

Sensor connectors, reflectors, mounting brackets, accessories

XS, Y92E, E39

The sensor accessory portfolio provides the products required to connect, mount or operate the main photoelectric and inductive sensors. The accessories are designed to match the performance levels of the respective sensors from general applications to the most challenging environments.

- Reflectors for standard applications, special mounting requirements or special environments
- M8, M12 cable connectors
- Special fiber and photomicrosensor connectors
- Mounting brackets for square and cylindrical sensor shapes



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| Cable connectors – quick guide and selection table | 2 |
| Mounting accessories for standard photoelectric, inductive and capacitive sensors | 24 |
| Reflectors for retro-reflective photoelectric sensors | 34 |

Cable connectors – quick guide and selection table

| Size | Shape | Type | Features | Material | | Order code | | Extended Portfolio and Specs on Page |
|--|---|---|--|---------------------------|-------------------------------|--|---|--------------------------------------|
| | | | | Nut | Cable |  |  | |
| M8 |  | General purpose (screw) | 3 pin (LED optionally) | Brass (CuZn) | PVC 2 m | XS3F-M8PVC3S2M | XS3F-M8PVC3A2M | 3 |
| | | | 4pin | | PUR 2 m | XS3F-M8PUR3S2M | XS3F-M8PUR3A2M | 3 |
| |  | Detergent resistant | 4 pin | Stainless steel (SUS316L) | PVC 2 m | Y92E-S08PVC4S2M-L | Y92E-S08PVC4A2M-L | 6 |
| | | | 4 pin | Brass (CuZn) | Robotic PVC 2 m | XS3F-M421-402-R | XS3F-M422-402-R | 8 |
| M12 |  | General purpose (screw) | 3 wire (LED optionally) | Brass (CuZn) | PVC 2 m | XS2F-M12PVC3S2M | XS2F-M12PVC3A2M | 3 |
| | | | 4 wire | | PUR 2 m | XS2F-M12PUR3S2M | XS2F-M12PUR3A2M | 3 |
| | | | 5 wire | | PUR 2 m | PVC 2 m | XS2F-M12PVC4S2M | XS2F-M12PVC4A2M |
| |  | Detergent resistant | 4 wire | Stainless steel (SUS316L) | PVC 2 m | Y92E-S12PVC4S2M-L | Y92E-S12PVC4A2M-L | 6 |
| | | | 4 wire | Stainless steel (SUS316L) | Heat resistant PVC 2 m | XS2F-E421-D80-E | XS2F-E422-D80-E | 12 |
| | | | 4 wire | Nickel plated Zinc | PVC 2 m | XS5F-D421-D80-A | XS5F-D422-D80-A | 14 |
| | | | 4 wire | Brass (CuZn) | Robotic PVC 2 m | XS5F-D421-D80-P | XS5F-D422-D80-P | 8 |
| Fiber amplifier (E3X) connector |  | Fiber amplifier connectors | Special fiber connector - 4 wire | PBT | PVC 2 m | E3X-CN21 | 19 | |
| | | | Special fiber connector + M8 plug | Plug: Zinc diecast | PVC 30 cm with M8 4-pin plug | E3X-CN21-M3J-2 0.3M | 19 | |
| | | | Special fiber connector + M12 plug | | PVC 30 cm with M12 4-pin plug | E3X-CN21-M1J 0.3M | 19 | |
| Photo-sensor (EE-SX) connector Cable connector |  | Cable connector | standard cable | Nylon | PVC 1 m | EE-1017 1M | 21 | |
| | | | robotic cable | | | EE-1017-R 1M | 21 | |
| M8/M12 |  | Confectionable | Plugs and connectors for self assembly | Brass | n.a. | XS2G, XS2C Y92E_conf | 15 | |
| M12 |  | Field I/O boxes | Direct wiring or DeviceNet communication | - | - | XW3B, DRT2 | 18 | |
| M8/M12 |  | T-connectors, covers, accessories and extended wiring portfolio | n.a. | - | - | XS2R, XS3R, XY2F, .. | 23 | |

General purpose connectors (M8/M12)

XS3F, XS2F

Ordering information

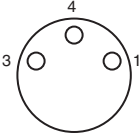
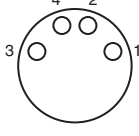
| Type | Size | Material | | Features | Shape | Length (m) | Order code | | |
|-----------------|--------------------------|--------------------------|-----------------|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | Nut | Cable | | | | | | |
| General purpose | M8 | Brass (Nickel plated) | PVC | 3 pin | angled | 2 | XS3F-M8PVC3A2M | | |
| | | | | | 5 | XS3F-M8PVC3A5M | | | |
| | | | | straight | 2 | XS3F-M8PVC3S2M | | | |
| | | | | | 5 | XS3F-M8PVC3S5M | | | |
| | | | | 4 pin | angled | 2 | XS3F-M8PVC4A2M | | |
| | | | | | 5 | XS3F-M8PVC4A5M | | | |
| | straight | | | 2 | XS3F-M8PVC4S2M | | | | |
| | | | | 5 | XS3F-M8PVC4S5M | | | | |
| | M12 | | | Brass (Nickel plated) | PVC | 3 wire | angled | 2 | XS2F-M12PVC3A2M |
| | | | | | | | 5 | XS2F-M12PVC3A5M | |
| | | | | | | straight | 2 | XS2F-M12PVC3S2M | |
| | | | | | | | 5 | XS2F-M12PVC3S5M | |
| | | 4 wire | angled | | | 2 | XS2F-M12PVC4A2M | | |
| | | | 5 | | | XS2F-M12PVC4A5M | | | |
| | straight | 2 | XS2F-M12PVC4S2M | | | | | | |
| | | 5 | XS2F-M12PVC4S5M | | | | | | |
| | M12 | Brass (Nickel plated) | PUR | | | 3 wire | angled | 2 | XS2F-M12PUR3A2M |
| | | | | | | | 5 | XS2F-M12PUR3A5M | |
| | | | | | | straight | 2 | XS2F-M12PUR3S2M | |
| | | | | | | | 5 | XS2F-M12PUR3S5M | |
| | | | | 4 wire | angled | 2 | XS2F-M12PUR4A2M | | |
| | | | | | 5 | XS2F-M12PUR4A5M | | | |
| | straight | | | 2 | XS2F-M12PUR4S2M | | | | |
| | | | | 5 | XS2F-M12PUR4S5M | | | | |
| M12 | Brass (Nickel plated) | | | PUR | 5 wire | angled | 2 | XS2F-M12PUR5A2M | |
| | | | | | | 5 | XS2F-M12PUR5A5M | | |
| | | | | | straight | 2 | XS2F-M12PUR5S2M | | |
| | | | | | | 5 | XS2F-M12PUR5S5M | | |

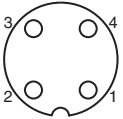
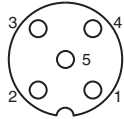
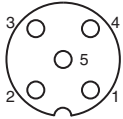
Note: M12 2-wire models are available for AC and DC applications.
Contact your Omron representative

Specifications

| | | |
|----------------------|------------------|---|
| | M8 | M12 |
| Rated current | 1 A | 4 A |
| Rated voltage | 125 VDC | 125 VDC, 250 VAC |
| Degree of protection | IP67 (IEC 60529) | |
| Ambient temperature | PUR | Fixed cable: -50°C to 80°C Moving cable: -25°C to 80°C |
| | PVC | -25°C to 70°C |

Pin arrangement

| M8 3 poles | M8 4 poles |
|---|---|
|  <p>1 = brown 3 = blue 4 = black</p> |  <p>1 = brown 2 = white 3 = blue 4 = black</p> |

| M12 3 poles | M12 4 poles | M12 5 poles |
|--|--|--|
|  <p>1 = brown 2 = n.c. 3 = blue 4 = black</p> |  <p>1 = brown 2 = white 3 = blue 4 = black 5 = n.c.</p> |  <p>1 = brown 2 = white 3 = blue 4 = black 5 = green / yellow</p> |

Materials

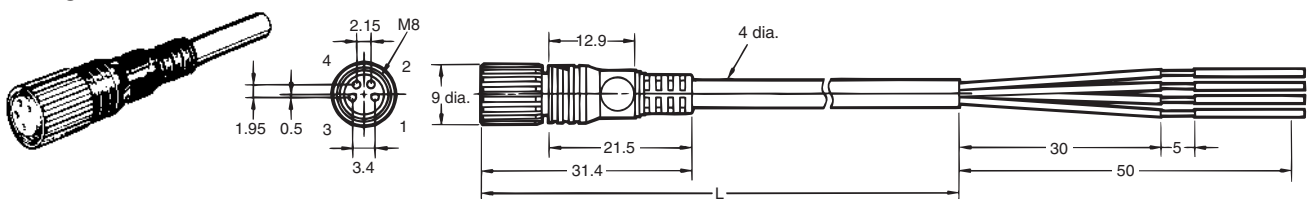
| | |
|-----------|---|
| Pin block | PBT resin (UL 94V-0) |
| Contacts | Brass/ nickel base, 0.4 µm gold plating |
| Fixture | Brass/ nickel plated |
| Cover | Polyester elastomer (UL 94V-0) |
| O-ring | Rubber |

