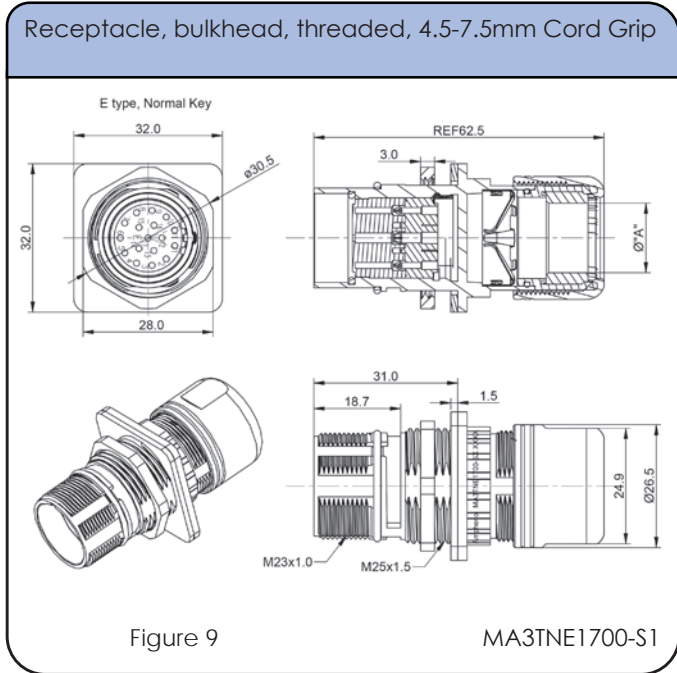


17 POSITIONS
9A / 125V
P type

Style: P type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Threaded Dimensions Bulkhead Receptacles / Receptacle Extension

See Chart 1 for contacts options

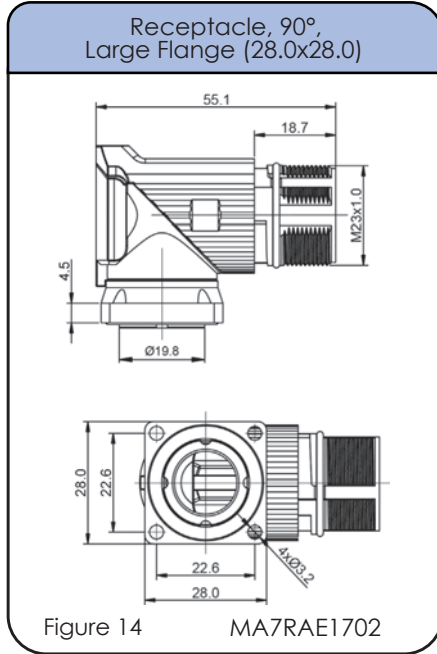
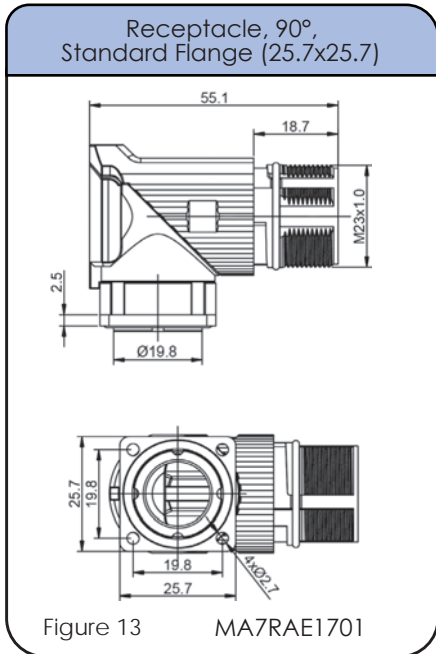


Complete datasheets can be found at www.amphenol-sine.com

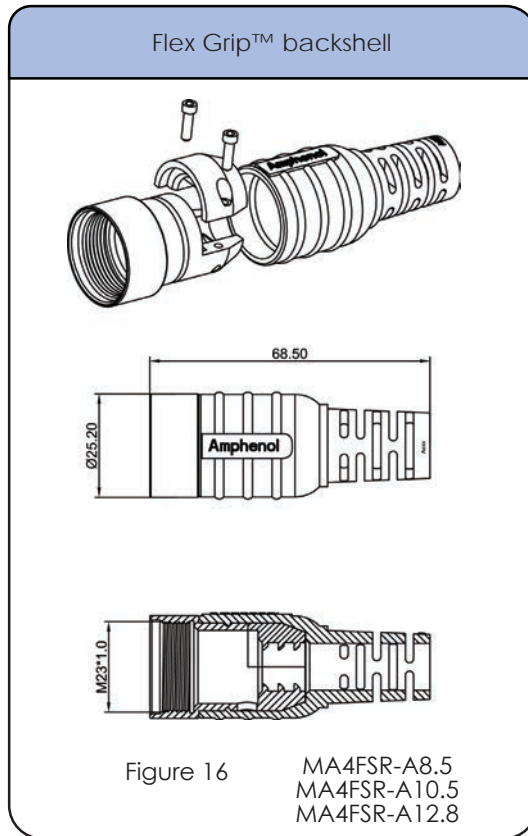
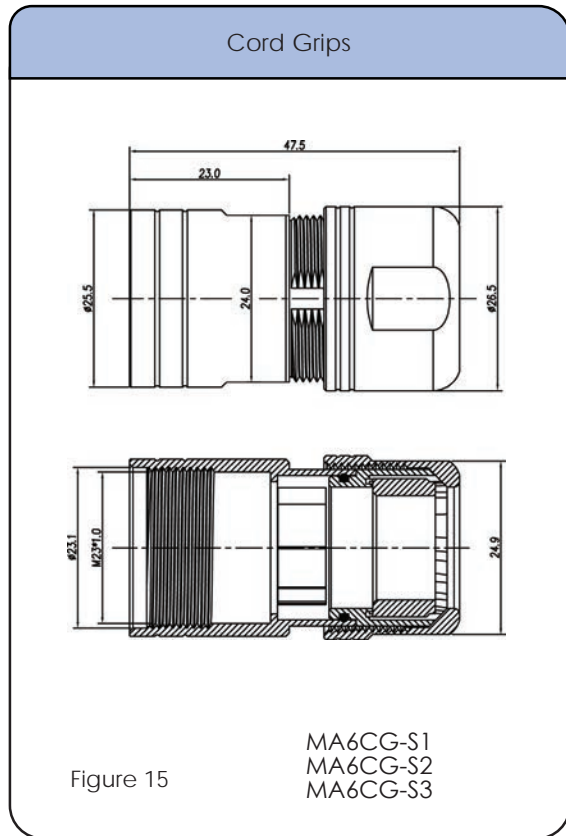
Style: P type Plug Number of Contacts: 17 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Threaded Dimensions 90° Rotatable Receptacles

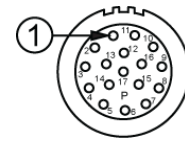
See Chart 1 for contacts options



Dimensions Cord Grips / Backshells



Complete datasheets can be found at www.amphenol-sine.com



17 POSITIONS
9A / 125V
P type

Style: P type Plug Number of Contacts: 17 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10 mm²)

Tools & Accessories

Universal hand crimp tool. Uses universal positioner part no. SK2-2*
Wire range 20-32AWG



AFM8

Universal hand crimp tool. Uses universal positioner part no. UH2-5*
Wire range 12-26AWG



AF8

Pneumatic crimp tool. Uses universal positioner part no. SK2-2*
Wire range 20-32AWG



WA22

Universal positioner is used with crimp tools AFM8 and WA22.
Wire range 20-32AWG



SK2-2

Universal positioner is used with the universal hand crimp tool (AF8).
Wire range 12-26AWG



UH2-5

Pneumatic crimp tool. Uses universal positioner part no. UH2-5*.
Wire range 12-26AWG



WA27F

Extraction tool. Used for removal of 1.0mm contacts from inserts.



50-54931-1

Dust Cap for Receptacle



P29687

Dust Cap for Plug, Checkmate™



P31662

Dust Cap for Plug, Threaded



P31660

* The universal positioner is not included with the crimp tools and must be ordered separately.

Complete datasheets can be found at www.amphenol-sine.com

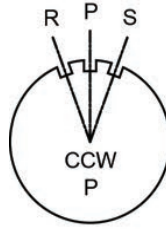
Connector Solutions M23 Standard Series

STEP 1
Choose Plug

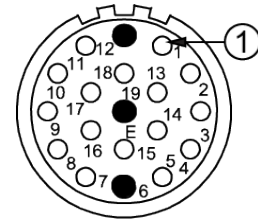


Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.*
Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 199 for connector configurations

STEP 2
Choose Receptacle



STEP 3
Choose Backshell/Cord Grip



Plugs



MA1CAE1900



MA1EAE1900



MA2CAE1900

Receptacles



MA1LAP1900



MA1JAP1900



MA2LAP1900



MA2JAP1900



MA7RAP1901
MA7RAP1902



MA3TNE1900-S1
MA3TNE1900-S2
MA3TNE1900-S3



MA5RAP1901
MA5RAP1901

Cord Grips



MA6CG-S1
MA6CG-S2
MA6CG-S3

FlexGrip™ Backshell System



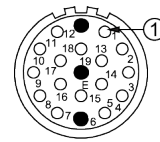
MA4FSR-A8.5
MA4FSR-A10.5
MA4FSR-A12.8

more about FlexGrip™ on page 282

BULK CABLE
starts on
page 23

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 198



19 POSITIONS
7A / 63V
E type

Style: E type Plug Number of Contacts: 19 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 to 1.0 mm²)



Checkmate™ Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|---|---|-------|---|--------|-----------------|
| MA2CAE1900 | Plug, straight, Checkmate™ | E | Pin | Socket | 1 |
| MA2LAP1900 | Receptacle, straight, flange mount, Checkmate™ | P | Socket | Pin | 2 |
| MA2JAP1900 | Receptacle extension, straight Checkmate™ | P | Socket | Pin | 3 |
| MA5RAP1901* | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | E | Socket | Pin | 4 |
| MA5RAP1902* | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | E | Socket | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 page 198 | | | | | |

Threaded Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|---|---|-------|---|--------|-----------------|
| MA1CAE1900 | Plug, straight, threaded | E | Pin | Socket | 6 |
| MA1EAE1900 | Plug, 90° rotatable, threaded | E | Pin | Socket | 7 |
| MA1LAP1900 | Receptacle, flange mount, threaded | P | Socket | Pin | 8 |
| MA3TNP1900-S1 | Receptacle, bulkhead, threaded, 4.5-7.5mm | E | Socket | Pin | 9 |
| MA3TNP1900-S2 | Receptacle, bulkhead, threaded, 7.5-11.0mm | E | Socket | Pin | 10 |
| MA3TNP1900-S3 | Receptacle, bulkhead, threaded, 11.0-15.0mm | E | Socket | Pin | 11 |
| MA1JAP1900 | Receptacle extension, straight, threaded | P | Socket | Pin | 12 |
| MA7RAP1901* | Receptacle, 90° rotatable, Threaded Standard Flange (25.7x25.7) | E | Socket | Pin | 13 |
| MA7RAP1902* | Receptacle, 90° rotatable, Threaded Large Flange (28.0x28.0) | E | Socket | Pin | 14 |
| ↑ Contacts supplied separately see Chart 1 page 198 | | | | | |

*Elite Series receptacles are offered here as additional options for mating with Standard Series plugs. See Assembly Instructions starting on page 266

Style: E type Plug Number of Contacts: 19 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 to 1.0 mm²)

Cord Grips and Backshells

| Part Number | Type | Cable Range (mm) | Figure Drawings |
|---------------|----------------------|------------------|-----------------|
| MA6CG-S1 | Cord Grip | 4.5-7.5mm | 15 |
| MA6CG-S2 | Cord Grip | 7.5-11.0mm | 15 |
| MA6CG-S3 | Cord Grip | 11.0-15.0mm | 15 |
| MA4FSR-A8.5* | Flex Grip™ backshell | 7.5-8.5mm | 16 |
| MA4FSR-A10.5* | Flex Grip™ backshell | 9.5-10.5mm | 16 |
| MA4FSR-A12.8* | Flex Grip™ backshell | 11.5-12.8mm | 16 |

*Must be potted to achieve IP67 ratings

Contacts

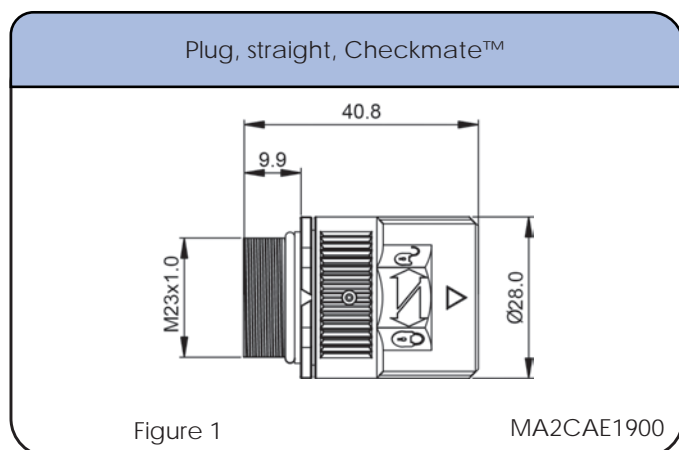


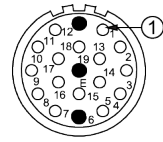
CHART 1

Crimp Contacts, Machined

| Part Number | Pin/Socket | Size | AWG | mm ² | Plating |
|-------------|------------|------|-------|--------------------|---------|
| SC000337 | Pin | 1.5 | 22-18 | 0.37 - 0.75 to 1.0 | Gold |
| SC000338 | Pin | 1.0 | 22-18 | 0.37 - 0.75 to 1.0 | Gold |
| SC000325 | Socket | 1.5 | 22-18 | 0.37 - 0.75 to 1.0 | Gold |
| SC000326 | Socket | 1.0 | 22-18 | 0.37 - 0.75 to 1.0 | Gold |

Dimensions Checkmate™ Plugs

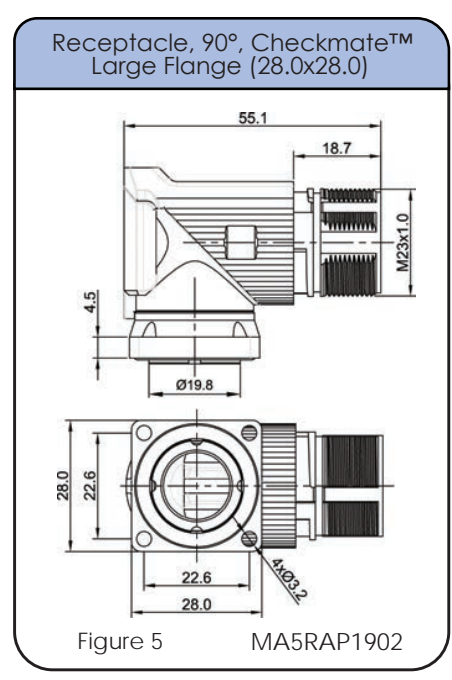
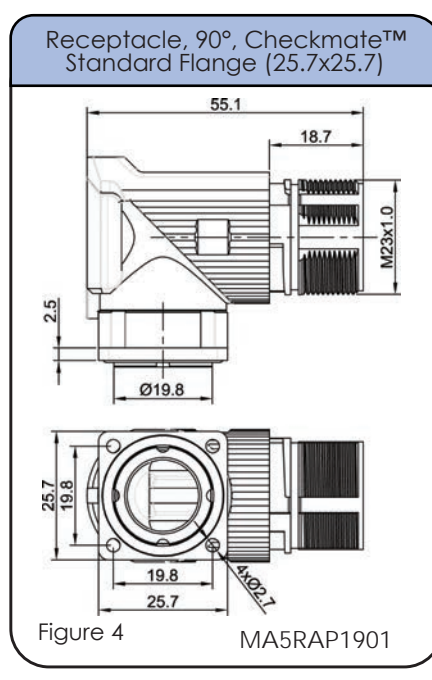
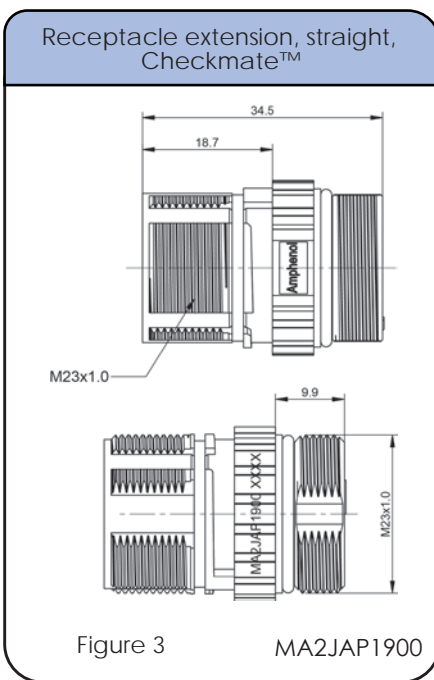
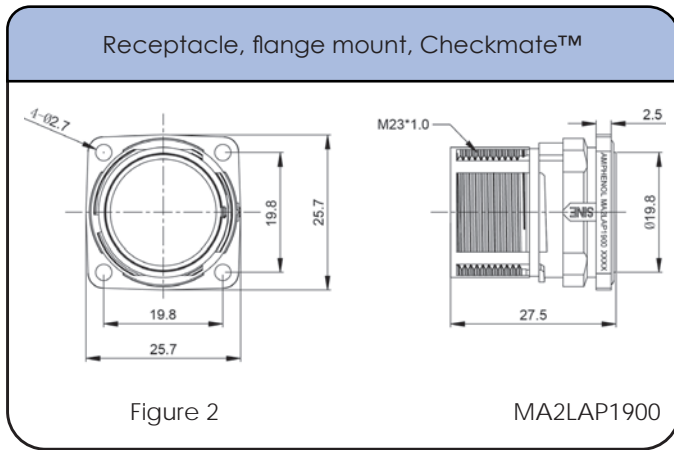




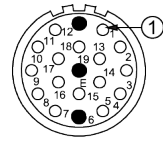
19 POSITIONS
7A / 63V
E type

Style: E type Plug Number of Contacts: 19 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 to 1.0 mm²)

Dimensions Checkmate™ Receptacles



Complete datasheets can be found at www.amphenol-sine.com



19 POSITIONS
7A / 63V
E type

Style: E type Plug Number of Contacts: 19 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 to 1.0 mm²)

Threaded Dimensions Bulkhead Receptacles / Receptacle Extension

Receptacle, bulkhead, straight threaded;
4.5-7.5mm Cord Grip

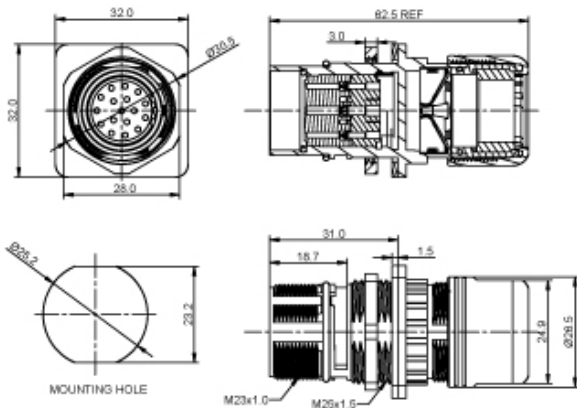


Figure 9

MA3TNP1900-S1

Receptacle, bulkhead, straight threaded;
7.5-11mm Cord Grip

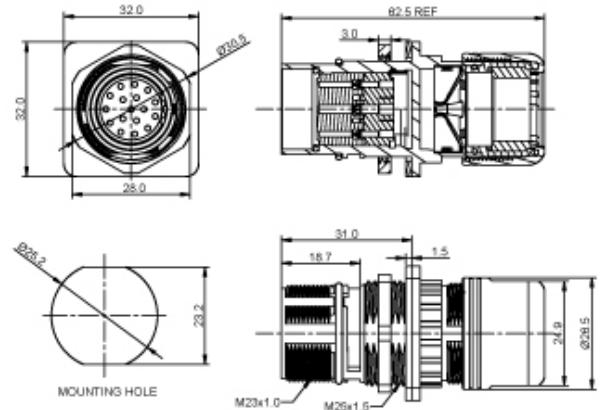


Figure 10

MA3TNP1900-S2

Receptacle, bulkhead, straight threaded;
11-15mm Cord Grip

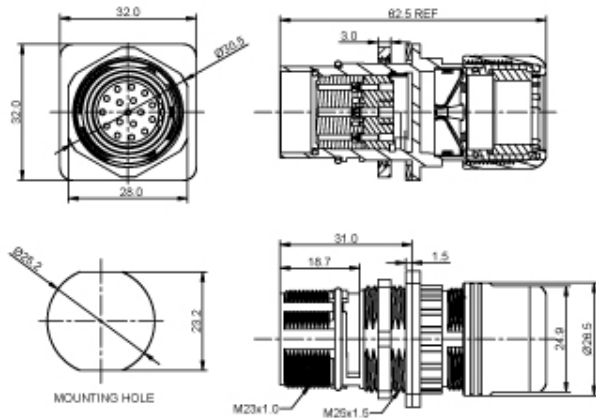


Figure 11

MA3TNP1900-S3

Receptacle extension, threaded

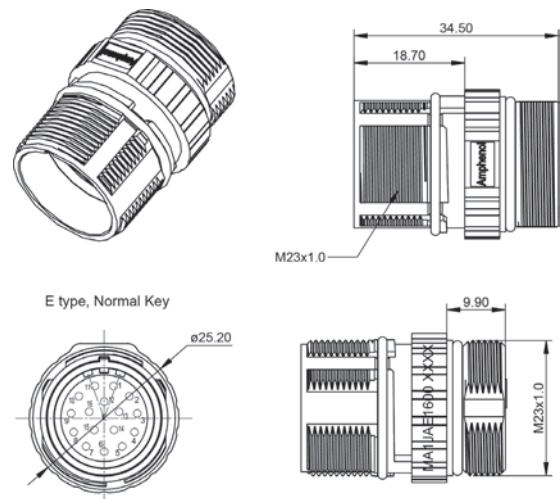


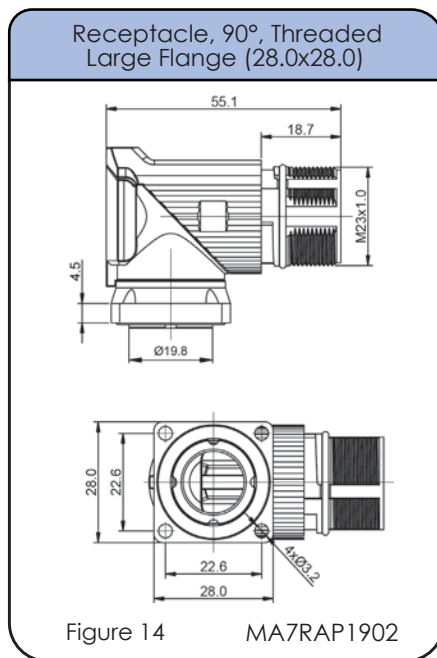
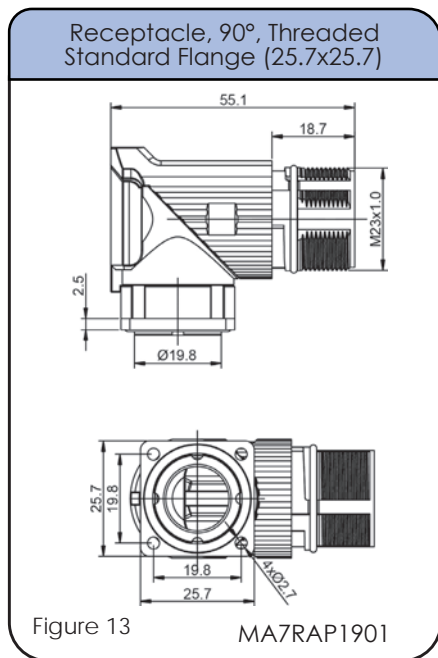
Figure 12

MA1JAE1900

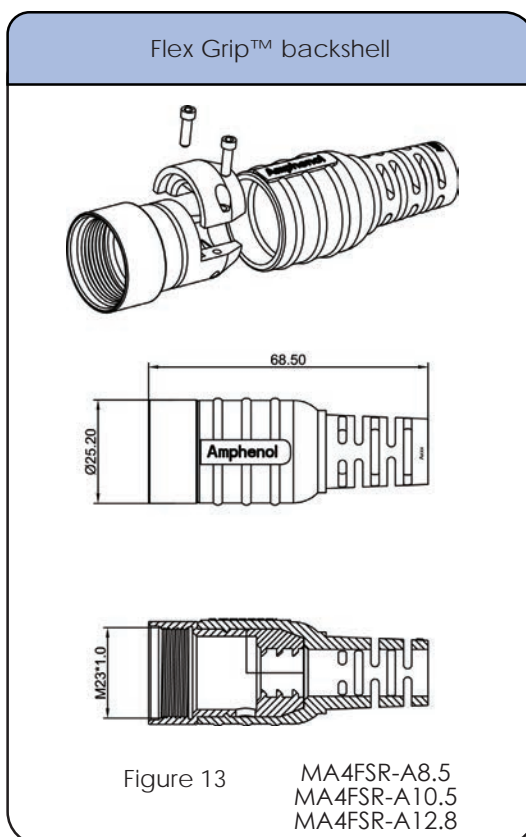
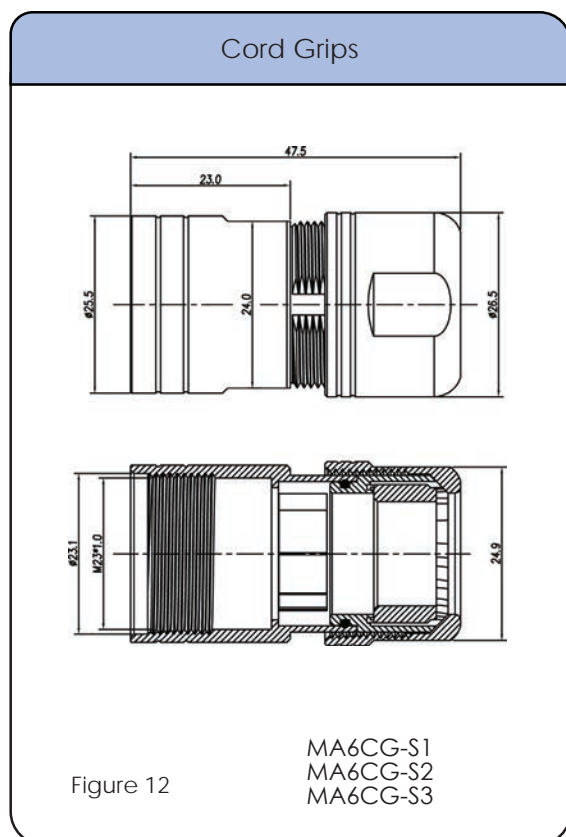
Complete datasheets can be found at www.amphenol-sine.com

Style: E type Plug Number of Contacts: 19 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 to 1.0 mm²)

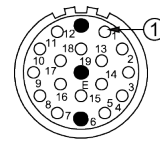
Dimensions Threaded 90° Rotatable Receptacle



Dimensions Cord Grips / Backshells












Complete datasheets can be found at www.amphenol-sine.com



19 POSITIONS
7A / 63V
E type

Style: E type Plug Number of Contacts: 19 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 to 1.0 mm²)

Tools & Accessories

| | | |
|---|---|--|
| <p>Universal hand crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>AFM8</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5* Wire range 12-26AWG</p>  <p>AF8</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>WA22</p> |
| <p>Universal positioner is used with crimp tools AFM8 and WA22. Wire range 20-32AWG</p>  <p>SK2-2</p> | <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5*. Wire range 12-26AWG</p>  <p>WA27F</p> |
| <p>Dust Cap</p>  <p>P29687</p> | <p>Dust Cap for Plug, Checkmate™</p>  <p>P31662</p> | <p>Dust Cap for Plug, Threaded</p>  <p>P31660</p> |

* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M23 Standard Series

STEP 1 Choose Plug

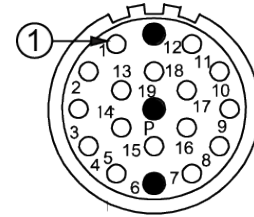


Standard connector parts mate "E" Plugs with "P" Receptacles, Mating parts use opposite contact types. *example: plug with pin contacts mates with a receptacle using socket contacts.*
Other key code options available not listed here. Please call customer service for assistance when ordering F,G,R,S. See page 16 for connector configurations

STEP 2 Choose Receptacle



STEP 3 Choose Backshell/Cord Grip



Plugs



Receptacles



Cord Grips



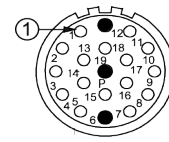
more about
FlexGrip™
on page 282

**BULK CABLE
starts on
page 23**

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 206

*Elite Series receptacles are offered here as additional options for mating with Standard Series plugs. See Assembly Instructions starting on page 266



19 POSITIONS
7A / 63V
P type

Style: P type Plug **Number of Contacts: 19** **Contact Size: 1.0mm**
Sealing: IP66/67 **AWG: 22-18 (0.37 - 0.75 to 1.0 mm²)**



Checkmate™ Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|---|---|-------|---|--------|-----------------|
| | | | | | |
| MA2CAP1900 | Plug, straight, Checkmate™ | P | Pin | Socket | 1 |
| MA2LAE1900 | Receptacle, straight, flange mount, Checkmate™ | E | Socket | Pin | 2 |
| MA2JAE1900 | Receptacle extension, straight Checkmate™ | P | Socket | Pin | 3 |
| MA5RAE1901* | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | E | Socket | Pin | 4 |
| MA5RAE1902* | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | E | Socket | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 page 206 | | | | | |

CONNECTOR SOLUTIONS

Threaded Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Style | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | | Figure Drawings |
|---|---|-------|---|--------|-----------------|
| | | | | | |
| MA1CAP1900 | Plug, straight, threaded | P | Pin | Socket | 6 |
| MA1EAP1900 | Plug, 90° rotatable, threaded | P | Pin | Socket | 7 |
| MA1LAE1900 | Receptacle, straight, flange mount, threaded | E | Socket | Pin | 8 |
| MA3TNE1900-S1 | Receptacle, bulkhead, threaded, 4.5-7.5mm | E | Socket | Pin | 9 |
| MA3TNE1900-S2 | Receptacle, bulkhead, threaded, 7.5-11.0mm | E | Socket | Pin | 10 |
| MA3TNE1900-S3 | Receptacle, bulkhead, threaded, 11.0-15.0mm | E | Socket | Pin | 11 |
| MA1JAE1900 | Receptacle extension, straight, threaded | P | Socket | Pin | 9 |
| MA7RAE1901* | Receptacle, 90° rotatable, Threaded Standard Flange (25.7x25.7) | E | Socket | Pin | 10 |
| MA7RAE1902* | Receptacle, 90° rotatable, Threaded Large Flange (28.0x28.0) | E | Socket | Pin | 11 |
| ↑ Contacts supplied separately see Chart 1 page 206 | | | | | |

Style: P type Plug Number of Contacts: 19 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 to 1.0 mm²)

Cord Grips and Backshells

| Part Number | Type | Cable Range (mm) | Figure Drawings |
|---------------|----------------------|------------------|-----------------|
| MA6CG-S1 | Cord Grip | 4.5-7.5mm | 15 |
| MA6CG-S2 | Cord Grip | 7.5-11.0mm | 15 |
| MA6CG-S3 | Cord Grip | 11.0-15.0mm | 15 |
| MA4FSR-A8.5* | Flex Grip™ backshell | 7.5-8.5mm | 16 |
| MA4FSR-A10.5* | Flex Grip™ backshell | 9.5-10.5mm | 16 |
| MA4FSR-A12.8* | Flex Grip™ backshell | 11.5-12.8mm | 16 |

*Must be reported to achieve IP67 ratings.

