

# 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**.

**μCom-10Gb +** is the first product of this new range.

## KEY CHARACTERISTICS

- 10Gb+ exceeds 10Gb/s Ethernet following IEEE 802.3an-2006 : **10GBase-T**
- Environmental testing based on **MIL-DTL-38999 series III** military specifications
- Miniature : **15 mm(.59") max** external diameter

## FEATURES AND BENEFITS

- 4 pairs totally insulated throughout the connector
  - ➔ minimum cross-talk between the four pairs
- Patent pending special interfacial shapes
  - ➔ minimum perturbation at the interface of each pair
- Thread coupling mechanism
  - ➔ 2000 mating cycles & high vibration resistance
- Machined Brass shells and RoHS compliant plating
  - ➔ 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
- Solder contact : max AWG24
- Crimp contact : AWG 24 to 26
- IP68 sealing mated and unmated for receptacles
- 1500 Vrms Dielectric Withstanding voltage
- Temperature range : - 55°C / + 125°C

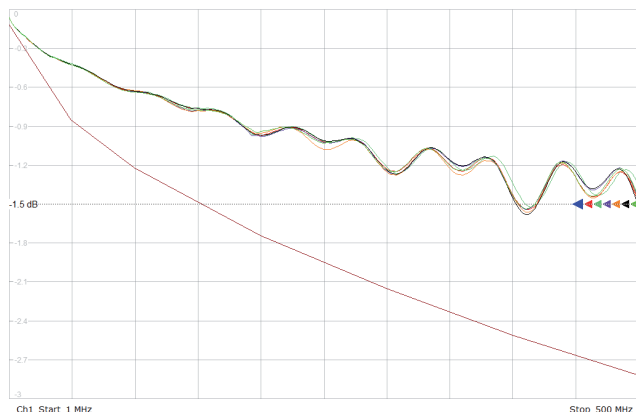
## APPLICATIONS

- **DEFENSE** : C4ISR, Battlefield Communications, Shipboard, Ground Vehicles Vetronics.
- **AERONAUTICAL** : In Flight Entertainment, Avionics, Communication Systems.
- **RAIL MASS TRANSIT** : Passenger Information Systems, Communication Systems.

