

# 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.

## 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
- 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

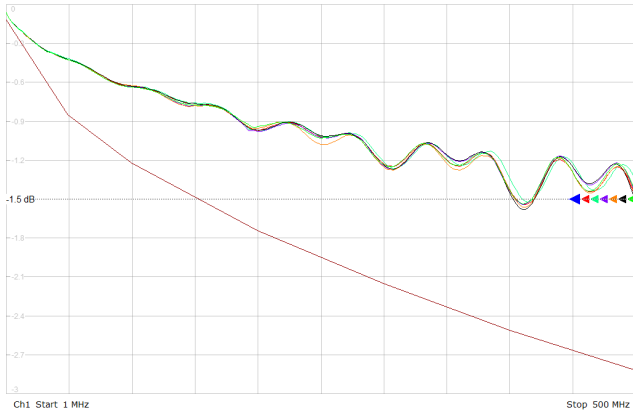
## MARKETS & APPLICATIONS

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

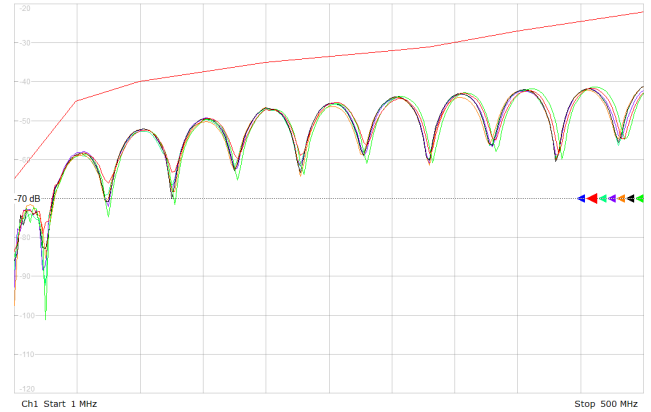


TRANSMISSION DATA

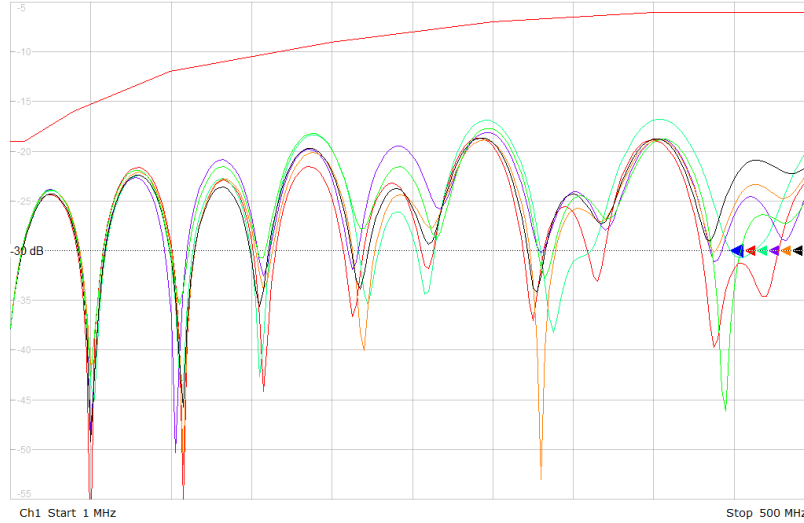
Insertion Loss



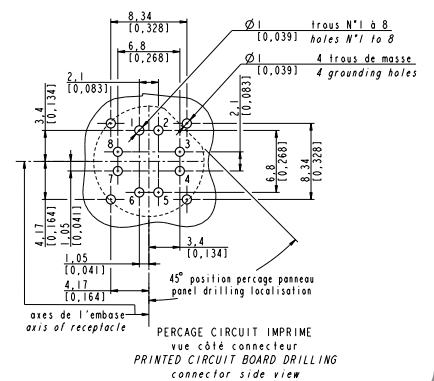
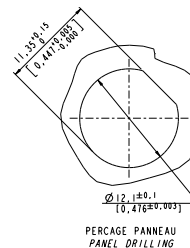
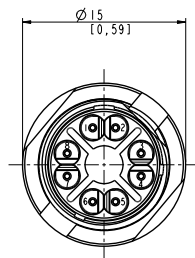
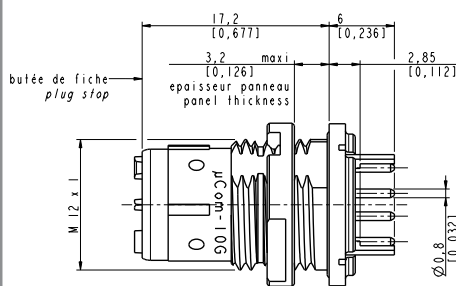
Next 1-2



