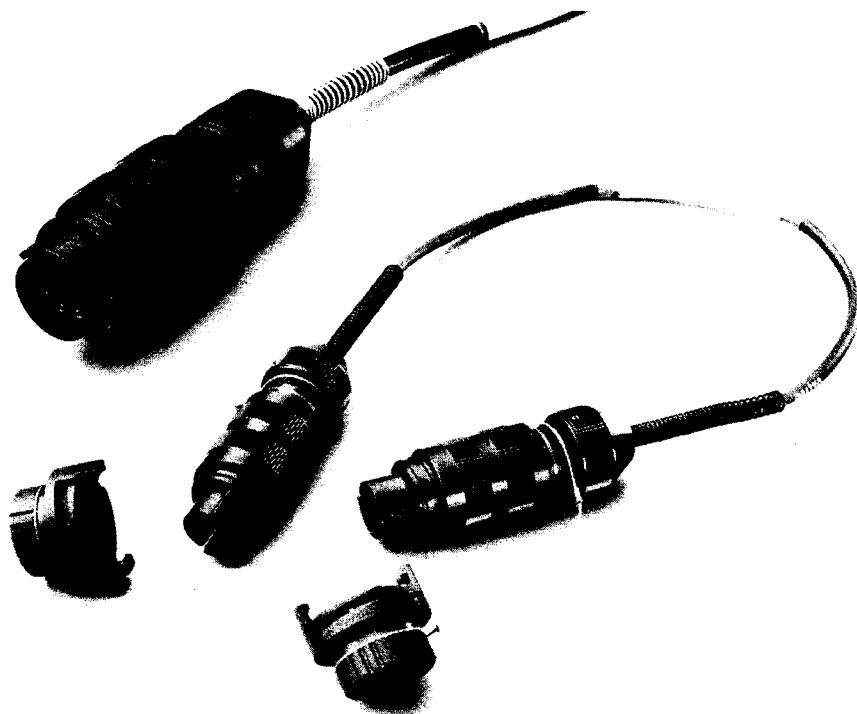


ITT Cannon's FOMC Series Fiber Optic connectors are designed to meet the needs of military and commercial customers who require a rugged environmental multifiber field connector. The FOMC combines features which provide the user with a connector that will withstand rough handling and weather extremes with features of elastomeric cable and interface sealing, scoop proof interface to prevent optical contact damage, removable front insert for easy optical contact cleaning, anodized shell finish, and a tough, strong dust cap with attaching stainless steel strap.

Hermaphroditic design means plugs will mate with an identical plug as well as receptacles. The removable insert assures correct mating and alignment. In the FOMC, ruggedness is combined with good optical performance, rapid coupling and attractive pricing. Another plus feature for ITT Cannon's FOMC design is the fiber flexure chamber which prevents tensile loads from being applied to the terminated fiber. The chamber provides space for surplus fiber in a service loop of sufficient length to permit one retermination of one or more fibers in the plug and cable receptacle without reterminating the strength member at the same time. This versatility is an ITT Cannon exclusive.

The FOMC 2, 4, and 8 channel connectors are available as a cable plug, and several receptacle shell configurations. The 8 channel can also be used with less contacts i.e. 6, 4, or 2 channels. Sealing plugs are supplied with the 8 channel connector when using less than the full complement of contacts. This catalog provides complete ordering information on available shell types, contact layouts, fiber and cable dimensional and mechanical parameters.



State-of-the-art ceramic alignment tips on the contact provide maximum coupling performance – less than 1.0 dB average coupling loss.

