

μCom-10Gb +

Harsh Environment 10Gb
Ethernet Micro Connectors



μCom-Series is a new range of connectors designed to address the latest trends of the industry : **miniaturization** and **high speed**, with the highest resistance for use in the **harshest environments**.

MAIN FEATURES

- 10Gb+: exceeds 10Gb/s Ethernet following IEEE 802.3an-2006 : **10GBase-T**
- Cat.6A connector according to TIA568C.2 and ISO/IEC11801 standard
- Environmental testing based on **MIL-DTL-38999 series III** military specifications (Thread version)
- Environmental testing based on **MIL-DTL-26482** military specifications (Push Pull version)
- Miniature : **15 mm(.59") max** external diameter
- Receptacle and in-line receptacle compatible with both thread and Push Pull plugs

FEATURES AND BENEFITS

- 4 pairs totally insulated throughout the connector
 - ➔ minimum cross-talk between the four pairs
- Patented special interfacial shapes
 - ➔ minimum perturbation at the interface of each pair
- Thread and Push Pull coupling mechanisms
 - ➔ 2000 mating cycles & high vibration resistance
- Machined Brass shells
 - ➔ Plating available:
 - Olive Drab Cadmium → not ROHS compliant
 - Black Nickel, and unplated brass → ROHS compliant
 - ➔ shell to shell continuity and 500h salt spray resistance
- Machined & gold plated Solder and Crimp contacts
 - ➔ design & performance according to the innercontact of M39029/77-429#16 M39029/76-425#16 38999 contact
 - ➔ contacts are crimped with standard crimping tool M22520/2-01 + Amphenol μCom positioner
- Solder contact : max AWG24
- Crimp contact : AWG 24 to 28
- IP68 sealing mated and unmated for PCB receptacles
- 1500 Vrms Dielectric Withstanding Voltage
- Temperature range : - 55°C / + 125°C

MARKETS & APPLICATIONS

- **MILITARY**: C4ISR, Battlefield Communications, Shipboard, Ground Vehicles Vetrronics.
- **AEROSPACE** : In Flight Entertainment*, Avionics*, Communication Systems.

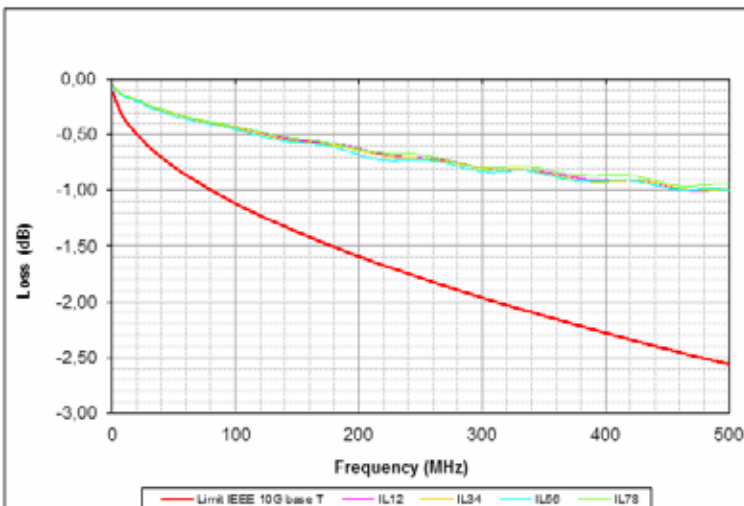
*μCom approved by GORE



TRANSMISSION DATA

Exceeds
10Gb/s
Ethernet
requirement
✓

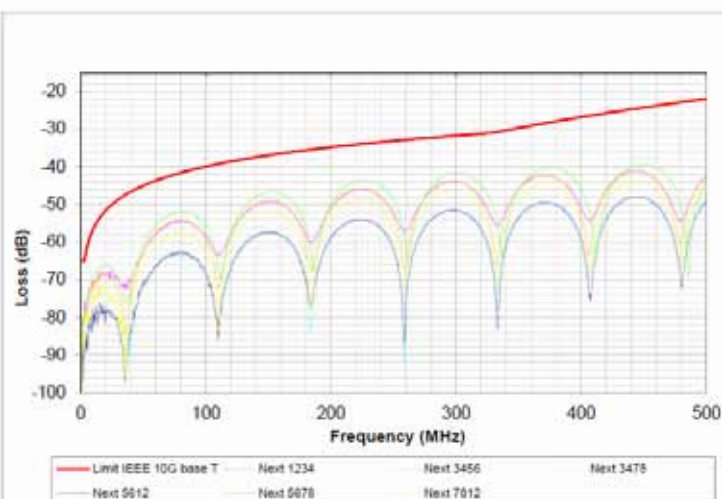
Insertion Loss (IL) :