Dimensions

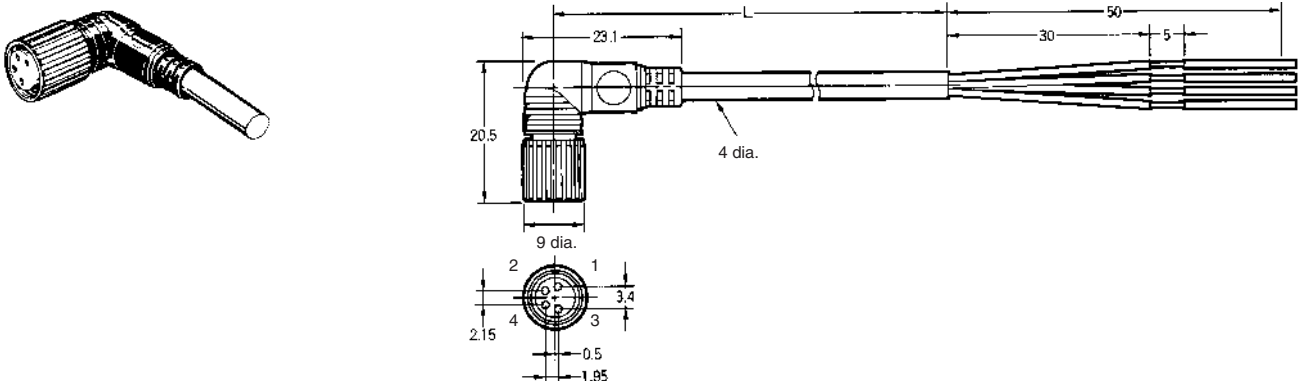
XS3F

M8 Screw-on cable connectors

Straight Connectors



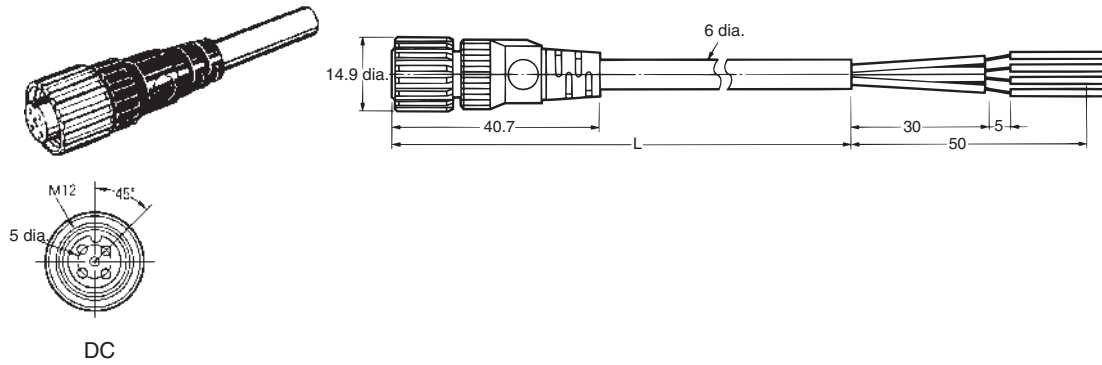
L-shaped Connectors



XS2F

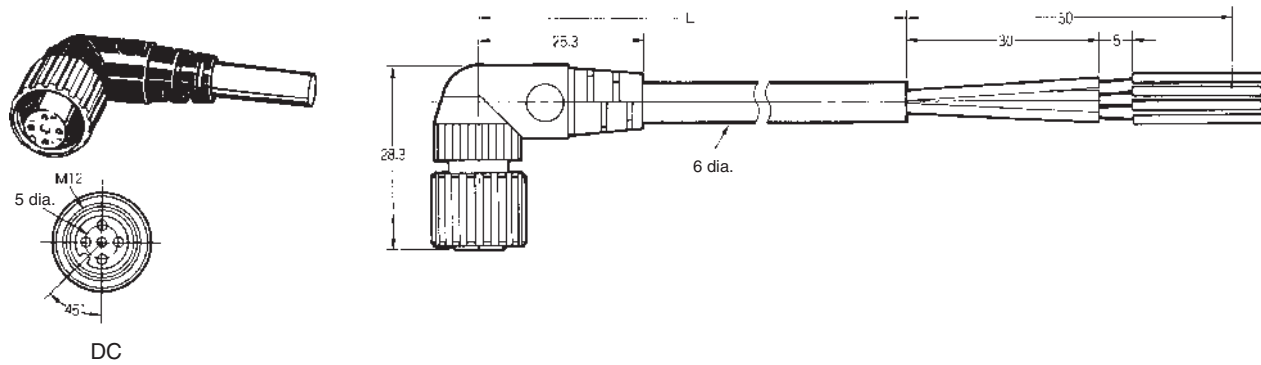
M12 Screw-on cable connectors

Straight Connectors



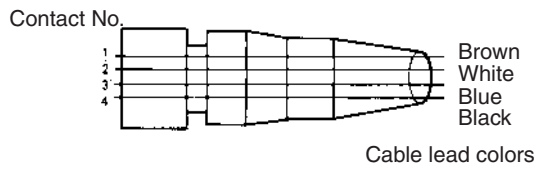
DC

L-shaped Connectors



DC

Wiring Diagram (M8 and M12)



Detergent resistant cable connectors (M8 / M12)

Y92E-S

Ordering information

Detergent resistant models

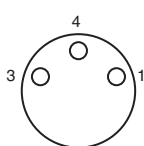
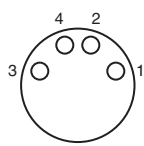
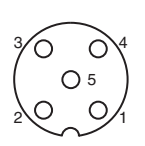
| Type | Size | Material | | Features | Shape | Length (m) ^{*1} | Order code | |
|---------------------|----------|----------|-------|----------|----------|--------------------------|-------------------|-------------------|
| | | Nut | Cable | | | | | |
| detergent resistant | M8 | SUS 316L | PVC | 3 pin | Angled | 2 | Y92E-S08PVC3A2M-L | |
| | | | | | | 5 | Y92E-S08PVC3A5M-L | |
| | | | | | Straight | 2 | Y92E-S08PVC3S2M-L | |
| | | | | | | 5 | Y92E-S08PVC3S5M-L | |
| | | | | | 4 pin | Angled | 2 | Y92E-S08PVC4A2M-L |
| | | | | | | | 5 | Y92E-S08PVC4A5M-L |
| | Straight | | | 2 | | Y92E-S08PVC4S2M-L | | |
| | | | | 5 | | Y92E-S08PVC4S5M-L | | |
| | M12 | | | Angled | | 2 | Y92E-S12PVC4A2M-L | |
| | | | | | | 5 | Y92E-S12PVC4A5M-L | |
| | | | | Straight | 2 | Y92E-S12PVC4C2M-L | | |
| | | | | | 5 | Y92E-S12PVC4S5M-L | | |

*1 For different cable length please contact your Omron representative

Specifications

| | |
|-----------------------------|---|
| Rated current | 4 A |
| Rated voltage | M8 3 pin: 60 VDC M8 4 pin: 30 VDC M12 4-wire: 250 VDC |
| Degree of protection | IP67 (IEC 60529); IP69k (after DIN 40050-1) |
| Ambient temperature | -25°C to +70°C |

Pin arrangement

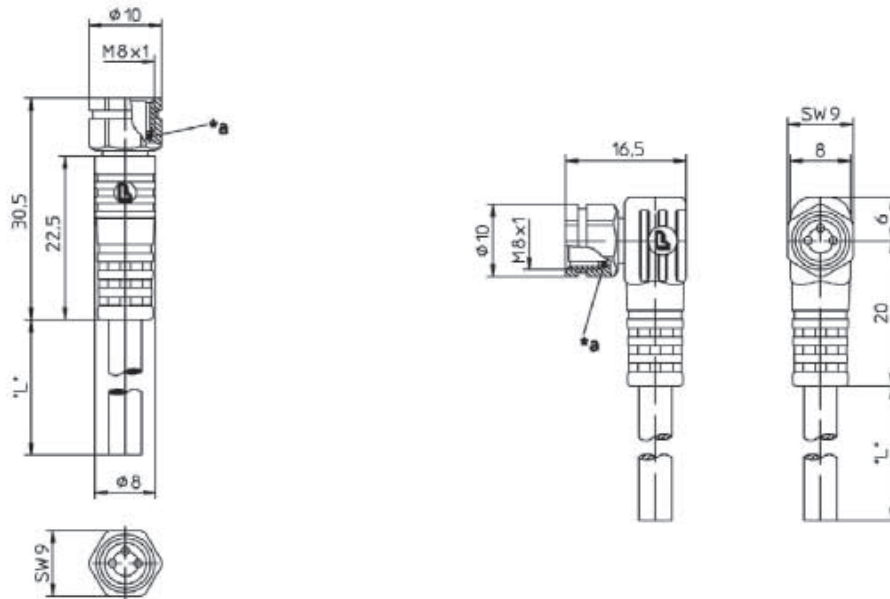
| M8 3 pin | | M8 4 pin | | M12 4 pin | |
|---|------------------------------------|---|---|---|---|
|  | 1 = brown 3 = blue 4 = black |  | 1 = brown 2 = white 3 = blue 4 = black |  | 1 = brown 2 = white 3 = blue 4 = black 5 = n.c. |

Materials

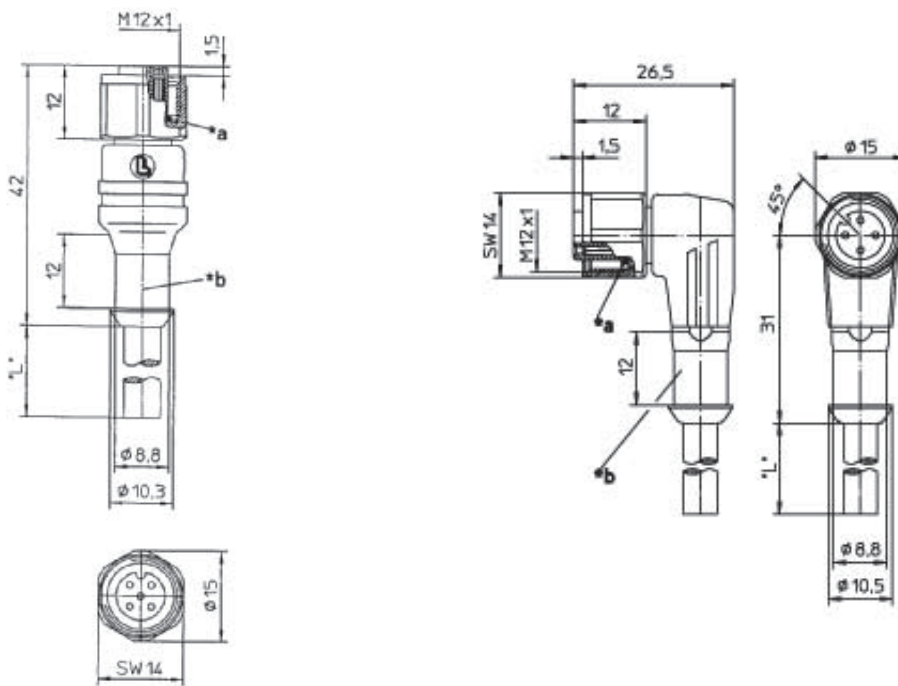
| | |
|------------------|--|
| Pin block | PVC |
| Contacts | CuSn, nickel base, 0.3 μm gold plating |
| Fixture | Stainless steel |
| Cover | PVC |
| O-ring | EPDM |

Dimensions

Y92E-S08

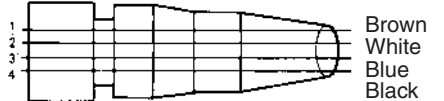


Y92E-S12



Wiring Diagram (M8 and M12)

Contact No.



Cable lead colors

Robot Cable Connectors (M8/M12)

XS3F-_-R, XS2F-_-R


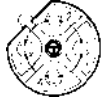
Ordering Information

| Type | Size | Material | | Features | Shape | Length (m) | Order code |
|--|------|---------------|-------|----------|-----------------|------------|-----------------|
| | | Nut | Cable | | | | |
| Vibration-proof robot cable (screw on) | M8 | Brass (CuZn) | PVC | 4 pin | Straight | 2 | XS3F-M421-402-R |
| | | | | | | 5 | XS3F-M421-405-R |
| | | | | | Angled | 2 | XS3F-M422-402-R |
| | | | | | | 5 | XS3F-M422-405-R |
| Vibration-proof robot cable (snap on) | M8 | Thermoplastic | PVC | 4 pin | Straight | 2 | XS3F-S421-402-R |
| | | | | | | 5 | XS3F-S421-405-R |
| | | | | | Angled | 2 | XS3F-S422-402-R |
| | | | | | | 5 | XS3F-S422-405-R |
| Vibration-proof robot cable (screw on) | M12 | Brass (CuZn) | PVC | 4 pin | Straight | 2 | XS2F-D421-DA0-R |
| | | | | | | | XS2F-D421-D80-R |
| | | | | | | 5 | XS2F-D421-GA0-R |
| | | | | | | | XS2F-D421-G80-R |
| | | | | | Angled | 2 | XS2F-D422-DA0-R |
| | | | | | | | XS2F-D422-D80-R |
| | | | | | | 5 | XS2F-D422-GA0-R |
| | | | | | | | XS2F-D422-G80-R |
| Vibration proof robot cable (srew on) for AC usage | M12 | Brass (CuZn) | PVC | 4 pin | Straight | 2 | XS2F-A421-DB0-R |
| | | | | | | | XS2F-A421-D90-R |
| | | | | | | 5 | XS2F-A421-GB0-R |
| | | | | | XS2F-A421-G90-R | | |
| | | | | | Angled | 2 | XS2F-A422-DB0-R |
| | | | | | | | 5 |

Specifications

| | M8 | M12 |
|----------------------|--------------------------|--------------------------|
| Rated current | 1 A | 3 A |
| Rated voltage | 125 VDC | 125 VDC, 250 VAC |
| Degree of protection | IP67 (IEC529) | IP67 (IEC529) |
| Ambient temperature | Operating: -25°C to 70°C | Operating: -25°C to 70°C |