Contacts

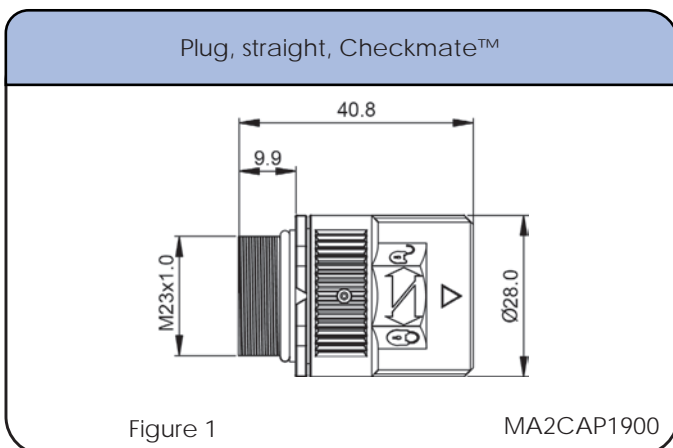


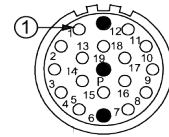
CHART 1

Crimp Contacts, Machined

| Part Number | Pln/Socket | Size | AWG | mm ² | Plating |
|-------------|------------|------|-------|--------------------|---------|
| SC000337 | Pin | 1.5 | 22-18 | 0.37 - 0.75 to 1.0 | Gold |
| SC000338 | Pin | 1.0 | 22-18 | 0.37 - 0.75 to 1.0 | Gold |
| SC000325 | Socket | 1.5 | 22-18 | 0.37 - 0.75 to 1.0 | Gold |
| SC000326 | Socket | 1.0 | 22-18 | 0.37 - 0.75 to 1.0 | Gold |

Dimensions Checkmate™ Plugs

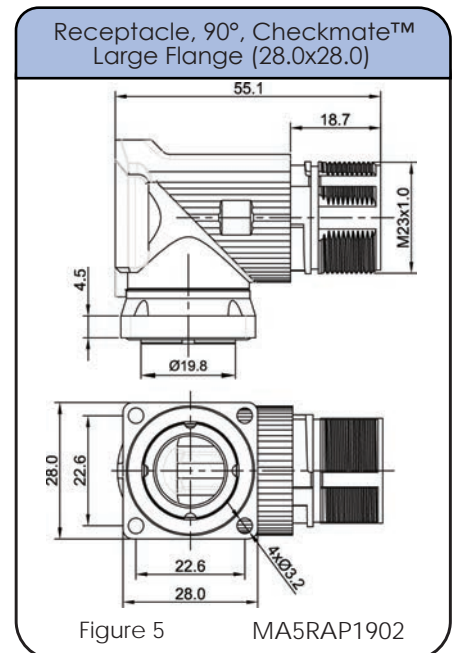
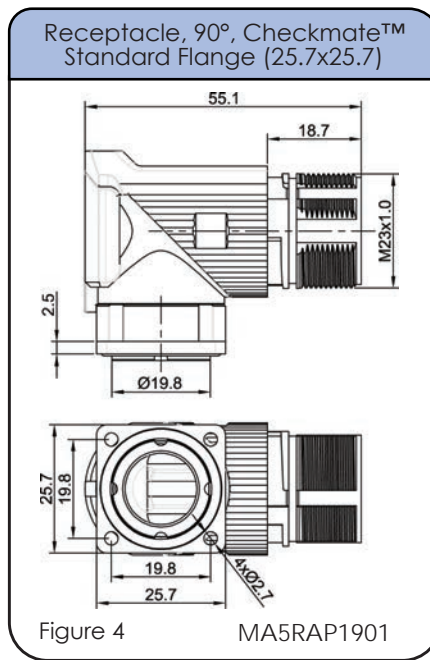
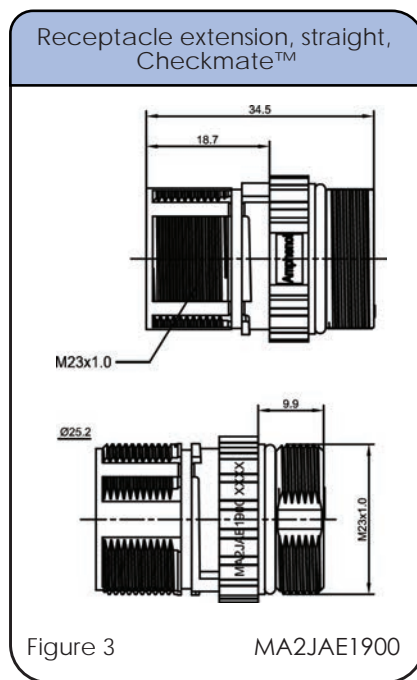
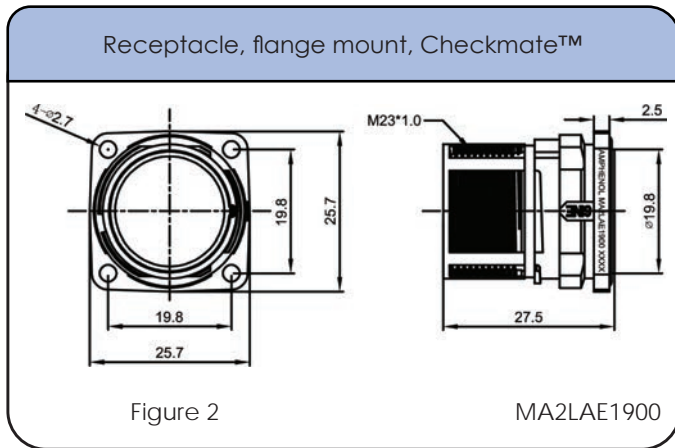




19 POSITIONS
7A / 63V
P type

Style: P type Plug Number of Contacts: 19 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 to 1.0 mm²)

Dimensions Checkmate™ Receptacles



Style: P type Plug Number of Contacts: 19 Contact Size: 1.0mm Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 to 1.0 mm²)

Dimensions Threaded Plugs / Receptacles

Plug, straight, threaded

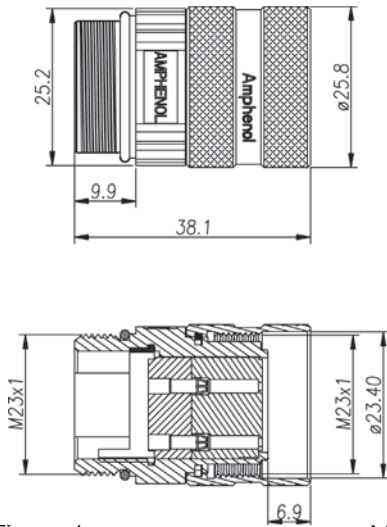


Figure 6

MA1CAP1900

Plug, 90° rotatable, threaded

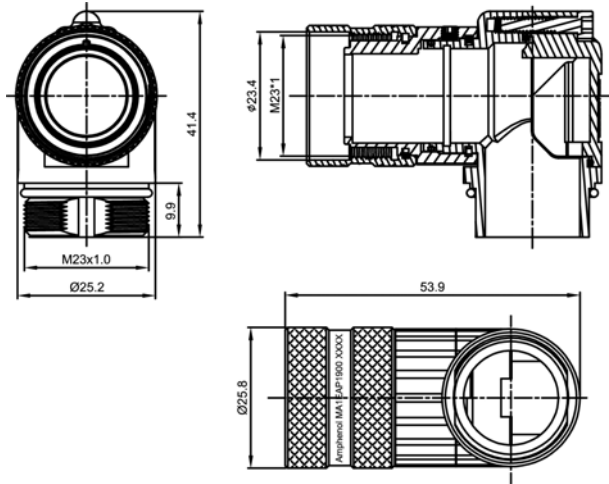


Figure 7

MA1EAP1900

Receptacle, straight, flange mount, threaded

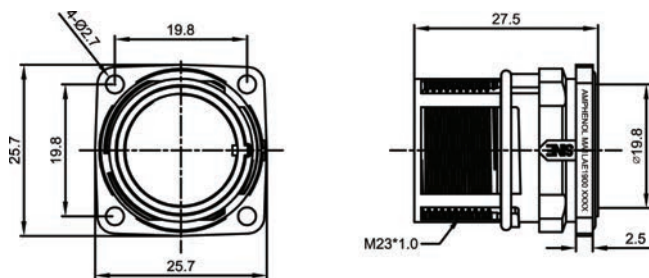
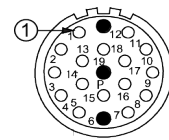


Figure 8

MA1LAE1900

Complete datasheets can be found at www.amphenol-sine.com

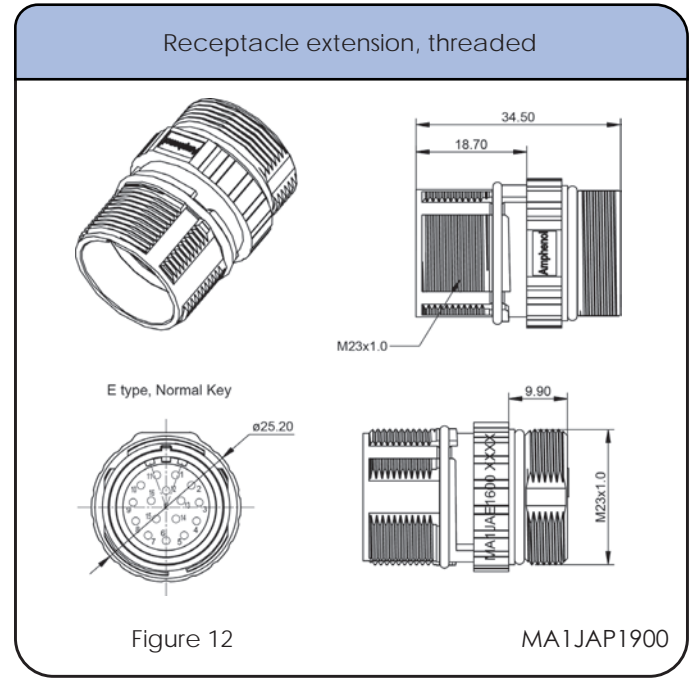
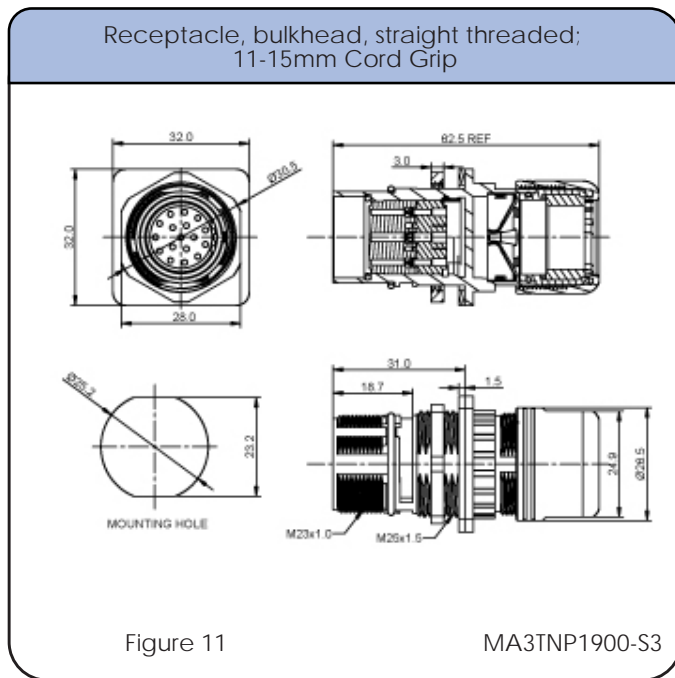
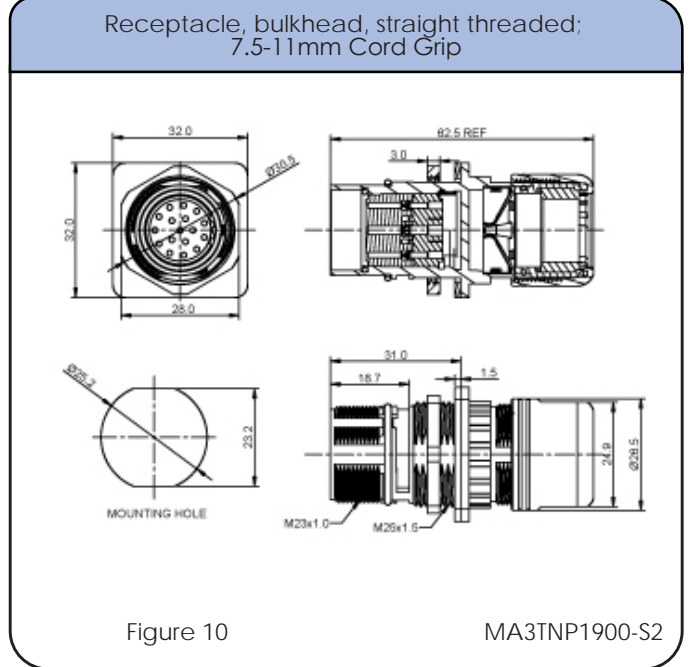
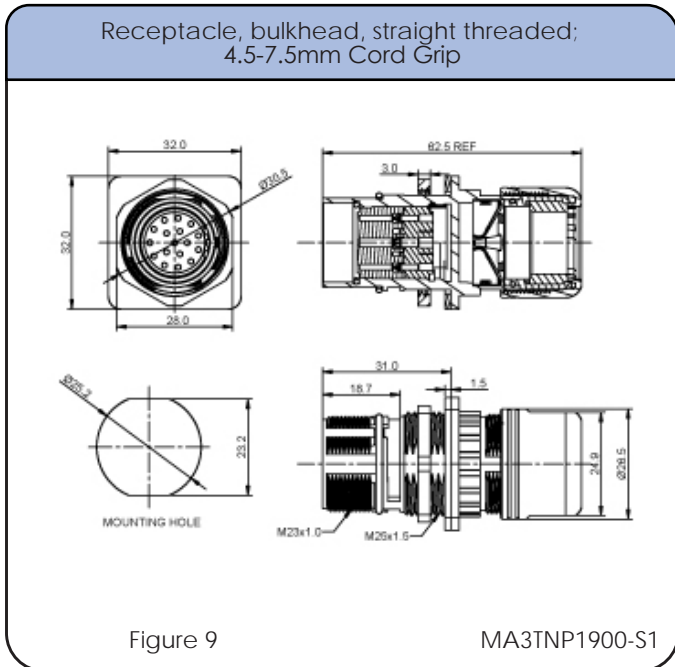


19 POSITIONS
7A / 63V
P type

Style: P type Plug Number of Contacts: 19 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 to 1.0 mm²)

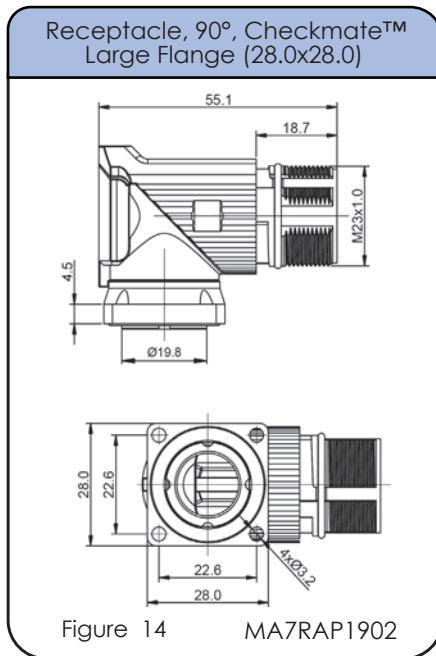
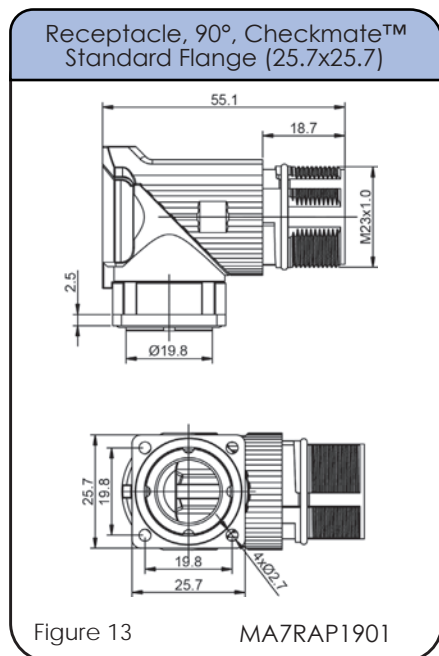
Threaded Dimensions Bulkhead Receptacles / Receptacle Extension

CONNECTOR SOLUTIONS

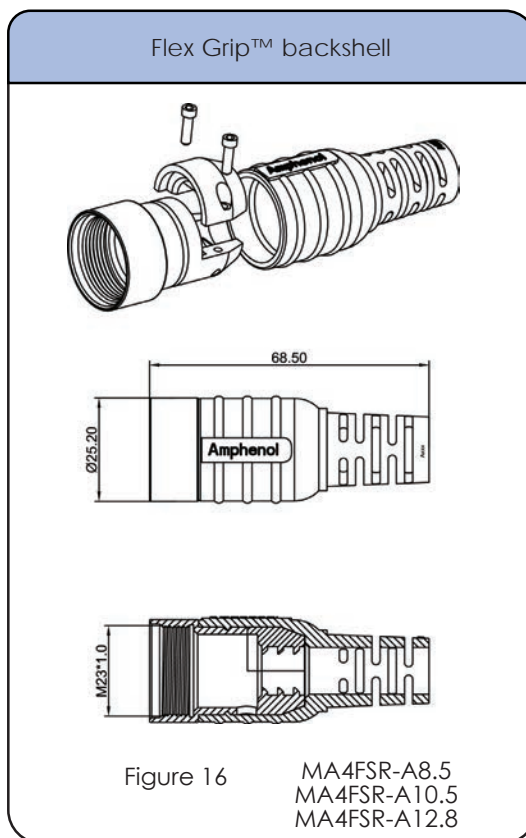
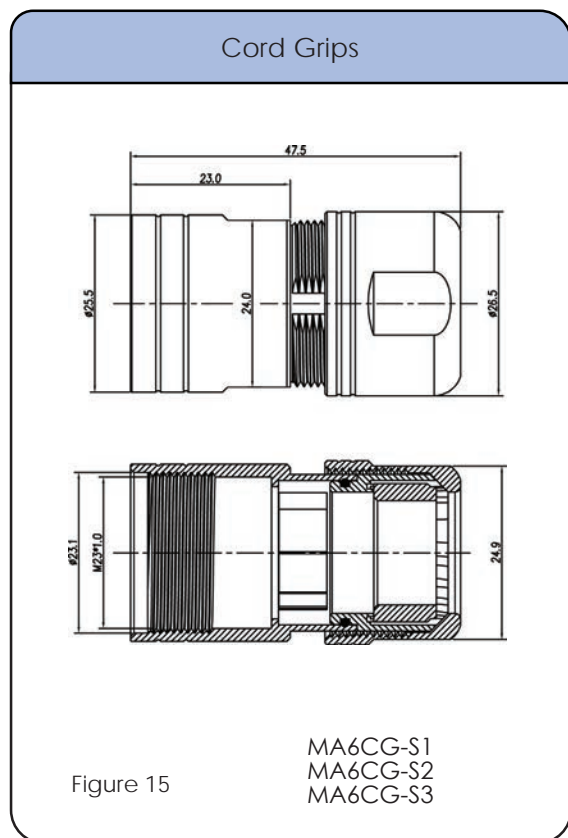


Style: P type Plug Number of Contacts: 19 Contact Size: 1.0mm
 Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 to 1.0 mm²)

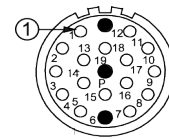
Dimensions Threaded 90° Receptacles



Dimensions Cord Grips / Backshells



Complete datasheets can be found at www.amphenol-sine.com










19 POSITIONS
7A / 63V
P type

Style: P type Plug Number of Contacts: 19 Contact Size: 1.0mm
Sealing: IP66/67 AWG: 22-18 (0.37 - 0.75 to 1.0 mm²)

CONNECTOR SOLUTIONS

Tools & Accessories

| | | |
|---|---|--|
| <p>Universal hand crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>AFM8</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5* Wire range 12-26AWG</p>  <p>AF8</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. SK2-2* Wire range 20-32AWG</p>  <p>WA22</p> |
| <p>Universal positioner is used with crimp tools AFM8 and WA22. Wire range 20-32AWG</p>  <p>SK2-2</p> | <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5*. Wire range 12-26AWG</p>  <p>WA27F</p> |
| <p>Dust Cap for Receptacles</p>  <p>P29687</p> | <p>Dust Cap for Plug, Threaded</p>  <p>P31660</p> | <p>Dust Cap for Plug, Checkmate™</p>  <p>P31662</p> |

* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M23 Standard Series

STEP 1
Choose Plug

STEP 2
Choose Receptacle

STEP 3
Choose Backshell/Cord Grip

See page 18 for connector configurations

Plugs



MB1CKN0600



MB1EJN0600



MB1GJN0600



MB2CKN0600



MB2GJN0600

Plug Connector Kits



MB1CKN0600-KIT

Receptacles



MB1LLN0600



MB7RJN0601
MB7RJN0602



MB1LKN0600



MB1JJN0600



MB3TNN0600-S1
MB3TNN0600-S2
MB3TNN0600-S3



MB2LLN0600



MB5RJN0601
MB5RJN0602



MB2LKN0600



MB2JJN0600

Receptacle Kits



MB1LLN0600-KIT



Checkmate™
MB2LLN0600-KIT



Cord Grips



MB6CG-S1
MB6CG-S2
MB6CG-S3

FlexGrip™ Backshell System



MB4FSR-B10.3
MB4FSR-B12.5
MB4FSR-B14.5
MB4FSR-B17

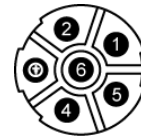
more about
FlexGrip™
on page 282

BULK CABLE
starts on
page 23

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 220

*Elite Series receptacles are offered here as additional options for mating with Standard Series plugs. See Assembly Instructions starting on page 266



6 POSITIONS
28A / 630V

Number of Contacts: 6 Contact Size: 2.0mm
Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

Checkmate™ Connector Part Numbers



| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Contact Type male = pin female = socket | Figure Drawings |
|---|---|---|-----------------|
| MB2CKN0600 | Plug, straight, Checkmate™ | Socket | 1 |
| MB2GJN0600 | Plug, panel mount, Checkmate™ | Socket | 2 |
| MB2LLN0600 | Receptacle, straight flange mount, Checkmate™ | Pin | 3 |
| MB2LLN0600-KIT | Receptacle kit, straight, Checkmate™ . Contacts included | Pin | 3 |
| MB2LKN0600 | Receptacle, straight, Checkmate™ | Pin | 4 |
| MB2JJN0600 | Receptacle extension, Checkmate™ | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 page 220 | | | |
| MB5RJN0601* | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | Pin | 6 |
| MB5RJN0602* | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | Pin | 7 |
| ↑ Contacts supplied separately see Chart 2 page 220 | | | |

Threaded Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Contact Type male = pin female = socket | Figure Drawings |
|---|---|---|-----------------|
| MB1CKN0600 | Plug, straight, threaded coupling | Socket | 8 |
| MB1CKN0600-KIT | Plug kit, straight, threaded coupling. Contacts included. | Socket | 8 |
| MB1EJN0600 | 90° rotatable plug | Socket | 9 |
| MB1GJN0600 | Plug, panel mount, threaded coupling | Socket | 10 |
| MB1LLN0600 | Receptacle, straight, flange mount, threaded coupling | Pin | 11 |
| MB1LLN0600-KIT | Receptacle kit, straight, flange mount, threaded coupling Kit includes contacts | Pin | 11 |
| MB1LKN0600 | Receptacle, straight, threaded coupling | Pin | 12 |
| MB3TNN0600-S1 | Receptacle, bulkhead, threaded, 7.0-11.0mm cord grip | Pin | 13 |
| MB3TNN0600-S2 | Receptacle, bulkhead, threaded, 11.0-14.5mm cord grip | Pin | 14 |
| MB3TNN0600-S3 | Receptacle, bulkhead, threaded, 14.5-17.0mm cord grip | Pin | 15 |
| MB1JJN0600 | Receptacle extension, threaded coupling | Pin | 16 |
| ↑ Contacts supplied separately see Chart 1 page 220 | | | |
| MB7RJN0601* | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | Pin | 17 |
| MB7RJN0602* | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | Pin | 18 |
| ↑ Contacts supplied separately see Chart 2 page 220 | | | |

Number of Contacts: 6 **Contact Size: 2.0mm**
Sealing: IP66/67 **AWG: 18-14 (0.75 - 2.5 mm²)**

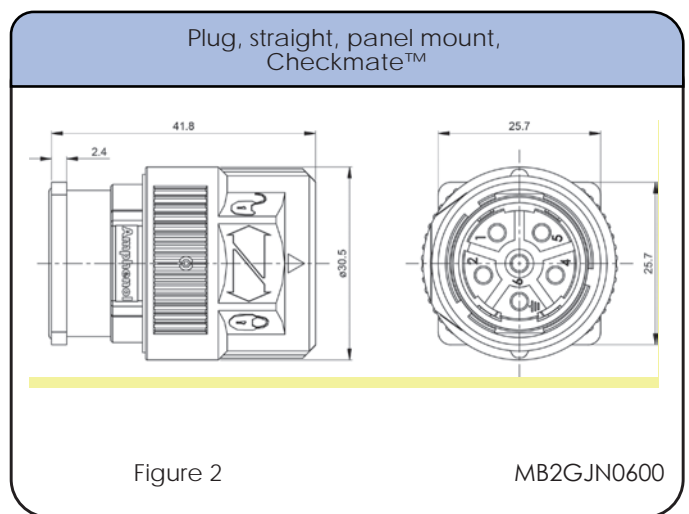
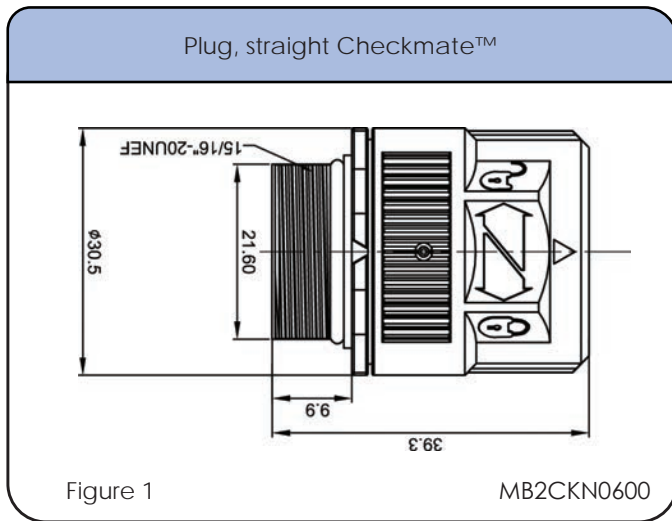
Cord Grips and Backshells

| Part Number | Type | Cable Range (mm) | Figure Drawings |
|---------------|----------------------|------------------|-----------------|
| MB6CG-S1 | Cord grip | 7.5-11mm | 19 |
| MB6CG-S2 | Cord grip | 11.0-14.5mm | 19 |
| MB6CG-S3 | Cord grip | 14.5-17mm | 19 |
| MB4FSR-B10.3* | Flex Grip™ backshell | 9.5-10.3mm | 20 |
| MB4FSR-B12.5* | Flex Grip™ backshell | 11.5-12.5mm | 20 |
| MB4FSR-B14.5* | Flex Grip™ backshell | 13.5-14.5mm | 20 |
| MB4FSR-B17* | Flex Grip™ backshell | 15.5-17mm | 20 |

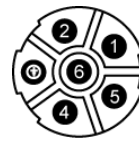
*Must be potted to achieve IP67 ratings.