← Amphenol performance

← IEEE 802.3an Standard requirement

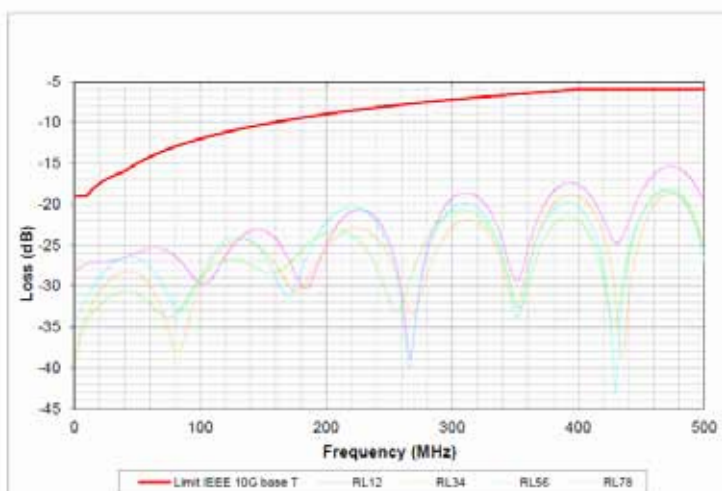
Near End crosstalk (NEXT) :



← IEEE 802.3an Standard requirement

← Amphenol performance

Return Loss (RL) :