Pin arrangement

| M8 | M12 | AC type |
|---------|---|---|
| DC type | | |
| Socket |  |  |

Materials

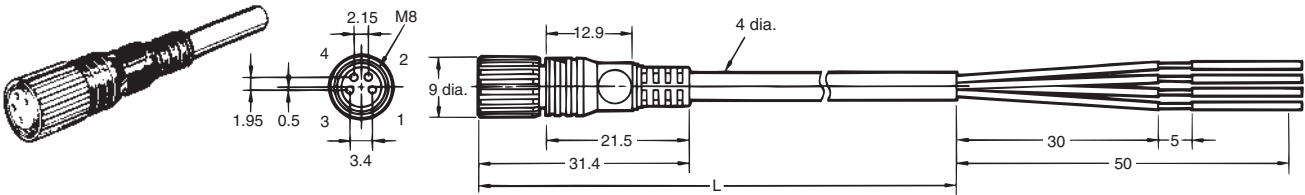
| | M8 | M12 |
|-----------|--|---|
| Pin Block | PBT resin/light gray or black | PBT resin (UL94V-0), light grey or dark grey |
| Contacts | Brass/nickel base, 0.4-μm gold plating | Phosphor bronze, nickel base, 0.4-μm gold plating |
| Fixture | Brass/nickel plated | |
| Cover | Thermoplastic elastomer/black | Polyester elastomer |
| O-ring | Rubber | |

Dimensions

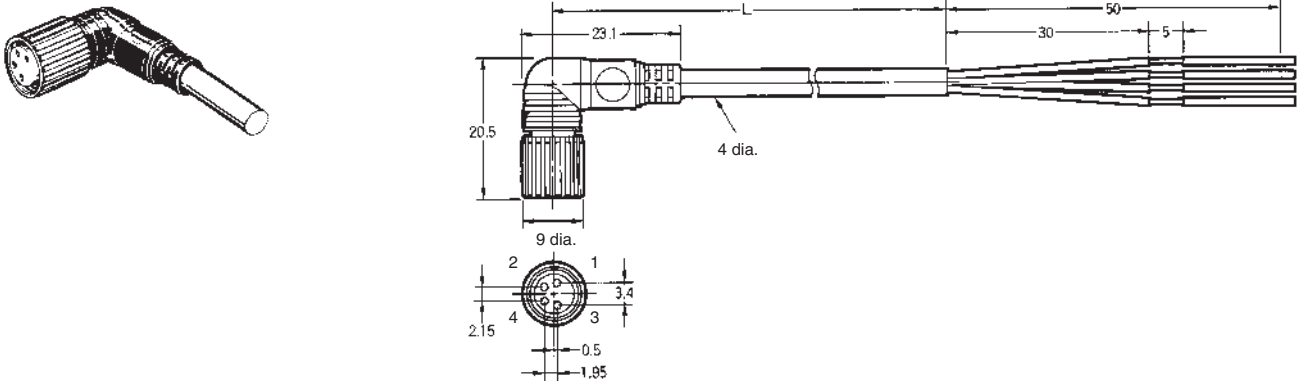
XS3F-_-R

M8 Screw-on cable connectors

Straight Connectors

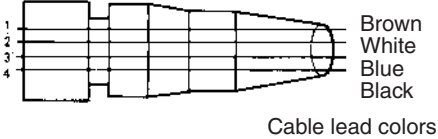


Angled Connectors



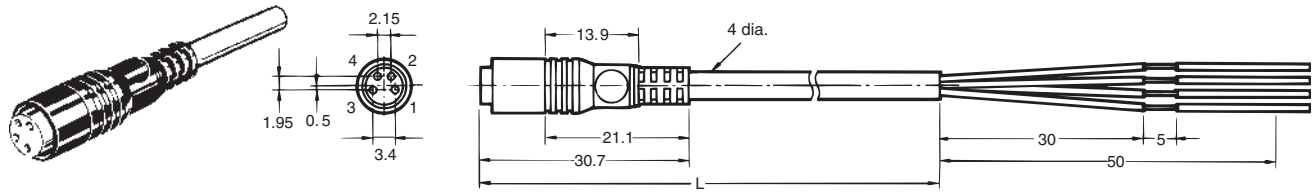
Wiring Diagram (M8)

Contact No.

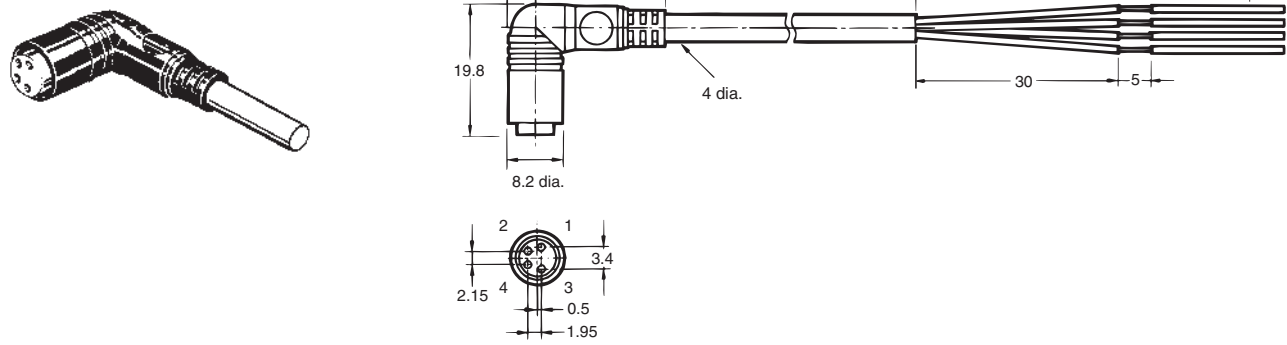


M8 Snap-on cable connectors

Straight Connectors



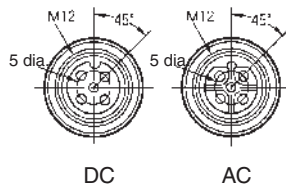
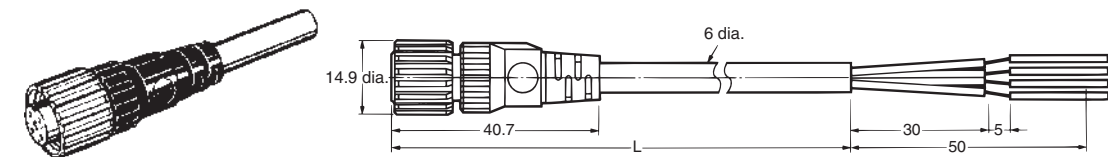
Angled Connectors



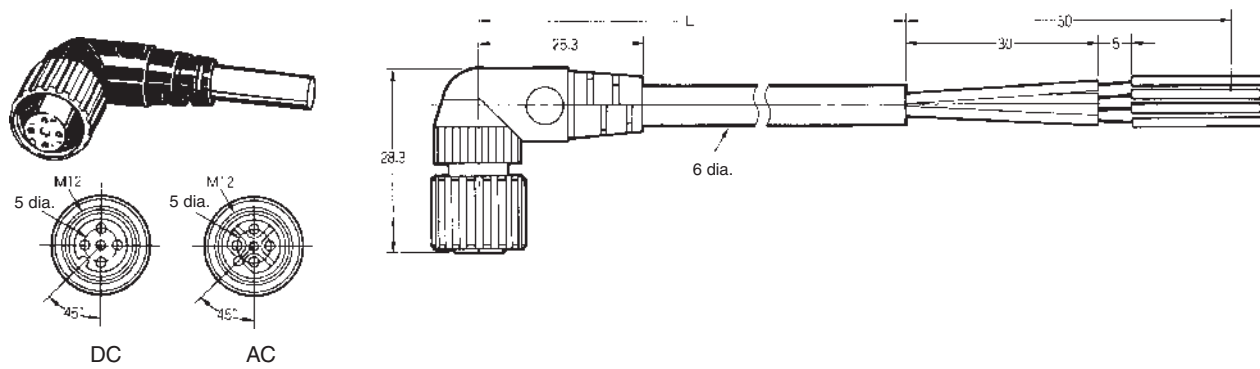
XS2F-_-R

M12 Screw-on cable connectors


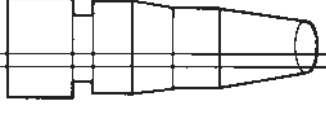
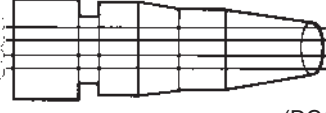
Straight Connectors



Angled Connectors



Wiring Diagram (M12)

| | |
|---------------------|---|
| <p>2-wire model</p> | <p>Contact No. 1 2 3 4</p>  <p>Brown Blue (DC)</p> <p>Contact No. 1 2 3 4</p>  <p>Brown Blue (AC)</p> |
| <p>4-wire model</p> | <p>Contact No. 1 2 3 4</p>  <p>Brown White Blue Black (DC/AC)</p> |

Heat & chemical resistant cable connectors

XS2F-_-E

Ordering information

| Type | Size | Material | | Features | Shape | Length (m) | Order code |
|------------------------------|------|----------|--------------------|----------|----------|------------|-----------------|
| | | Nut | Cable | | | | |
| Heat and detergent resistant | M12 | SUS316L | Heat resistant PVC | 4 pin | straight | 2 | XS2F-E421-D80-E |
| | | | | | | 5 | XS2F-E421-G80-E |
| | | | | | angled | 2 | XS2F-E422-D80-E |
| | | | | | | 5 | XS2F-E422-G80-E |

Specifications

| | |
|----------------------|--|
| Rated current | 3 A |
| Rated voltage | 125 VDC, 250 VAC |
| Degree of protection | IP67 (IEC 60529); IP69k (DIN 40050 part 9) |
| Ambient temperature | -25°C to 105°C |