Return Loss

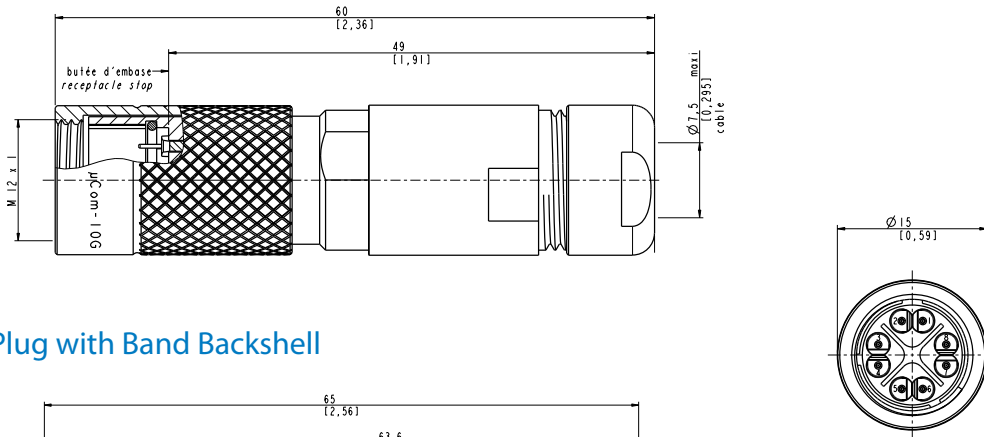


RECEPTACLE

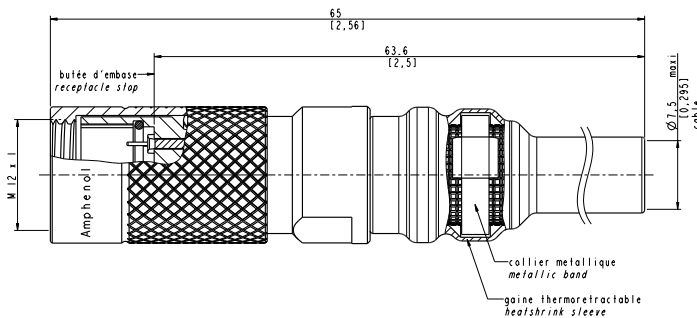


## PLUGS & CORDSETS

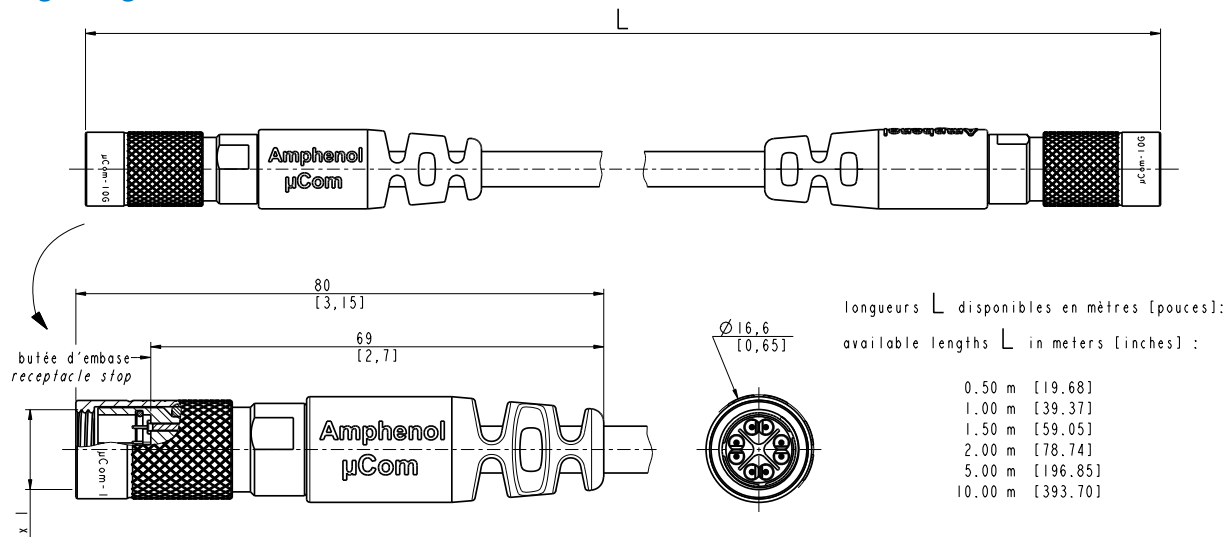
### Plug with Gland Backshell



### Plug with Band Backshell



### Plug - Plug Cordsets



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



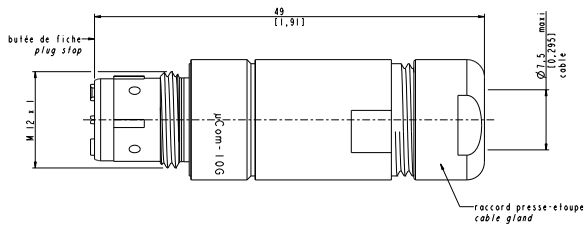
- Stranded bare copper wire (26 AWG)
- 4 Screened twisted pairs: 2 wires twisted to a pair, Alulaminat foil overlapped
- Shield braiding of tinned copper wires, about 80% coverage
- Strain member of Kevlar

- 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

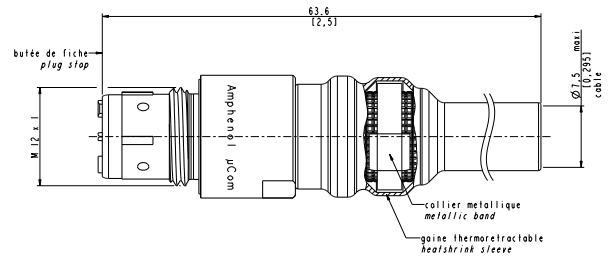
For full dimensions, please ask for Customer Drawing

## IN LINE RECEPTACLES

In line receptacle with Gland Backshell



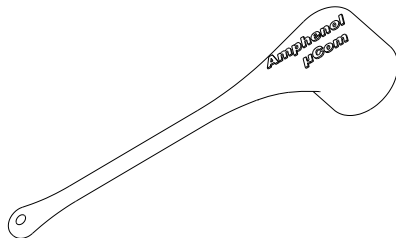
In line receptacle with Band Backshell