← IEEE 802.3an Standard requirement

← Amphenol performance

FEMALE RECEPTACLES

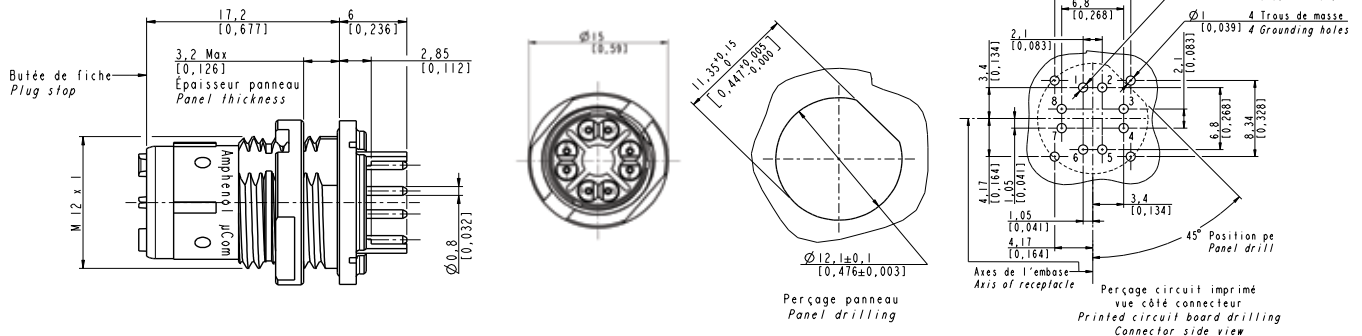


Female receptacle for printed circuit board

Compatible with both thread & push pull plugs

Part number: UCOM-10G+ R P x

x: see the 'How to order' below to complete your part number

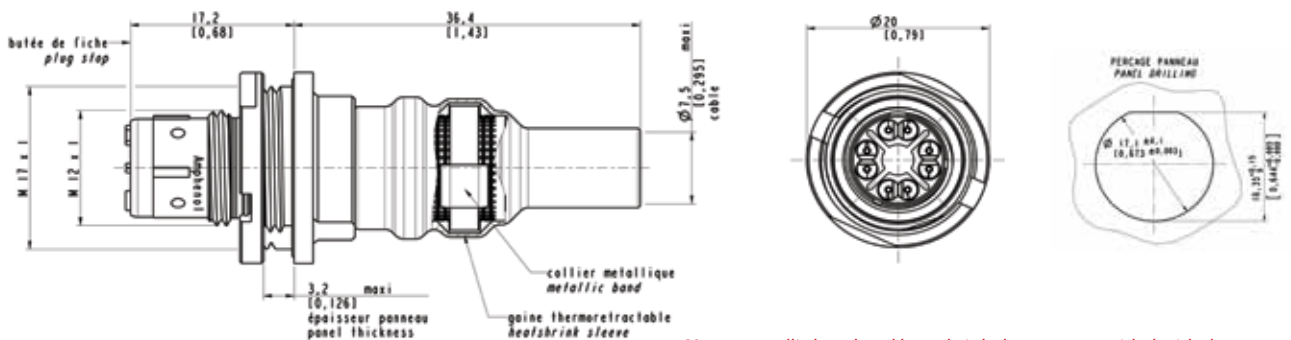


Panel mount female receptacle with metallic band backshell

Compatible with both thread & push pull plugs

Part number: UCOM-10G+ R x x

x: see the 'How to order' below to complete your part number



Nota: metallic band and heatshrink sleeve are provided with the connector

HOW TO ORDER Female receptacles

UCOM - 10G+ R P B

Shell

R: receptacle (push pull or thread)

Contacts termination

P: PCB

S: solder

C: crimp

Shell plating

B: black nickel

G: olive drab cadmium

U: unplated brass

NOTA:

- UCOM for order designation
- μCom for marking on connectors

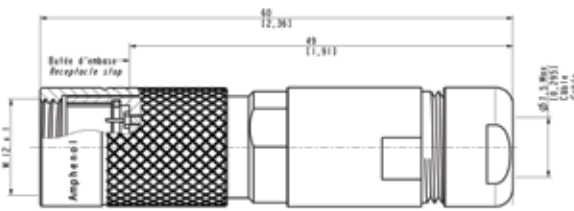
MALE PLUGS



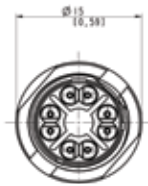
Plug with cable gland backshell

Part number: UCOM-10G+ P T x x G x

x: see the 'How to order' below to complete your part number

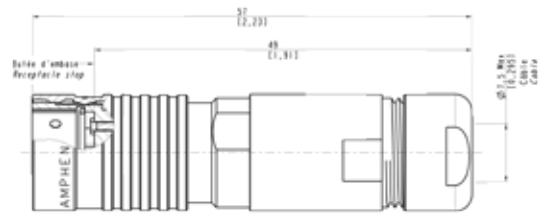


Thread version



Part number: UCOM-10G+ P P x x G x

x: see the 'How to order' below to complete your part number



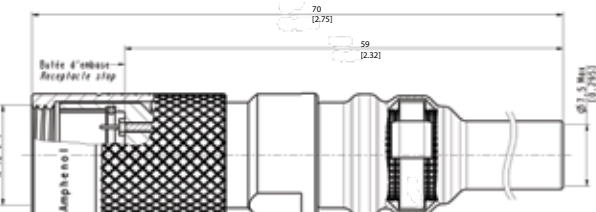
Push Pull version



Plug with metallic band backshell

Part number: UCOM-10G+ P T x x B

x: see the 'How to order' below to complete your part number

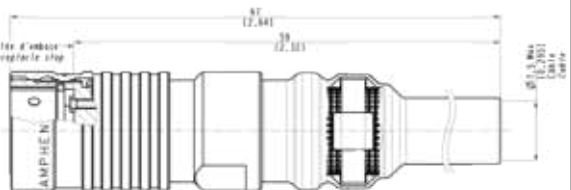


Thread version



Part number: UCOM-10G+ P P x x B

x: see the 'How to order' below to complete your part number



Push Pull version

Nota: Metallic band and heatshrink sleeve are provided with the connector

HOW TO ORDER Male plugs

	UCOM - 10G+	P	T	C	B	G	A
Shell P: plug							
Mating (for plugs only) T: thread P: push-pull							
Contacts termination C: crimp S: solder							
Shell plating B: black nickel G: olive drab cadmium U: unplated brass							
Backshell type G: gland B: band							
Cable diameter (for gland backshell only) A: for cable diam 7.5mm							

For other cable diameter, please consult us

NOTA:

- UCOM for order designation
- μCom for marking on connectors

FEMALE IN-LINE RECEPTACLES

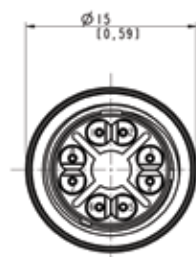
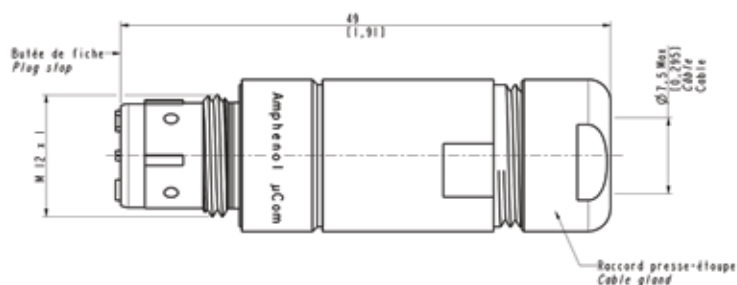