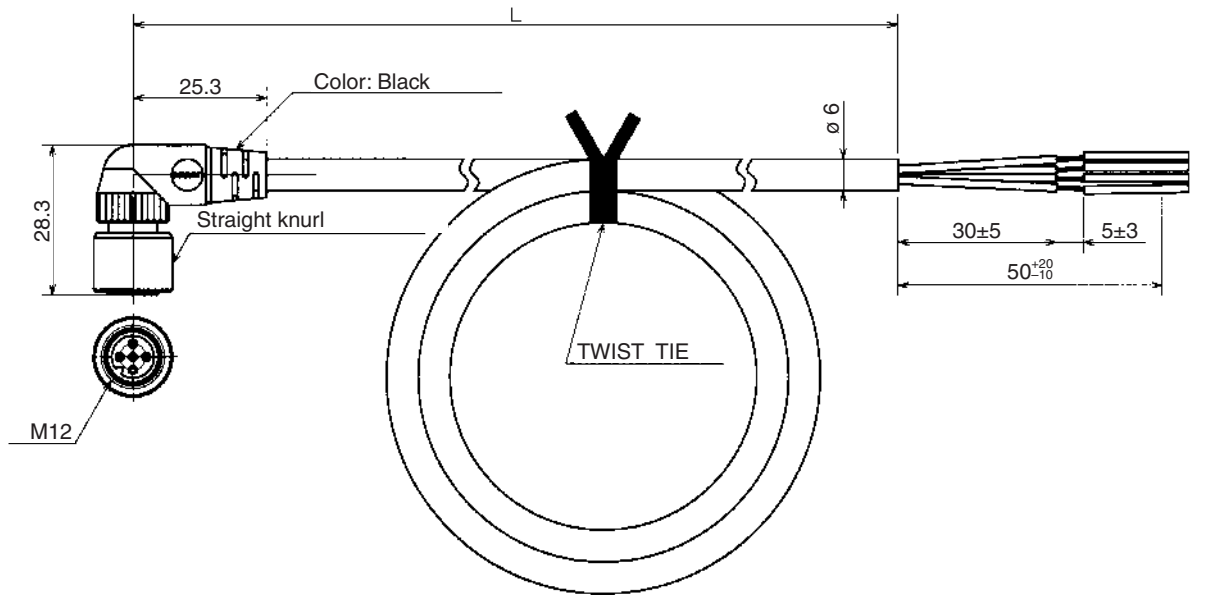
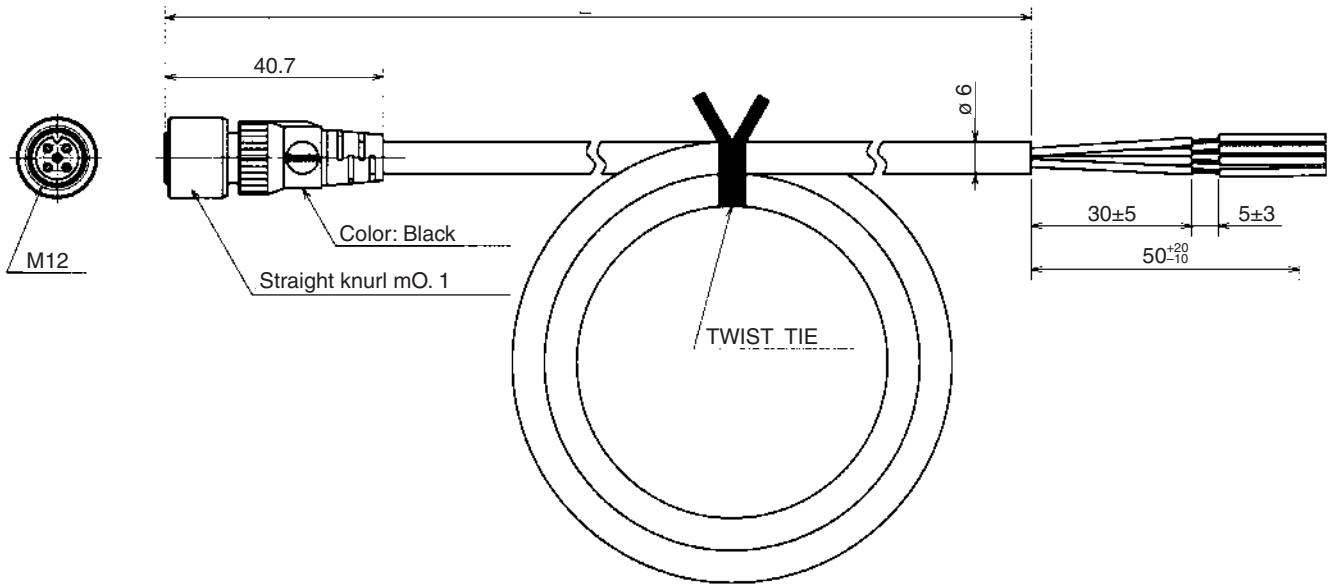
Pin arrangement

| M12 4 pin | |
|-----------|--|
| | <p>1 = brown 2 = white 3 = blue 4 = black 5 = n.c.</p> |

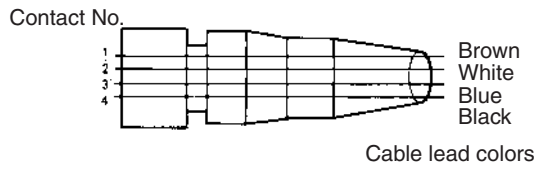
Materials

| | |
|-----------|---|
| Pin block | PBT (UL94V-0), light gray |
| Contacts | Phosphor bronze, nickel base, 0.4 µm gold plating |
| Fixture | SUS316L |
| Cover | TPEE (UL94V-0), black |
| O-ring | Rubber |

Dimensions



Wiring Diagram (M12)



Twist & click (M12)

XS5F

Ordering information

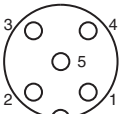
| Type | Size | Material | | Features | Shape | Length (m) | Order code |
|---------------|------|----------|-------|---|----------|------------|-----------------|
| | | Nut | Cable | | | | |
| Twist & Click | M12 | Brass | PVC | For standard 4 pin or Omron Smartclick connectors | Angled | 2 | XS5F-D422-D80-A |
| | | | | | | 5 | XS5F-D422-G80-A |
| | | | | | Straight | 2 | XS5F-D421-D80-A |
| | | | | | | 5 | XS5F-D421-G80-A |

Note: The XS5F connectors can be attached to standard M12 plug connectors (screw-fix) and to XS5 plug connectors (twist & click). For details on the twist & click locking mechanism refer to XS5 data sheet.

Specifications

| | |
|-----------------------------|------------------|
| Rated current | 4A |
| Rated voltage | 125 VDC, 250 VAC |
| Degree of protection | IP67 (IEC 60529) |
| Ambient temperature | -25°C to 70°C |

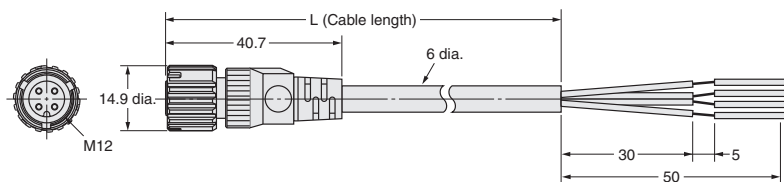
Pin arrangement

| M12 4 poles | |
|---|---|
|  | 1 = brown 2 = white 3 = blue 4 = black 5 = n.c. |

Materials

| | |
|------------------|--|
| Pin block | PBT resin (UL94V-0) |
| Contacts | Phosphor bronze/nickel base, 0.4 µm gold plating |
| Fixture | Zinc alloy/nickel plated |
| Cover | Polyester elastomer (UL94V-0) |
| O-ring | Rubber |

Dimensions



Confectionable plugs and connectors (self-assembly)

XS2C, XS2G, Y92E-_-conf

Ordering information

| Type | Size | Material Nut | Features | Shape | Order code | |
|-------------|--------------------|---------------------|--|---------------------|----------------------|-----------|
| Plug (male) | M8 | Polyester elastomer | 3 pin | straight | Y92E-MM08PVC3Sconf-L | |
| | | | 4 pin | | Y92E-MM08PVC4Sconf-L | |
| | M12 | | 4 pin | crimp | straight | XS2G-D4C3 |
| | | | | solder | straight | XS2G-D423 |
| | | | | solder | angled | XS2G-D424 |
| | | | 5 pin | screw fix | straight | XS2G-D5S1 |
| | | | | | angled | XS2G-D5S2 |
| | | | 4 pin twist & click (for 4-5mm cables) | screw fix | straight | XS2G-D4S3 |
| | angled | | | | XS2G-D4S4 | |
| | Connector (female) | | M8 | Polyester elastomer | 3 pin | straight |
| 4 pin | | Y92E-M08PVC4Sconf-L | | | | |
| M12 | | 4 pin | crimp | | straight | XS2C-D4C3 |
| | | | solder | | straight | XS2C-D423 |
| | | | crimp | | angled | XS2C-D4C4 |
| | | solder | angled | | XS2C-D424 | |
| | | 5 pin | screw fix | | straight | XS2C-D5S1 |
| | | | | | angled | XS2C-D5S2 |

Specifications

| | Y92E | XS2G, XS2C |
|----------------------|-----------------|------------------|
| Rated current | 4 A | |
| Rated voltage | 36 VDC | 125 VDC, 250 VAC |
| Degree of protection | IP67 (IEC60529) | |
| Ambient temperature | -25°C to 70°C | |

Pin arrangement

| M8 | | M12 | | | |
|---|------------|-------|---|------------|-------|
| Plug | Connectors | Plug | | Connectors | |
| 4 pin | 4 pin | 4 pin | 5 pin | 4 pin | 5 pin |
| | | | | | |
| 4 pin: 1 = brown 2 = white 3 = blue 4 = black 5 = n.c. | | | 5 pin: 1 = brown 2 = white 3 = blue 4 = black 5 = green / yellow | | |

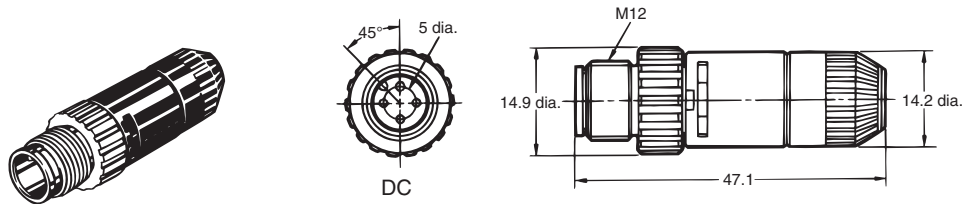
Materials

| | Y92E | XS2G, XS2C |
|-----------|--|--|
| Pin block | PVC | PBT resin (UL94V-0) |
| Contacts | CuSn, nickel base, 0.3 µm gold plating | Brass/nickel base, 0.4 µm gold plating |
| Fixture | | Brass/nickel base |
| Cover | PVC | PBT resin (UL94V-0) |
| O-ring | FKM | Rubber |

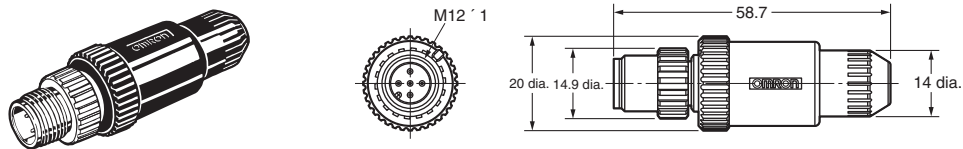
Dimensions

Plugs (male)

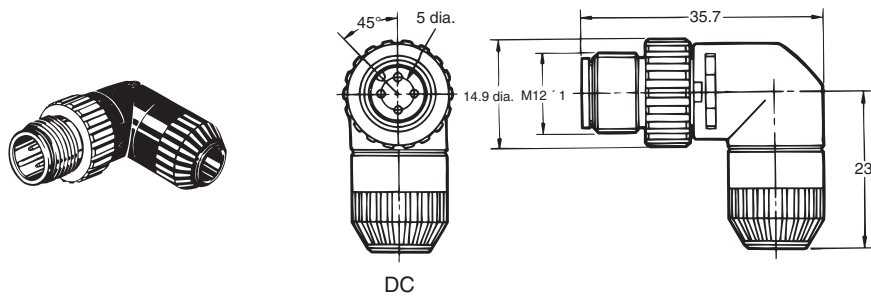
XS2G-D4C□ (Crimping Model, Straight),
XS2G-D42□ (Soldering Model, Straight)



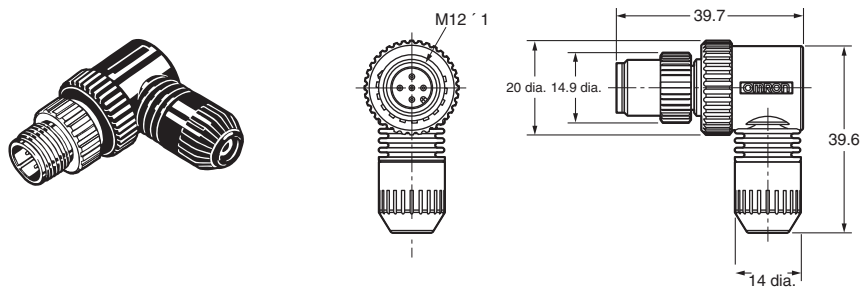
XS2G-D5S1 (Screw-on model, Straight)