Fiber Optic Connectors

## Standard Data

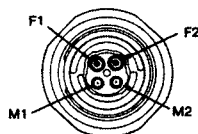
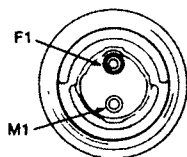
Description	Materials
Shell Hardware	Aluminum Alloy
Cable Clamp	Aluminum Alloy
Insert, Front Removable	Thermoplastic
Interfacial Seal	Elastomer
Cable Seal	Elastomer
O Rings	Elastomer
Alignment Guide	Thermoplastic
Strain Relief Spring	Steel wire with black chrome finish
Mandrel/Yoke	Thermoplastic
Receptacle Yoke	Thermoplastic
Dust Cap	Elastomer
Marking	Laser with clear chromate over exposed base metal

Fungus inert per requirement 4 of MIL-STD-454 Fluid resistant (elastomeric materials) per  
 MIL-H-5606-Hydraulic fluid, petroleum base  
 MIL-L-7808-Lubricating oil, synthetic base  
 MIL-G-3056-Gasoline  
 MIL-A-8243-Ethylene glycol

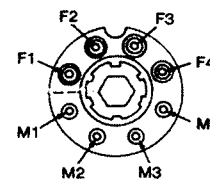
## Contact Arrangements

Face View of Insert

2 and 4 Channel



8 Channel



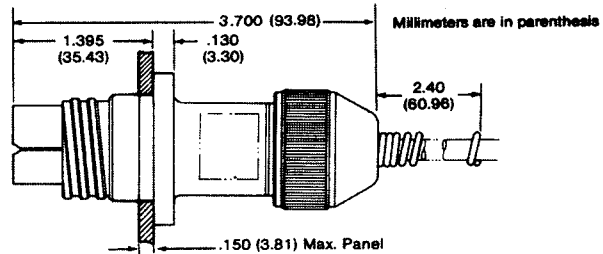
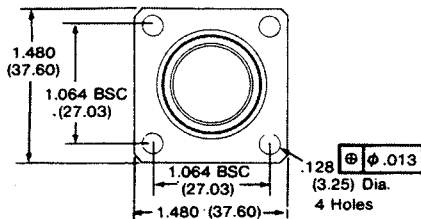
## How to Order

<p><b>SERIES</b> Fiber Optic Multi Channel</p> <p><b>SHELL STYLE</b> 2 – Square Flange Receptacle (2/4 channel only) 6 – Cable Plug 7 – Jam Nut Receptacle</p> <p><b>SHELL SIZE (Channels)</b> (Maximum number of contact positions) 2 4 8</p> <p><b>DUST CAP</b> W – Connector supplied with dust cap X – Without dust cap</p> <p><b>CABLE TYPE</b> 1 – Pigtail buffered fiber (receptacle only) 2 – Multi fiber strengthened cable 3 – Single fiber strengthened cables (8 channel only)</p>	<p><b>SERIES</b> _____</p> <p><b>SHELL STYLE</b> _____</p> <p><b>SHELL SIZE</b> _____</p> <p><b>DUST CAP</b> _____</p> <p><b>CABLE TYPE</b> _____</p> <p><b>CABLE SIZE (O.D.)</b> _____</p> <p><b>POLARIZATION POSITION</b> _____</p> <p><b>MODIFICATION CODES</b> _____</p> <p><b>CABLE SIZE (O.D.)</b> A – .190 ± .015 (4.83 ± .38) D – .236 ± .019 (6.0 ± .5) F – .276 ± .015 (7.0 ± .4) G – .374 ± .015 (9.50 ± .38)* H – .500 ± .015 (12.70 ± .38)* P – Pigtail buffered fiber</p> <p><b>POLARIZATION</b> (8 channel plug only. Omit for 2/4 channel) 0 – Not polarized 1 thru 6 – key position</p> <p><b>MODIFICATION CODES</b> Consult factory</p> <p><small>*NOTE: Cable sizes G and H are for 8 channel FOMC Connector only</small></p>	<p style="text-align: right;"><b>FOMC 6- 2 W 2 C * ***</b></p>
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## 2 and 4 Channel