Checkmate™ Dimensions Straight Plug/ Plug Kits/ Panel Mount

See [Chart 1](#) for contacts options



Complete datasheets can be found at www.amphenol-sine.com

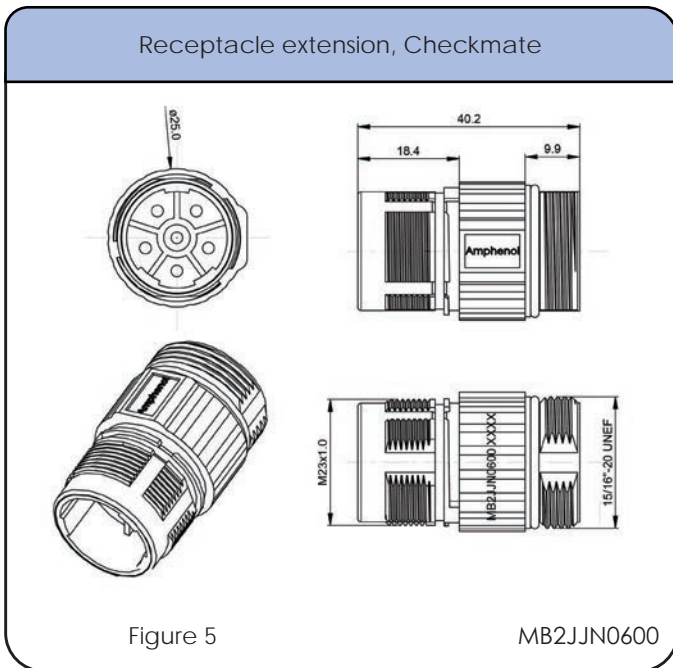
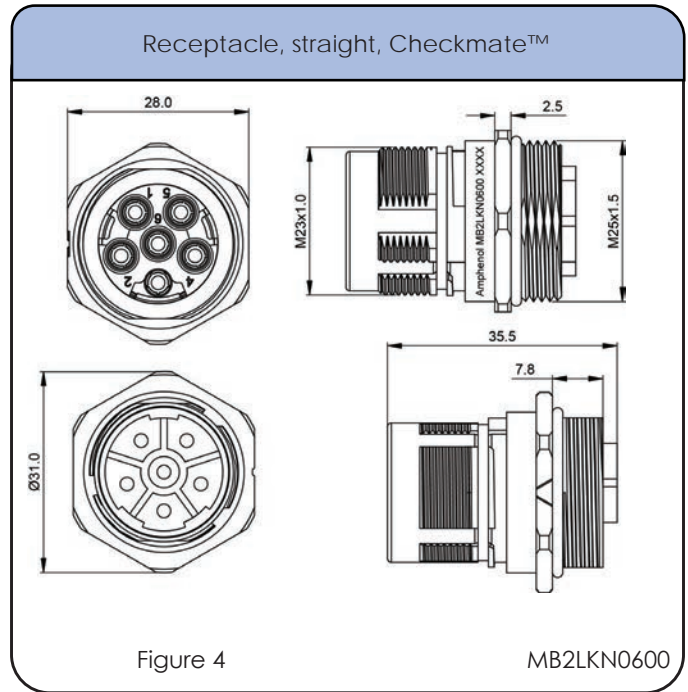
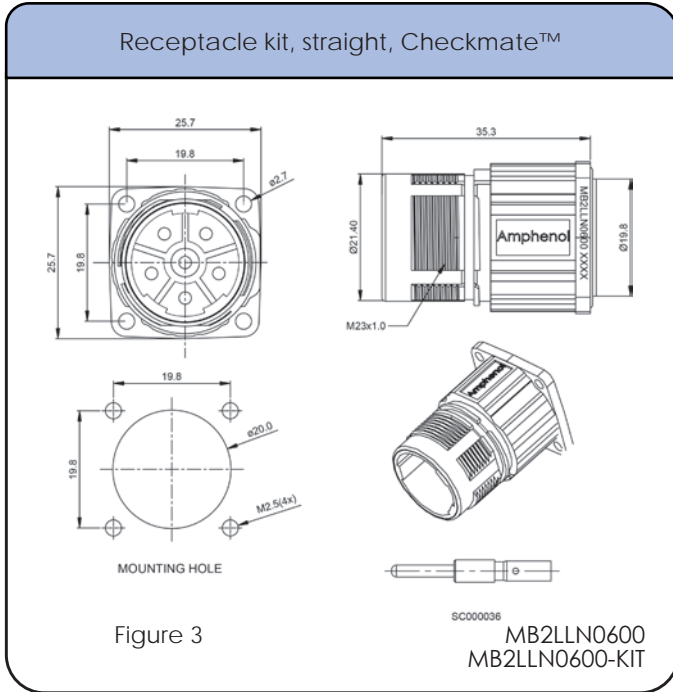


6 POSITIONS
28A / 630V

Number of Contacts: 6 Contact Size: 2.0mm
Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

Checkmate™ Dimensions Straight Receptacles / Receptacles Extension

See Chart 1 for contacts options

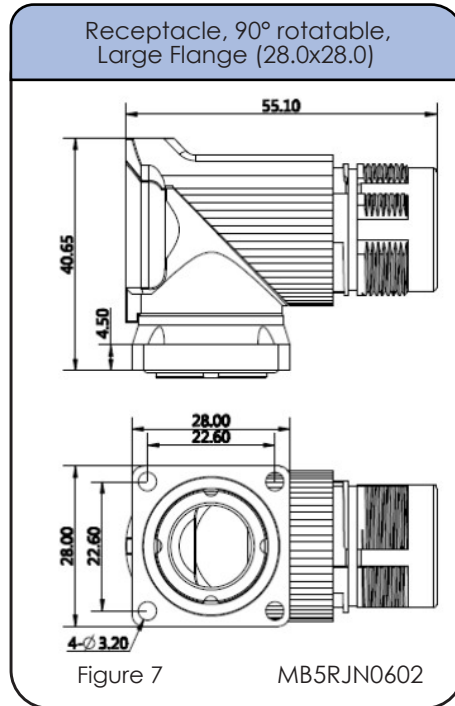
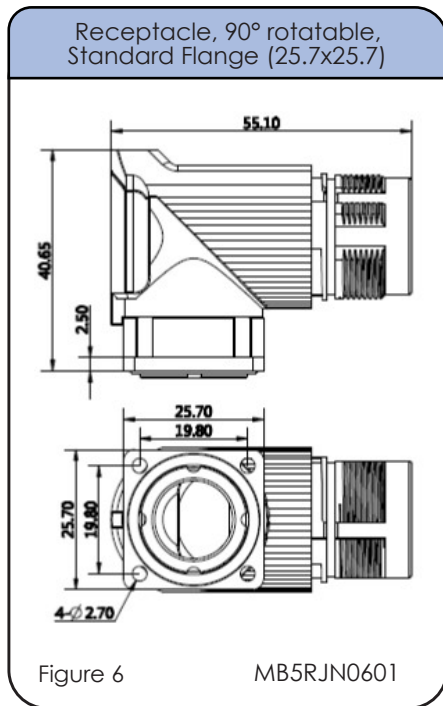


Complete daasheets can be found at www.amphenol-sine.com

Number of Contacts: 6 Contact Size: 2.0mm
 Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

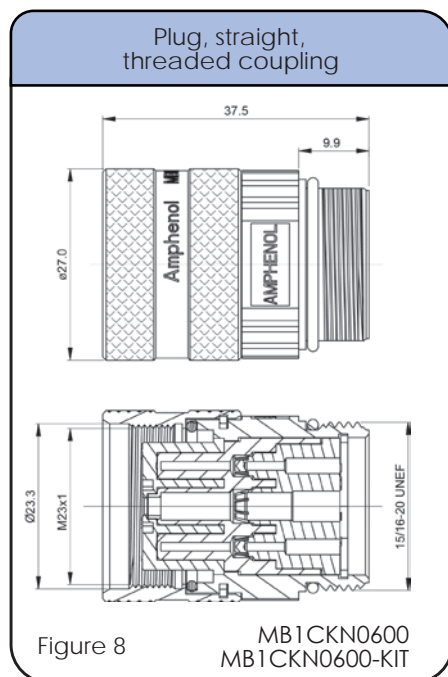
Checkmate™ Dimensions 90° Receptacles

See Chart 2 for contacts options

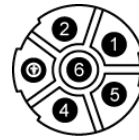


Threaded Dimensions Plugs/Plug Kit

See Chart 1 for contacts options



Complete datasheets can be found at www.amphenol-sine.com

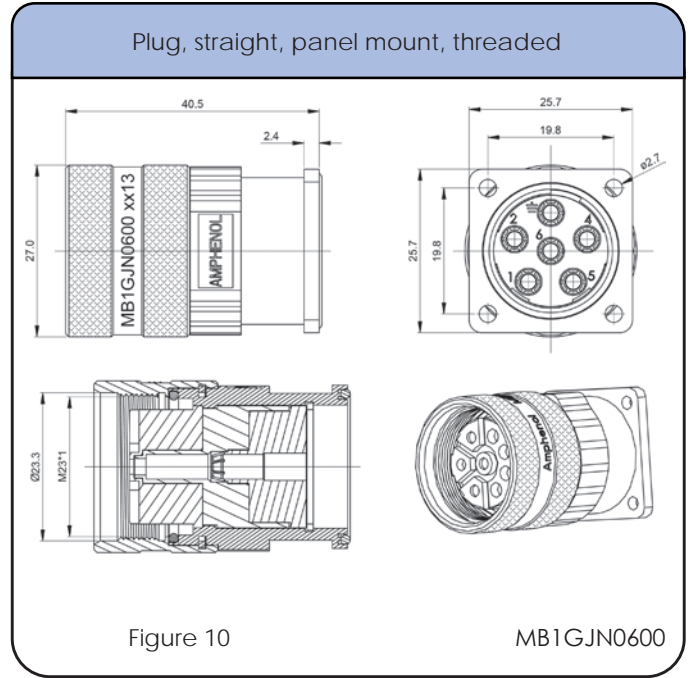
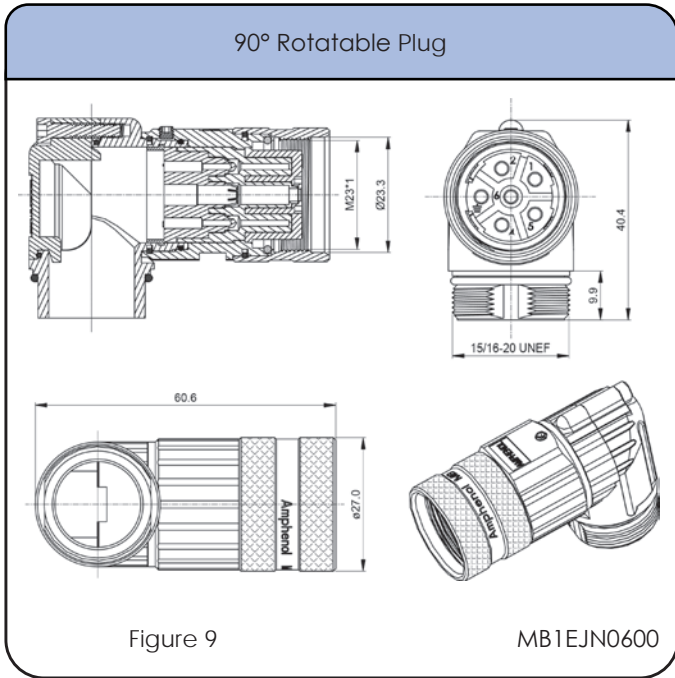


6 POSITIONS
28A / 630V

Number of Contacts: 6 Contact Size: 2.0mm
Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

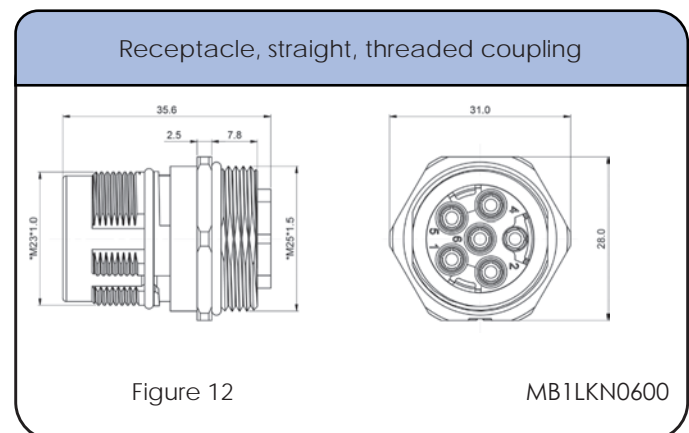
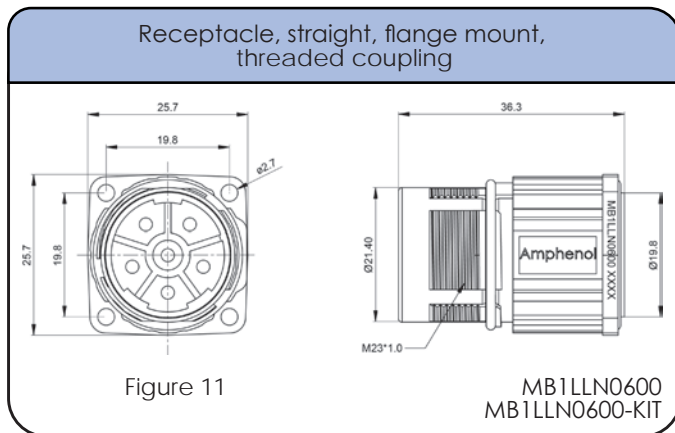
Threaded Dimensions 90° Plug, Panel Mount Plug

See Chart 1 for contacts options



Threaded Dimensions Straight Receptacles / Receptacle Kit

See Chart 1 for contacts options



Complete datasheets can be found at www.amphenol-sine.com

Number of Contacts: 6 Contact Size: 2.0mm
 Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

Threaded Dimensions Bulkhead Receptacles / Receptacle Kits / Receptacle Extension

See Chart 1 for contacts options

Receptacle, bulkhead, threaded;
7.0-11.0. Cord Grip

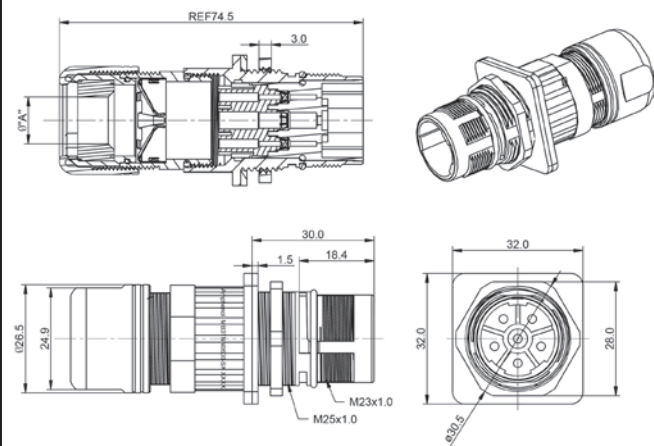


Figure 13

MB3TNN0600-S1

Receptacle, bulkhead, threaded;
11-14.5 Cord Grip

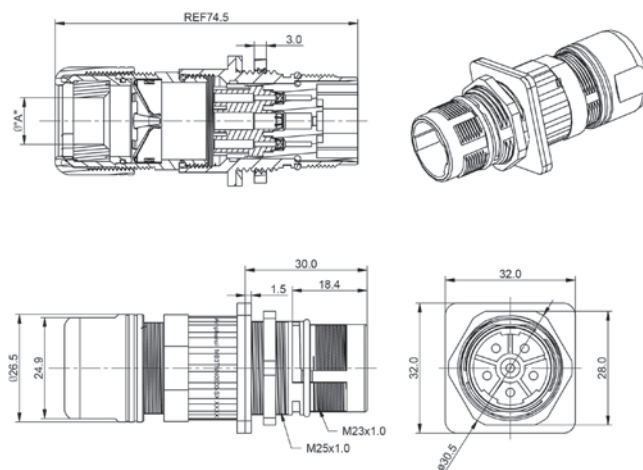


Figure 14

MB3TNN0600-S2

Receptacle, bulkhead, threaded;
14.5-17mm Cord Grip

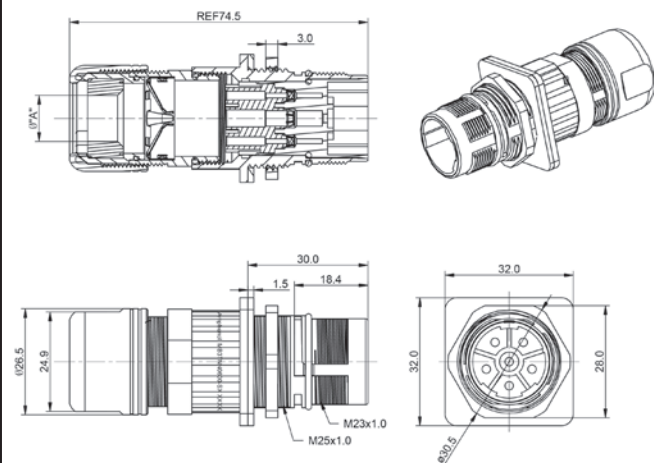


Figure 15

MB3TNN0600-S3

Receptacle extension, threaded

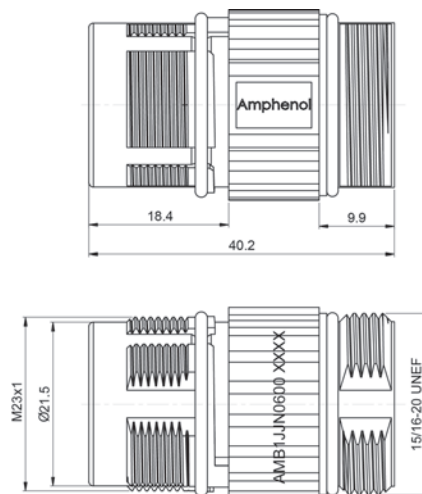
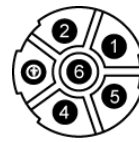


Figure 16

MB1JJN0600

Complete datasheets can be found at www.amphenol-sine.com



6 POSITIONS
28A / 630V

Number of Contacts: 6 Contact Size: 2.0mm
Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

Threaded Dimensions 90° Rotatable Receptacles / Dimensions Cord Grips / Backshells

See Chart 2 for contacts options for 90° Rotatable Receptacles

Receptacle, 90° rotatable,
Standard Flange (25.7x25.7)

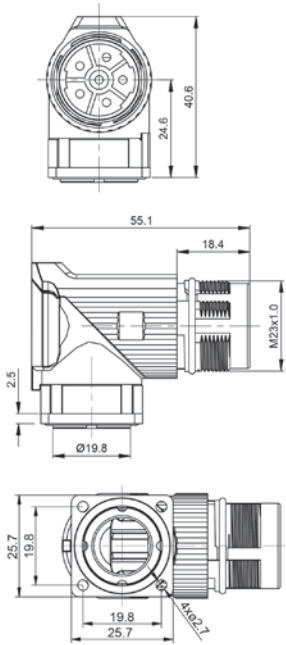


Figure 17 MB7RJN0601

Receptacle, 90° rotatable,
Large Flange (28.0x28.0)

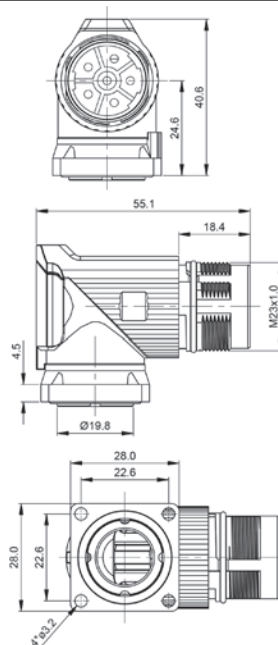


Figure 18 MB7RJN0602

Cord Grips

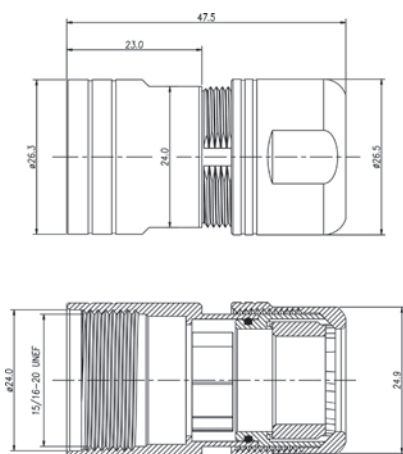


Figure 19 MB6CG-S1
MB6CG-S2
MB6CG-S3

Flex Grip™ backshell

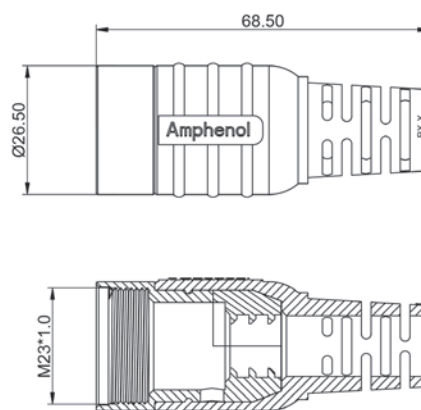


Figure 20 MB4FSR-B10.3
MB4FSR-B12.5
MB4FSR-B14.5
MB4FSR-B17.0

Complete datasheets can be found at www.amphenol-sine.com

Number of Contacts: 6 Contact Size: 2.0mm
 Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

Contacts



Machined Contacts

CHART 1

Crimp Contacts, Machined

For ALL Parts except those listed below in Chart 2

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|--------|-------|-----------------|---------|
| SC000036 | 2.0mm | Pin | 18-14 | 1.5 - 0.75 | Gold |
| SC000045 | 2.0mm | Socket | 18-14 | 1.5 - 0.75 | Gold |

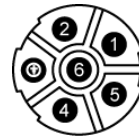
CHART 2

Crimp Contacts, Machined

For parts: MB7RJN0601, MB7RJN0602, MB5RJN0601, MB5RJN0602

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|--------|-------|-----------------|---------|
| SC000262 | 2.0mm | Pin | 18-14 | 0.75 - 2.5 | Gold |
| SC000260 | 2.0mm | Socket | 20-14 | 2.5 - 0.5 | Gold |

Note: When 18 AWG wire is required use Elite Series plugs and 90° rotatable receptacles starting on page 105



6 POSITIONS
28A / 630V

Number of Contacts: 6 Contact Size: 2.0mm
Sealing: IP66/67 AWG: 18-14 (0.75 - 2.5 mm²)

Tools & Accessories



* The universal positioner is not included with the crimp tools and must be ordered separately.

* The extraction tool is not required to remove contacts from the 90° Rotatable Receptacles

Connector Solutions M23 Standard Series

STEP 1
Choose Plug

STEP 2
Choose Receptacle

STEP 3
Choose Backshell/Cord Grip

See page 18 for connector configurations

Plugs



MB1CKN0800



MB1EJN0800



MB1GJN0800



MB2CKN0800



MB2GJN0800

Plug Connector Kits



MB1CKN0800-KIT

Receptacles



MB1LKN0800



MB7RJN0801
MB7RJN0802



MB1LLN0800



MB1JJN0800



MB3TNN0800-S1
MB3TNN0800-S2
MB3TNN0800-S3



MB2JJN0800



MB5RJN0801
MB5RJN0802



MB2LLN0800



MB2LKN0800

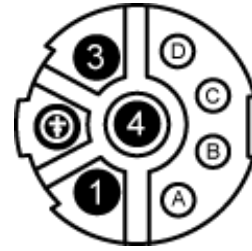
Receptacle Kits



MB1LLN0800-KIT



Checkmate™
MB2LLN0800-KIT



Cord Grips



MB6CG-S1
MB6CG-S2
MB6CG-S3

FlexGrip™ Backshell System



MB4FSR-B10.3
MB4FSR-B12.5
MB4FSR-B14.5
MB4FSR-B17

more about
FlexGrip™
on page 282

**BULK CABLE
starts on
page 23**

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 230

*Elite Series receptacles are offered here as additional options for mating with Standard Series plugs. See Assembly Instructions starting on page 266



8 (4+4) POSITIONS
Power 30A/ 630V
Signal 10A/ 250V

Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)



Checkmate™ Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Contact Type male = pin female = socket | Figure Drawings |
|---|---|---|-----------------|
| MB2CKN0800 | Plug, straight, Checkmate™ | Socket | 1 |
| MB2GJN0800 | Plug, straight, panel mount, Checkmate™ | Socket | 2 |
| MB2LLN0800 | Receptacle, straight, flange mount, Checkmate™ | Pin | 3 |
| MB2LLN0800-KIT | Receptacle Kit, straight, Checkmate™ . Contacts included. | Pin | 3 |
| MB2LKN0800 | Receptacle, straight, M25, Checkmate™ | Pin | 4 |
| MB2JJN0800 | Receptacle extension, Checkmate™ | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 page 230 | | | |
| MB5RJN0801* | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | Pin | 6 |
| MB5RJN0802* | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | Pin | 7 |
| ↑ Contacts supplied separately see Chart 2 page 230 | | | |

Threaded Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Contact Type male = pin female = socket | Figure Drawings |
|---|---|---|-----------------|
| MB1CKN0800 | Plug, straight, threaded coupling | Socket | 8 |
| MB1CKN0800-KIT | Plug kit, straight, threaded. Kit includes contacts | Socket | 8 |
| MB1EJN0800 | Plug, 90° rotatable, threaded coupling | Socket | 9 |
| MB1GJN0800 | Plug, straight, panel mount, threaded | Socket | 10 |
| MB1LLN0800 | Receptacle, straight, flange mount, threaded coupling | Pin | 11 |
| MB1LLN0800-KIT | Receptacle Kit, straight, threaded. Kit includes contacts | Pin | 11 |
| MB1LKN0800 | Receptacle, straight, M25, threaded coupling | Pin | 12 |
| MB3TNN0800-S1 | Receptacle, bulkhead, threaded, 7-11mm cord grip | Pin | 13 |
| MB3TNN0800-S2 | Receptacle, bulkhead, threaded, 11-14.5mm cord grip | Pin | 14 |
| MB3TNN0800-S3 | Receptacle, bulkhead, threaded, 14.5-17mm cord grip | Pin | 15 |
| MB1JJN0800 | Receptacle extension, threaded coupling | Pin | 16 |
| ↑ Contacts supplied separately see Chart 1 page 230 | | | |
| MB7RJN0801* | Receptacle, 90° rotatable, threaded Standard Flange (25.7x25.7) | Pin | 17 |
| MB7RJN0802* | Receptacle, 90° rotatable, threaded Large Flange (28.0x28.0) | Pin | 18 |
| ↑ Contacts supplied separately see Chart 2 page 230 | | | |

Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)

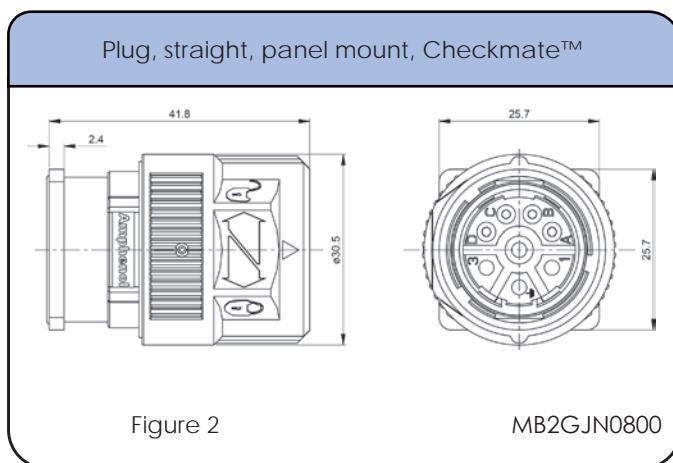
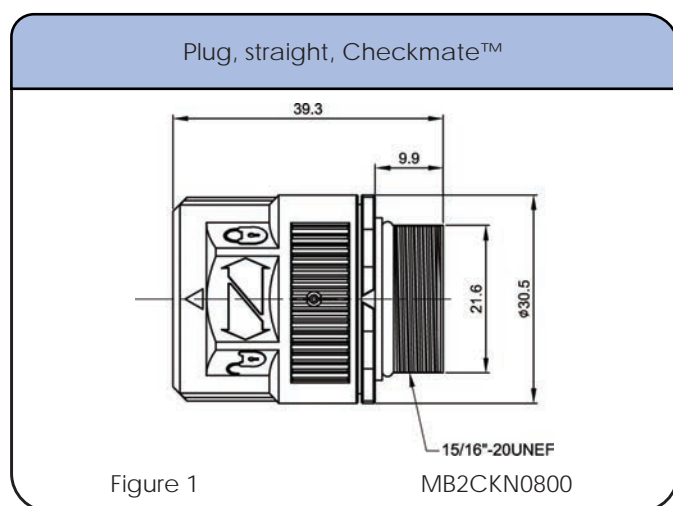
Cord Grips and Backshells

| Part Number | Type | Cable Range (mm) | Figure Drawings |
|---------------|----------------------|------------------|-----------------|
| MB6CG-S1 | Cord grip | 7.5-11mm | 19 |
| MB6CG-S2 | Cord grip | 11.0-14.5mm | 19 |
| MB6CG-S3 | Cord grip | 14.5-17mm | 19 |
| MB4FSR-B10.3* | Flex Grip™ backshell | 9.5-10.3mm | 20 |
| MB4FSR-B12.5* | Flex Grip™ backshell | 11.5-12.5mm | 20 |
| MB4FSR-B14.5* | Flex Grip™ backshell | 13.5-14.5mm | 20 |
| MB4FSR-B17* | Flex Grip™ backshell | 15.5-17mm | 20 |

*Must be potted to achieve IP67 ratings.

Checkmate™ Dimensions Straight Plug/ Plug Kits/ Panel Mount

See [Chart 1](#) for contacts options



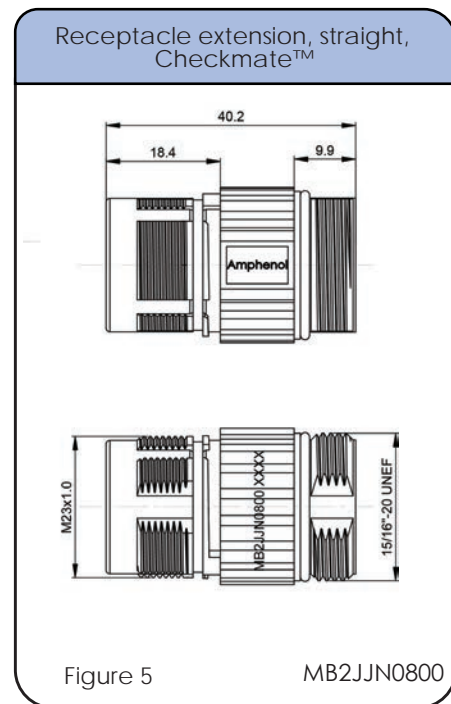
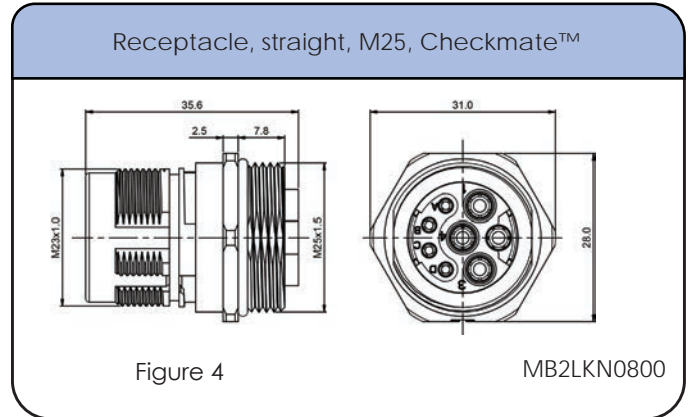
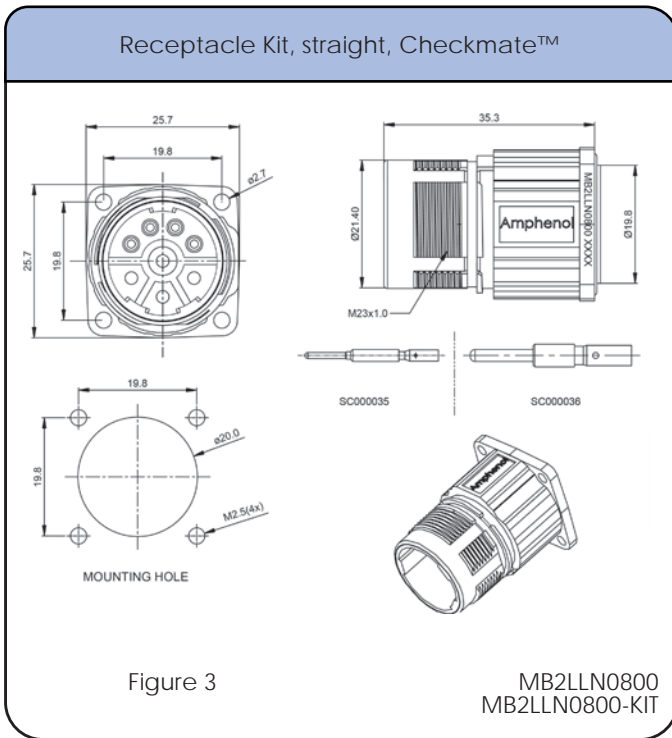


8 (4+4) POSITIONS
Power 30A/ 630V
Signal 10A/ 250V

Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)

Checkmate™ Dimensions Straight Receptacles / Receptacles Extension

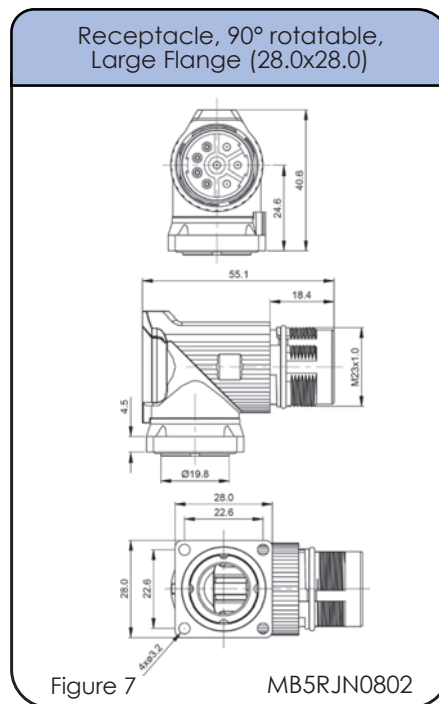
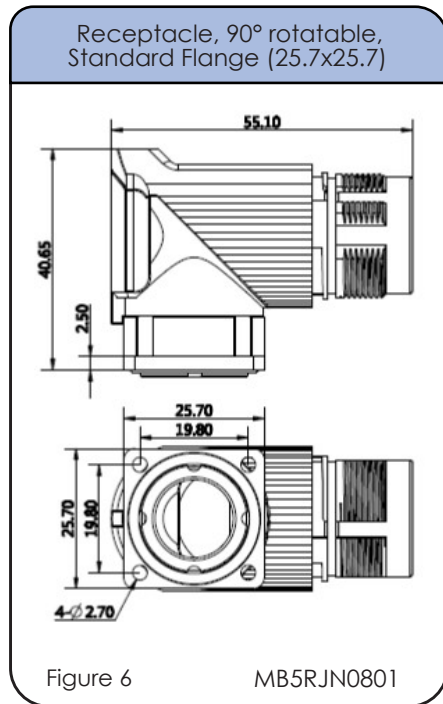
See Chart 1 for contacts options



Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)