XS2G-D42□ (Soldering Model, L-shaped)

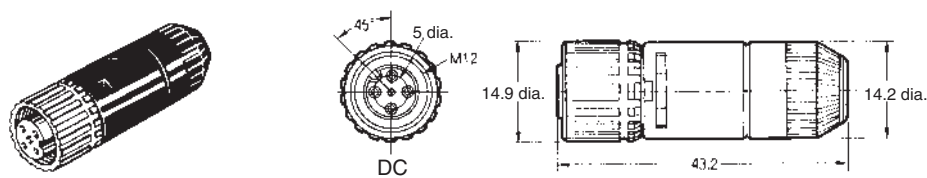


XS2G-D5S2 (Screw-on model, angled)

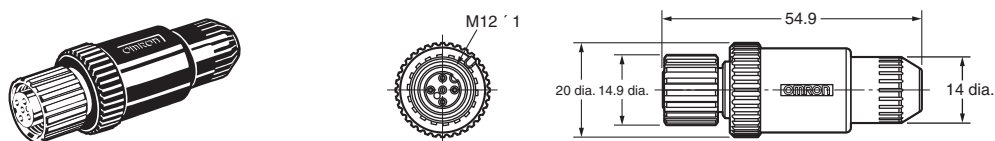


Connectors (female)

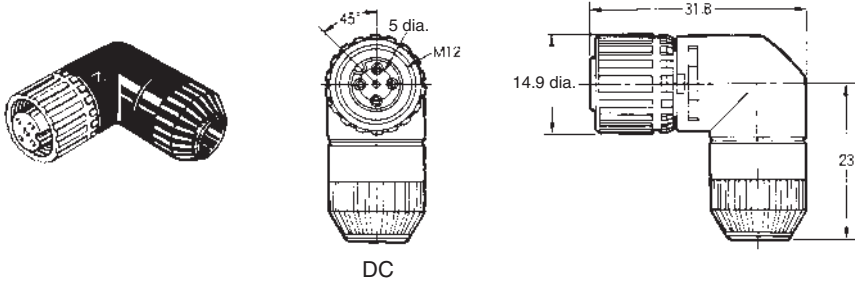
XS2C-D4C□ (Crimping Model, Straight),
XS2C-D42□ (Soldering Model, Straight)



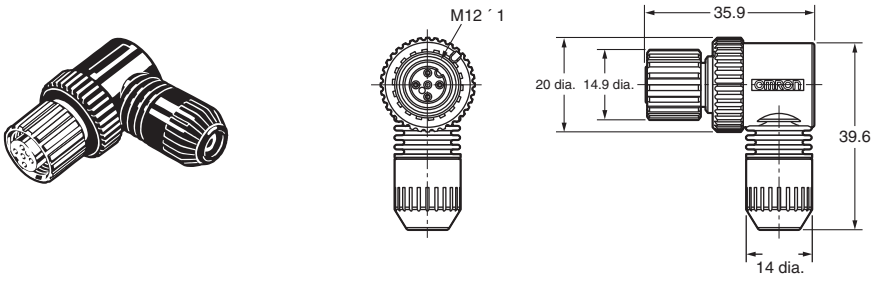
XS2C-D5S1 (Screw-on model, straight)



XS2C-D4C□ (Crimping Model, L-shaped)
 XS2C-D42□ (Soldering Model, L-shaped)



XS2C-D5S2 (Screw-on model, angled)



Field I/O boxes

XW3B, XW3D, DRT2

Ordering information

| Type | Nr of inputs/ outputs | Output configuration | Connection | Order code |
|------------------------------------|----------------------------------|----------------------|--|-----------------------------|
| Direct wiring | 4 x M12 inputs | PNP ^{*1} | 5m pre-wired | XW3B-P453-G11 |
| | 6 x M12 inputs | | | XW3B-P653-G11 |
| | 8 x M12 inputs | | | XW3B-P853-G11 |
| Direct wiring with M12 Twist&click | 4 x M12 with smartclick inputs | PNP ^{*1} | 5m pre-wired | XW3D-P453-G11 ^{*2} |
| | 8 x M12 with smartclick inputs | | | XW3D-P853-G11 ^{*2} |
| DeviceNet | 4 x M12 inputs | PNP ^{*1} | M12 (M12 DeviceNet cables are available) | DRT2-ID04CL-1 |
| | 8 x M12 inputs | | | DRT2-ID08CL-1 ^{*3} |
| | 16 x M12 inputs | | | DRT2-HD16CL-1 ^{*3} |
| | 8 x M12 inputs + 8 x M12 outputs | | | DRT2-MD16CL-1 |

^{*1} NPN types are available on request

^{*2} For details refer to Omron XS5 product information

^{*3} Separate power supply. Models with power supply via DeviceNet cable are available

Specifications

| | XW3B/XW3D | DRT2 |
|------------------------------|---|--|
| Rated current | 4 A/port (signal lines) 12 A/box (power lines) | 6 mA input 0.5 A per point (output) |
| Rated voltage | 10 to 30 VDC | 24 VDC |
| Degree of protection | IP67 (IEC 60529) | |
| Operating temperature | -25°C to 70°C | -10°C to 55°C |

Note: For details and dimensions refer to separate datasheet or www.industrial.omron.eu

Fiber amplifier connectors

E3X-CN

Ordering information

| Type | Size | Features | Order code |
|---------------------------|--------------------------------|-------------------------------------|------------------------|
| Fiber amplifier connector | Special connector 17,8x10x15,1 | 4 wire; 2 m PVC cable | E3X-CN21 |
| | | 3 wire; 2 m PVC cable | E3X-CN11 |
| | | 2 wire slave cable; 2 m PVC | E3X-CN22 ^{*1} |
| | | 1 wire slave cable; 2 m PVC | E3X-CN12 ^{*1} |
| | | M8 4-pin plug with 30 cm PVC cable | E3X-CN21-M3J-2 0.3M |
| | | M12 4-pin plug with 30 cm PVC cable | E3X-CN21-M1J 0.3M |

^{*1} Slave connectors can be used to reduce wiring effort. The setup requires 1 master amplifier with the slave amplifiers directly mounted attached. The power supply is then provided by the master amplifier via the clipped on slave connectors. For 4-wire masters use 2-wire slaves and for 3-wire masters 1-wire slaves.

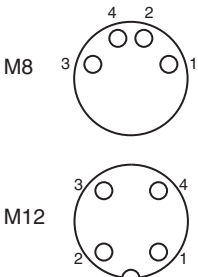
Specifications

| | |
|----------------------|--|
| Rated current | 2.5 A |
| Rated voltage | 50V |
| Degree of protection | IP50 (EC 60529) |
| Ambient temperature | Groups of 1 or 2 amplifiers: -25 to 55°C |
| | Groups of 3 to 10 amplifiers: -25 to 50°C |
| | Groups of 11 to 16 amplifiers: -25 to 45°C |

Materials

| | |
|----------|--------------------------------------|
| Housing | Polybutylene terephthalate (PBT) |
| Contacts | Phosphor bronze/ gold plated/ nickel |

Pin arrangement

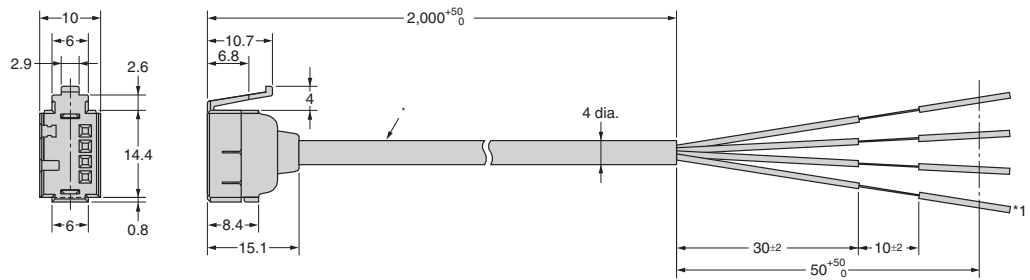
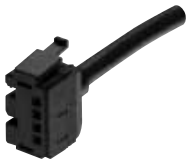


| Connector | Cable colour | |
|-----------|--------------|------------------------|
| 1 | brown | + |
| 2 | orange/white | Output 2 or ext. input |
| 3 | blue | - |
| 4 | black | Output 1 |
| | pink | Ext. Input |

Dimensions

Master connectors

E3X-CN21/E3X-CN11

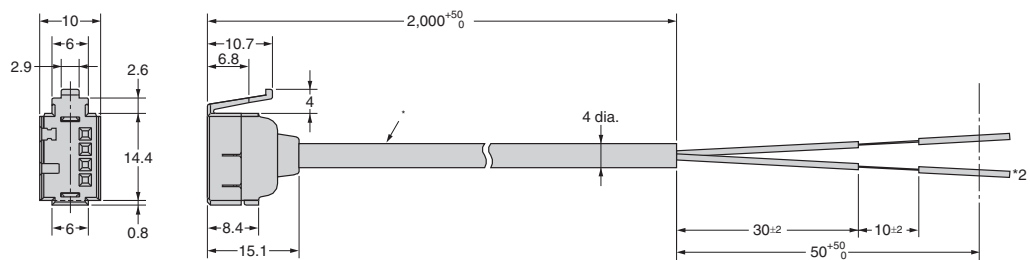


* E3X-CN21: 4-dia. vinyl-insulated round cable with 4 conductors (Conductor cross section: 0.2 mm², Insulator diameter: 1.1 mm)

*¹ Only E3X-CN21

Slave connectors

E3X-CN22/E3X-CN12



* E3X-CN21: 4-dia. vinyl-insulated round cable with 4 conductors (Conductor cross section: 0.2 mm², Insulator diameter: 1.1 mm)

*² Only E3X-CN22

Photomicrosensor connectors

EE-1

Ordering information

| Type | Size | Features | Applicable sensors | Ordercode |
|--|-----------|----------------|--------------------|--------------|
| Pin connector for soldering | 13x4x10.8 | For dark on | EE-SX47/67 | EE-1001 |
| | | For light on | | EE-1001-1 |
| Cable connector | 13x4x13.5 | standard cable | | EE-1010 2M |
| | | robotic cable | | EE-1010-R 2M |
| | 10x5.8x8 | standard cable | EE-SX97 | EE-1017 1M |
| | | robotic cable | EE-SX97 | EE-1017-R 1M |
| Cable connector for EE-SX91 pigtail versions | 10x5.8x8 | robotic cable | EE-SX91 | EE-1016-R |

Specifications

| | |
|---------------------------|------------------------|
| Rated voltage | 5 to 24 VDC |
| Degree of protection | IP50 (IEC 60529) |
| Ambient temperature range | operating: -25 to 55°C |
| | storage: -30 to 80°C |

Material

| | EE-1001 | EE-1010/EE-1016 | EE-1017 |
|----------|-----------------|-----------------|---|
| Housing | Nylon | | |
| Contacts | Phosphor bronze | | |
| Cable | – | PVC 2 m | PVC 1 m (3 m are available on request) |

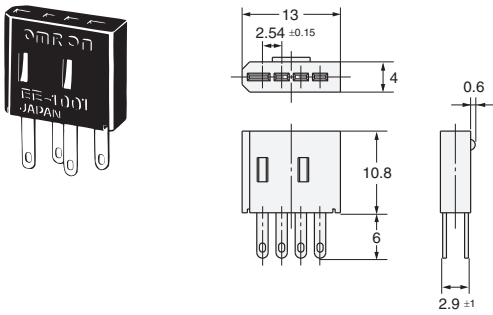
Pin arrangement

| | EE-1001, EE-1010 | | EE-1016 | | EE-1017 | |
|---|------------------|-------|----------|-------|---------|-------|
| 1 | + | Brown | + | Brown | + | Brown |
| 2 | L | Pink | output 2 | White | 1 | Black |
| 3 | out | Black | – | Blue | 2 | White |
| 4 | – | Blue | output 1 | Black | – | Blue |