Female in-line receptacle with cable gland backshell

Compatible with both thread & push pull plugs

Part number: UCOM-10G+ L x x G x

x: see the 'How to order' below to complete your part number

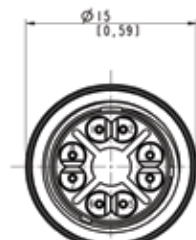
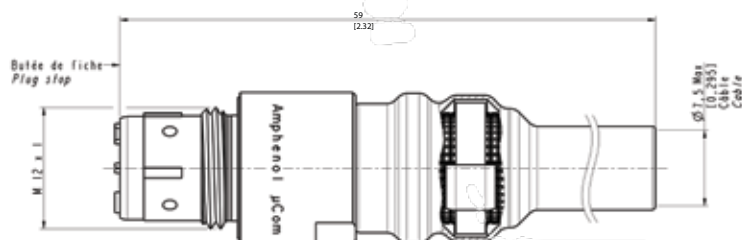


Female in-line receptacle with metallic band backshell

Compatible with both thread & push pull plugs

Part number: UCOM-10G+ L x x B

x: see the 'How to order' below to complete your part number



Nota: Metallic band and heatshrink sleeve are provided with the connector

HOW TO ORDER Female in-line receptacles

UCOM - 10G+	L	S	B	G	A
Shell					
L: in line receptacle (push pull or thread)					
Contacts termination					
C: crimp					
S: solder					
Shell plating					
B: black nickel					
G: olive drab cadmium					
U: unplated brass					
Backshell type					
G: gland					
B: band					
Cable diameter (for gland backshell only)					
A: for cable diam 7.5mm					

NOTA:

- UCOM for order designation
- μCom for marking on connectors

For other cable diameter, please consult us

CORDSETS



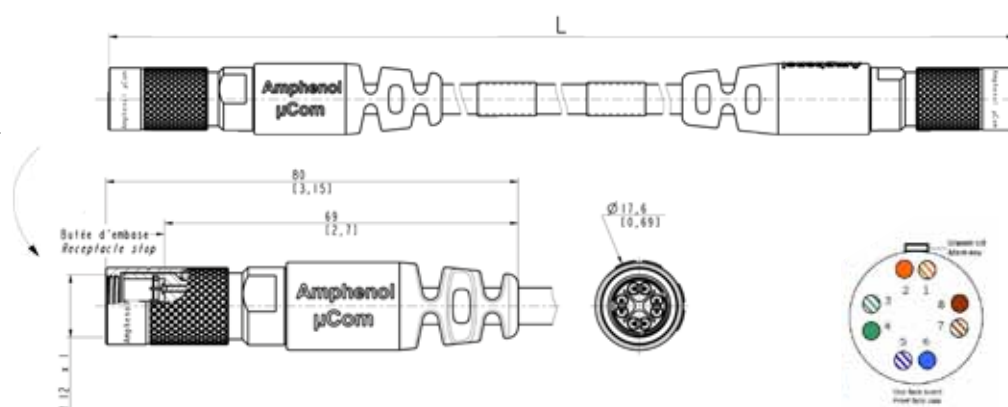
New cabling configuration		
Cable number		Connector number
1	White / Orange	1
2	Orange	2
3	White / green	3
6	Green	4
5	White / Blue	5
4	Blue	6
7	White / Brown	7
8	Brown	8

μCom plug - μCom plug cordset

Part number:

UCOM-10G+ C x x x xxx

x: see the 'How to order' on the next page to complete your part number

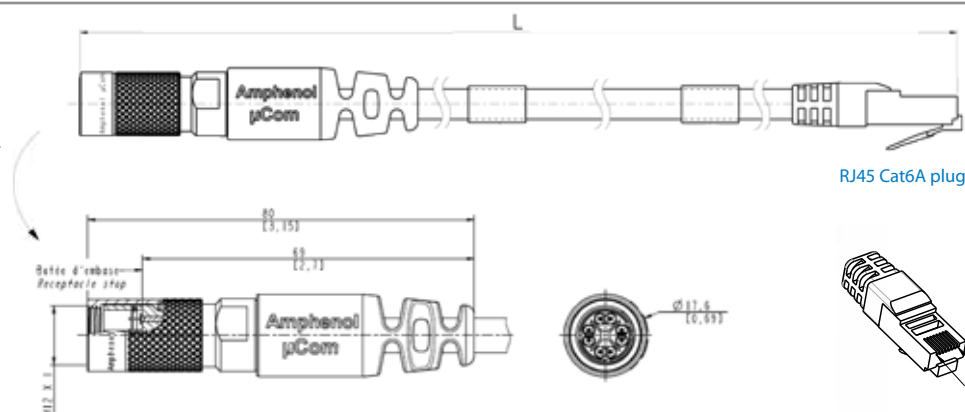


μCom plug - RJ45 Cat6A plug cordset

Part number:

UCOM-10G+ D x x x xxx

x: see the 'How to order' on the next page to complete your part number

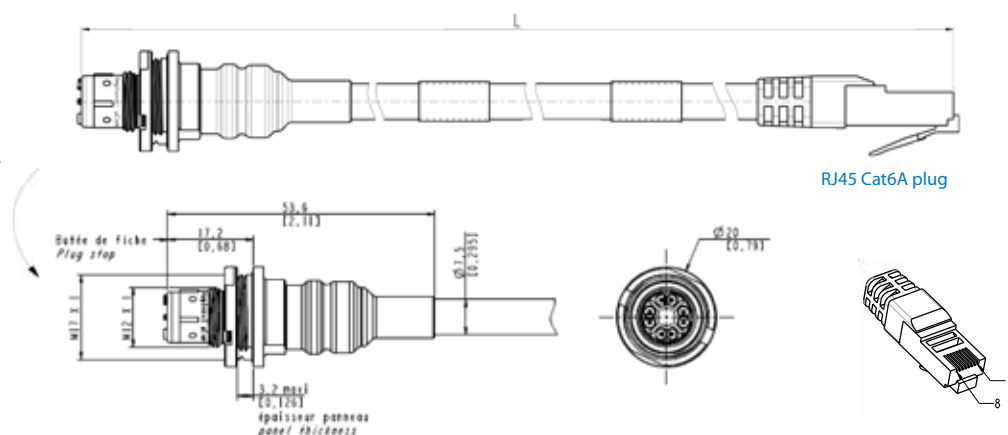


μCom panel mount receptacle - RJ45 Cat6A plug

Part number:

UCOM-10G+ E x x xxx

x: see the 'How to order' on the next page to complete your part number

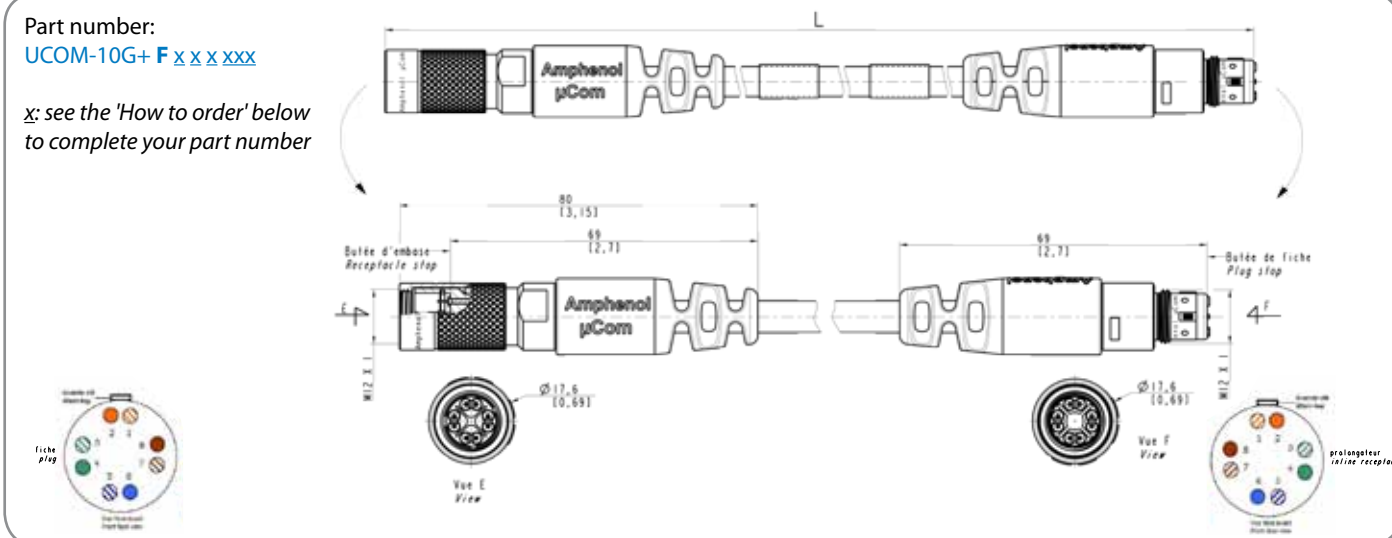


μCom plug - μCom inline receptacle

Part number:

UCOM-10G+ F x x x xxx

x: see the 'How to order' below
to complete your part number



Type of cable used: CAT 7 HFFR - According to EN 50288-4-2



- Stranded bare copper wire (26 AWG)
- 4 screened twisted pairs: 2 wires twisted to a pair, Alulami-nate foil overlapped
- Shield braiding of tinned copper wires, about 80% coverage
- Strain member of Kevlar
- Jacket in black Polyurethane (PUR), glossy finish, acc to DIN VDE 0282
- External diameter 7.0 +/-0.3 mm
- UV & Hydrolysis resistant, Halogen free, RoHS compliant
- Max Pull force: 800 N, Weight : about 54 kg/km
- Temperature : - 40°C / + 85°C
- Min. bending radius allowed: repeated 8 x Ø, single 4 x Ø

GORE® has approved μCom assembled onto their cat6A cable P/N : RCN9034-24.
Information available on GORE® website.

HOW TO ORDER Cordsets

UCOM - 10G+ C T C B 015

Shell

C: μCom plug - μCom plug cordset

D: μCom plug - RJ45 Cat6A plug cordset

E: μCom panel mount receptacle - RJ45 Cat6A plug cordset

F: μCom plug - μCom inline receptacle cordset

Open versions:

G: μCom plug - no connector at the end

H: μCom panel mount receptacle - no connector at the end

J: μCom inline receptacle - no connector at the end

Mating (for plugs only)

T: thread

Contacts termination

C: crimp

S: solder

Shell plating

B: black nickel

G: olive drab cadmium

U: unplated brass

Total length - For other lengths, please consult us.

002: 20 cm [7.87]

005: 50 cm [19.68]

010: 1.0 m [39.37]

015: 1.5 m [59.05]

020: 2.0 m [78.74]

050: 5.0 m [196.85]

100: 10.0 m [393.70]

NOTA:

- UCOM for order designation
- μCom for marking on connectors

ACCESSORIES

CAPS for receptacles

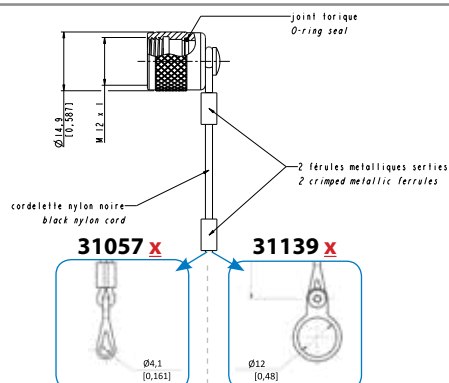
IP68 metallic cap

X to be replaced by

B for Black electrophoresis plating

G for Olive drab cadmium plating

U for Unplated brass



IP68 metallic cap with metallic tie on panel Or IP68 metallic cap with a Ø12 fixation ring
Nota: plan a hole on the panel

IP68 neoprene cap - Part number: **31091**

Nota: plan a type M3 hole on the panel



CAPS for plugs

Cap in neoprene

Part number: **31092**



CAPS for in line receptacles

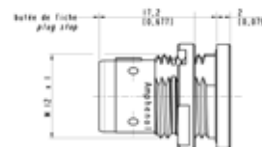
Cap in neoprene

Part number: **31093**



Dummy female receptacle

Part number: **31131 X**



X to be replaced by

B for Black nickel plating

G for Olive drab cadmium plating

U for Unplated brass

SPARES

Crimp Pin

Part number: **31073**



Crimp Socket

Part number: **31074**



TOOLS



- Nut clamping tool for receptacle
Part number: **31055**
Only for RPx receptacles



- Insertion tool for crimp contacts
Part number: **31056**



- Contact positioner for M22520/2-01 crimping tool
Part number: **31095**

Other tools:

- Brazing tool for receptacle & in-line receptacle
Part number: **31132**
- Brazing tool for plug
Part number: **31133**

Nota: the cabling instructions are available upon demand (ref. N00-040190-00).



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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