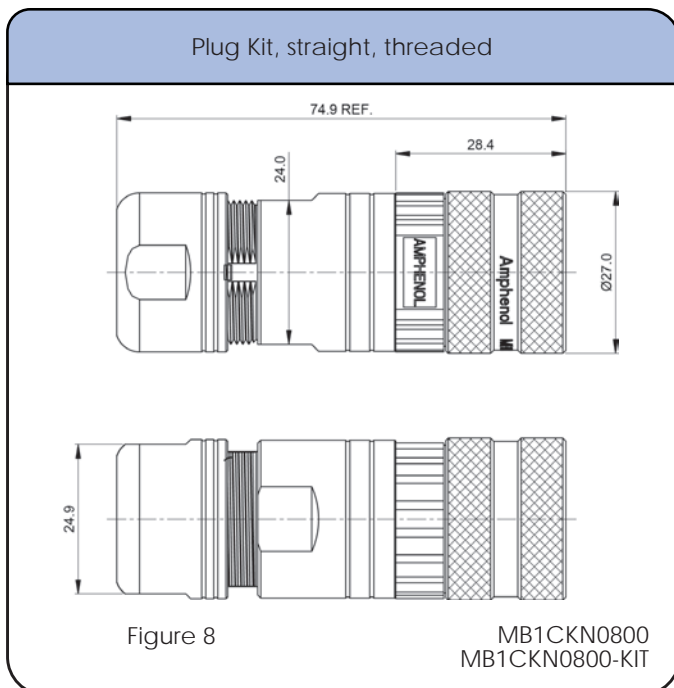
Checkmate™ Dimensions 90° Receptacles

See Chart 2 for contacts options



Threaded Dimensions Plugs/Plug Kit

See Chart 1 for contacts options



Complete datasheets can be found at www.amphenol-sine.com

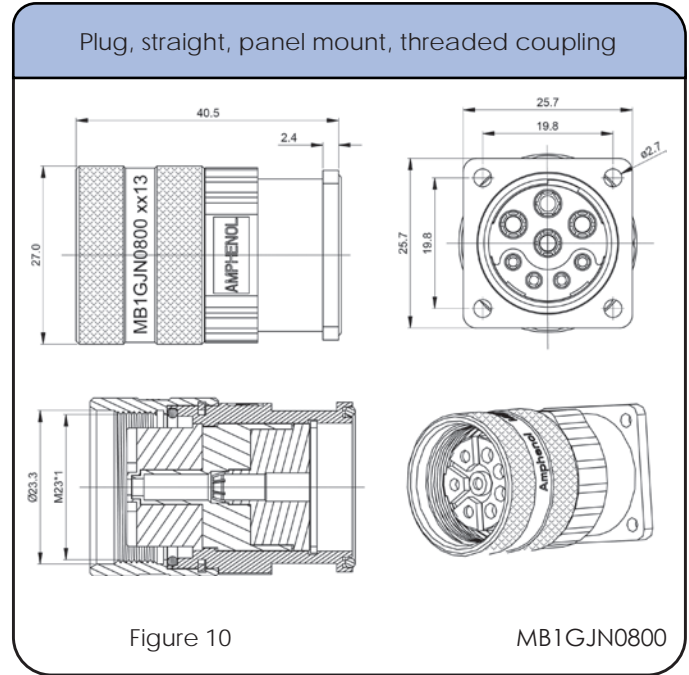
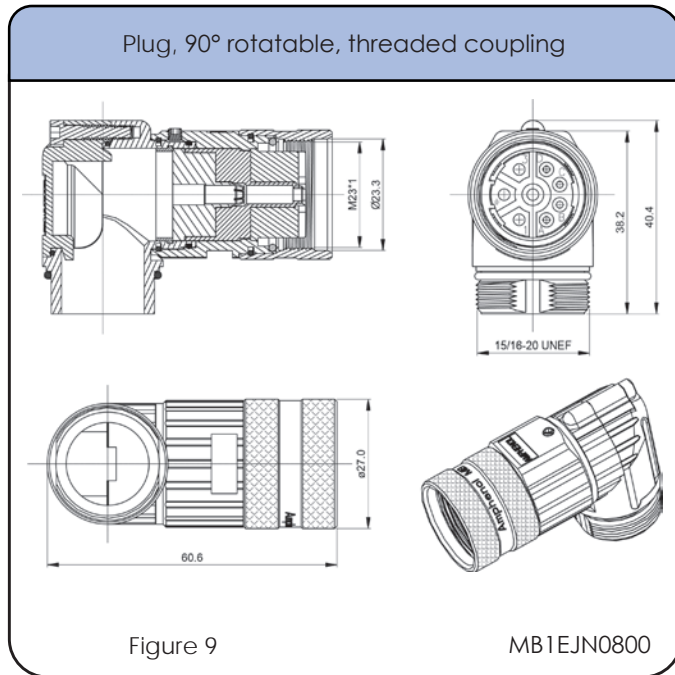


8 (4+4) POSITIONS
Power 30A/ 630V
Signal 10A/ 250V

Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)

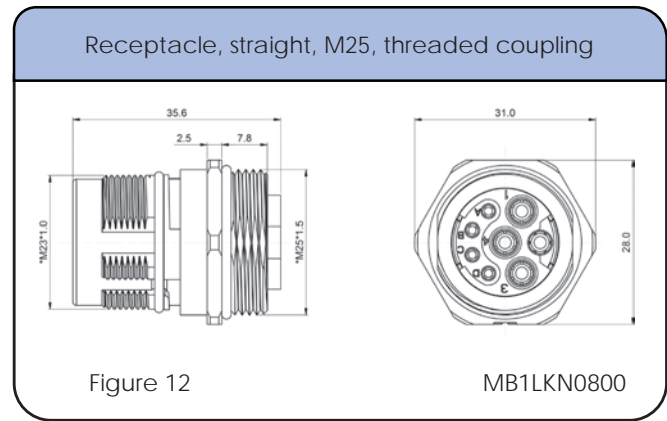
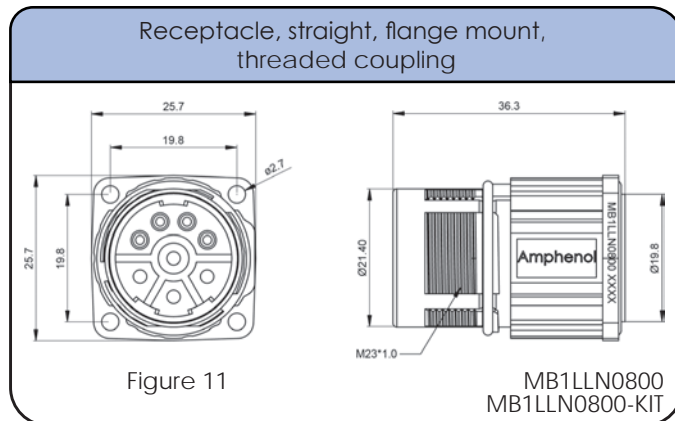
Threaded Dimensions 90° Plug / Panel Mount Plug

See Chart 1 for contacts options



Threaded Dimensions Straight Receptacles

See Chart 1 for contacts options

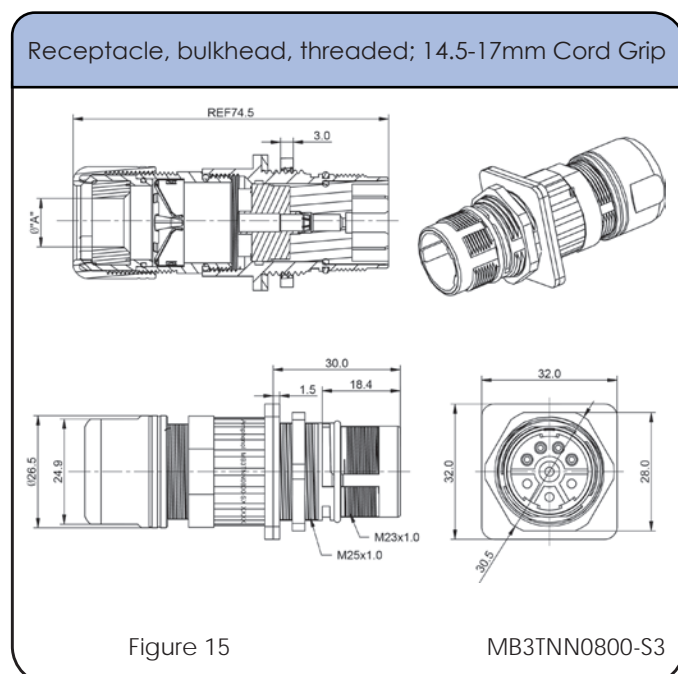
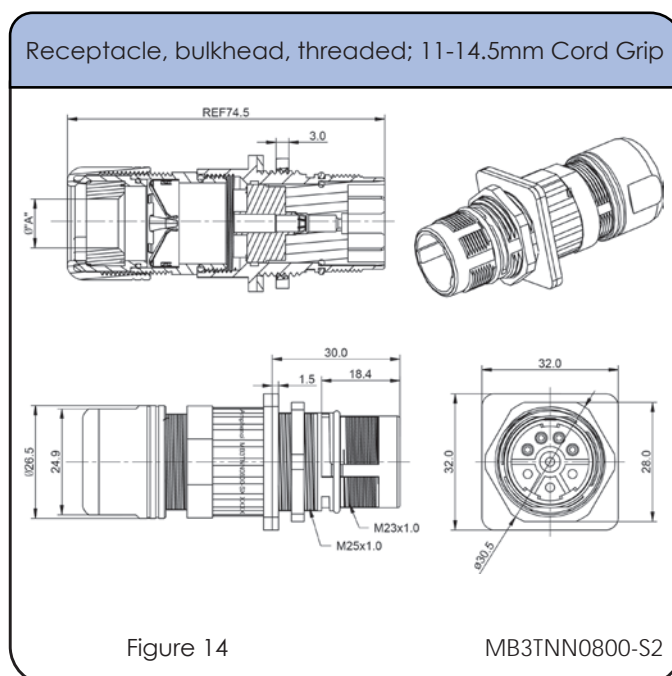
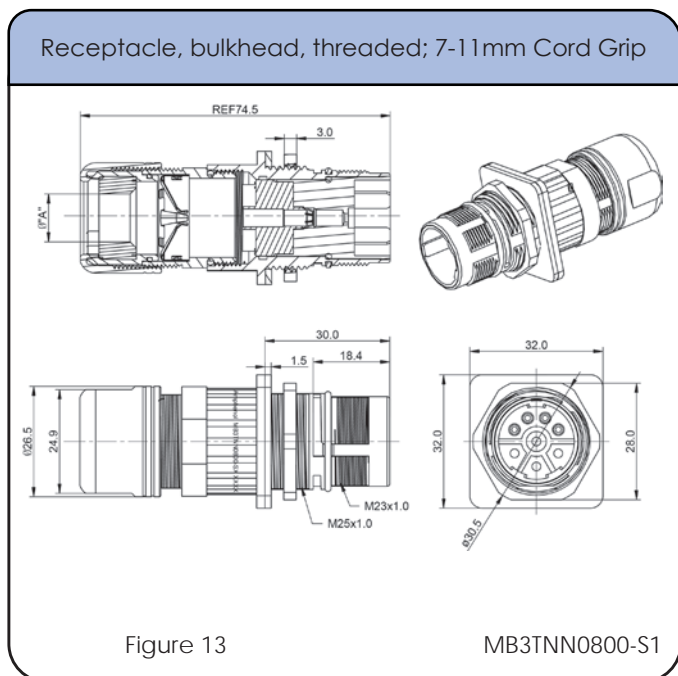


Complete datasheets can be found at www.amphenol-sine.com

Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)

Threaded Dimensions Bulkhead Receptacles / Receptacle Kits

See *Chart 1* for contacts options



Complete datasheets can be found at www.amphenol-sine.com



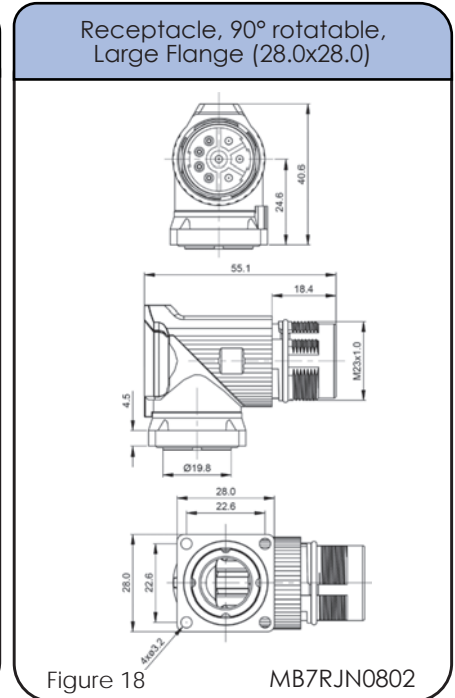
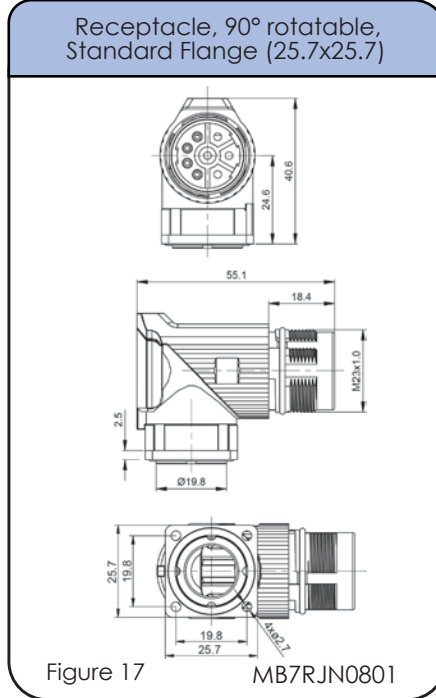
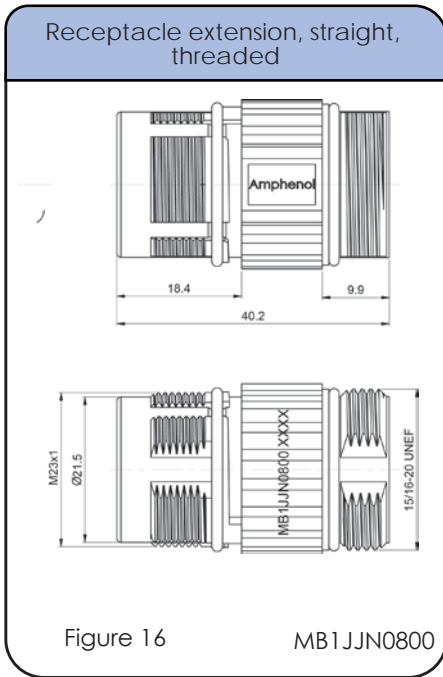
8 (4+4) POSITIONS
Power 30A/ 630V
Signal 10A/ 250V

Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)

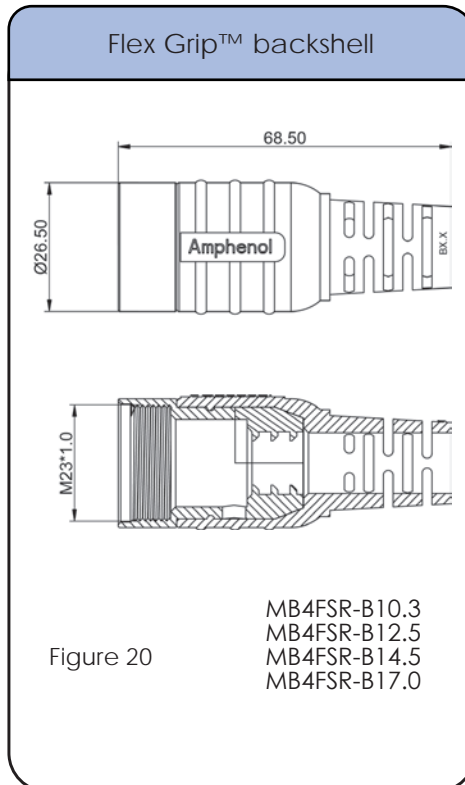
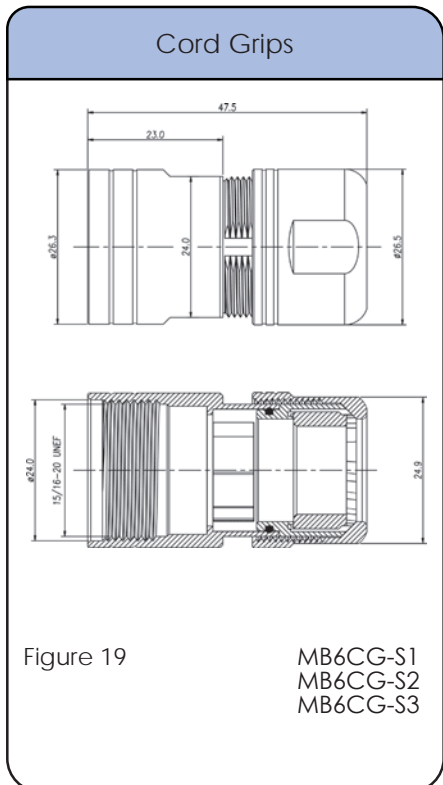
Threaded Dimensions Receptacle Extension / 90° Rotatable Receptacles

See Chart 1 for contacts options

See Chart 2 for contacts options for 90° Rotatable Receptacles



Dimensions Cord Grips / Backshells



Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)

Contacts



Machined Contacts

CHART 1

Crimp Contacts, Machined

For ALL Parts except those listed below in Chart 2

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|--------|-------|-----------------|---------|
| SC000035 | 1.0mm | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | 1.0mm | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000036 | 2.0mm | Pin | 18-14 | 1.5 - 0.75 | Gold |
| SC000044 | 1.0mm | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | 1.0mm | Socket | 28-24 | 0.10 - 0.25 | Gold |
| SC000045 | 2.0mm | Socket | 18-14 | 1.5 - 0.75 | Gold |

CHART 2

Crimp Contacts, Machined

For parts: MB7RJN0801, MB7RJN0802, MB5RJN0801, MB5RJN0802

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|--------|-------|-----------------|---------|
| SC000261 | 1.0mm | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000386 | 1.0mm | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000262 | 2.0mm | Pin | 18-14 | 0.75 - 2.5 | Gold |
| SC000260 | 2.0mm | Socket | 20-14 | 2.5 - 0.5 | Gold |
| SC000259 | 2.0mm | Socket | 18-14 | 0.75 - 2.5 | Gold |
| SC000385 | 1.0mm | Socket | 28-24 | 0.10 - 0.25 | Gold |

Note: When 18-22 AWG wire is required use Elite Series plugs and 90° rotatable receptacles starting on page 117



8 (4+4) POSITIONS
Power 30A/ 630V
Signal 10A/ 250V

Number of Contacts: 8 (4+4) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)

Tools

Pneumatic crimp tool. Uses universal positioner part no. SK2-2*
 Wire Range 20-32AWG

WA22

Pneumatic crimp tool. Uses universal positioner part no. UH2-5*.
 Wire Range 12-26AWG

WA27F

Extraction tool. Used for removal of 1.0mm contacts from inserts.

50-54931-1

Universal hand crimp tool. Uses universal positioner part no. UH2-5*
 Wire Range 12-26AWG

AF8

Universal hand crimp tool. Uses universal positioner part no. SK2-2*
 Wire Range 20-32AWG

AFM8

Extraction tool. Used for removal of 2.0mm contacts from inserts.

50-54931-2

Universal positioner is used with the universal hand crimp tool (AF8).
 Wire range 12-26AWG

UH2-5

Universal positioner is used with crimp tools AFM8 and WA22.
 Wire range 20-32AWG

SK2-2

Dust Cap for Receptacle

P29687

Dust Cap for Plug, Threaded

P30663-08

Dust Cap for Plug, Checkmate™

P31661-08

* The universal positioner is not included with the crimp tools and must be ordered separately.

* The extraction tool is not required to remove contacts from the 90° Rotatable Receptacles

Connector Solutions M23 Standard Series

STEP 1
Choose Plug

STEP 2
Choose Receptacle

STEP 3
Choose Backshell/Cord Grip

See page 18 for connector configurations

Plugs



MB1CKN0900



MB1EJN0900



MB1GJN0900



MB2CKN0900



MB2GJN0900

Plug Connector Kits



MB1CKN0900-KIT

Receptacles



MB1LKN0900



MB5RJN0901
MB5RJN0902



MB1LLN0900



MB1JJN0900



MB3TNN0900-S1
MB3TNN0900-S2
MB3TNN0900-S3



MB2LKN0900



MB7RJN0901
MB7RJN0902



MB2LLN0900



MB2JJN0900

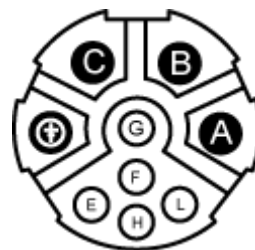
Receptacle Kits



MB1LLN0900-KIT



Checkmate™
MB2LLN0900-KIT



Cord Grips



MB6CG-S1
MB6CG-S2
MB6CG-S3

FlexGrip™ Backshell System



MB4FSR-B10.3
MB4FSR-B12.5
MB4FSR-B14.5
MB4FSR-B17

more about
FlexGrip™
on page 282

BULK CABLE
starts on
page 23

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 240

*Elite Series receptacles are offered here as additional options for mating with Standard Series plugs. See Assembly Instructions starting on page 266



9 (4+5) POSITIONS
Power 30A/ 630V
Signal 10A/ 250V

Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)



Checkmate™ Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Contact Type male = pin female = socket | Figure Drawings |
|---|---|---|-----------------|
| MB2CKN0900 | Plug, straight, Checkmate™ | Socket | 1 |
| MB2GJN0900 | Plug, straight, panel mount, Checkmate™ | Socket | 2 |
| MB2LLN0900 | Receptacle, straight, flange mount, Checkmate™ | Pin | 3 |
| MB2LLN0900-KIT | Receptacle kit, straight, Checkmate™ . Contacts included. | Pin | 3 |
| MB2LKN0900 | Receptacle, straight, M25, Checkmate™ | Pin | 4 |
| MB2JJN0900 | Receptacle extension, straight, Checkmate™ | Pin | 5 |
| ↑ Contacts supplied separately see Chart 1 page 240 | | | |
| MB5RJN0901* | Receptacle, 90° rotatable, Checkmate™ Standard Flange (25.7x25.7) | Pin | 6 |
| MB5RJN0902* | Receptacle, 90° rotatable, Checkmate™ Large Flange (28.0x28.0) | Pin | 7 |
| ↑ Contacts supplied separately see Chart 2 page 240 | | | |

Threaded Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Contact Type male = pin female = socket | Figure Drawings |
|---|---|---|-----------------|
| MB1CKN0900 | Plug, straight, threaded coupling | Socket | 8 |
| MB1CKN0900-KIT | Plug kit, straight, threaded coupling. Contact included. | Socket | 8 |
| MB1EJN0900 | Plug, 90° rotatable, threaded coupling | Socket | 9 |
| MB1GJN0900 | Plug, straight, panel mount, threaded | Socket | 10 |
| MB1LLN0900 | Receptacle, straight, flange mount, threaded coupling | Pin | 11 |
| MB1LLN0900-KIT | Receptacle kit, straight, threaded. Contacts included. | Pin | 11 |
| MB1LKN0900 | Receptacle, straight, M25, threaded coupling | Pin | 12 |
| MB3TNN0900-S1 | Receptacle, bulkhead, threaded; 7-11mm cord grip | Pin | 13 |
| MB3TNN0900-S2 | Receptacle, bulkhead, threaded; 11-14.5mm cord grip | Pin | 14 |
| MB3TNN0900-S3 | Receptacle, bulkhead, threaded; 14.5-17mm cord grip | Pin | 15 |
| MB1JJN0900 | Receptacle extension, straight, threaded | Pin | 16 |
| ↑ Contacts supplied separately see Chart 1 page 240 | | | |
| MB7RJN0901* | Receptacle, 90° rotatable, Threaded Standard Flange (25.7x25.7) | Pin | 17 |
| MB7RJN0902* | Receptacle, 90° rotatable, Threaded Large Flange (28.0x28.0) | Pin | 18 |
| ↑ Contacts supplied separately see Chart 2 page 240 | | | |

Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)

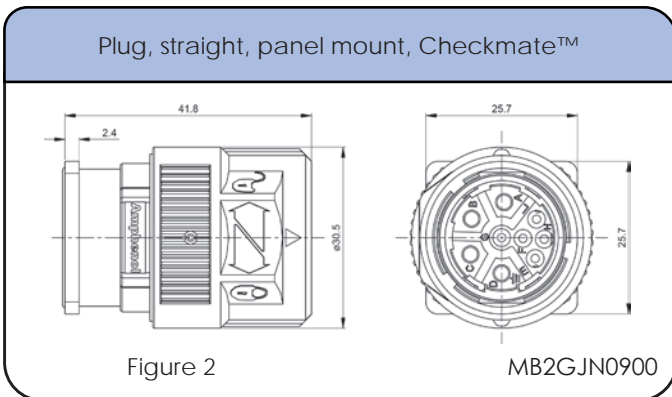
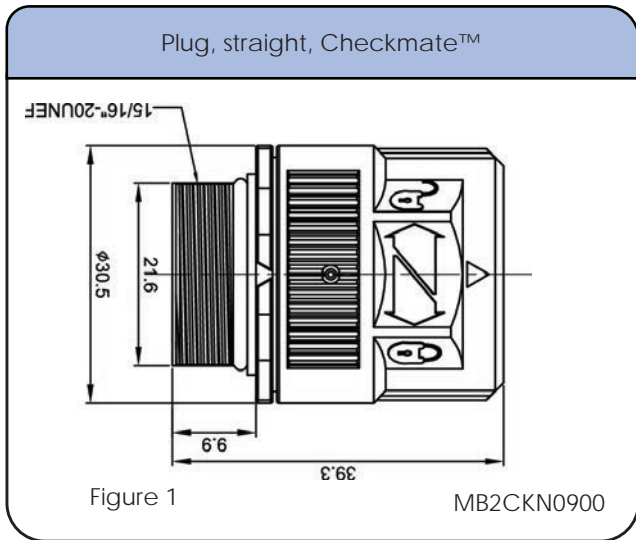
Cord Grips and Backshells

| Part Number | Type | Cable Range (mm) | Figure Drawings |
|---------------|----------------------|------------------|-----------------|
| MB6CG-S1 | Cord grip | 7.5-11mm | 19 |
| MB6CG-S2 | Cord grip | 11.0-14.5mm | 19 |
| MB6CG-S3 | Cord grip | 14.5-17mm | 19 |
| MB4FSR-B10.3* | Flex Grip™ backshell | 9.5-10.3mm | 20 |
| MB4FSR-B12.5* | Flex Grip™ backshell | 11.5-12.5mm | 20 |
| MB4FSR-B14.5* | Flex Grip™ backshell | 13.5-14.5mm | 20 |
| MB4FSR-B17* | Flex Grip™ backshell | 15.5-17mm | 20 |

*Must be potted to achieve IP67 ratings.

Checkmate™ Dimensions Straight Plug/ Plug Kits/ Panel Mount

See Chart 1 for contacts options





9 (4+5) POSITIONS
 Power 30A/ 630V
 Signal 10A/ 250V

Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)

Checkmate™ Dimensions Straight Receptacles / Receptacles Extension

See Chart 1 for contacts options

Receptacle kit, straight, Checkmate™

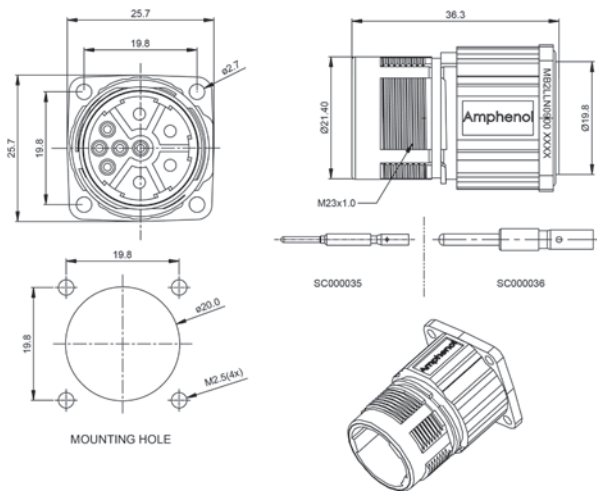


Figure 3

MB2LLN0900
 MB2LLN0900-KIT

Receptacle, straight, M25, Checkmate™

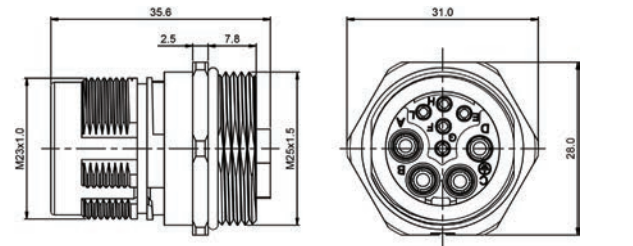


Figure 4

MB2LKN0900

Receptacle extension, straight Checkmate™

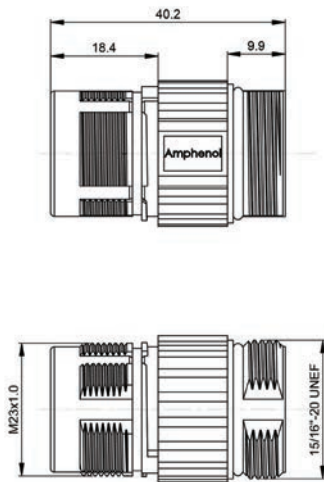


Figure 5

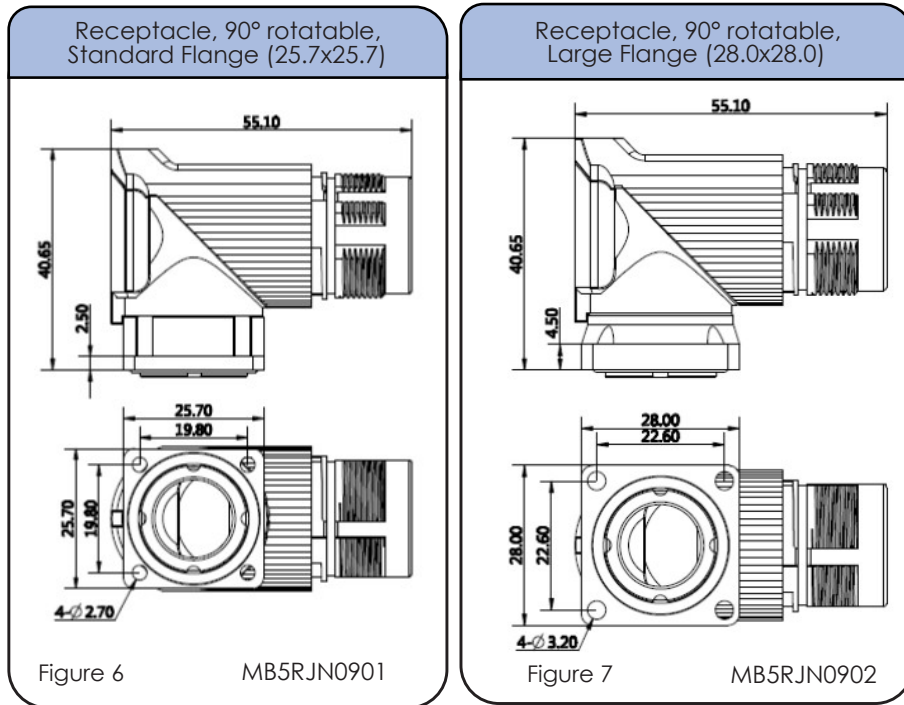
MB2JJN0900

Complete datasheets can be found at www.amphenol-sine.com

Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)