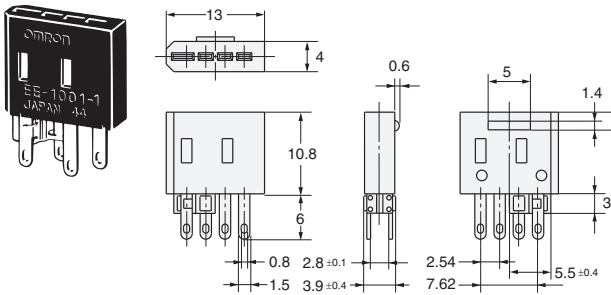
Note: For the connector EE-1001-1 the pins 1(+) and 2 (L) are short circuited

Dimensions

Connector EE-1001

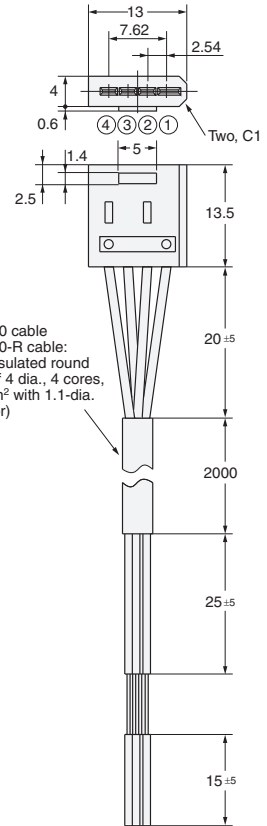


Connector (short-circuited between positive (+) and L terminals) EE-1001-1



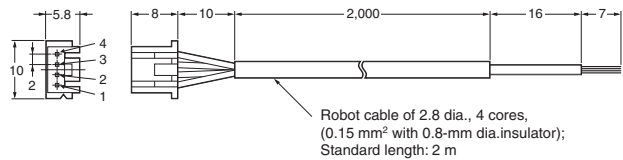
Connector with Cable EE-1010

Connector with Robot Cable EE-1010-R

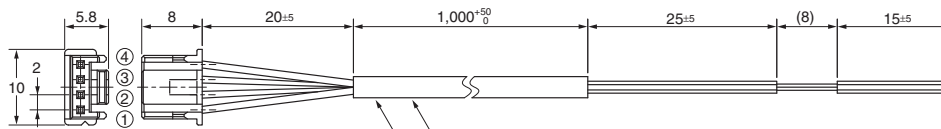


EE-1010 cable
EE-1010-R cable:
Vinyl-insulated round
cable of 4 dia., 4 cores,
(0.2 mm² with 1.1-dia.
insulator)

Connector with Robot Cable EE-1016-R



Connector with Robot Cable EE-1017-R



Connector with Cable: EE-1017
Vinyl insulated round cord: 4 dia., 4 cores,
(Cross section area of conductor: 0.2 mm²/ insulator: 1.1 mm dia.)

Connector with Robot Cable: EE-1017-R
Robot instrumentation cord: 4 dia., 4 cores,
(Cross section area of conductor: 0.2 mm²/ insulator: 1.1 mm dia.)

T-connectors, Covers, Accessories, extended wiring portfolio

XS2

| Name | Model | | Appearance |
|--|---|-----------------------|------------|
| Cable connectors with plugs (open end or connector end) | XS2W Plug connectors (Connector end) | | |
| | XS2H Plug connectors (Open end) | | |
| Connector Assembly Accessories (Crimping, Soldering, or Screw-on) | XS2F Crimp Tool (for Crimping Connectors) | | |
| | XS2U Crimping pin (for XS2G/XS2C) | | |
| | XW4Z Screwdriver (for Screw-on Connectors) | | |
| Panel-mounting Connectors | XS2P Sockets (M12) XS3P Sockets (M8) | | |
| | XS2M Plugs (M12) XS3M Plugs (M8) | Flange-mounting Plugs | |
| | | Screw-mounting Plugs | |
| T-Joints and Y-Joints Used for branching and for daisy-chain connections. | XS2R T-Joint/Y-Joint Plug/Socket Connectors (M12) | | |
| | XS3R Y-Joint Plug/Socket Connectors (M8) | | |
| Dust covers Used to protect unused connector ports | XS2Z (M12) XS3Z (M8) | | |
| | | | |



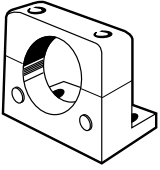


Note: For details on these products, contact your Omron representative




Mounting accessories for standard photoelectric, inductive and capacitive sensors

E39, Y92E





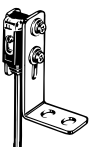
Mounting brackets and covers


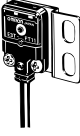



For cylindrical shapes





| Shape | Product group | Type | Housing material | Features | Applicable sensors | Order code |
|---|--------------------------|-----------------------------|---|---|---|---|
|  | Mounting brackets | general purpose - screw fix | plastic | - cost efficient mounting bracket - for M8, M12, M18, M30 - surface mounting | -E3F2 -E2A | Y92E-B8 Y92E-B12 Y92E-B18 Y92E-B30 |
|  | | general purpose - snap fix | stainless steel | - for dia 20 mm | -E3FZ (snap mount) | E39-EL8 |
| | | | | - for M18 | -E3FZ (mounting with M18 nuts) -E3F2 | E39-EL12 |
|  | | general purpose - screw fix | plastic | - for dia 34 mm | -E2K-C | Y92E-A34 |
|  | | quick access - snap fix | | - snap fix for quick sensor access - for M8, M12, M18, M30 - surface mounting | -E3F2 (metal housing) -E2A (metal housing) | Y92E-BC8 Y92E-BC12 Y92E-BC18 Y92E-BC30 |
|  | quick access - clamp fix | stainless steel | - clamp fix for quick sensor access with exact repositioning - for M8, M12, M18, M30 - through mounting | | Y92E-G8 Y92E-G12 Y92E-G18 Y92E-G30 | |








| Shape | Product group | Type | Housing material | Features | Applicable sensors | Order code |
|---|-------------------|--|----------------------------|--|--------------------|---|
|  | Protective covers | general purpose sensor head protection | polyarylate | - for M8, M12, M18, M30 - for shielded and unshielded | E2A | Y92E-E8 Y92E-E12 Y92E-E18 Y92E-E30 |
|  | | sputter protection for sensor head | silicone rubber | - increased protection in weld fields - for M12, M18, M30 - for shielded sensors | | Y92E-E12-2 Y92E-E18-2 Y92E-E30-2 |
|  | | general purpose lens protection | metal rim with glass cover | | E3F2 | E39-F31 |

For square shapes



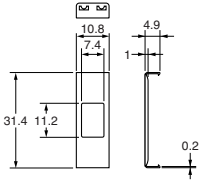


| Shape | Type | Housing material | Features | Mounting type | Applicable Sensors | Order code |
|---|--------------------------|---------------------------|---|--------------------|--------------------|------------|
|  | General purpose mounting | Stainless steel (SUS 304) | inclination angle adjustment | side wall mounting | E3Z | E39-L43 |
|  | | | | back wall mounting | | E39-L44 |
|  | | | horizontal and inclination angle adjustment | surface mounting | E39-L104 | |
|  | | | up/down position adjustment | back wall mounting | E3T-S | E39-L117 |
|  | | | | surface mounting | | E39-L116 |

| Shape | Type | Housing material | Features | Mounting type | Applicable Sensors | Order code |
|---|--------------------------|---------------------------|------------------------------|-----------------------------|--------------------|------------------------|
|  | General purpose mounting | Stainless steel (SUS 304) | up/down position adjustment | back wall mounting | E3T-F | E39-L119 |
|  | | | | side wall mounting | | E39-L120 |
|  | | | inclination angle adjustment | back wall mounting | E3G-R | E39-L132 |
|  | | | | side and back wall mounting | | E39-L131 |
|  | | | | surface mounting | E3G-L | -E39-L139 -E39-L140 |

| Shape | Type | Housing material | Features | Mounting type | Applicable Sensors | Order code |
|---|--------------------------|---------------------------|------------------------------|-------------------------------------|--------------------|------------|
|  | General purpose mounting | Stainless steel (SUS 304) | 3D rotation | surface, side and backwall mounting | E3G, E3Z | E39-EL4 |
|  | | | | | E3T, E3Z, E3C | E39-EL5 |
|  | | | | | E39-EL6 | |
|  | Side protection | | inclination angle adjustment | protective side wall mounting | E3T-S | E39-L118 |

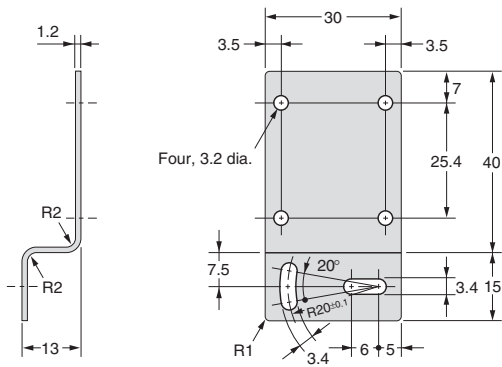
| Shape | Type | Housing material | Features | Mounting type | Applicable Sensors | Order code |
|---|--------------------|---------------------------|--|---|--------------------------|------------------------|
|  | Full protection | | inclination angle adjustment | protective side wall mounting | E3Z (pre-wired types) | E39-L142 |
|  | | | horizontal angle adjustment | protective surface mounting | | E39-L144 |
|  | | | | | -E3Z | E39-L98 |
|  | Telescope mounting | Stainless steel (SUS 304) | - 360° horizontal rotation - max telescope length | side and back wall mounting | -E3Z -E39-R3 | -E39-L150 -E39-L151 |
|  | | | 3D rotation around x, y, and z-axis | side wall, back wall and surface mounting | | E39-L93FH E39-L93FV |
|  | | | Extension pipe with XY joint | pipe mounting | E39-L93_ | E39-L93XY |
|  | | | Reflector adapter for E39-L93_ | telescope mounting | -E39-R1 -E39-R1S | E39-L96 |

Slit, filters and other accessories

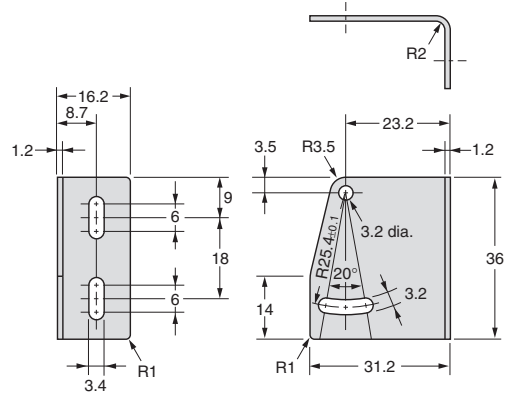
| Shape | Type | Features | Mounting type | Applicable Sensors | Order code |
|---|--------------------------------|---|---|--------------------|----------------------|
|  | Precision detection slit cover | - slit width from dia 0.5 mm for min object size detection of dia 0.2 mm | snap on | E3Z-T | E39-S65 |
|  | | | | E3T-□T | -E39-S63 -E39-S64 |
|  | Mutual interference prevention | polarizing filter for close mounting of multiple sensors through beam sensors | | E3Z-T□A | E39-E11 |
|  | Adjustment aid | adjustment aid for sensitivity adjustment | E3T-ST1 | E39-E10 | |
|  | | | photo electric sensors with adjustable potentiometers | E39-G2 | |