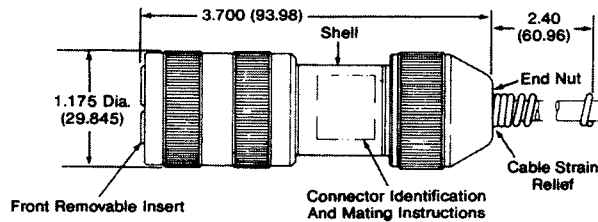
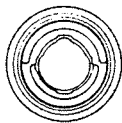
### Square Flange Receptacle

FOMC 2



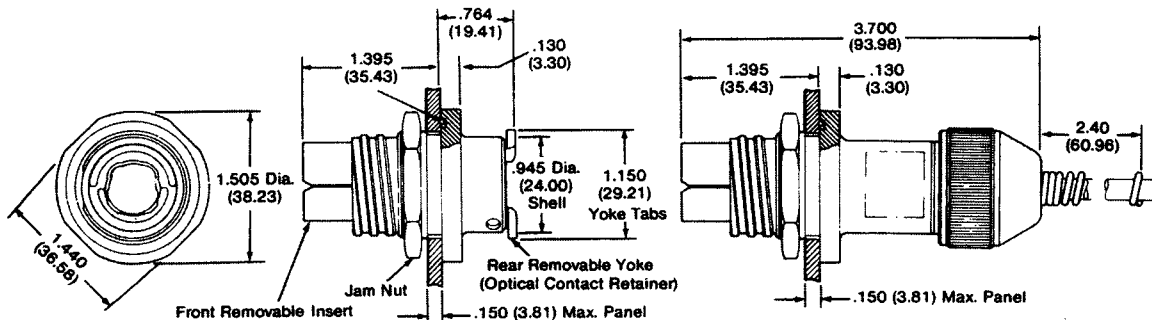
### Plug

FOMC 6



### Jam Nut Receptacle

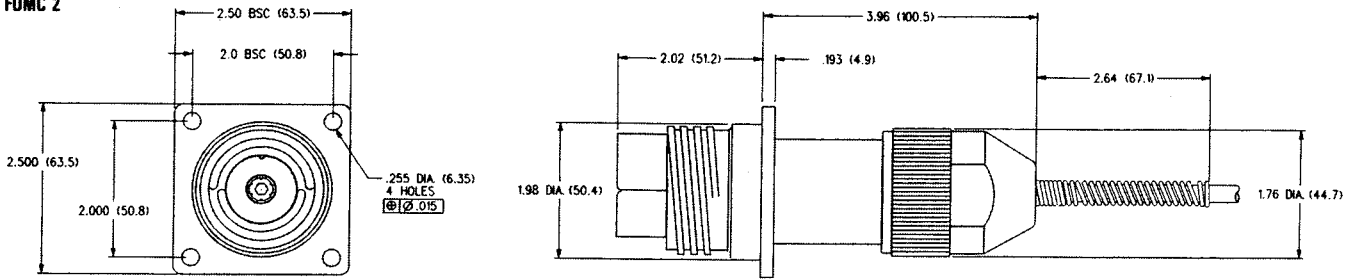
FOMC 7



## 8 Channel

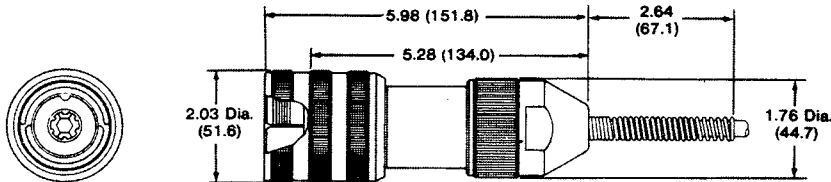
### Square Flange Receptacle

FOMC 2



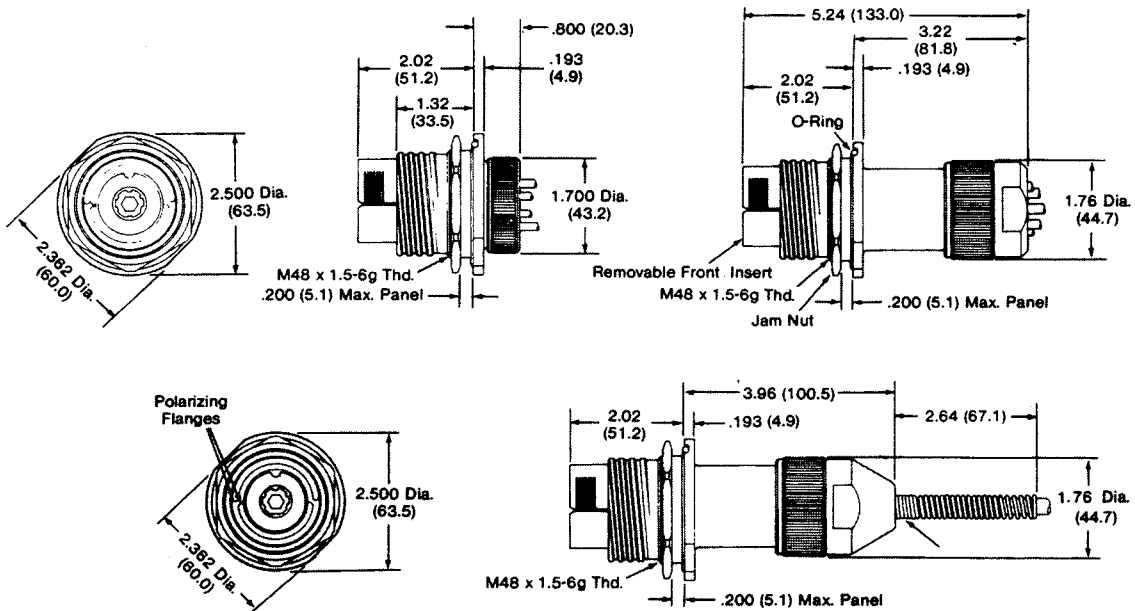
### Plug

FOMC 6