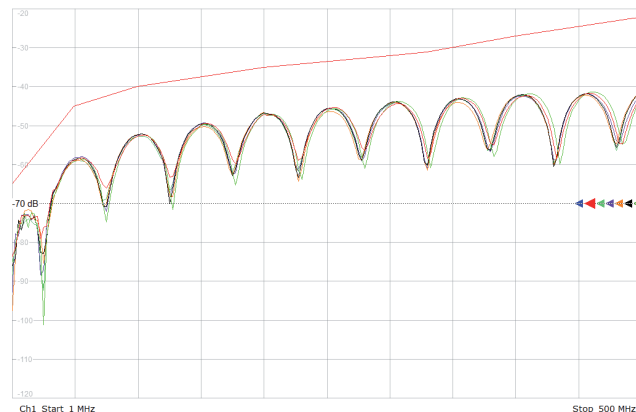


## TRANSMISSION DATA

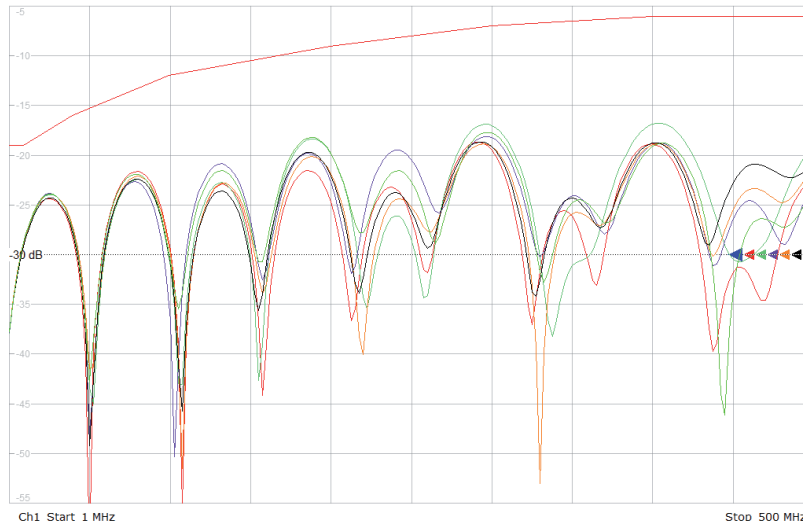
Insertion Loss



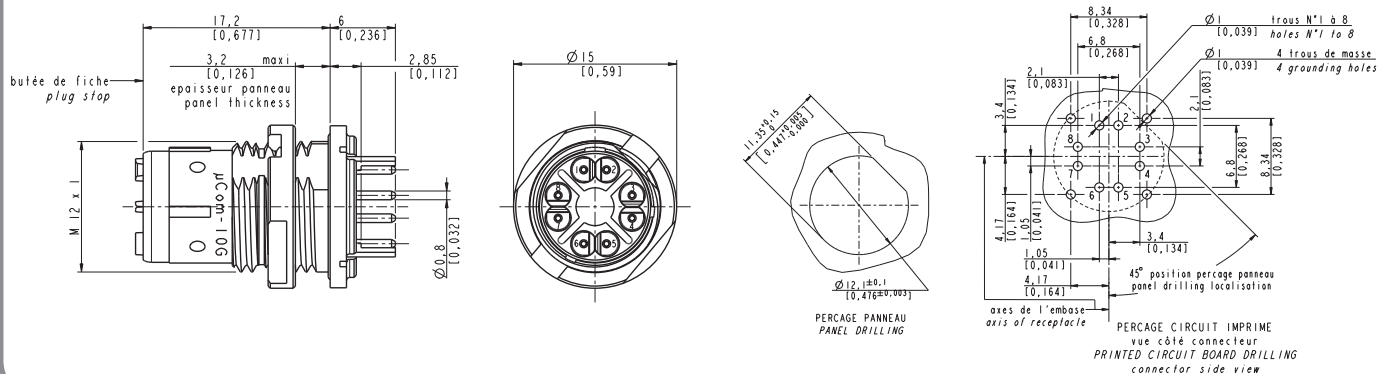
Next 1-2



Return Loss

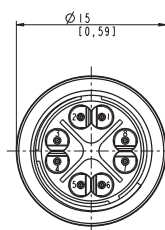
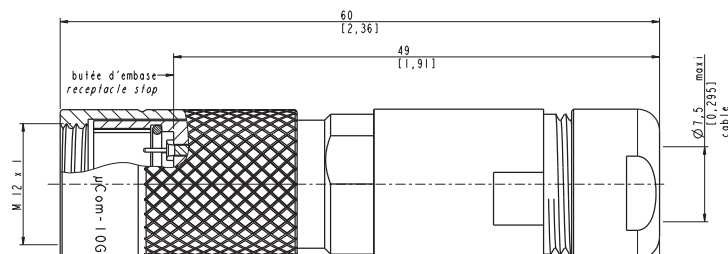