Dimensions

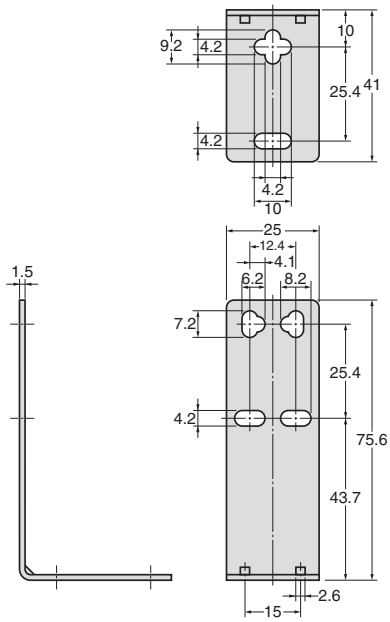
E39-L43



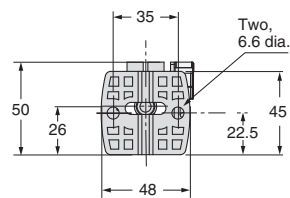
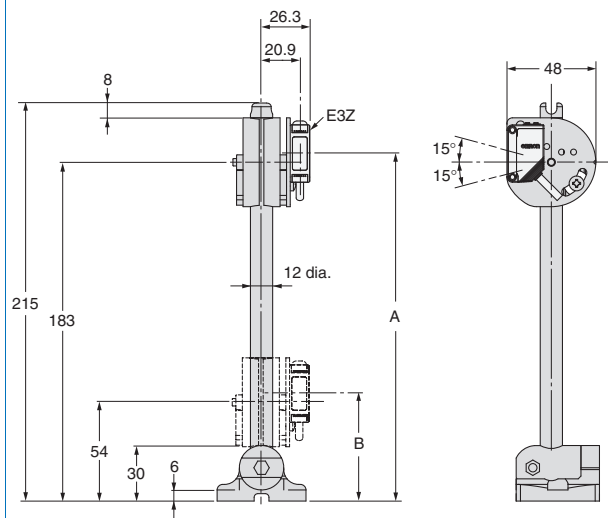
E39-L44



E39-L87

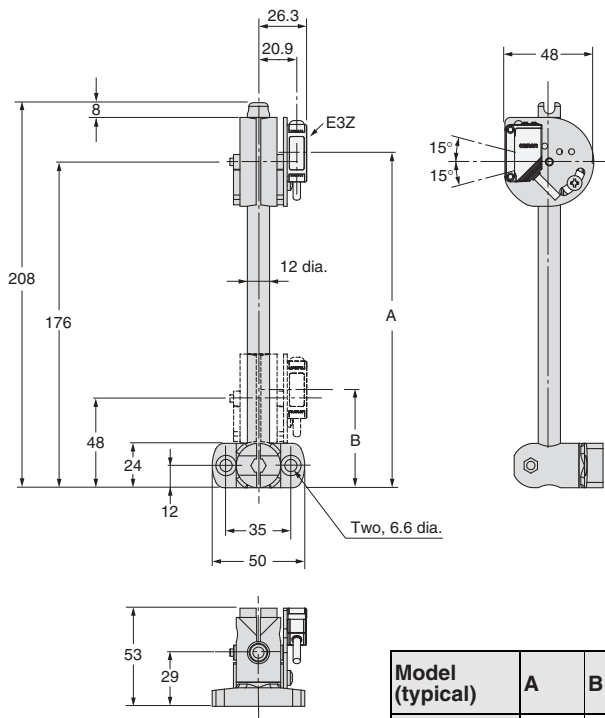


E39-L93FH



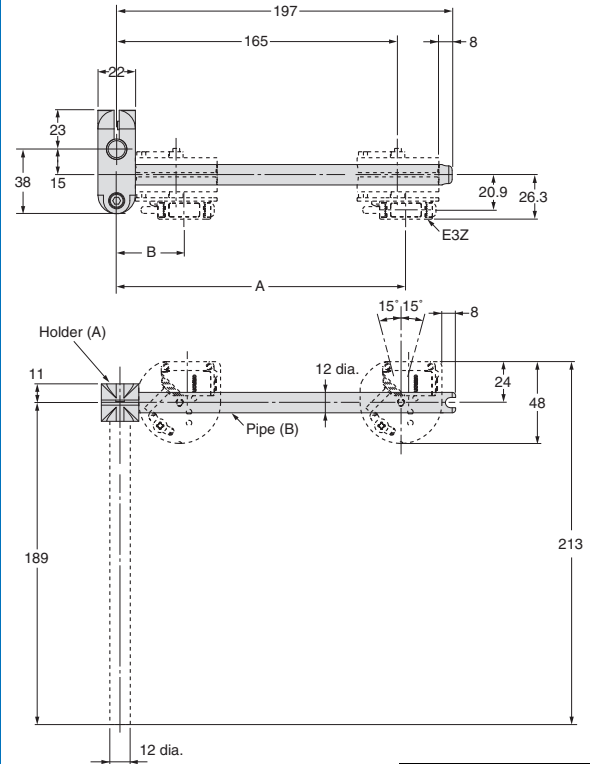
| Model (typical) | A | B |
|-----------------|-----|----|
| E3Z | 188 | 59 |

E39-L93FV



| Model (typical) | A | B |
|-----------------|-----|----|
| E3Z | 181 | 53 |

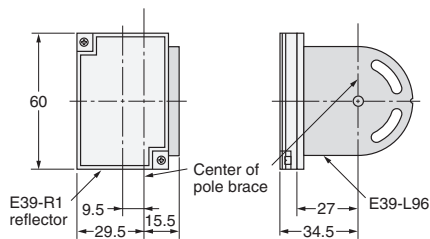
E39-L93XY



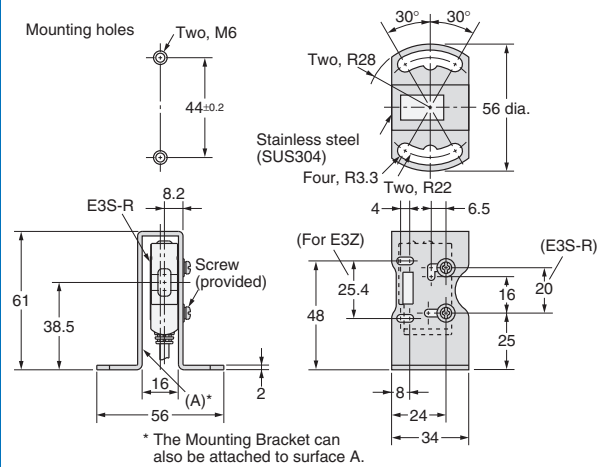
| Model (typical) | A | B |
|-----------------|-----|----|
| E3Z | 170 | 40 |

Note: The E39-L93XY consists of only the one joint holder (A) and pipe (B), and the two hexagonal bolts and nuts. It cannot be mounted to the Sensor alone.

E39-L96

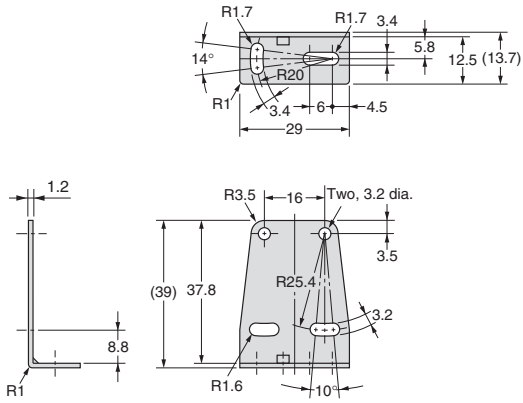


E39-L98 (Vertical)

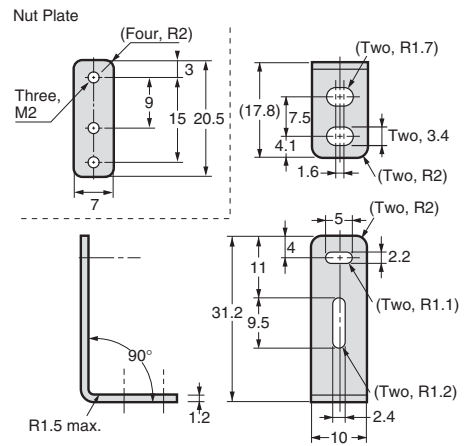


* The Mounting Bracket can also be attached to surface A.

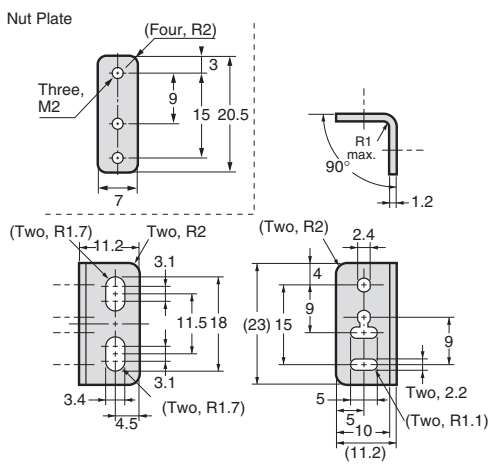
E39-L104



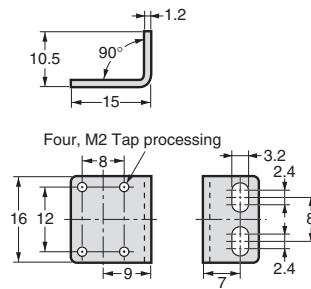
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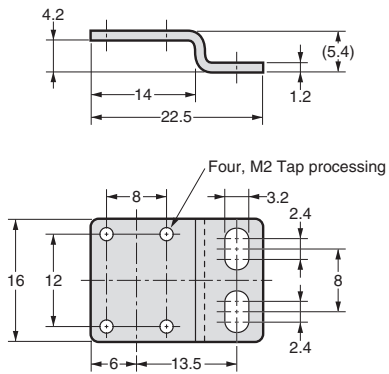
E39-L117



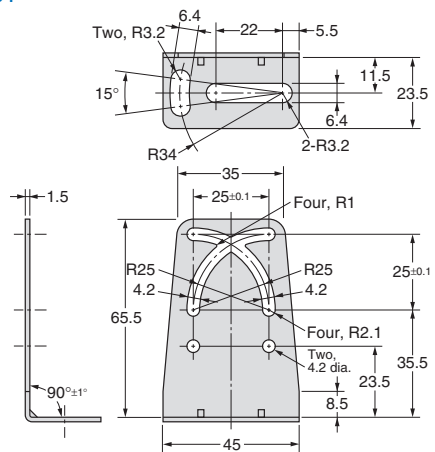
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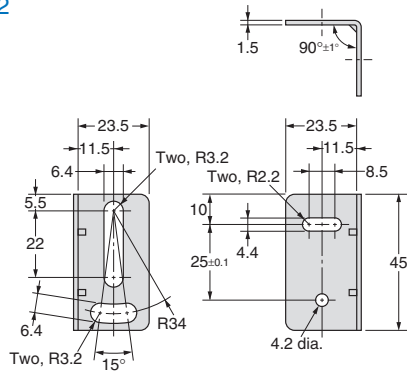
E39-L120