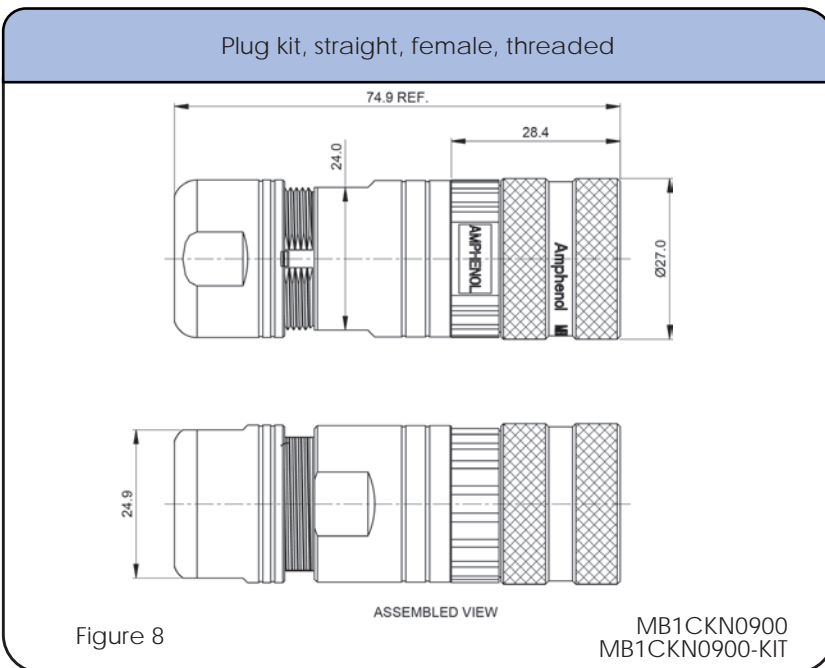
Checkmate™ Dimensions 90° Receptacles

See Chart 2 for contacts options



Threaded Dimensions Plugs/Plug Kit

See Chart 1 for contacts options



Complete datasheets can be found at www.amphenol-sine.com

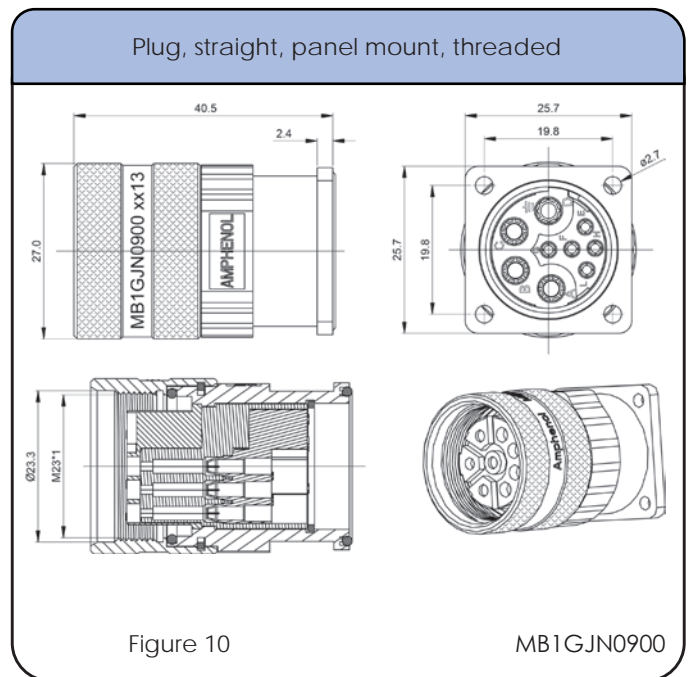
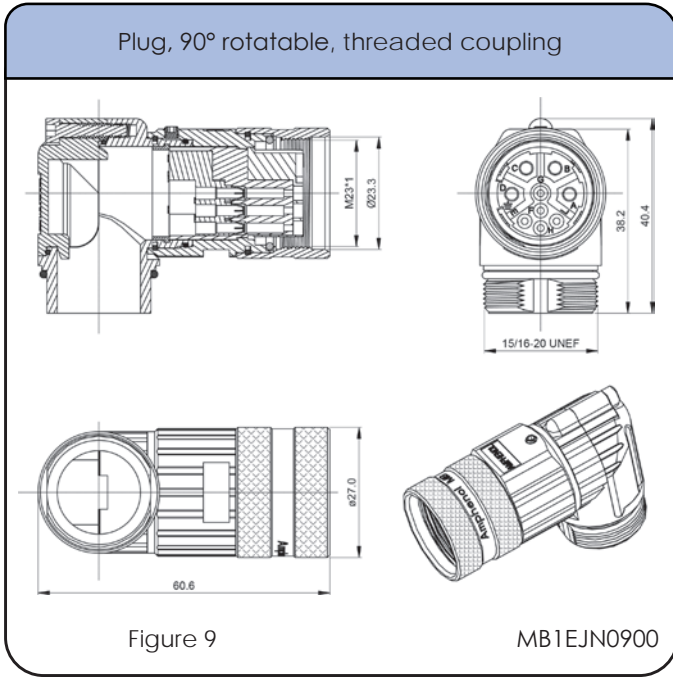


9 (4+5) POSITIONS
 Power 30A/ 630V
 Signal 10A/ 250V

Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)

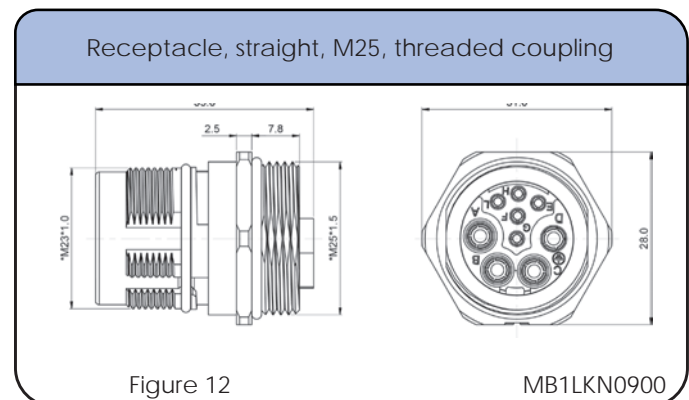
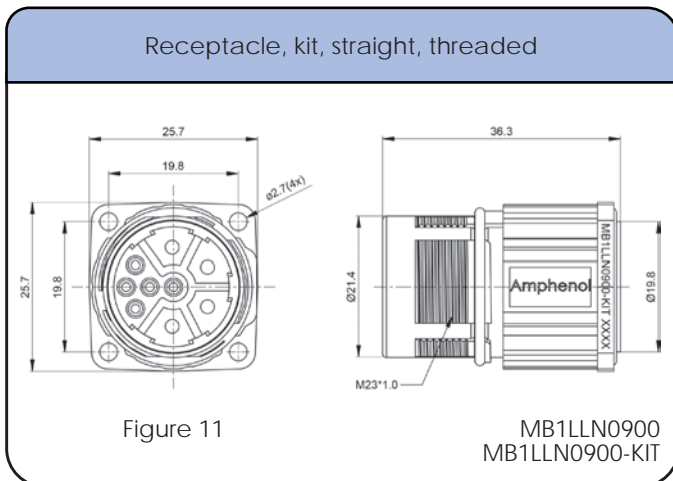
Threaded Dimensions 90° Plug / Panel Mount Plug

See Chart 1 for contacts options



Threaded Dimensions Straight Receptacles

See Chart 1 for contacts options

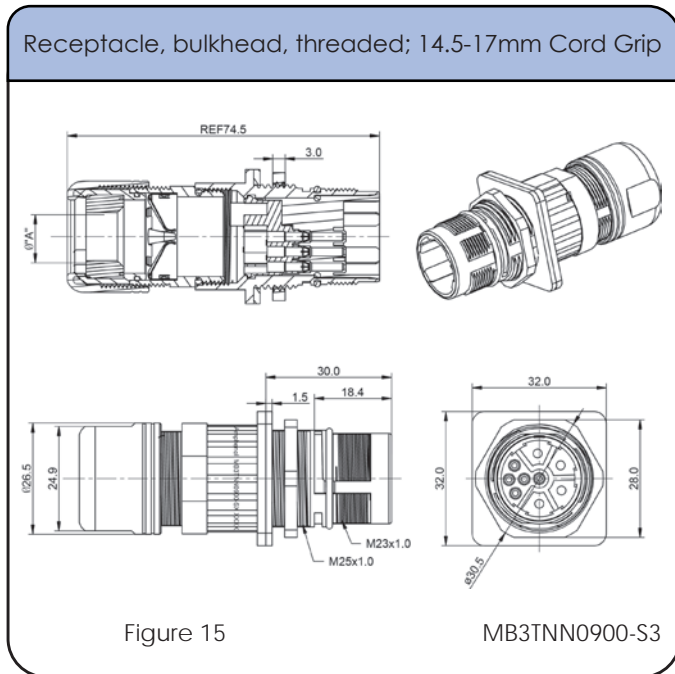
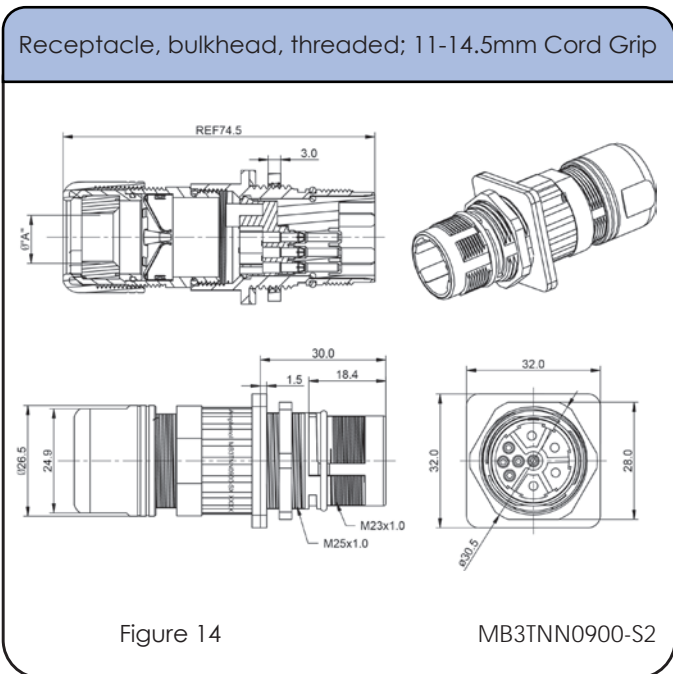
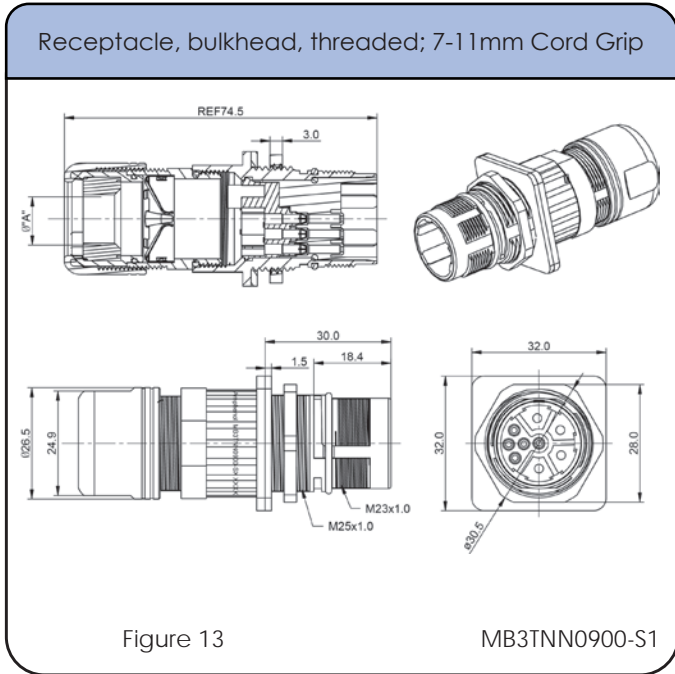


Complete datasheets can be found at www.amphenol-sine.com

Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)

Threaded Dimensions Bulkhead Receptacles / Receptacle Kits

See Chart 1 for contacts options



Complete datasheets can be found at www.amphenol-sine.com



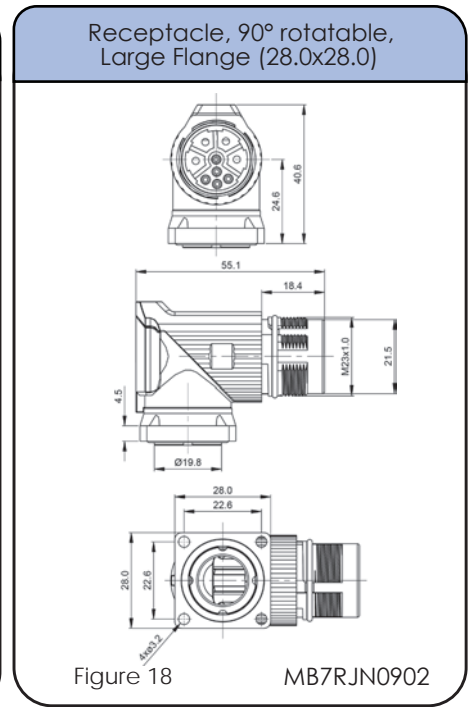
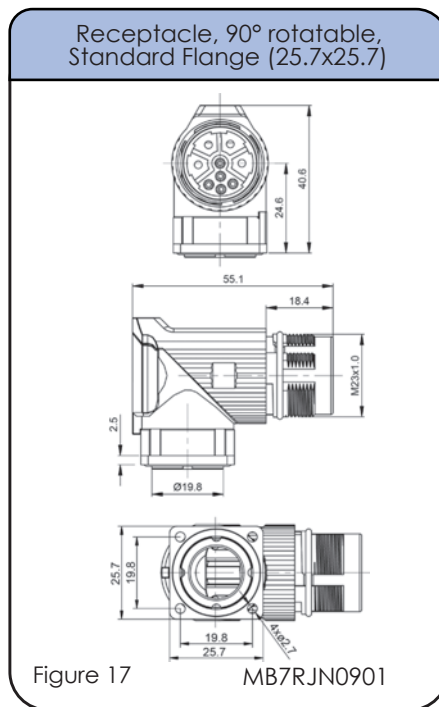
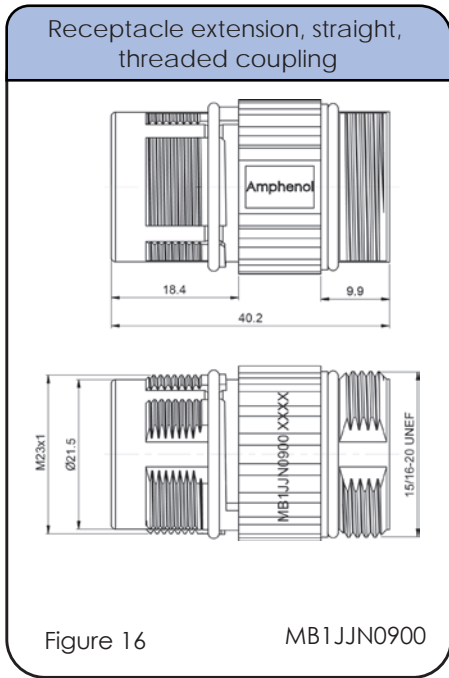
9 (4+5) POSITIONS
 Power 30A/ 630V
 Signal 10A/ 250V

Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)

Threaded Dimensions Receptacle Extension /
 90° Rotatable Receptacles

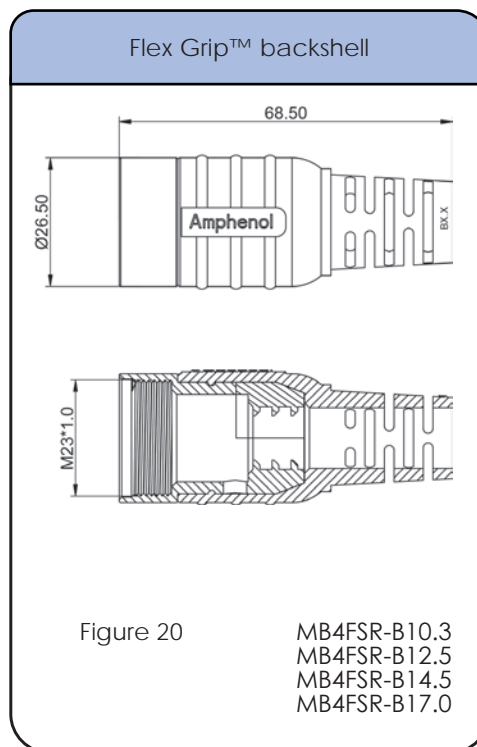
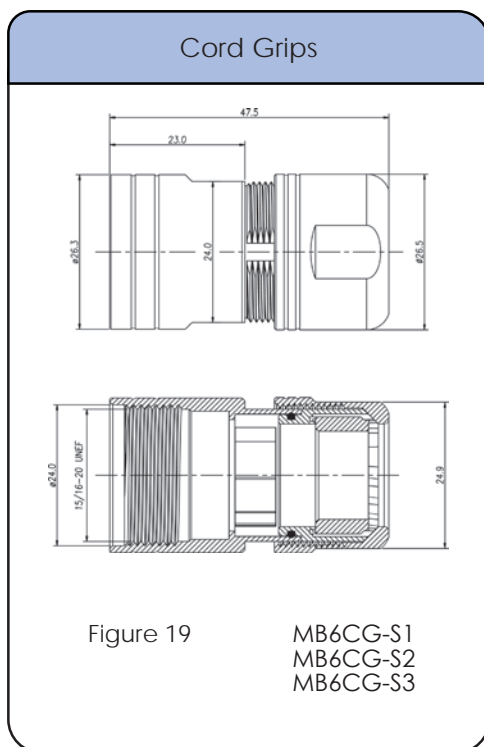
See Chart 1 for contacts options

See Chart 2 for contacts options for 90° Rotatable Receptacles



CONNECTOR SOLUTIONS

Dimensions Cord Grips / Backshells



Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)

Contacts



Machined Contacts

CHART 1

Crimp Contacts, Machined

For ALL Parts except those listed below in Chart 2

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|--------|-------|-----------------|---------|
| SC000035 | 1.0mm | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | 1.0mm | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000036 | 2.0mm | Pin | 18-14 | 1.5 - 0.75 | Gold |
| SC000044 | 1.0mm | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | 1.0mm | Socket | 28-24 | 0.10 - 0.25 | Gold |
| SC000045 | 2.0mm | Socket | 18-14 | 1.5 - 0.75 | Gold |

CHART 2

Crimp Contacts, Machined

For parts: MB7RJN0801, MB7RJN0802, MB5RJN0801, MB5RJN0802

| Part # | Size | Type | AWG | mm ² | Plating |
|----------|-------|--------|-------|-----------------|---------|
| SC000261 | 1.0mm | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000386 | 1.0mm | Pin | 28-24 | 0.10 - 0.25 | Gold |
| SC000262 | 2.0mm | Pin | 18-14 | 0.75 - 2.5 | Gold |
| SC000260 | 2.0mm | Socket | 20-14 | 2.5 - 0.5 | Gold |
| SC000259 | 2.0mm | Socket | 18-14 | 0.75 - 2.5 | Gold |
| SC000385 | 1.0mm | Socket | 28-24 | 0.10 - 0.25 | Gold |

Note: When 18-22 AWG wire is required use Elite Series plugs and 90° rotatable receptacles starting on page 129



9 (4+5) POSITIONS
 Power 30A/ 630V
 Signal 10A/ 250V

Number of Contacts: 9 (4+5) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) / 18-22 (0.75 - 0.37 mm²) / 24-28 (0.25 - 0.10mm²)

Tools

Pneumatic crimp tool. Uses universal positioner part no. SK2-2*
 Wire Range 20-32AWG

WA22

Pneumatic crimp tool. Uses universal positioner part no. UH2-5*.
 Wire Range 12-26AWG

WA27F

Extraction tool. Used for removal of 1.0mm contacts from inserts.

50-54931-1

Universal hand crimp tool. Uses universal positioner part no. UH2-5*
 Wire Range 12-26AWG

AF8

Universal hand crimp tool. Uses universal positioner part no. SK2-2*
 Wire Range 20-32AWG

AFM8

Extraction tool. Used for removal of 2.0mm contacts from inserts.

50-54931-2

Universal positioner is used with the universal hand crimp tool (AF8).
 Wire range 12-26AWG

UH2-5

Universal positioner is used with crimp tools AFM8 and WA22.
 Wire range 20-32AWG

SK2-2

Dust Cap for Receptacle

P29687

Dust Cap for Plug, Threaded

P30663-09

Dust Cap for Plug, Checkmate™

P31661-09

* The universal positioner is not included with the crimp tools and must be ordered separately.

* The extraction tool is not required to remove contacts from the 90° Rotatable Receptacles

Connector Solutions M23 Standard Series

STEP 1
Choose Plug

STEP 2
Choose Receptacle

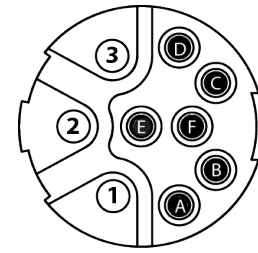
STEP 3
Choose Backshell/Cord Grip

See page 18 for connector configurations

Plugs



Receptacles



Cord Grips



FlexGrip™ Backshell System



more about
FlexGrip™
on page 282

BULK CABLE
starts on
page 23

Receptacle Kit

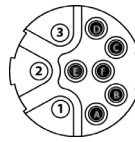


MB1LLNNG36-KIT

*Elite Series receptacles are offered here as additional options for mating with Standard Series plugs. See Assembly Instructions starting on page 266

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 248



9 (3+6) POSITIONS
Power 30A/ 250V
Signal 10A/ 630V

Number of Contacts: 9 (3+6) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 12 (4.0mm²) / 18-14 (0.75 - 2.5 mm²) / 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10mm²)



Checkmate™ Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | Figure Drawings |
|-------------|---|---|-----------------|
| MB2CKNNG36 | Plug, straight, Checkmate™ | Socket | 1 |
| MB2GJNNG36 | Plug, straight, panel mount, Checkmate™ | Socket | 2 |
| MB2LLNNG36 | Receptacle, straight flange mount, Checkmate™ | Pin | 3 |
| MB2LKNNG36 | Receptacle, straight, M25, Checkmate™ | Pin | 4 |
| MB2RJNNG36 | 90° rotatable receptacle, Checkmate™ | Pin | 5 |
| MB2JJNNG36 | Receptacle extension, straight, Checkmate™ | Pin | 6 |

↑ Contacts supplied separately see Chart 1 page 248

Threaded Connector Part Numbers

| Part Number | Connector Type <i>Checkmate™ parts will mate with threaded parts. Just remove the O-ring from the threaded part.</i> | Contact Type male = pin mates with female = socket ↓Mating Parts↓ | Figure Drawings |
|----------------|---|---|-----------------|
| MB1CKNNG36 | Plug, straight, threaded coupling | Socket | 7 |
| MB1EJNNG36 | Plug, 90° rotatable, threaded coupling | Socket | 8 |
| MB1GJNNG36 | Plug, straight, panel mount, threaded coupling | Socket | 9 |
| MB1LLNNG36 | Receptacle, straight, flange mount, threaded coupling | Pin | 10 |
| MB1LLNNG36-KIT | Receptacle kit, straight, threaded coupling. Kit includes contacts | Pin | 13 |
| MB1LKNNG36 | Receptacle, straight, M25, threaded coupling | Pin | 11 |
| MB1RJNNG36 | Receptacle, 90° rotatable, threaded coupling | Pin | 12 |
| MB1JJNNG36 | Receptacle extension, straight, threaded coupling | Pin | 14 |

↑ Contacts supplied separately see Chart 1 page 248

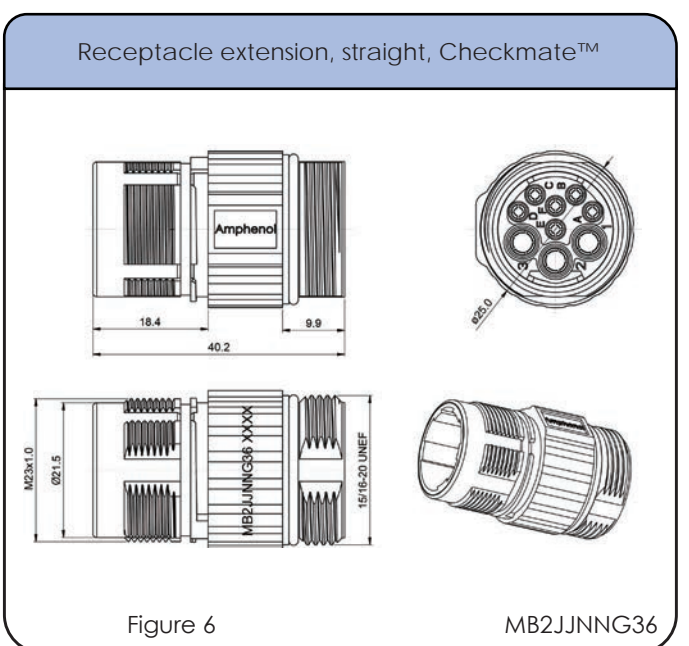
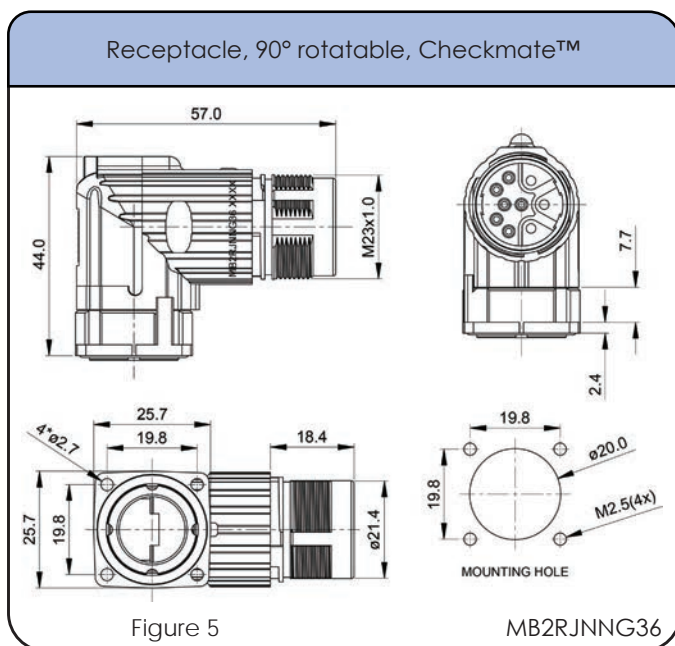
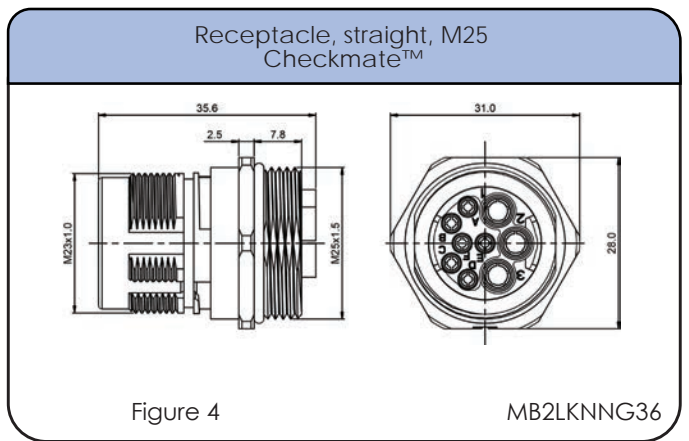
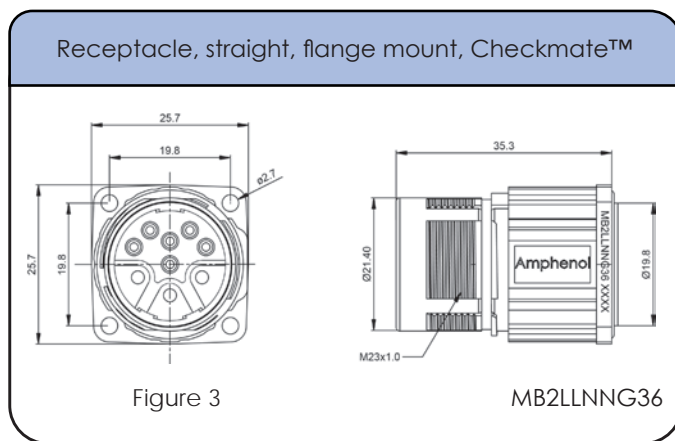
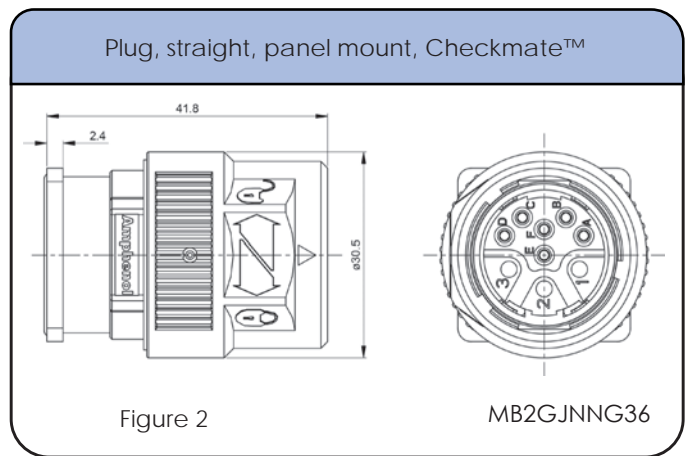
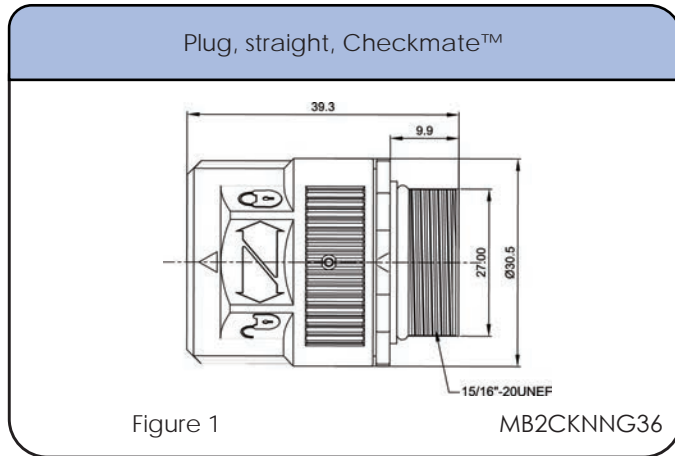
Cord Grips and Backshells

| Part Number | Type | Cable Range (mm) | Figure Drawings |
|---------------|----------------------|------------------|-----------------|
| MB6CG-S1 | Cord grip | 7.5-11mm | 14 |
| MB6CG-S2 | Cord grip | 11.0-14.5mm | 14 |
| MB6CG-S3 | Cord grip | 14.5-17mm | 14 |
| MB4FSR-B10.3* | Flex Grip™ backshell | 9.5-10.3mm | 15 |
| MB4FSR-B12.5* | Flex Grip™ backshell | 11.5-12.5mm | 15 |
| MB4FSR-B14.5* | Flex Grip™ backshell | 13.5-14.5mm | 15 |
| MB4FSR-B17* | Flex Grip™ backshell | 15.5-17mm | 15 |

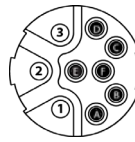
*Must be potted to achieve IP67 ratings.

