

Connector for Tactical Optical Systems

MAIN CHARACTERISTICS



This product offers a robust optical connection in a small size design (o.d. 38 mm) and allows for rapid deployment of high speed transmission links in harsh environments. The specific design of the lenses guarantees a large beam diameter and a low loss connection insensitive to dust and dirt. The CTOS harnesses are easy to maintain on the field with the FTOS splice kit.

Technical description

- 2 or 4 channel Plugs and Receptacles (straight and 90°) and Tactical Harnesses and Test caps for maintenance
- Hermaphroditic interface with rapid ramp coupling
- 2 and 4 channel products are intermateable
- Large expanded beams with protective windows
- Stainless steel body with ergonomic rubber shell
- Typical Insertion Loss : 1.5 dB @ 1300 nm 50/125 fibre
2 dB @ 1300 nm 9/125 fibre
- Typical return loss : - 45 dB @ 1300 nm HRL 9/125 fibre
- Durability : 5000 mating/unmating cycles
- Operating Temperature : -40°C, +85°C
- Vibrations : 10 to 2000Hz, 10g, 1.5 mm/p, 3 directions
- Bumps : 4000 Bumps, 40g, 6ms, 6 directions
- Mechanical shock: 50g, ½ sinus, 3 shocks by direction, 3 axes
- Mud resistance : Mil C 83526/13
- Free drops : 26 drops 1.2m on plywood/concrete (plugs)
- Water immersion ; > 1m depth
- Salt spray : 500 hours
- Low pressure : 85 mbars 48 hours
- Termination and Maintenance FTOS tool kits available
- Tactical drums and accessories available

Features

The Amphenol CTOS fiber optic expanded beam connector is a miniature and lighter version of the CTO connector.

The flat protective windows mounted on shock absorbers provide an easy to clean on the field surface to improve performance and protection.

Applications

- Army, Navy and Airforce optical networks
- EMI insensitive and light tactical transmission links
- Long distance battlefield communication
- Radar deployment systems

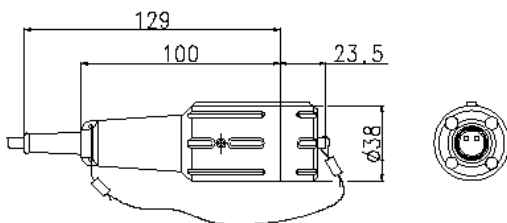
Amphenol

CTOS

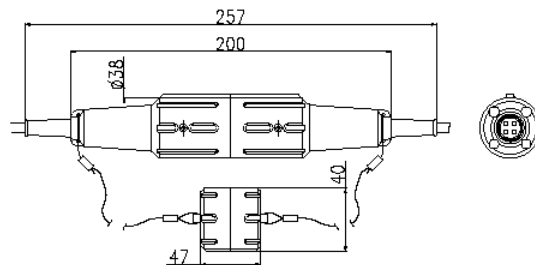
976 Series

Line Drawings (dimensions in mm)

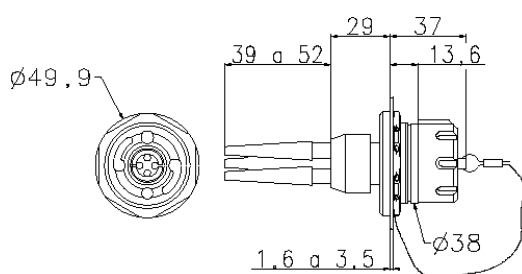
CTOS plug with protective cap



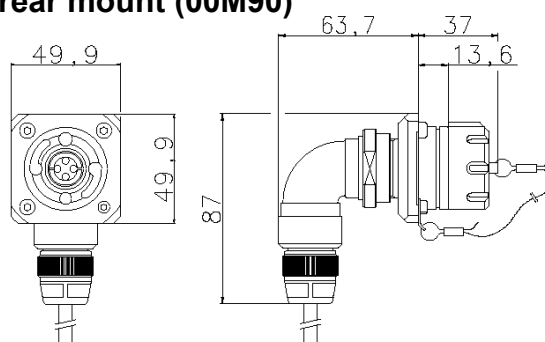
CTOS plug to plug and caps mated



CTOS "jam nut" receptacle – rear mount (77P)



CTOS square flange receptacle with 90° Backshell for tactical cable – rear mount (00M90)



How to order :

CTOS – XXXX – XX – X – XX – X – XXX – XXX

CTOS : 976 series

- Plug : 06M
- for tactical cable
- Square flange receptacle : 00P
- for pig-tails
- Jam nut receptacle : 77P
- for pig-tails
- Flange receptacle : 00M
- for tactical cable
- Jam nut receptacle : 77M
- for tactical cable
- Shunt attenuating cap (4dB) : BSA*
- Protective shunt attenuating cap (25dB) : BPSA*
- * : multimode only

- Straight backshell : 00
- Right angle backshell : 90

Number of channels
2 channels : 2 4 channels : 4

BPF : Cap for plug
BPE : Cap for Jam Nut Receptacle
BPP : Cap for Square Flange Receptacle

All cables are tight jacket.
28 : O.D. patchcord 2.8 mm
55 : O.D. tactical 5.5 mm
230 : scindex O.D. cable 2 x 3 mm
Other cables possible.

Y : Wavelength 1300 nm
Z : Wavelength 840 – 1300 nm
V : Wavelength 1550 nm
W : Wavelength 1300 – 1550 nm

01 : 50/125 µm
02 : 62.5/125 µm
05 : 9/125 µm singlemode

Amphenol

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