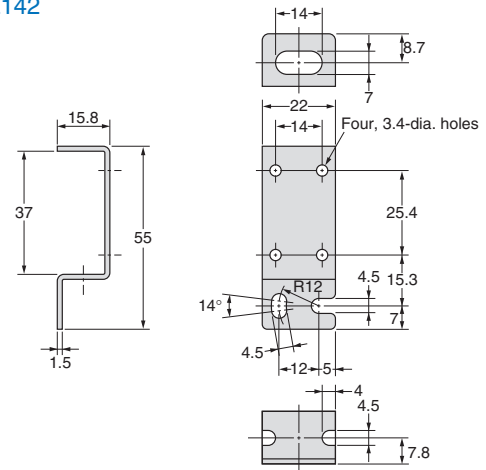
E39-L131



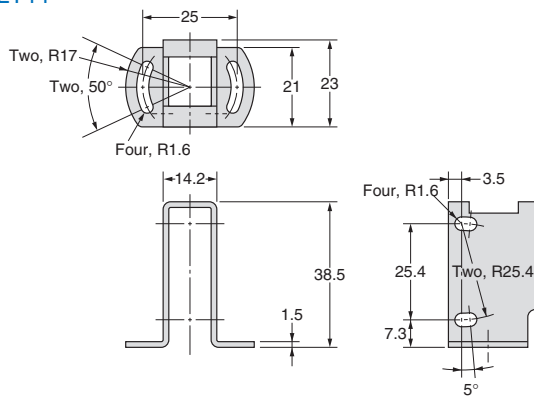
E39-L132



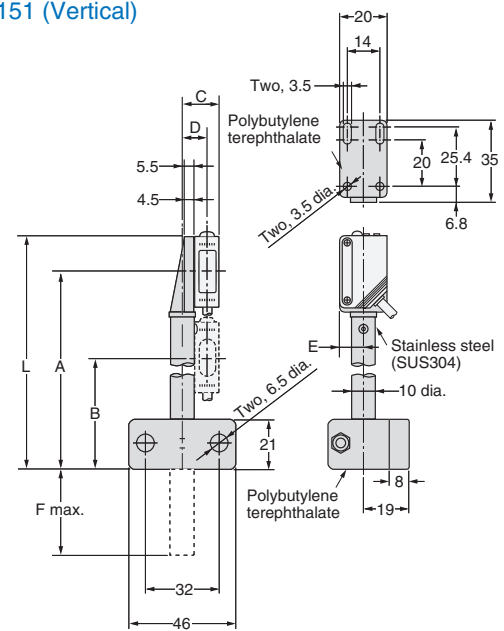
E39-L142



E39-L144



E39-L150 (Vertical)
E39-L151 (Vertical)



E39-L150








| Model (typical) | A | B | C | D | E | F |
|-----------------|------|------|------|------|----|----|
| E3Z | 84.5 | 47.5 | 16.3 | 10.9 | 10 | 37 |

| Model | L |
|----------|-----|
| E39-L150 | 100 |
| E39-L151 | 200 |












Reflectors for retro-reflective photoelectric sensors

E39-R



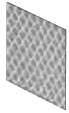








Accessories

| Shape | Type | Housing material | Features | Size in mm | Applicable Sensor | Order code |
|---|----------------------------|-----------------------------|---|------------------------|--|------------|
|  | General purpose reflectors | ABS base Acrylic surface | Surface screw mounting (diagonal holes) | 40x60x7.5 | Retro-reflective photoelectric sensors – without M.S.R Retro-reflective photoelectric sensors – with M.S.R. ^{*1} | E39-R1S |
|  | | | Surface screw mounting (holes on one side only) | 35.4x42.3x8 | | E39-R9 |
|  | | | Surface screw mounting (holes on one side only) | 51.4x60.3x8.5 | | E39-R42 |
|  | Small size | | Side screw mounting or surface selfadhesive | 41.8x22.5x11 | | E39-R3 |
|  | | | Side screw mounting or surface selfadhesive | 23x13.7x4.9 | | E39-R4 |
|  | Large size | | Surface screw mounting | Surface screw mounting | | 100x100x9 |
|  | | 84.5x84.5x8.7 | | | E39-R40 | |

*1 Mirror Surface Rejection (MSR) is realized by using polarization filters

| Shape | Type | Housing material | Features | Size in mm | Applicable Sensor | Order code |
|---|--------------------------------------|-----------------------------|--|--|--|---|
|  | High precision | ABS base Acrylic surface | Microtripel for improved performance with fine beam sensors | 52x40x4.8 | Recommended for fine beam coaxial models (E3C-LR, E3Z-LR, E3T-SR4) | E39-R6 |
|  | | | | 30x45 | | E39-R12 |
|  | | | | 14x23x1 | | E39-R37-CA |
|  | | | | 12x24 | | E39-R13 |
|  | Simple mounting | ABS base Acrylic surface | Round shape with centered mounting hole for simple screw mounting | Diameter: 84 Depth: 7.4 | Photoelectric sensors with and without M.S.R. *1 | E39-R7 |
|  | Snap mounting | | Snap mounting for fast installation | Diameter: 30 Diameter of snap mount tool: 5 | | Recommended for snap mounting sensor E3FZ |
|  | Enhanced detergent resistance | PVC | Surface screw mounting IP69k after DIN 40050 part 9 | 40x60x7.5 | Recommended for harsh environment sensors | E39-R50 |
|  | | | | 20x60x6 | | E39-R51 |
|  | Highest detergent resistance | SUS316L Borosilicat | Surface screw mounting | 43x30x5 | | E39-R16 |
|  | Heat resistant | Borosilicat | Surface screw mounting 450°C heat resistance Suitable for vacuum environment | 95x51x8 | | E39-R47 |
|  | Non-fogging reflector | ABS Acrylic surface | Anti-fogging coating | 40x60x7.5 | E39-R1K | |

*1 Mirror Surface Rejection (MSR) is realized by using polarization filters

| Shape | Type | Housing material | Features | Size in mm | Applicable Sensor | Order code | | |
|---|--|--------------------------|----------------------------------|----------------|--|---|-----------------------|-----------------|
|  | Special polarizing | ABS base PMMA surface | Special polarizing filter to PET | 40x80x8.5 | E3ZM-B | E39-RP1 | | |
|  | General purpose tape reflectors | Acrylic | Self adhesive Pre cut | 35x10x0.7 | Photoelectric sensors with and without M.S.R. ^{*1} | E39-RS1 | | |
|  | | | | 40x35x0.7 | | Optimised for E3T-SR4 | E39-RS1-CA | |
|  | | | | 80x70x0.6 | | | E39-RS2 | |
|  | | | | 25 mm x 5 m | | | E39-RS2-CA | |
|  | | | | 25 mm x 22.8 m | | Self adhesive Self cut/roll material | E39-RS3 | |
|  | | | | 50 mm x 5 m | | | Optimised for E3T-SR4 | E39-RS3-CA |
|  | | | | 50 mm x 22.8 m | | | | E39-RS25 5 m |
|  | | | | | | | | E39-RS25 22.8 m |
|  | High precision tape reflectors | | Self adhesive Pre cut | 195x22 | Recommended for fine beam and laser sensors (E3Z-LR, E3C, E3X) | E39-RS4 | | |
|  | | | | 108x46 | | E39-RS5 | | |

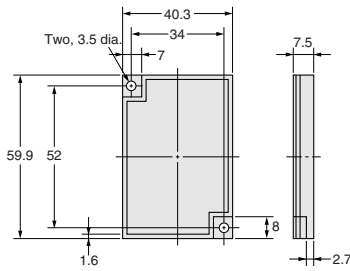
*1 Mirror Surface Rejection (MSR) is realized by using polarization filters

Dimensions

E39-R1S
E39-R1K *



Material, reflective surface: acrylic
Rear surface: ABS

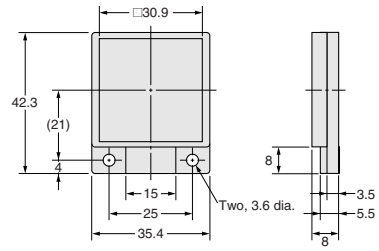


*E39-R1 only
Coating on reflective surface

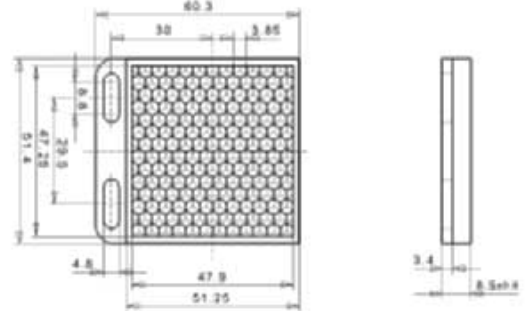
E39-R9



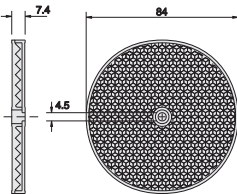
Material, reflective surface: acrylic
Rear surface: ABS



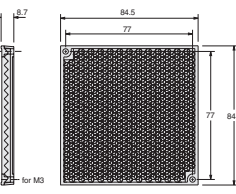
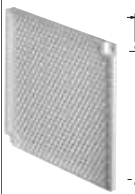
E39-R42



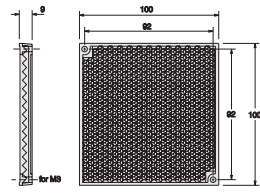
E39-R7



E39-R40



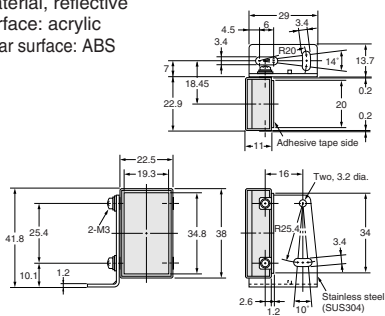
E39-R8



E39-R3



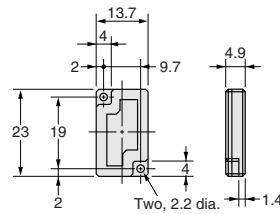
Material, reflective surface: acrylic
Rear surface: ABS



E39-R4

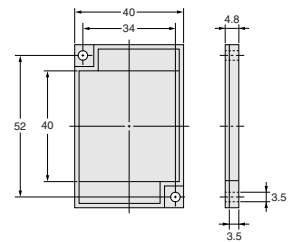
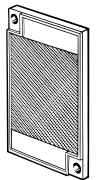


Material:
Reflective surface: acrylic
Rear surface: ABS

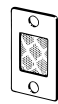


E39-R6

Material, reflective surface: acrylic
Rear surface: ABS

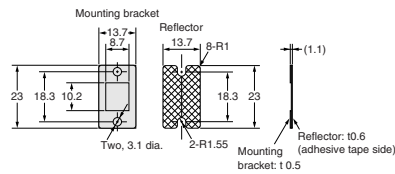


E39-R37-CA

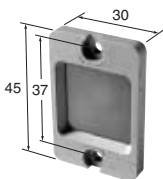


Material:
Mounting plate: stainless steel (SUS301)
Reflective surface: acrylic

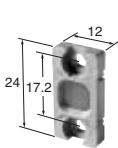
Note: The reflective plate and mounting plate (1) come as a set.



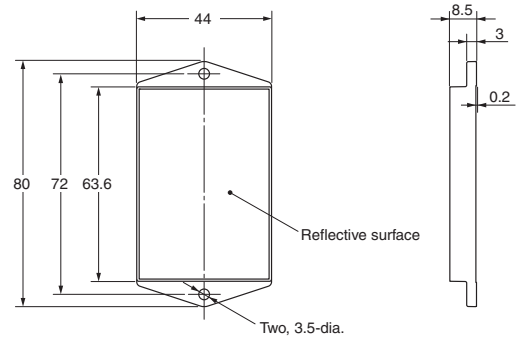
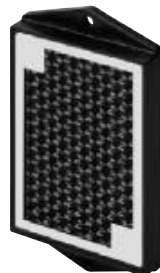
E39-R12/R14



E39-R13



E39-RP1



Cat. No. E26E-EN2-04

In the interest of product improvement, specifications are subject to change without notice.

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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