Number of Contacts: 9 (3+6) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
 AWG: 12 (4.0mm²) / 18-14 (0.75 - 2.5 mm²) / 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10mm²)

Checkmate™ Dimensions Straight Plugs / Receptacles



Complete datasheets can be found at www.amphenol-sine.com



9 (3+6) POSITIONS
Power 30A/ 250V
Signal 10A/ 630V

Number of Contacts: 9 (3+6) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 12 (4.0mm²) / 18-14 (0.75 - 2.5 mm²) / 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10mm²)

Threaded Dimensions Plugs/ Receptacles

Plug, straight, threaded coupling

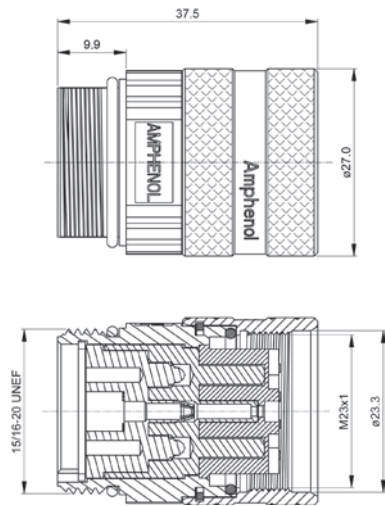


Figure 7

MB1CKNNG36

Plug, 90° rotatable, threaded coupling

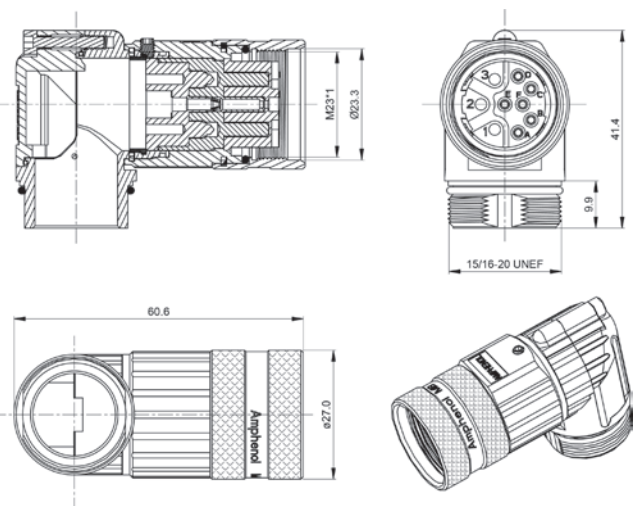


Figure 8

MB1EJNNG36

Plug, straight, panel mount, threaded

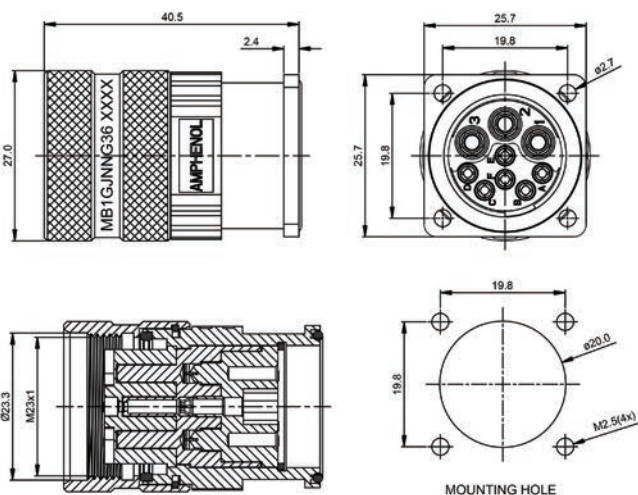


Figure 9

MB1GJNNG36

Receptacle, straight, flange mount, threaded coupling

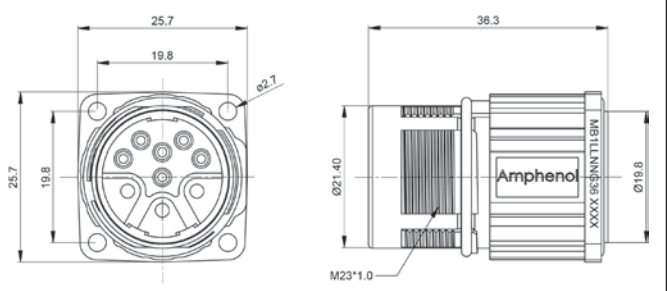


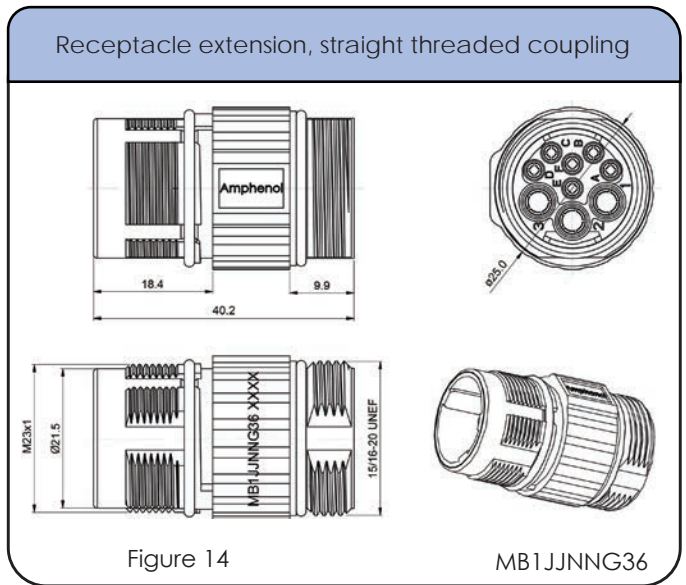
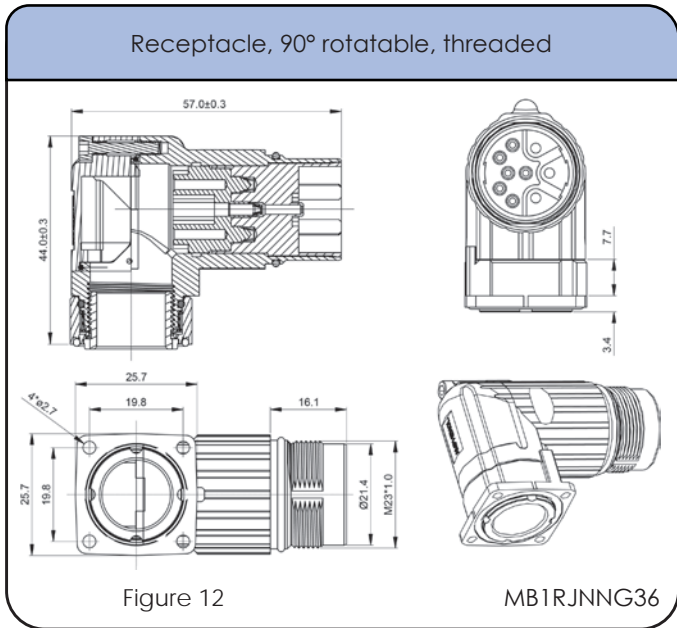
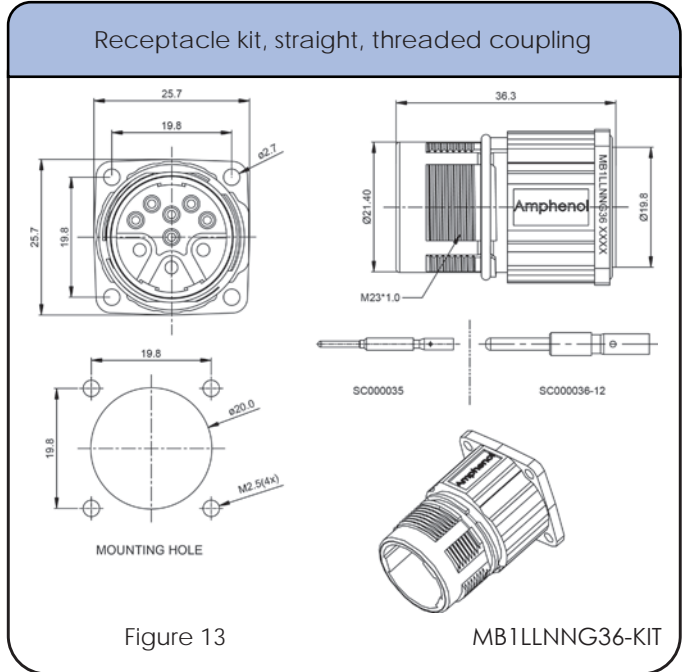
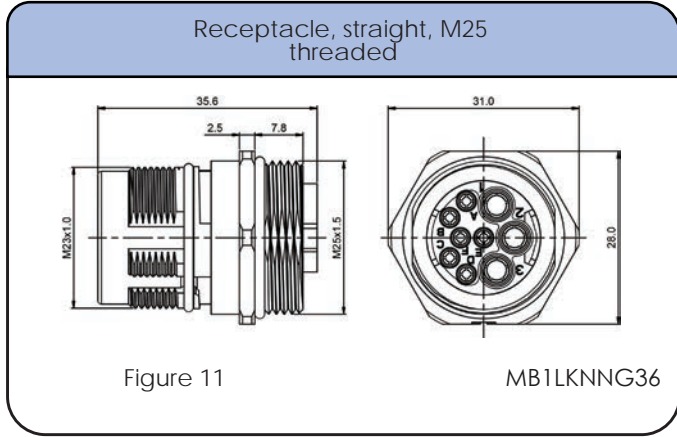
Figure 10

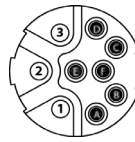
MB1LLNNG36

Complete datasheets can be found at www.amphenol-sine.com

Number of Contacts: 9 (3+6) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 12 (4.0mm²) / 18-14 (0.75 - 2.5 mm²) / 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10mm²)

Threaded Dimensions Panel Mount Connector / Receptacle Extensions

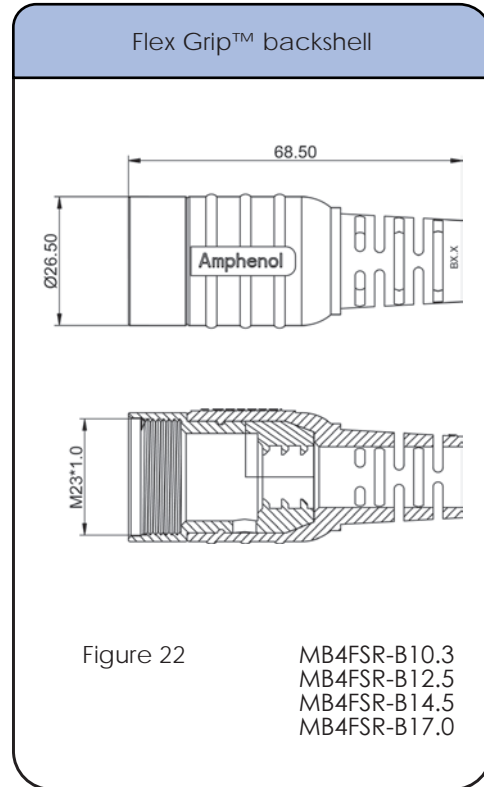
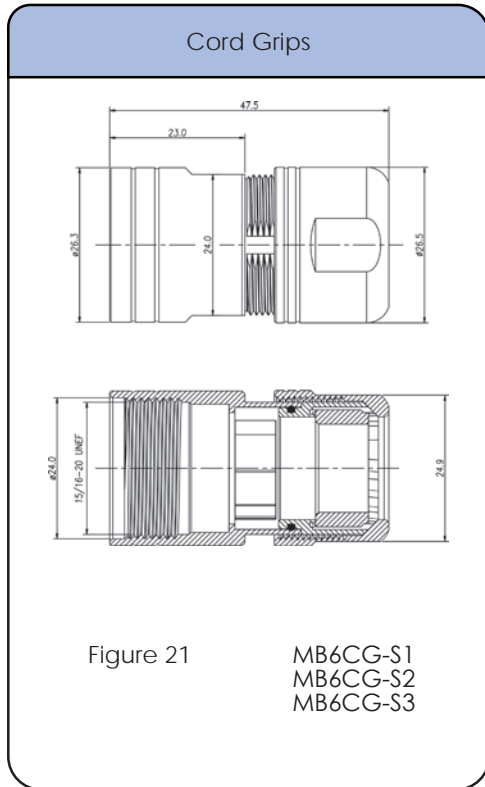




9 (3+6) POSITIONS
Power 30A/ 250V
Signal 10A/ 630V

Number of Contacts: 9 (3+6) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 12 (4.0mm²) / 18-14 (0.75 - 2.5 mm²) / 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10mm²)

Dimensions Cord Grips/ Backshells



Number of Contacts: 9 (3+6) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 12 (4.0mm²) / 18-14 (0.75 - 2.5 mm²) / 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10mm²)

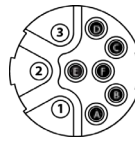
Contacts



Machined Contacts

CHART 1 Crimp Contacts, Machined

| Part # | Size | Type | AWG | mm ² | Plating |
|-------------|-------|--------|-------|-----------------|---------|
| SC000035 | 1.0mm | Pin | 22-18 | 0.37 - 0.75 | Gold |
| SC000146 | 1.0mm | Pin | 28-24 | 0.10 - 0.37 | Gold |
| SC000036 | 2.0mm | Pin | 18-14 | 1.5 - 0.75 | Gold |
| SC000036-12 | 2.0mm | Pin | 12 | 4.0 | Gold |
| SC000044 | 1.0mm | Socket | 22-18 | 0.37 - 0.75 | Gold |
| SC000030 | 1.0mm | Socket | 28-24 | 0.10 - 0.37 | Gold |
| SC000045 | 2.0mm | Socket | 18-14 | 1.5 - 0.75 | Gold |
| 65-80041 | 2.0mm | Socket | 12 | 4.0 | Gold |



9 (3+6) POSITIONS
Power 30A/ 250V
Signal 10A/ 630V

Number of Contacts: 9 (3+6) Contact Size: 1.0mm, 2.0mm Sealing: IP66/67
AWG: 12 (4.0mm²) / 18-14 (0.75 - 2.5 mm²) / 22-18 (0.37 - 0.75 mm²) / 24-28 (0.25 - 0.10mm²)

Tools

Pneumatic crimp tool. Uses universal positioner part no. SK2-2*
 Wire Range 20-32AWG



WA22

Pneumatic crimp tool. Uses universal positioner part no. UH2-5*
 Wire Range 12-26AWG



WA27F

Extraction tool. Used for removal of 1.0mm contacts from inserts.



50-54931-1

Universal hand crimp tool. Uses universal positioner part no. UH2-5*
 Wire Range 12-26AWG



AF8

Universal hand crimp tool. Uses universal positioner part no. SK2-2*
 Wire Range 20-32AWG



AFM8

Extraction tool. Used for removal of 2.0mm contacts from inserts.



50-54931-2

Universal positioner is used with the universal hand crimp tool (AF8).
 Wire range 12-26AWG



UH2-5

Universal positioner is used with crimp tools AFM8 and WA22.
 Wire range 20-32AWG



SK2-2

Dust Cap for Receptacle



P29687

Dust Cap for Plug, Threaded



P30663-09

Dust Cap for Plug, Checkmate™



P31661-09

* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M40 Series

STEP 1
Choose Plug

STEP 2
Choose Receptacle

STEP 3
Choose Backshell/Cord Grip

See page 20 for connector configurations

Plugs



Receptacles



Receptacle Extension

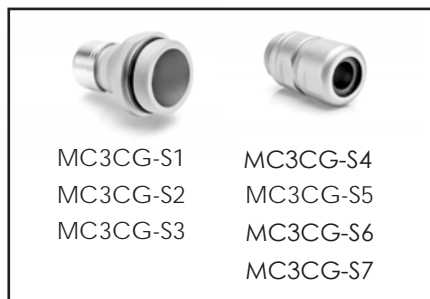


FlexGrip™ Backshell System



more about FlexGrip™
on page 282

Cord Grips



Connector Part Numbers

| Part Number | Connector Type | Contact Type male = pin female = socket | Figure Drawings |
|-------------|--|---|-----------------|
| MC2UPN0600 | Plug, straight, Checkmate™ | Socket | 1 |
| MC2JJN0600 | Receptacle extension, straight, Checkmate™ | Pin | 2 |
| MC2NKN0600 | Receptacle, 90° fixed, Checkmate™ | Pin | 3 |
| MC2LKN0600 | Receptacle, straight, Checkmate™ | Pin | 4 |

Contacts supplied separately, see page 252

Cord Grips and Backshells

| Part Number | Type | Cable Range (mm) | Figure Drawings |
|---------------|----------------------|------------------|-----------------|
| MC4FSR-C18.5* | Flex Grip™ backshell | 17.5-18.5mm | 6 |
| MC3CG-S1 | Cord grip | 10.0-12.0mm | 7 |
| MC3CG-S2 | Cord grip | 12.0-14.5mm | 7 |
| MC3CG-S3 | Cord grip | 14.0-17.0mm | 7 |
| MC3CG-S4 | Cord grip | 17.0-19.0mm | 8 |
| MC3CG-S5 | Cord grip | 19.0-21.0mm | 8 |
| MC3CG-S6 | Cord grip | 21.0-23.0mm | 8 |
| MC3CG-S7 | Cord grip | 23.5-25.5mm | 8 |

*Must be potted to achieve IP67 ratings.

BULK CABLE starts on page 23

SEE TABLE ON NEXT PAGE FOR PART DETAILS

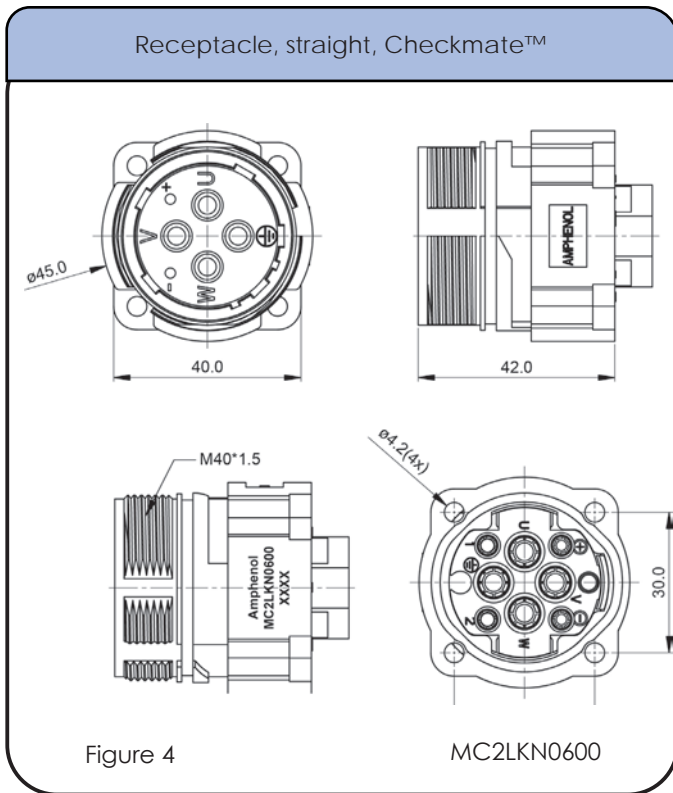
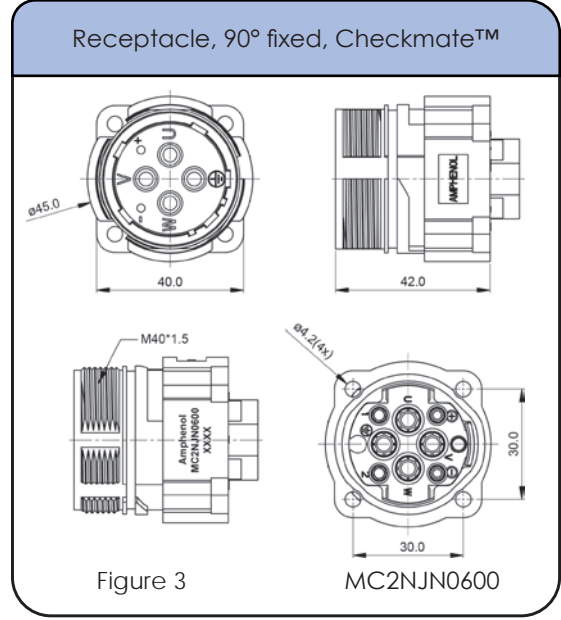
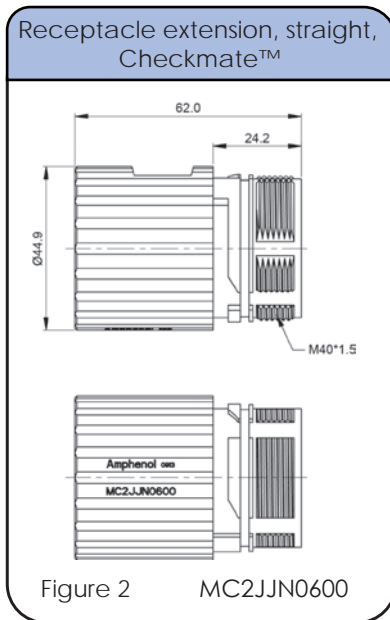
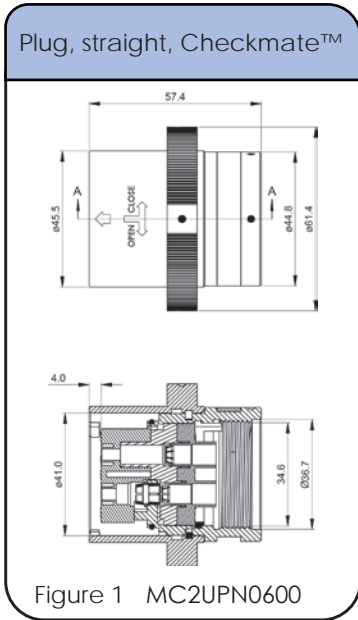
CONTACTS SOLD SEPARATELY SEE PAGE 252



6 (4+2) POSITIONS
 Power 75A/ 630V
 Signal 30A/ 250V
 Checkmate™

Number of Contacts: 6 (4+2) Contact Sizes: 2.0mm, 3.6mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) 12-8 (4.0 - 10.0 mm²)

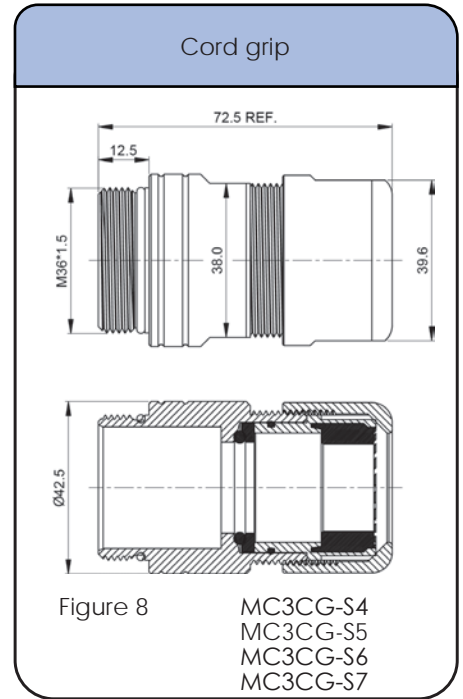
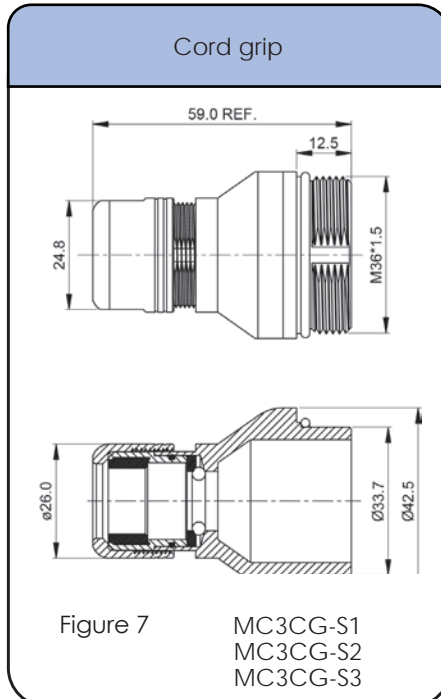
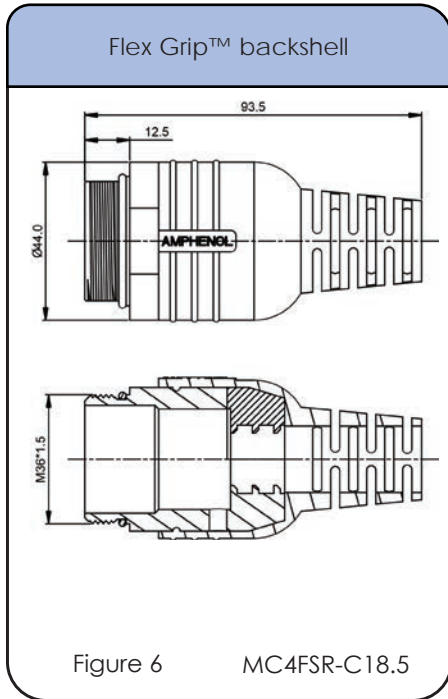
Dimensions Plug / Cable Connector / Receptacles



Complete datasheets can be found at www.amphenol-sine.com

Number of Contacts: 6 (4+2) Contact Sizes: 2.0mm, 3.6mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) 12-8 (4.0 - 10.0 mm²)

Dimensions Cord Grips



Contacts



Crimp Contacts, Machined

| Part Number | Size | Pin/Socket | AWG | mm ² | Plating |
|-------------|-------|------------|-------|-----------------|---------|
| SC000040 | 2.0mm | Pin | 18-14 | 0.75 - 2.5 | Gold |
| SC000041 | 3.6mm | Pin | 12-8 | 4.0 - 10.0 | Gold |
| SC000045 | 2.0mm | Socket | 18-14 | 0.75 - 2.5 | Gold |
| SC000046 | 3.6mm | Socket | 12-8 | 4.0 - 10.0 | Gold |

Complete datasheets can be found at www.amphenol-sine.com



6 (4+2) POSITIONS
 Power 75A/ 630V
 Signal 30A/ 250V
 Checkmate™

Number of Contacts: 6 (4+2) Contact Sizes: 2.0mm, 3.6mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) 12-8 (4.0 - 10.0 mm²)

Tools

Extraction tool. Used for removal of 2.0mm (#14) contacts from inserts.



50-54931-2

Extraction tool. Used for removal of 3.6mm (#8) contacts from inserts.



50-54931-3

Universal hand crimp tool. Uses universal positioner part no. UH2-5. Wire crimp range 12-26AWG



AF8

Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG



UH2-5

Pneumatic crimp tool. Uses universal positioner part no. WA23-101DA




WA23

Pneumatic crimp tool. Uses universal positioner part no. UH2-5. Wire range 12-26WG



WA27F

Die Assembly, Size 10, is used with the Pneumatic crimp tool. WA23



WA23-101DA

Hand Crimp tool. Uses MFX-3966 crimp locator



M300-25A

Crimp Locator 3.6mm Power contact adjustable. Used with WA23 Crimp tool



MFX-3961

Contact Locator Tool



MFX-3966

* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M40 Series

STEP 1
Choose Plug

STEP 2
Choose Receptacle

STEP 3
Choose Backshell/Cord Grip

See page 20 for connector configurations



Plugs



MC1CJN0600

Receptacles



MC1LKN0600

MC1NJN0600

Receptacle Extension



MC1JJN0600

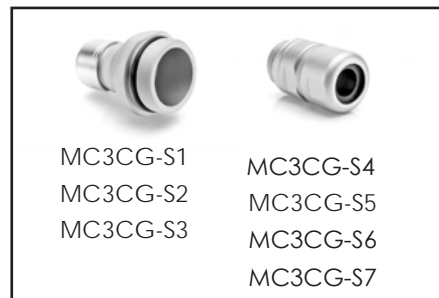
FlexGrip™ Backshell System



MC4FSR-C18.5

more about FlexGrip™
on page 282

Cord Grips



MC3CG-S1

MC3CG-S2

MC3CG-S3

MC3CG-S4

MC3CG-S5

MC3CG-S6

MC3CG-S7

Connector Part Numbers

| Part Number | Connector Type | Contact Type male = pin female = socket | Figure Drawings |
|-------------|--|---|-----------------|
| MC1CJN0600 | Plug, straight, threaded | Socket | 1 |
| MC1JJN0600 | Receptacle extension, straight, threaded | Pin | 2 |
| MC1NJN0600 | Receptacle, 90° fixed, threaded | Pin | 3 |
| MC1LKN0600 | Receptacle, straight, threaded | Pin | 4 |

Contacts supplied separately, see page 256

Cord Grips and Backshells

| Part Number | Type | Cable Range (mm) | Figure Drawings |
|---------------|----------------------|------------------|-----------------|
| MC4FSR-C18.5* | Flex Grip™ backshell | 17.5-18.5mm | 5 |
| MC3CG-S1 | Cord grip | 10.0-12.0mm | 6 |
| MC3CG-S2 | Cord grip | 12.0-14.5mm | 6 |
| MC3CG-S3 | Cord grip | 14.0-17.0mm | 6 |
| MC3CG-S4 | Cord grip | 17.0-19.0mm | 7 |
| MC3CG-S5 | Cord grip | 19.0-21.0mm | 7 |
| MC3CG-S6 | Cord grip | 21.0-23.0mm | 7 |
| MC3CG-S7 | Cord grip | 23.5-25.5mm | 7 |

*Must be potted to achieve IP67 ratings.