## TOOLS AND ACCESSORIES

### Receptacle Caps

Neoprene Version P/N : 31091



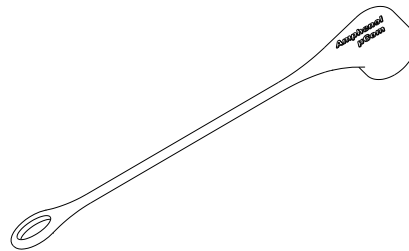
Nota : plan a type M3 hole on the panel

Metal Version P/N : 31057

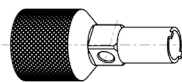


### Plug Caps

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 + R P B

- Shell
- R Receptacle (push-pull or thread)
- Contacts Termination
- P PCB
- S Solder
- Shell Plating
- B Black Nickel
- G Olive drab Cadmium
- U Unplated Brass

### Plugs & In Line Receptacles

μCom - 10G + P T C B B A

- Shell
- L In Line Receptacle
- P Plug
- Mating (for plugs only)
- T 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 7,5 mm
- B: TBD

### Plugs-Plugs Cordsets

with Cat7 HFFR Cable, Outdoor PUR jacket

μCom - 10G + C T C B 0 1 5

- Shell
- C Plug - Plug Cordset
- F Plug Cordset-open
- 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
- 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]