### Jam Nut Receptacle

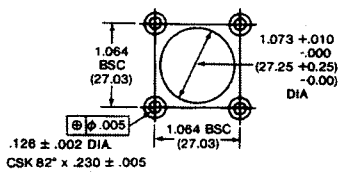
FOMC 7



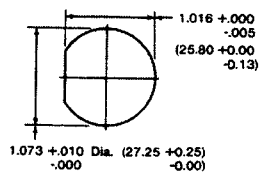
## Recommended Panel Cutouts

2 and 4 Channel

FOMC 2

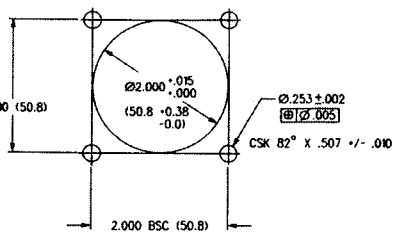


FOMC 7

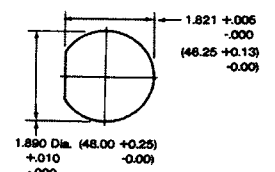


8 Channel

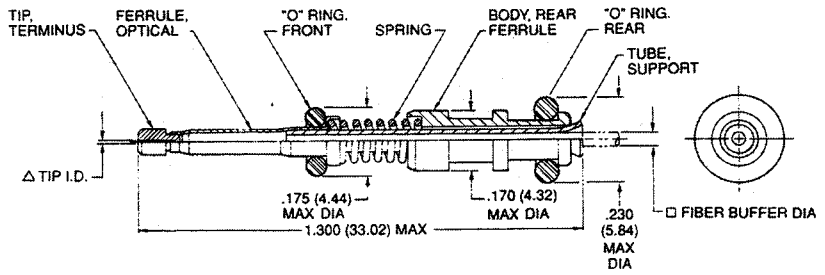
FOMC 2



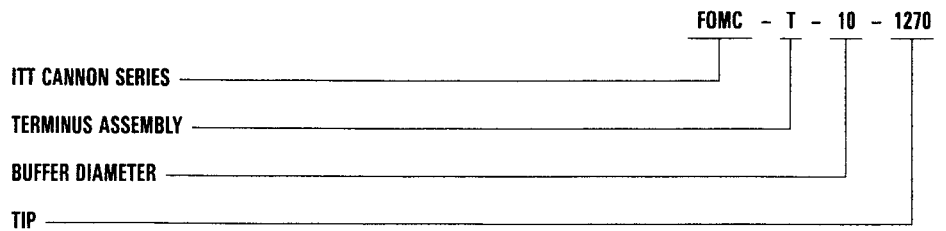
FOMC 7



## Contact Assembly



## How to Order – Contacts



**SERIES**  
FOMC – Fiber Optic Multi-Channel