BULK CABLE starts on page 23

SEE TABLE ON NEXT PAGE FOR PART DETAILS

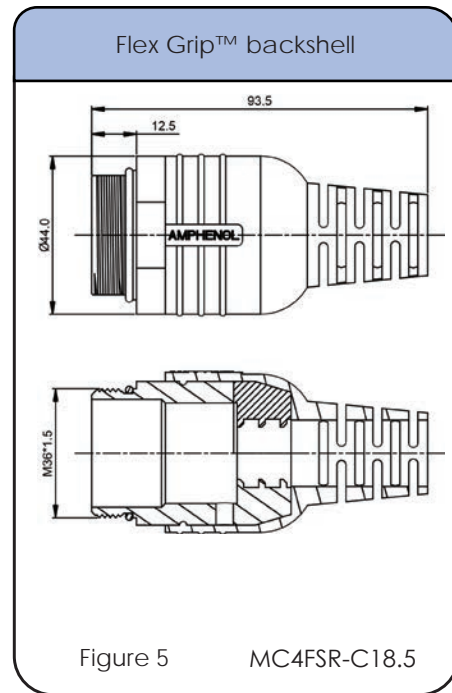
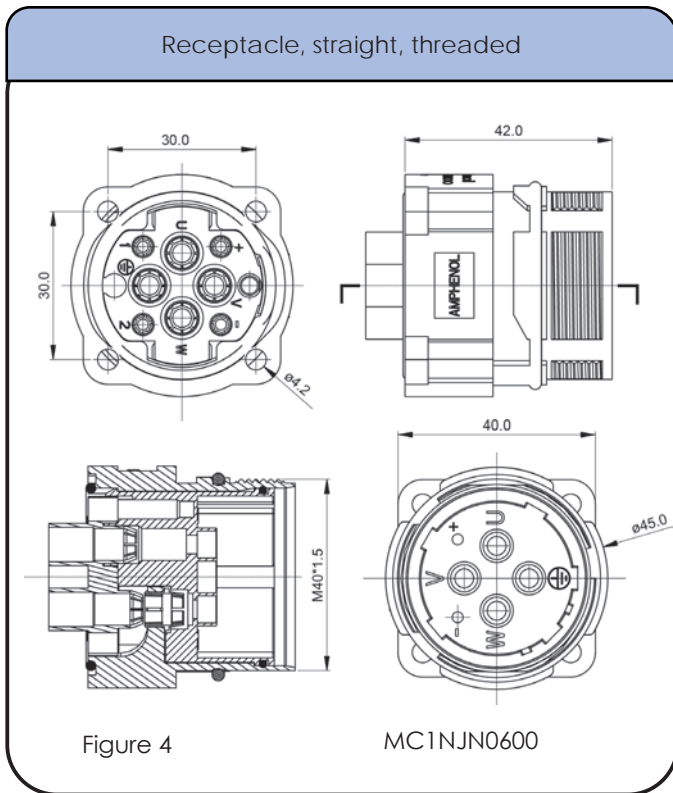
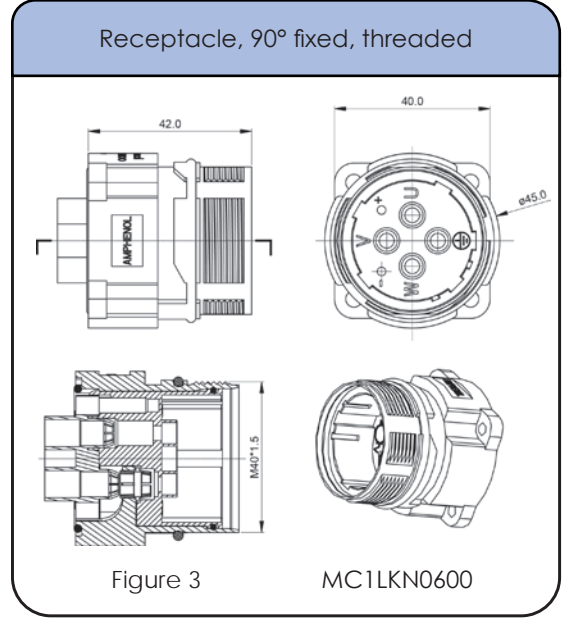
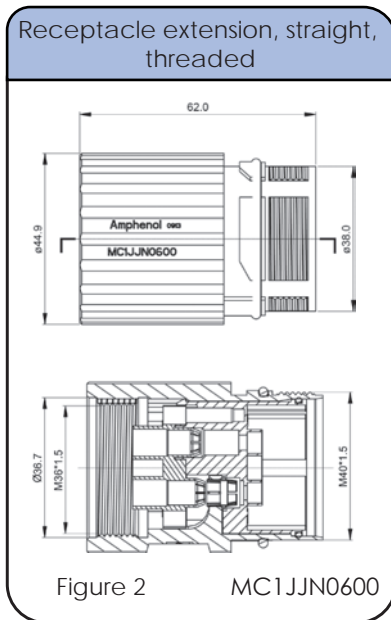
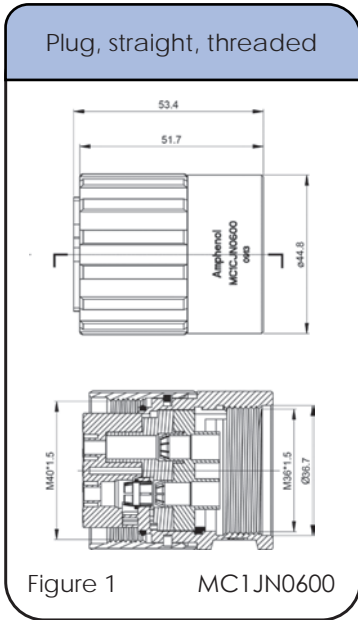
CONTACTS SOLD SEPARATELY SEE PAGE 228



6 (4+2) POSITIONS
 Power 75A/ 630V
 Signal 30A/ 250V
 Threaded

Number of Contacts: 6 (4+2) Contact Sizes: 2.0mm, 3.6mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) 12-8 (4.0 - 10.0 mm²)

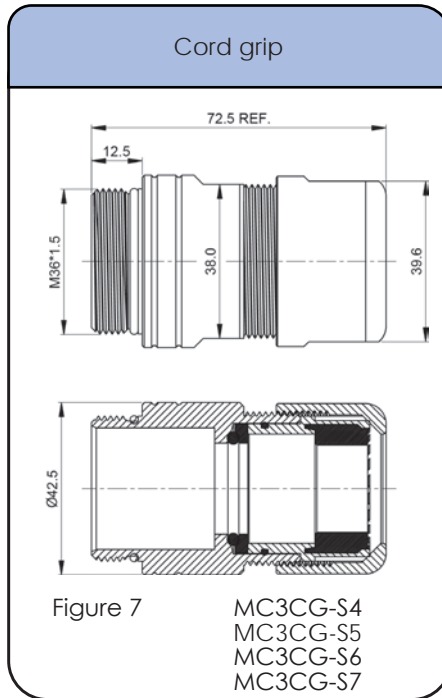
Dimensions Plug / Cable Connector / Receptacles



Complete datasheets can be found at www.amphenol-sine.com

Number of Contacts: 6 (4+2) Contact Sizes: 2.0mm, 3.6mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) 12-8 (4.0 - 10.0 mm²)

Dimensions Cord Grips



Contacts



Crimp Contacts, Machined

| Part Number | Size | Pin/Socket | AWG | mm ² | Plating |
|-------------|-------|------------|-------|-----------------|---------|
| SC000040 | 2.0mm | Pin | 18-14 | 0.75 - 2.5 | Gold |
| SC000041 | 3.6mm | Pin | 12-8 | 4.0 - 10.0 | Gold |
| SC000045 | 2.0mm | Socket | 18-14 | 0.75 - 2.5 | Gold |
| SC000046 | 3.6mm | Socket | 12-8 | 4.0 - 10.0 | Gold |

Complete datasheets can be found at www.amphenol-sine.com



6 (4+2) POSITIONS
Power 75A/ 630V
Signal 30A/ 250V
THREADED

Number of Contacts: 6 (4+2) Contact Sizes: 2.0mm, 3.6mm Sealing: IP66/67
AWG: 18-14 (0.75 - 2.5 mm²) 12-8 (4.0 - 10.0 mm²)

Tools

Extraction tool. Used for removal of 2.0mm (#14) contacts from inserts.

50-54931-2

Extraction tool. Used for removal of 3.6mm (#8) contacts from inserts.

50-54931-3

Universal hand crimp tool. Uses universal positioner part no. UH2-5. Wire crimp range 12-26AWG

AF8

Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG

UH2-5

Pneumatic crimp tool. Uses universal positioner part no. WA23-101DA

WA23

Pneumatic crimp tool. Uses universal positioner part no. UH2-5. Wire range 12-26WG

WA27F

Die Assembly, Size 10, is used with the Pneumatic crimp tool. WA23

WA23-101DA

Hand Crimp tool. Uses MFX-3966 crimp locator

M300-25A

Crimp Locator 3.6mm Power contact adjustable. Used with WA23 Crimp tool

MFX-3961

Contact Locator Tool

MFX-3966

CONNECTOR SOLUTIONS

* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M40

STEP 1
Choose Plug

STEP 2
Choose Receptacle

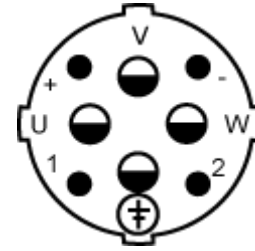
STEP 3
Choose Backshell/Cord Grip

See page 20 for connector configurations

Plugs



Receptacles



Receptacle Extension

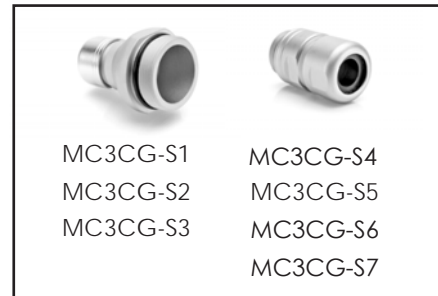


FlexGrip™ Backshell System



more about FlexGrip™
on page 282

Cord Grips



Connector Part Numbers

| Part Number | Connector Type | Contact Type male = pin female = socket | Figure Drawings |
|-------------|--|---|-----------------|
| MC2UPN0800 | Plug, straight, Checkmate™ | Socket | 1 |
| MC2JJN0800 | Receptacle extension, straight, Checkmate™ | Pin | 2 |
| MC2LKN0800 | Receptacle, straight, Checkmate™ | Pin | 3 |
| MC2NHN0800 | Receptacle, 90° fixed, Checkmate™ | Pin | 4 |

Contacts supplied separately, see page 260

Cord Grips and Backshells

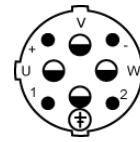
| Part Number | Type | Cable Range (mm) | Figure Drawings |
|---------------|-----------------------|------------------|-----------------|
| MC4FSR-C18.5* | Flex Grip™ backshell* | 17.5-18.5mm | 5 |
| MC3CG-S1 | Cord grip | 10.0-12.0mm | 6 |
| MC3CG-S2 | Cord grip | 12.0-14.5mm | 6 |
| MC3CG-S3 | Cord grip | 14.0-17.0mm | 6 |
| MC3CG-S4 | Cord grip | 17.0-19.0mm | 7 |
| MC3CG-S5 | Cord grip | 19.0-21.0mm | 7 |
| MC3CG-S6 | Cord grip | 21.0-23.0mm | 7 |
| MC3CG-S7 | Cord grip | 23.5-25.5mm | 7 |

*Must be potted to achieve IP67 ratings.

BULK CABLE starts on page 23

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 260



8 (4+4) POSITIONS
 Power 75A/ 630V
 Signal 30A/ 250V
 Checkmate™

Number of Contacts: 8 (4+4) Contact Sizes: 2.0mm, 3.6mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) 12-8 (4.0 - 10.0 mm²)

Plug, straight, Checkmate™

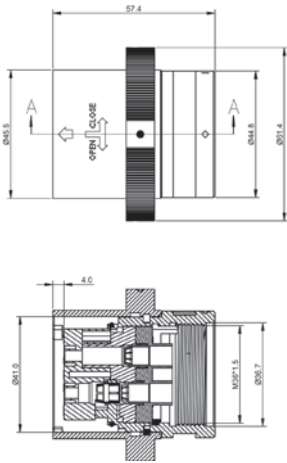


Figure 1 MC2UPN0800

Receptacle extension, straight, Checkmate™

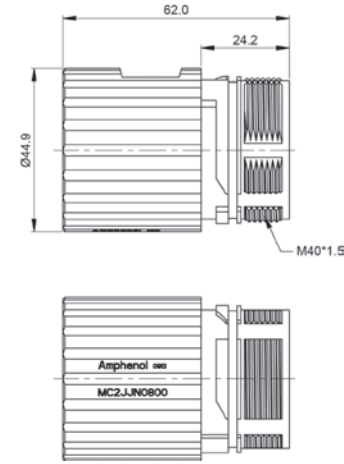


Figure 2 MC2JJN0800

Receptacle, straight, Checkmate™

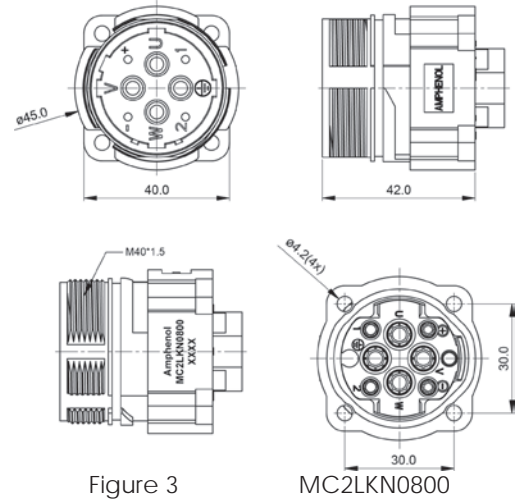


Figure 3 MC2LKN0800

Receptacle, 90° fixed, Checkmate™

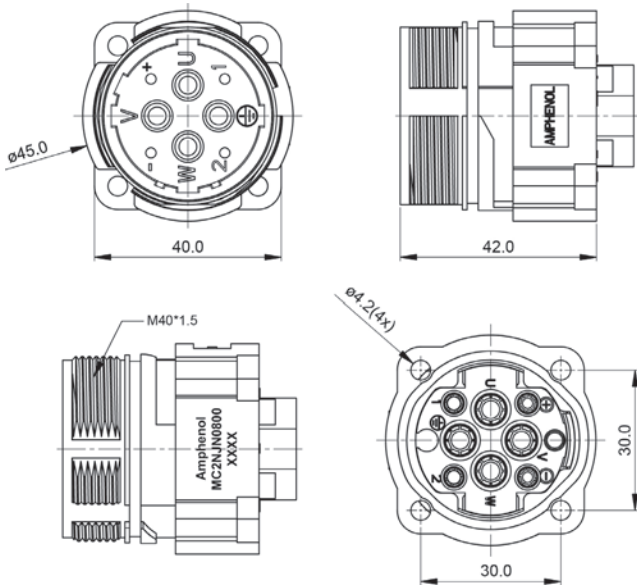
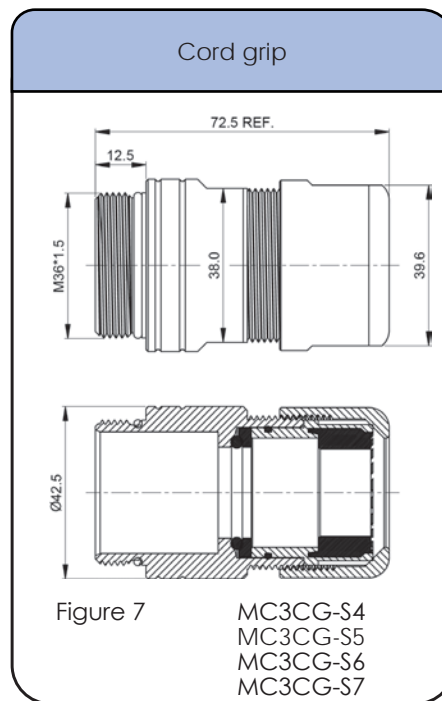
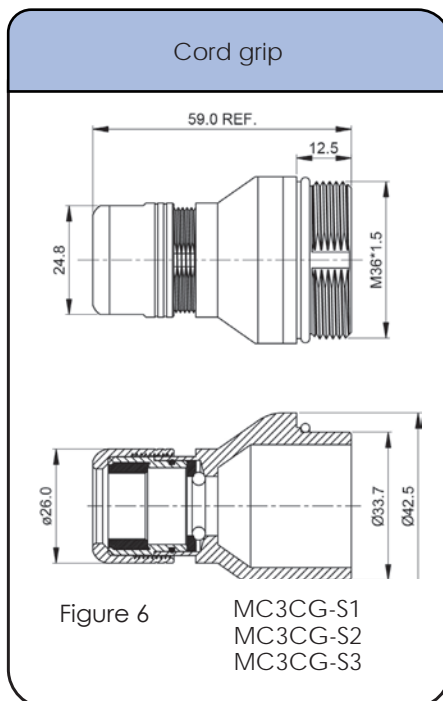
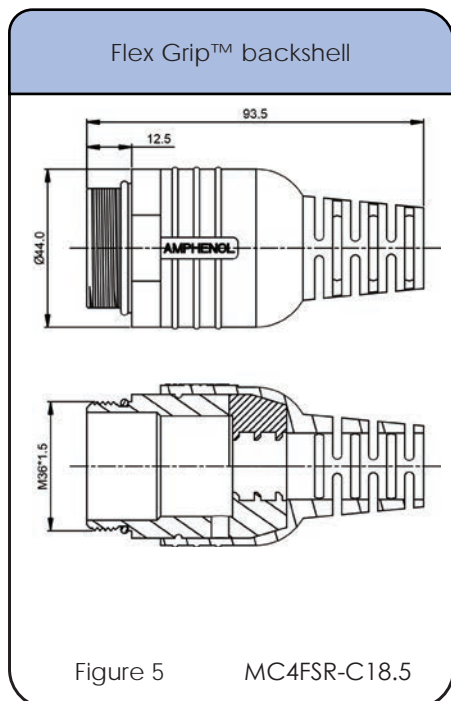


Figure 4 MC2NKN0800

Complete datasheets can be found at www.amphenol-sine.com

Number of Contacts: 8 (4+4) Contact Sizes: 2.0mm, 3.6mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) 12-8 (4.0 - 10.0 mm²)

Dimensions Cord Grips



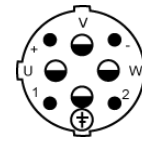
Contacts



Crimp Contacts, Machined

| Part Number | Size | Pin/Socket | AWG | mm ² | Plating |
|-------------|-------|------------|-------|-----------------|---------|
| SC000040 | 2.0mm | Pin | 18-14 | 0.75 - 2.5 | Gold |
| SC000041 | 3.6mm | Pin | 12-8 | 4.0 - 10.0 | Gold |
| SC000045 | 2.0mm | Socket | 18-14 | 0.75 - 2.5 | Gold |
| SC000046 | 3.6mm | Socket | 12-8 | 4.0 - 10.0 | Gold |


Complete datasheets can be found at www.amphenol-sine.com



8 (4+4) POSITIONS
 Power 75A/ 630V
 Signal 30A/ 250V
 Checkmate™

Number of Contacts: 8 (4+4) Contact Sizes: 2.0mm, 3.6mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) 12-8 (4.0 - 10.0 mm²)

Tools

| | | |
|--|---|--|
| <p>Extraction tool. Used for removal of 2.0mm (#14) contacts from inserts.</p>  <p>50-54931-2</p> | <p>Extraction tool. Used for removal of 3.6mm (#8) contacts from inserts.</p>  <p>50-54931-3</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5. Wire crimp range 12-26AWG</p>  <p>AF8</p> |
| <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. WA23-101DA</p>  <p>WA23</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5. Wire range 12-26WG</p>  <p>WA27F</p> |
| <p>Die Assembly, Size 10, is used with the Pneumatic crimp tool. WA23</p>  <p>WA23-101DA</p> | <p>Hand Crimp tool. Uses MFX-3966 crimp locator</p>  <p>M300-25A</p> | <p>Crimp Locator 3.6mm Power contact adjustable. Used with WA23 Crimp tool</p>  <p>MFX-3961</p> |
| <p>Contact Locator Tool</p>  <p>MFX-3966</p> | | |

* The universal positioner is not included with the crimp tools and must be ordered separately.

Connector Solutions M40

STEP 1
Choose Plug

STEP 2
Choose Receptacle

STEP 3
Choose Backshell/Cord Grip

See page 20 for connector configurations

Plugs



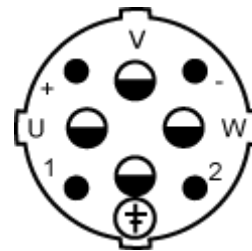
MC1CJN0800

Receptacles



MC1LKN0800

MC1NJN0800



Receptacle Extension



MC1JJN0800

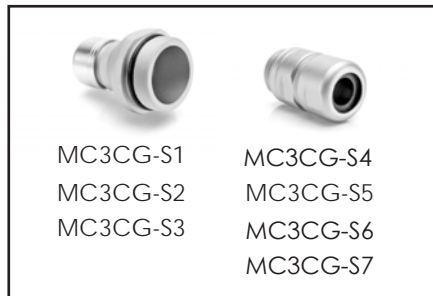
FlexGrip™ Backshell System



MC4FSR-C18.5

more about FlexGrip™ on page 282

Cord Grips



MC3CG-S1

MC3CG-S4

MC3CG-S2

MC3CG-S5

MC3CG-S3

MC3CG-S6

MC3CG-S7

Connector Part Numbers

| Part Number | Connector Type | Contact Type male = pin female = socket | Figure Drawings |
|-------------|--|---|-----------------|
| MC1CJN0800 | Plug, straight, threaded | Socket | 1 |
| MC1JJN0800 | Receptacle extension, straight, threaded | Pin | 2 |
| MC1LKN0800 | Receptacle, straight, threaded | Pin | 3 |
| MC1NJN0800 | Receptacle, 90° fixed, threaded | Pin | 4 |

Contacts supplied separately, see page 236

Cord Grips and Backshells

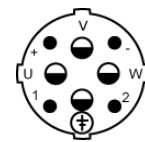
| Part Number | Type | Cable Range (mm) | Figure Drawings |
|---------------|-----------------------|------------------|-----------------|
| MC4FSR-C18.5* | Flex Grip™ backshell* | 17.5-18.5mm | 5 |
| MC3CG-S1 | Cord grip | 10.0-12.0mm | 6 |
| MC3CG-S2 | Cord grip | 12.0-14.5mm | 6 |
| MC3CG-S3 | Cord grip | 14.0-17.0mm | 6 |
| MC3CG-S4 | Cord grip | 17.0-19.0mm | 7 |
| MC3CG-S5 | Cord grip | 19.0-21.0mm | 7 |
| MC3CG-S6 | Cord grip | 21.0-23.0mm | 7 |
| MC3CG-S7 | Cord grip | 23.5-25.5mm | 7 |

*Must be potted to achieve IP67 ratings.

BULK CABLE starts on page 23

SEE TABLE ON NEXT PAGE FOR PART DETAILS

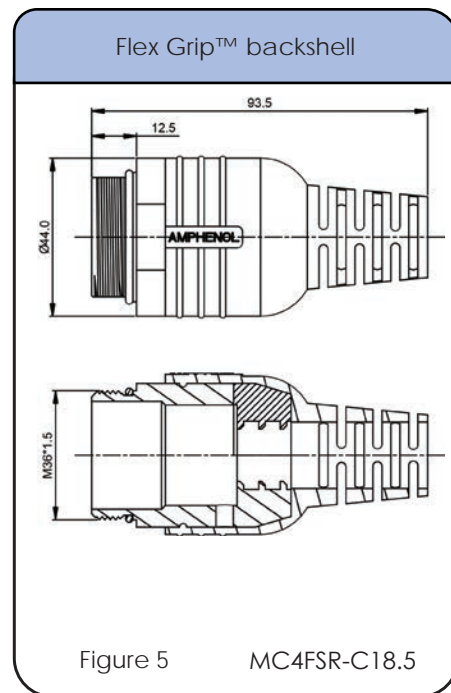
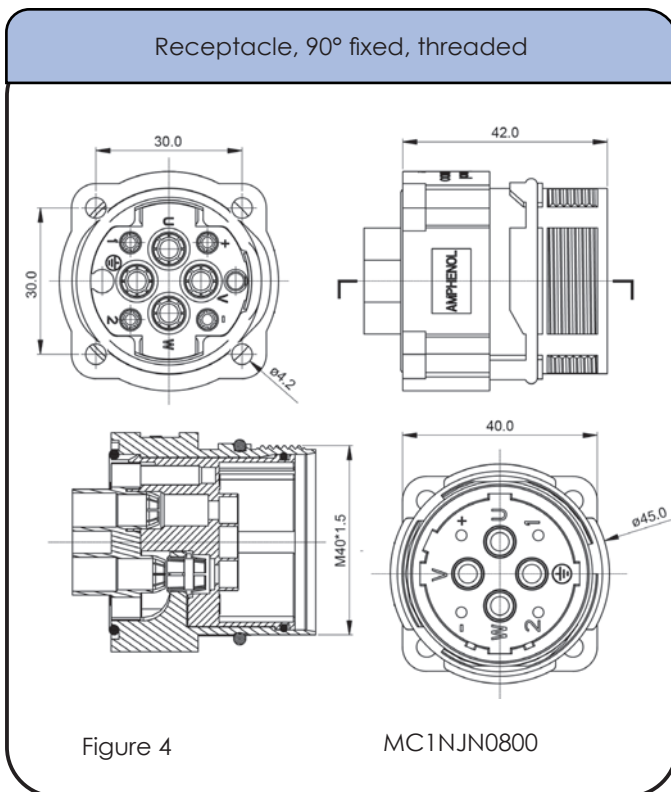
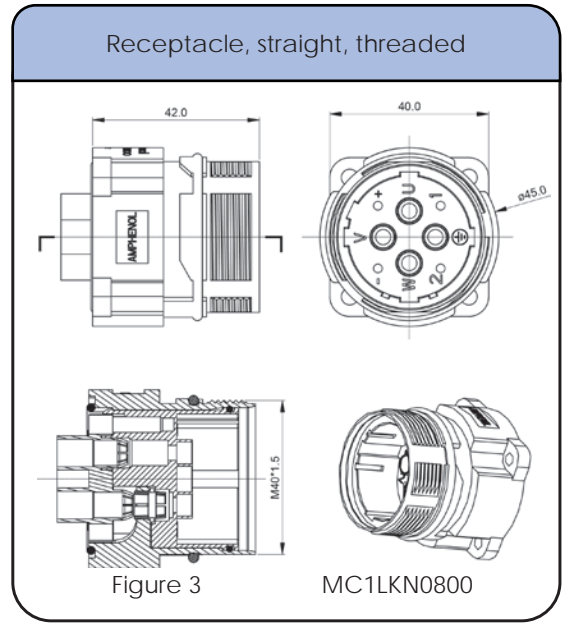
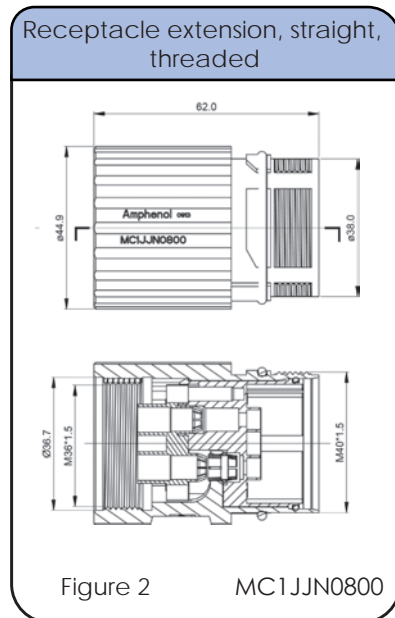
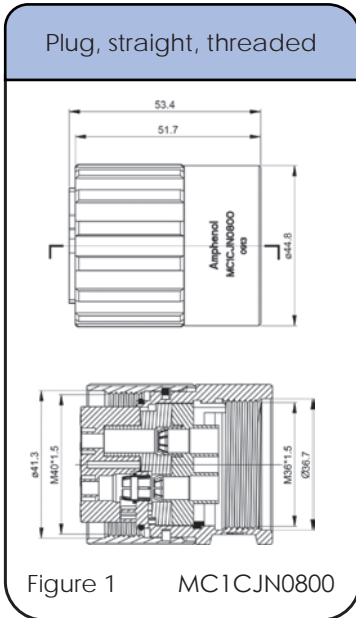
CONTACTS SOLD SEPARATELY SEE PAGE 236



8 (4+4) POSITIONS
 Power 75A/ 630V
 Signal 30A/ 250V
 Threaded

Number of Contacts: 8 (4+4) Contact Sizes: 2.0mm, 3.6mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) 12-8 (4.0 - 10.0 mm²)

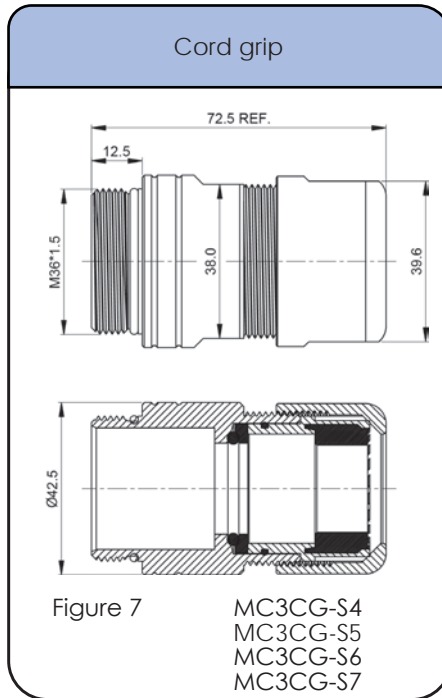
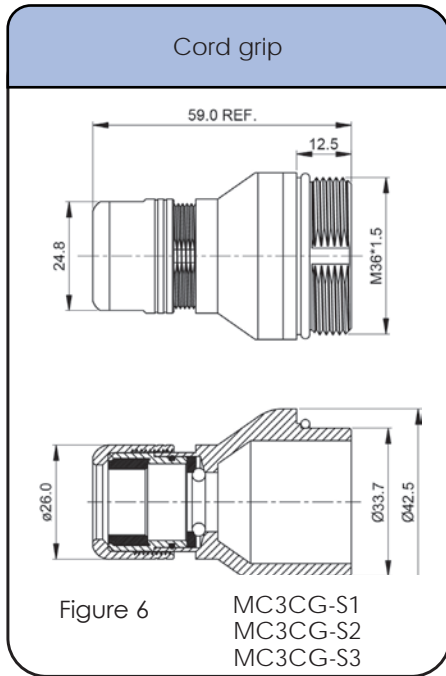
Dimensions Plug / Cable Connector / Receptacles



Complete datasheets can be found at www.amphenol-sine.com

Number of Contacts: 8 (4+4) Contact Sizes: 2.0mm, 3.6mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) 12-8 (4.0 - 10.0 mm²)

Dimensions Cord Grips



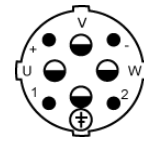
Contacts



Crimp Contacts, Machined

| Part Number | Size | Pin/Socket | AWG | mm ² | Plating |
|-------------|-------|------------|-------|-----------------|---------|
| SC000040 | 2.0mm | Pin | 18-14 | 0.75 - 2.5 | Gold |
| SC000041 | 3.6mm | Pin | 12-8 | 4.0 - 10.0 | Gold |
| SC000045 | 2.0mm | Socket | 18-14 | 0.75 - 2.5 | Gold |
| SC000046 | 3.6mm | Socket | 12-8 | 4.0 - 10.0 | Gold |

Complete datasheets can be found at www.amphenol-sine.com



8 (4+4) POSITIONS
 Power 75A/ 630V
 Signal 30A/ 250V
 Threaded

Number of Contacts: 8 (4+4) Contact Sizes: 2.0mm, 3.6mm Sealing: IP66/67
 AWG: 18-14 (0.75 - 2.5 mm²) 12-8 (4.0 - 10.0 mm²)

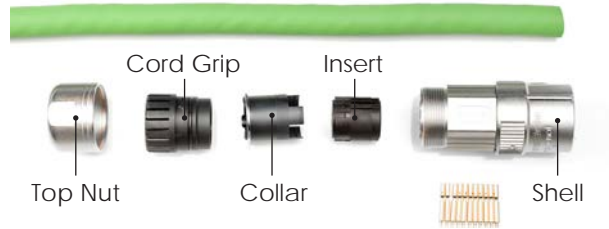
Tools

| | | |
|--|---|---|
| <p>Extraction tool. Used for removal of 2.0mm (#14) contacts from inserts.</p>  <p>50-54931-2</p> | <p>Extraction tool. Used for removal of 3.6mm (#8) contacts from inserts.</p>  <p>50-54931-3</p> | <p>Universal hand crimp tool. Uses universal positioner part no. UH2-5. Wire crimp range 12-26AWG</p>  <p>AF8</p> |
| <p>Universal positioner is used with the universal hand crimp tool (AF8). Wire range 12-26AWG</p>  <p>UH2-5</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. WA23-101DA</p>  <p>WA23</p> | <p>Pneumatic crimp tool. Uses universal positioner part no. UH2-5. Wire range 12-26WG</p>  <p>WA27F</p> |
| <p>Die Assembly, Size 10, is used with the Pneumatic crimp tool. WA23</p>  <p>WA23-101DA</p> | <p>Hand Crimp tool. Uses MFX-3966 crimp locator</p>  <p>M300-25A</p> | <p>Crimp Locator 3.6mm Power contact adjustable. Used with WA23 Crimp tool</p>  <p>MFX-3961</p> |
| <p>Contact Locator Tool</p>  <p>MFX-3966</p> | | |

* The universal positioner is not included with the crimp tools and must be ordered separately.