## RECEPTACLE

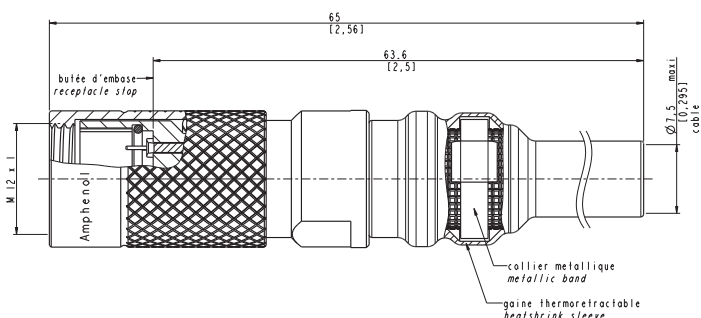


## PLUGS & CORDSETS

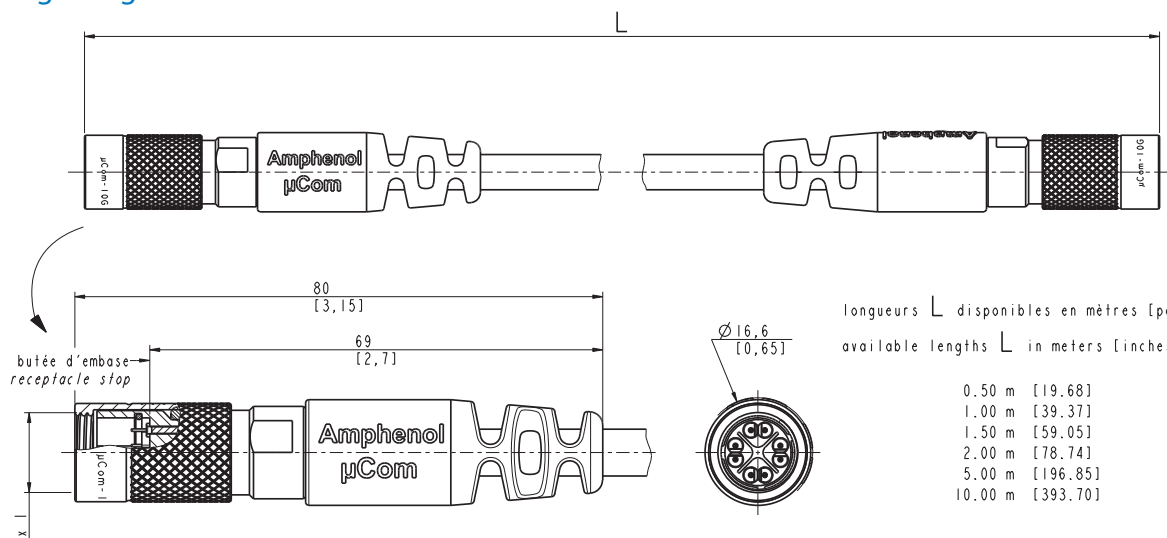
### Plug with Gland Backshell



### Plug with Band Backshell



### Plug - Plug Cordsets



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



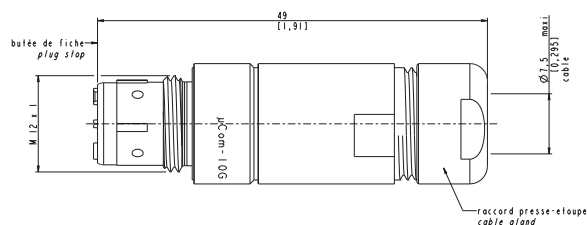
- Stranded bare copper wire (26 AWG)
- 4 Screened twisted pairs: 2 wires twisted to a pair, Alulminate foil overlapped
- Shield braiding of tinned copper wires, about 80% coverage
- Strain member of Kevlar

- 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

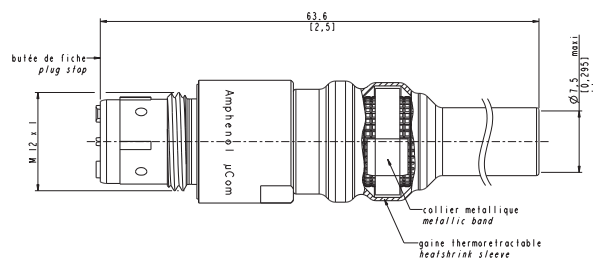
For full dimensions, please ask for Customer Drawing

## IN LINE RECEPTACLES

In line receptacle with Gland Backshell



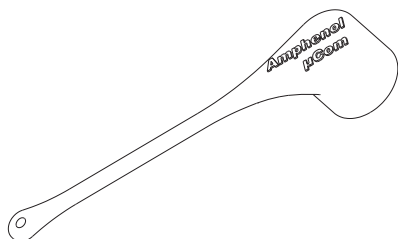
In line receptacle with Band Backshell



## TOOLS AND ACCESSORIES

### Receptacle Caps

Neoprene Version P/N : 31091



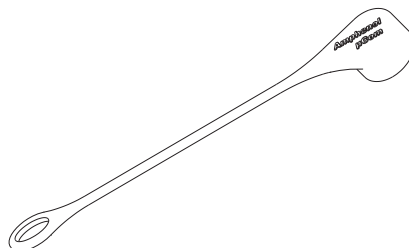
Nota : plan a type M3 hole on the panel

Metal Version P/N : 31057

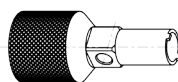


### Plug Caps

Neoprene Version P/N : 31092



Receptacle Nut Clamping tool  
P/N : 31055



### Crimp Contact insertion tool

P/N : 31056



### Contact positioner

For M22520/2-01 crimping tool

P/N : 31095



## HOW TO ORDER

### Receptacles

μCom-10G+ RPB
<b>Shell</b>
R Receptacle (push-pull or thread)
<b>Contacts Termination</b>
P PCB
S Solder
<b>Shell Plating</b>
B Black Nickel
G Olive drab Cadmium
U Unplated Brass

### Plugs & In Line Receptacles

μCom-10G+ PTCBBA
<b>Shell</b>
L In Line Receptacle
P Plug
<b>Mating (for plugs only)</b>
T Thread
<b>Contacts Termination</b>
C Crimp
S Solder
<b>Shell Plating</b>
B Black Nickel
G Olive drab Cadmium
U Unplated Brass
<b>Backshell Type</b>
G Gland
B Band
<b>Cable Diameter (For Gland Backshell Only)</b>
A: for cable diam 7,5 mm
B: TBD

### Plugs-Plugs Cordsets

with Cat7 HFFR Cable, Outdoor PUR jacket

μCom-10G+ CTCB015
<b>Shell</b>
C Plug - Plug Cordset
F Plug Cordset-open
<b>Mating (for plugs only)</b>
T Thread
<b>Contacts Termination</b>
C Crimp
S Solder
<b>Shell Plating</b>
B Black Nickel
G Olive drab Cadmium
U Unplated Brass
<b>Total Length</b>
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]