▲ TIP (I.D. in tenths of microns)

1270 – 127.0  $\mu\text{m}$  min.

1300 – 130.0  $\mu\text{m}$  min.

1440 – 144.0  $\mu\text{m}$  min.

**TERMINUS ASSEMBLY**

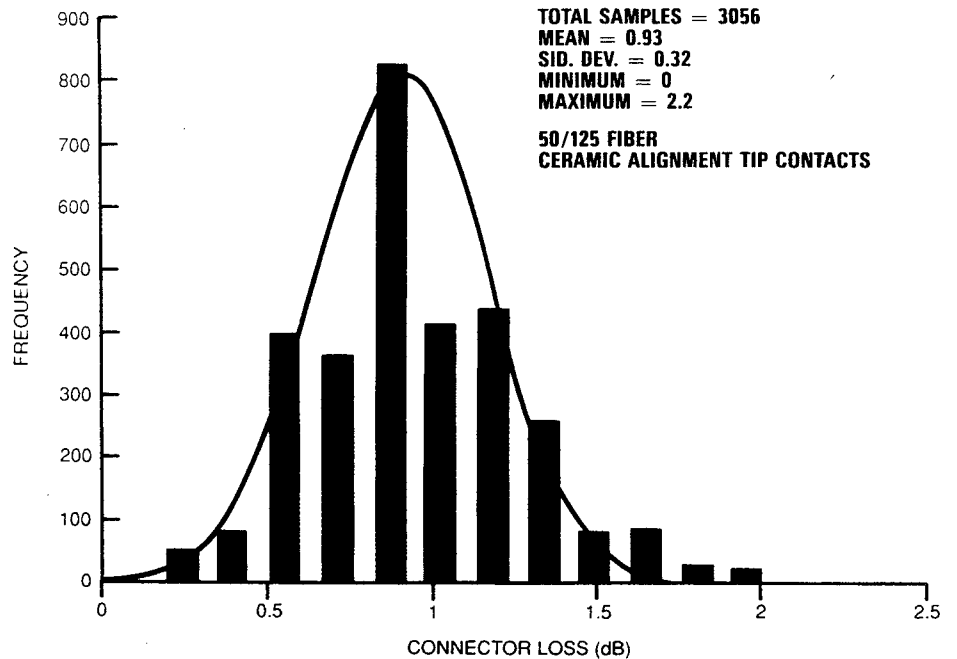
■ **BUFFER DIAMETER (in millimeters)**

05 – 0.5 mm Buffer

10 – 1.0 mm Buffer

11 – 1.1 mm Buffer

## Coupling Performance



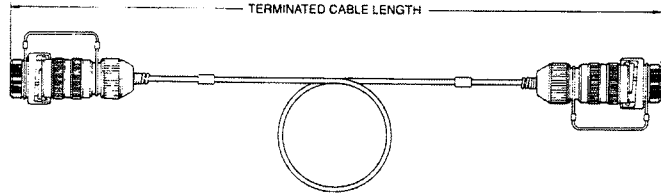
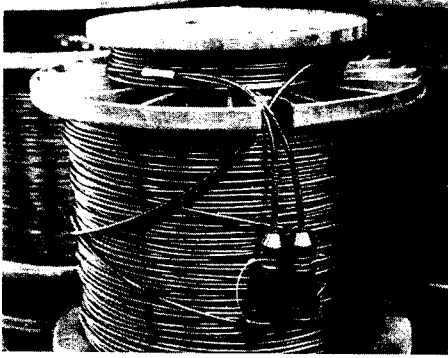
Fiber Optic Connectors