Assembly Instructions

M23 Elite Series 12,16,17 Position Plug Assembly Instructions



Step 1 - Slide the components over the cable



Step 2 - Remove the cable jacket 28mm



Step 3 - Cut the shield back 13mm



Step 4 - Fold the shield back over the cable jacket



Step 5 - Strip the wires 4.5mm



Step 6 - Crimp a contact onto each wire



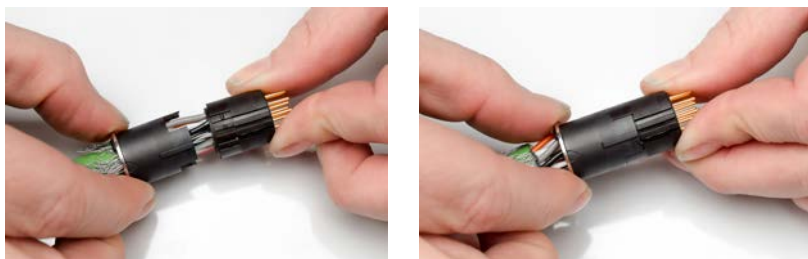
Step 7 - Push the contacts into the insert as required

Assembly Instructions

M23 Elite Series 12,16,17 Position Plug Assembly Instructions (cont)



Step 8 - Pushed contacts



Step 9 - Push the Collar onto the insert



Step 10 - Position the shield as shown

Assembly Instructions

M23 Elite Series 12,16,17 Position Plug Assembly Instructions (cont)



Step 11 - Slide the cord grip up to the collar



Step 12 - Trim the shield



Step 13 - Grip the sub-assembly as shown



Step 14 - Push the sub- assembly into the shell

Assembly Instructions

M23 Elite Series 12,16,17 Position Plug Assembly Instructions (cont)



Step 15 - Thread the top nut onto the shell



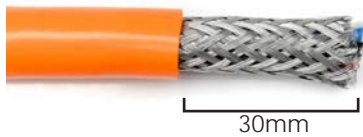
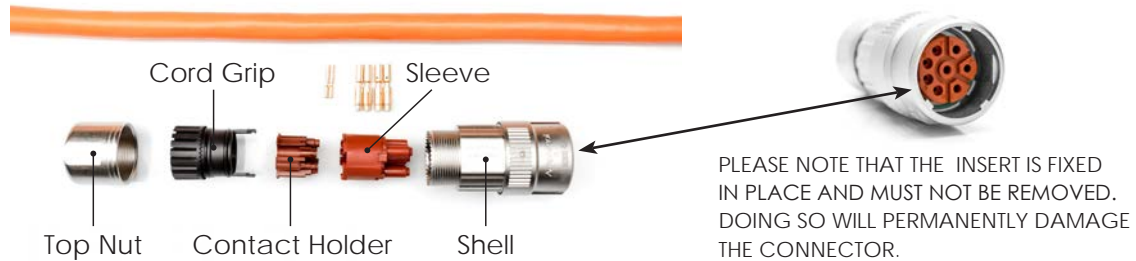
Step 16 - Tighten to 5-7 N/M using 25mm wrench



Step 17 - Finished Assembly

Assembly Instructions

M23 Elite Series 6,8,9 Position Plug Assembly Instructions



Step 1 - Remove the cable jacket 30mm



Step 2 - Cut the shield back 19mm



Step 3 - Fold shield back over cable



Step 4 - Cut power & PE wires to 28mm

Step 5a - Strip power & PE wires 7mm



Step 5b - Strip signal wire 4.5mm



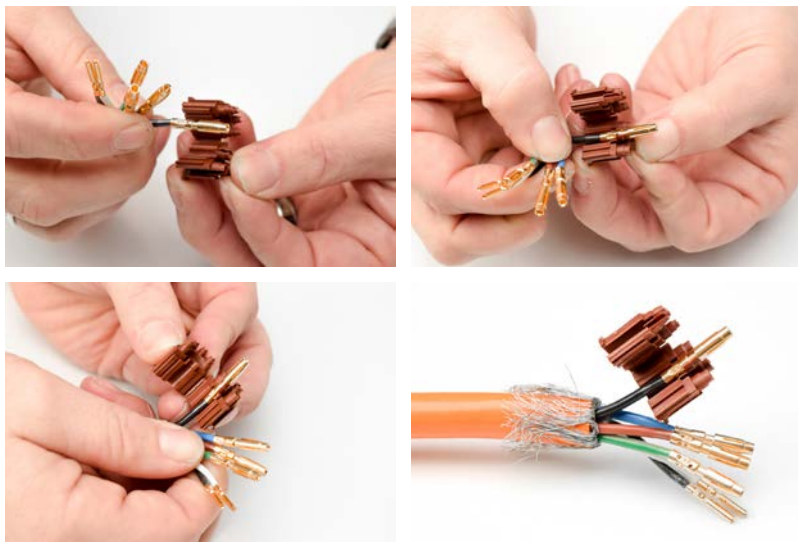
Step 6 - Crimp contacts



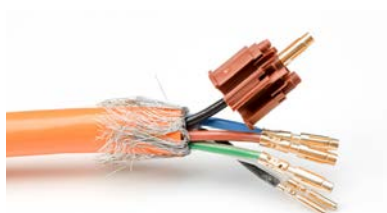
Step 7 - Open contact holder

Assembly Instructions

M23 Elite Series 6,8,9 Position Plug Assembly Instructions (con't)



Step 8 - Insert contacts while the contact holder is open



Step 9 - Close the contact holder



Step 10 - Insert the rest of the contacts



Step 11 - Push the contact holder into the sleeve

Assembly Instructions

M23 Elite Series 6,8,9 Position Plug Assembly Instructions (con't)



Step 12 - Position shield as shown back over the cable



Step 13 - Clip the cord grip as shown with the shield sticking out around it



Step 14 - Trim shield as shown



Step 15 - Push sub-assembly into shell

Assembly Instructions

M23 Elite Series 6,8,9 Position Plug Assembly Instructions (con't)



Step 16 - Thread the top nut on



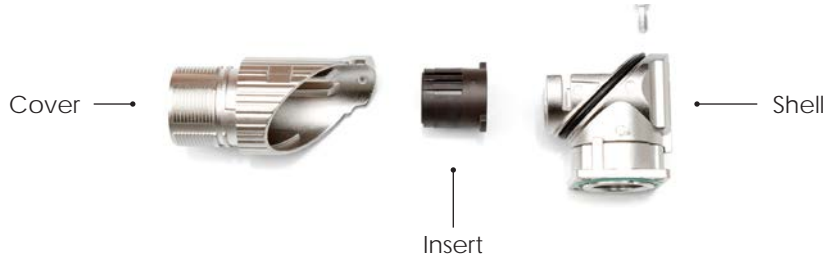
Step 17 - Tighten to 5-7 N/M
using 25mm wrench



Step 18 - Finished Assembly

Assembly Instructions

M23 Elite Series 12,16,17 Position 90° Receptacle Assembly Instructions



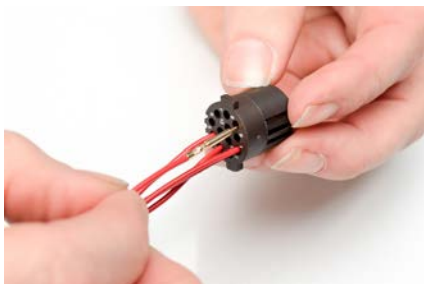
Step 1 - Strip wire 4.5mm



Step 4 - Crimp contacts onto wire



Step 3 - Slide wires through shell



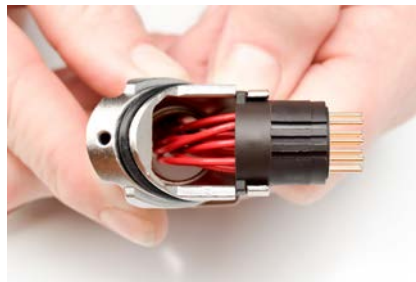
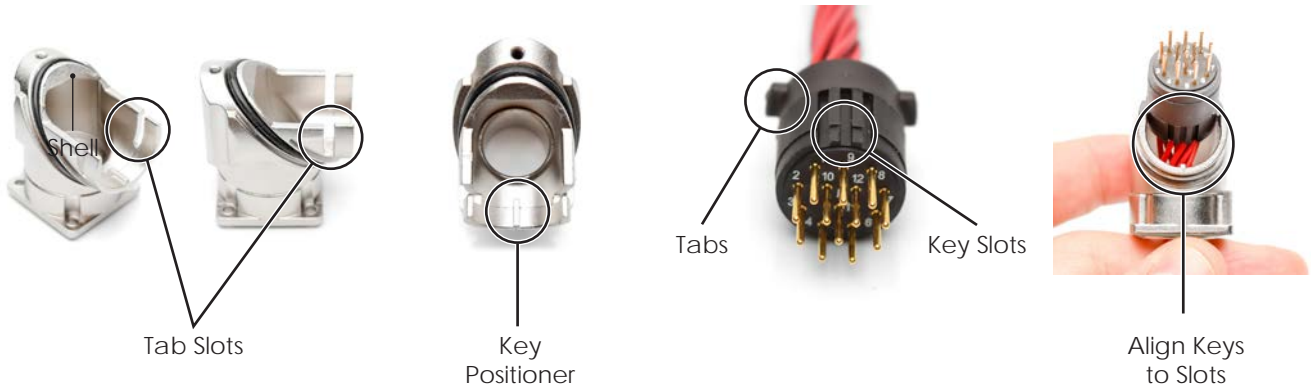
Step 4 - Push wire into insert



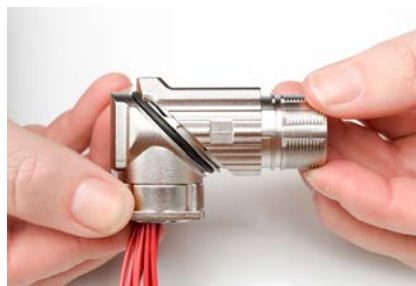
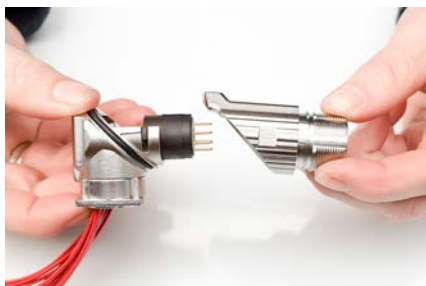
Step 5 - Locate keys on sides of insert

Assembly Instructions

M23 Elite Series 12,16,17 Position 90° Receptacle Assembly Instructions (con't)



Step 6 - Insert tabs into slots and align the key slots accordingly to their respective key position.



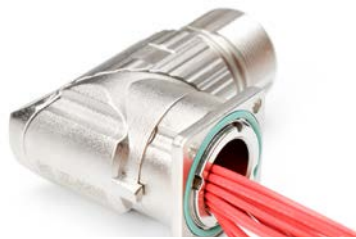
Step 7 - Assemble cover

Assembly Instructions

M23 Elite Series 12,16,17 Position 90° Receptacle Assembly Instructions (con't)



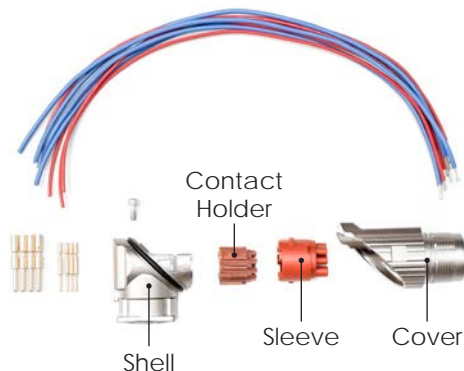
Step 8 - Screw the cover down using 2.5mm Allen Wrench



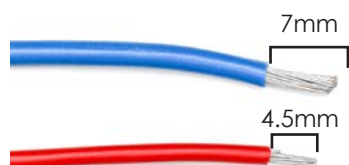
Step 9 - Finished product

Assembly Instructions

M23 Elite Series 6,8,9 Position 90° Receptacle Assembly Instructions



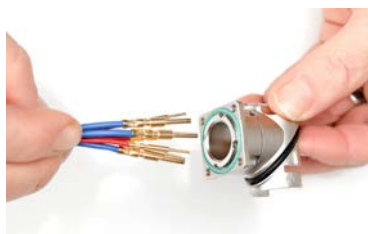
Step 1A - Strip wire 7mm
(this uses 2.0mm contacts)



Step 1B - Strip wire 4.5mm
(this uses 1.0mm contacts)



Step 2 - Crimp wire to contact



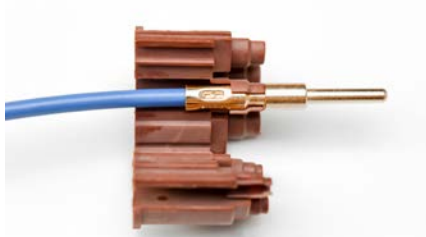
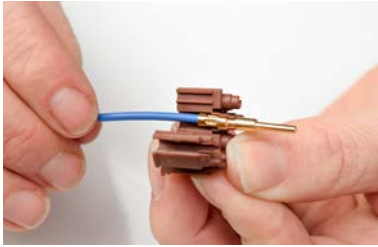
Step 3 - Insert wires through shell



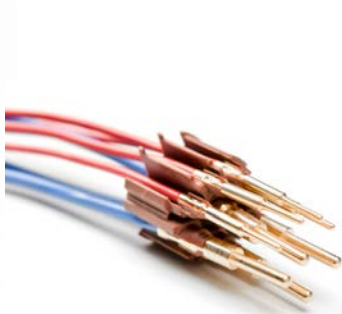
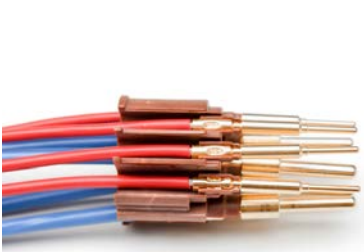
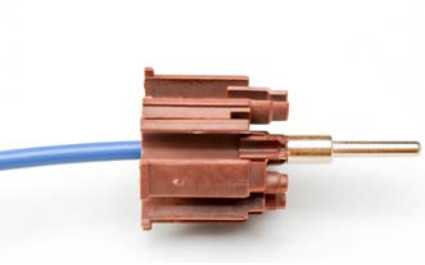
Step 4 - Open Contact holder

Assembly Instructions

M23 Elite Series 6,8,9 Position 90° Receptacle Assembly Instructions (con't)



Step 5 - Insert wire into the contact holder while its open



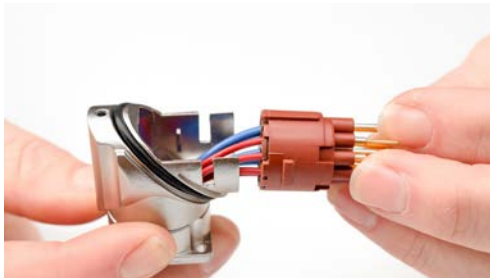
Step 6 - Close and insert the rest of the wires into the contact holder

Assembly Instructions

M23 Elite Series 6,8,9 Position 90° Receptacle Assembly Instructions (con't)



Step 7 - Push the contact holder into the sleeve



Step 8 - Align the key on the sleeve with the key on the shell



Step 9 - Place sub-assembly into shell

Assembly Instructions

M23 Elite Series 6,8,9 Position 90° Receptacle Assembly Instructions (con't)



Step 10 - Assemble cover



Step 11 - Tighten screw down using 2.5mm Allen Wrench



Step 12 - Finsihed Product

Assembly Instructions

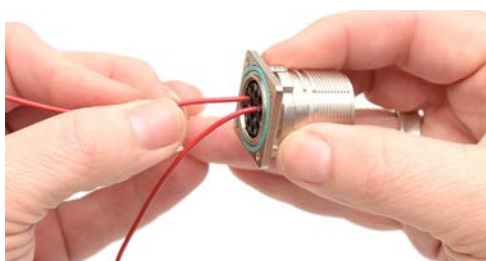
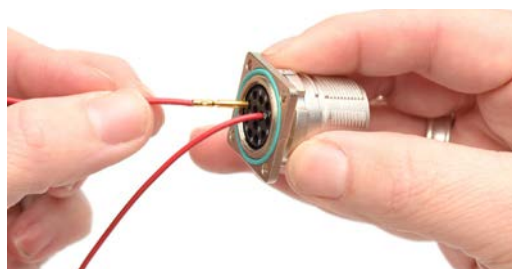
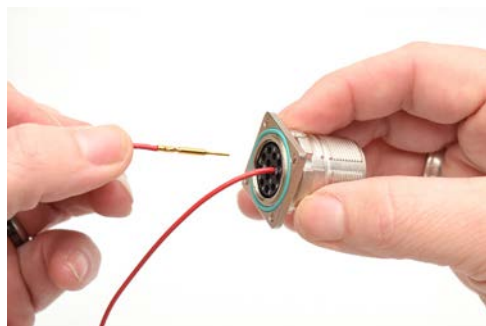
M23 Standard Series Straight Receptacle Assembly Instructions



Step 1 - Strip wire 4.5mm



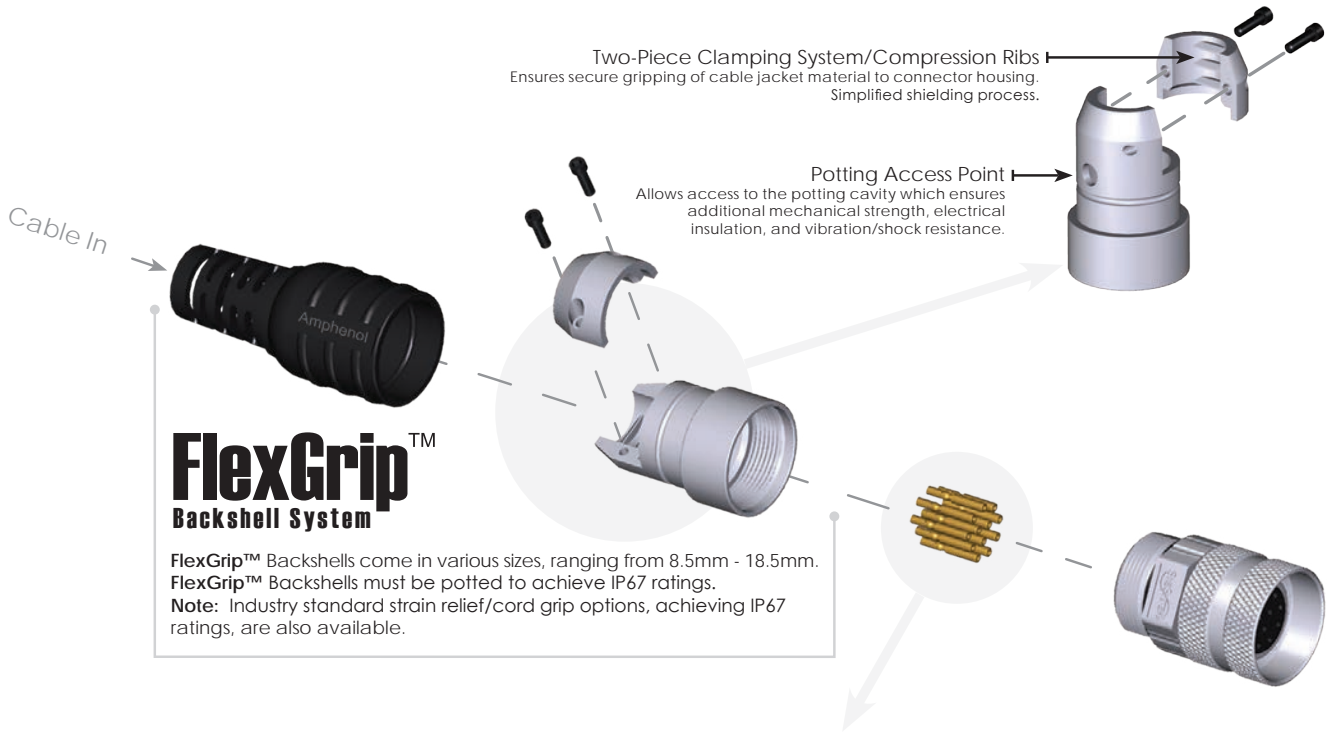
Step 2 - Crimp contact to wire



Step 3 - Push contact into place

Assembly Instructions

FlexGrip™ Backshell System



Assembly Instructions

Standard Series Plug and Cable Prep and Assembly featuring the FlexGrip™ Backshell

FlexGrip™ Prep Details: During cable prep specific to using the FlexGrip backshell, be sure excess shielding material is pulled back over the cable jacket and taped down. This allows for ease of sliding FlexGrip™ parts into place.

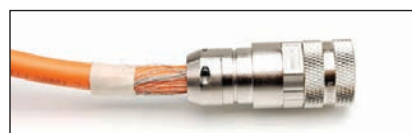
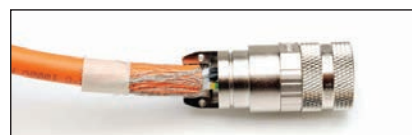
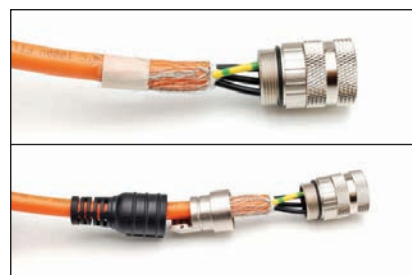
Note: ** Cable prep is same for P1 (Male) connectors using FlexGrip™ backshells as P2 (Female).

Step 7B: (FlexGrip™ Only) Thread into position the bottom part of the Two-Piece Clamp onto the backend of the connector body tightly, ensuring excess shielding material is still exposed underneath the Two-Piece Clamp.

Step 8B: (FlexGrip™ Only) Place the top portion of the Two-Piece Clamp into position and use the enclosed screws to tighten into place.

Step 9B: (FlexGrip™ Only) Cut off excess shielding material behind Two-Piece Clamp.

Step 10: (FlexGrip™ Only) Slide FlexGrip™ Shell over-top the backend portion of the Two-Piece Clamp hardware.



Assembly Instructions

M23 Shielded Backshell Assembly Instructions

1. Slide seal-nut (A), cable grommet (B), and backshell (C) onto cable as shown in Figure 1.
2. Remove outer cable jacket per dimension (42mm) shown in Figure 1. Make sure exposed shielding is not nicked or cut.
3. Accurately locate and tighten tie wrap (D) 8mm from cable jacket (Figure 1).
4. Trim excess tie wrap as close as possible to ratchet body. Refer to Reference View A, shown below.
5. Trim the braided shield flush to the edge of the tie wrap (D), exposing the individual wires as shown in Figure 2.
6. Strip individual wire leads to expose 5mm of bare conductor as shown in Figure 2.
7. Crimp contacts (E) onto stripped wire leads (Figure 3).
8. Insert crimped contacts (E) into connector cavities (F), as shown in Figure 3. Verify contacts are properly sealed once installed.

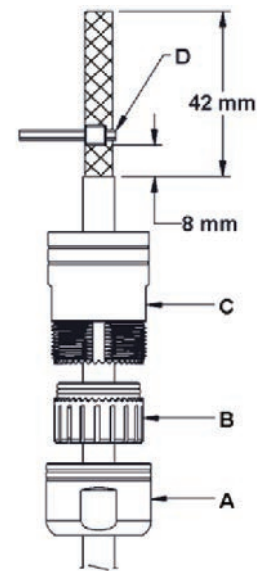


Figure 1

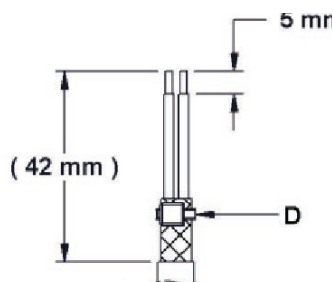


Figure 2

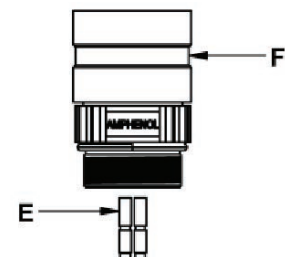
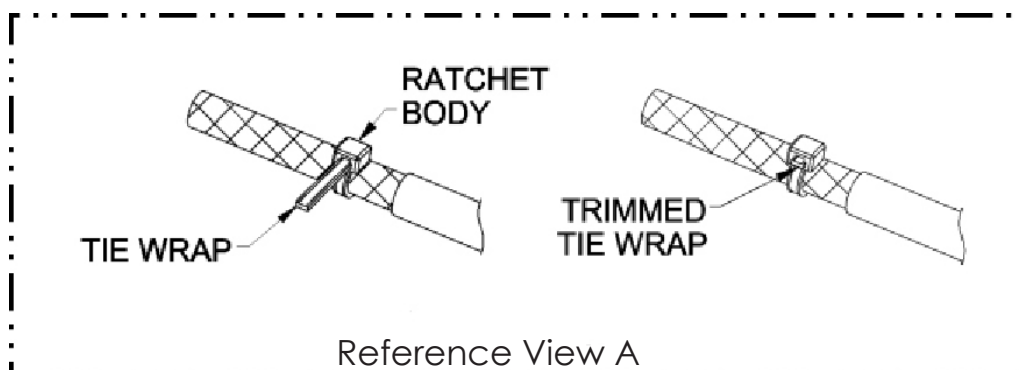


Figure 3



Reference View A

Assembly Instructions

M23 Shielded Backshell Assembly Instructions (con't)

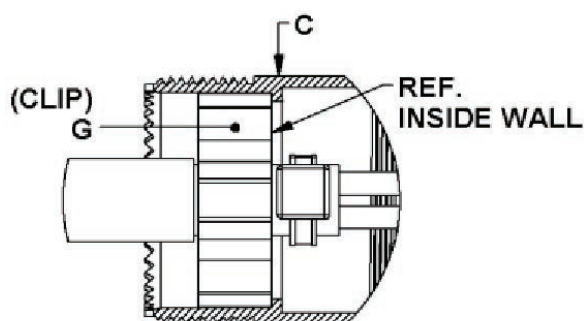
9. Tighten "backshell" (C) to connector (F) as shown in Figure 4. Use a 24mm open ended wrench for the backshell, and a 25mm open ended wrench for the connector. Tighten to a recommended torque of 10Nm.
10. Slide shielding clip (G) over cable jacket as shown in Figure 4.
11. Push shielding clip (G) into backshell (C) until it stops against inside wall as shown in Reference View-B. Clip must be seated over exposed shielding and not over cable jacket.

Note: Clip must be slightly compressed to allow it to enter into the backshell.

12. Push cable grommet (B) into backshell (C) as shown Figure 5.
13. Thread and tighten seal-nut (A) onto backshell (C) as shown in Figure 6. Use a 24mm open ended wrench for the backshell, and a 25mm open ended wrench for the seal-nut.

Figure 3

Note: Seal nut torque required to properly retain and seal cable may vary depending on cable construction.



Reference View B

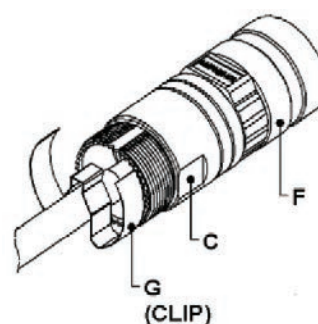


Figure 4

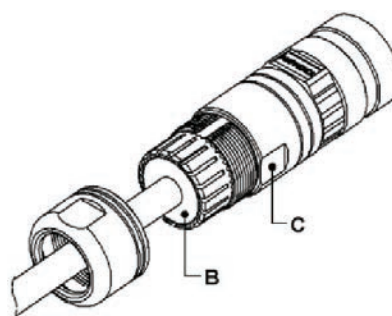


Figure 5

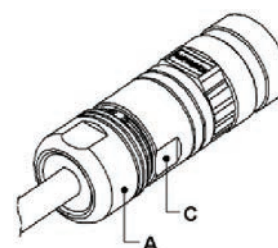


Figure 6

Appendix

Glossary of Terms

| | |
|--|--|
| American Wire Gauge (AWG) | Connector life |
| System of numerical designations for wire sizes, based on specified ranges of cross-sectional areas. Starts with 4/0 (000) at the largest size, going to 3/0, 2/0, 1/0, 1, 2, and up to 40 and beyond for the smallest size. A step of one AWG number corresponds to a reduction of cross-sectional area of appr. 20 %. | The number of mating cycles prior to abrasion of the conductive contact surface and which does not result in a significant rise of the contact resistance. Tests according to test 9a of ICE 60512-5 / DIN EN 60512 Part 5. |
| Attenuation | Contact |
| A reduction of power. Occurs naturally when waves travel through lines, wave guides, or media such as air or water. Is produced additionally by imperfections in electrical or optical connections (attenuation in fibre optics), e. g. contact resistance, mismatch, etc. | The conductive element in a connector which mates with a corresponding element to provide an electrical path. |
| Bulkhead connector | Contact resistance |
| Connector designed to be inserted into a panel cutout from the rear of the panel, thus forming part of the barrier between two spaces. Back-mounted. | The electrical resistance of a mated set of contacts under specified conditions. Tested according to tests 2a, 2b, 2c, of IEC 60 512 -2/ DIN EN 60 512-2. |
| Clearance | Contact size |
| The shortest distance in air between two conductive parts, see IEC 60664. | The designation used to differentiate one contact from another. It may be denoted by one of the following numbering systems: |
| Climatic stability | Creepage distance |
| General term describing the behavior of components under various climatic conditions, e. g. high and low temperatures, tropical climate, high humidity, moist heat, fungus, atmospheric conditions (industrial atmosphere), reduced air pressure, etc. Climatic conditions for test purposes are explained in IEC 60068, DIN 46 040. | The shortest distance along the surface of the insulating material between two conductive parts. The longer the distance, the less the risk of arc damage or tracking. Minimum creepage distances are specified according to the rated voltage and the applicable pollution degree and Comparative Tracking Index. |
| Connector | Crimped connection |
| A component which terminates conductors for the purpose of providing connection and disconnection to a suitable mating component which shall not be engaged or disengaged when live. Depending on the fastening to a cabinet, panel, rack etc. or a cable, they are classified as fixed or free connectors. A connector comprises one or more contacts and a housing which may have a separate connector insert and a separate outer housing or shell. | A solderless connection made by crimping. IEC 60352-2 / DIN IEC 60352 Part 2. |
| Connector housing | Derating curve |
| The part of a connector into which the insert and the contacts are assembled. It may function as part of the locking mechanism. | The method for determining derating is specified in IEC 60 512-3. Here the combination of ambient temperature (Tu) and the current (I) leading to the same maximum allowable temperature (Tb) at the hottest point of the connector are plotted. |
| Connector insert | DIN |
| An insulating element designed to support and position contacts in a connector housing. In connectors electromagnetic interference is prevented by shielding. Shielded connectors normally provide means to connect the screens of attached cables. | Deutsches Institut für Normung. A German standards organization. |
| | Electromagnetic interference (EMI) |
| | General term describing the undesirable effects of the immission or emission of radio frequency fields. |
| | Funnel entry (restricted entry C146 D series) |
| | Flared or widened entrance to a conductor barrel permitting easier insertion of the conductor. |
| | Insertion or withdrawal force |
| | The force required to fully insert or withdraw a set of mated connectors without the effect of coupling, locking or similar devices. The insertion force is usually greater than the withdrawal force. |

Appendix

Connector Glossary

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| Insulation grip |
| The area of a crimp contact that has been reshaped around the insulation of the conductor by compression during the crimping operation. |
| Insulation resistance |
| The resistance of the insulation between two conductive elements, in particular, the resistance between two contacts or between a contact and a metallic housing or shield. Tested according to test 3a of IEC 60512-2 / DIN IEC 60512 Part 2. |
| Intermateable |
| Two connectors are intermateable when they are capable of being connected electrically and mechanically but without regard to their performance and intermountability. |
| Locator |
| In a crimping tool the device used for positioning a crimp contact or terminal end. |
| Mating cycle |
| One mating cycle comprises one insertion and one withdrawal operation. Term used in the definition of connector life. |
| Material group |
| Classification of insulation materials according to their CTI values (CTI = Comparative Tracking Index) |
| Overvoltage category |
| A numeral defining a transient overvoltage condition. Overvoltage categories I, II, III and IV are used. |
| Connector with braking capacity (CBC) |
| A component which may be engaged or disengaged in normal use, when live or under load. Note: In the sense of this document the term - live- is used if contacts are under voltage not necessarily with a current flowing across the contacts. The term - load - is used if a current is flowing across the contacts. |
| Rated current |
| A current value assigned by the manufacturer which the connector or PSD can carry continuously (without interruption) and simultaneously through all its contacts wired with the largest conductor preferably at an ambient temperature of 40 °C without the upper temperature being exceeded. |
| Shield, shielding |
| Shielding of internal or external electric fields by means of a plane with a uniform electric potential, formed by metal shells or metallic layers on the inside or outside of plastic shells. The shield is normally connected to the shielding braid of the cable and/or chassis ground. |

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| Wire range |
| The range of wire cross sections which is compatible with the dimensions the terminals of the contact (wire barrel). The wire range is expressed in mm ² or in AWG numbers. |

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