# Fiber Optic Cable Assemblies

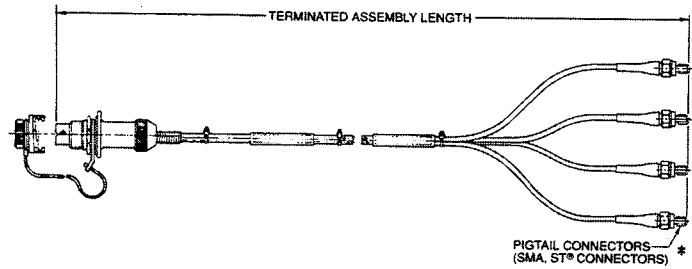
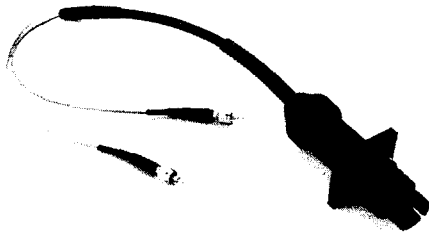
ITT Cannon is a major supplier of fiber optic cable assemblies for multi channel tactical ground based and avionics applications. Experience includes de-

livery of more than 20,000 custom fiber optic links over the past twelve years. Cable assemblies are built to specific design requirements and are 100% optically tested.

## FOMC



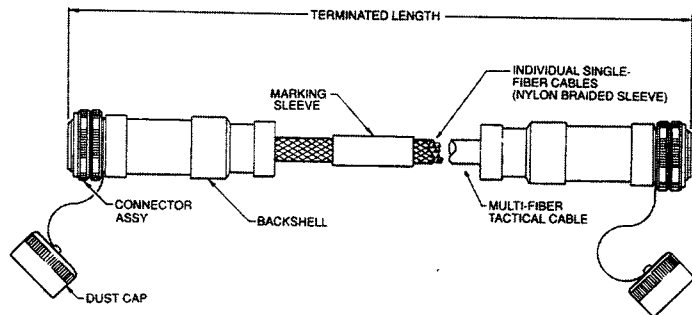
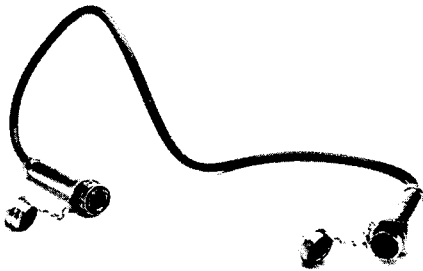
FOMC Plug-to-Plug Assembly



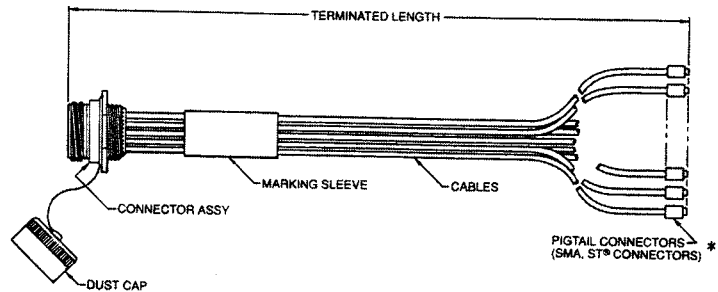
FOMC Receptacle/Pigtail Assembly

\*ST is a trademark of AT&T

## FOHC



38999 F.O. Plug-to-Plug Assembly



38999 F.O. Receptacle/Pigtail Assembly

\*ST is a trademark of AT&T

Fiber Optic Connectors

# ITT Cannon

For technical assistance, price or delivery information, call your local technical sales office or distributor.