Fiber Optic Contacts

ITT Cannon fiber optic contacts...a standard in the industry. We offer the most complete line of fiber optic contacts, engineered to fit today's MIL-Spec circular, rack and panel, edgecard/LRM, and D Subminiature connectors.

- Conforms to MIL-T-29504 fiber optic termini.
- Fits any size 16 cavity with no modification to connector.
- Designed for use with standard size 16 contact insertion/extraction tool.

FOHC

• Both pin and socket contact end faces are easily cleaned.

Fiber Optic Contact Performance Data

Durability	< 0.5 dB change after 500 matings
Temperature Shock	< 0.5 dB change during and after test
Operating Temperature	- 65°C to + 200°C (Cable/contact dependent)
Vibration, random (16 hrs/MIL-C-38999)	< 0.5 dB change during and after test
Optical Loss Performance	Typical 1.0 dB using 100/140 micron fiber-tested per EIA FOTP-34. Method A

Standard MIL-Spec Connector

		Number of Size #16 Cavities Available	Fiber Optic Contact		
Standard Connector	Cannon Designator	Dependent Upon Shell Size	Socket (Body)	Pin (Body)	
MIL-C-38999 Series I	KJL	1-29			
			MIL-T-29504/5	MIL-T-29504/4	
MIL-C-38999 Series III MIL-C-38999 Series V	KJA	1-29			
MIL-C-38999 Seriesiv					
() () MIL-C. 26492 Spring L	KPSF	1-31			
	NI OL	1-51			
6					
MIL-C-26482 Series II	PV7	1-31			
MIL-C-83723 Series I MIL-C-83723 Series III	HTMF	1-31			
			MIL-T-29504/11	MIL-T-29504/10	
MIL-C-83733	DPK	Up to 64			
MIL-C-28840	KFS	Up to 8	MIL-T-29504/9	MIL-T-29504/8	
ARINC 600	BKAD	Up to 6			
			MIL-T-29504/7	MIL-T-29504/6	
MIL-C-83527	BKW	Up to 30			

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Dimensions are shown in inches (millimeters). Dimensions subject to change. www.ittcannon.com

Ceramic Tip Optical Contacts

ITT Cannon's new precision optical contacts offer superior coupling performance and a simplified termination process. Ceramic zirconia tips more accurately center the fiber within the contact body. A rugged thermoplastic alignment sleeve precisely aligns the mating contacts. Solid state epoxy retained within the contact eliminates any handling of epoxy



How to Order Fiber Opitc Hybrid Contacts



S - Socket

TERMINUS/CONNECTOR SERIES

- A MIL-C-29504/4 & /5: For use in MIL-C-38999 Series I, III & IV Connectors.
- B MIL-T-29504/10 & /11: For use in MIL-C-83723 Series I, III; MIL-C-83733; and MIL-C-26482 Series II Connectors.
- C MIL-C-29504/6 & 7; For use in MIL-C-83527; MIL-C-81659; ARINC 600; and ARINC 404 Connectors.
- D (No Terminus Spec): For use in MIL-C-26482 Series I & MIL-C-26500 Connectors.
- E -(No Terminus Spec): For use in MIL-C-83723 Series II & MIL-C-5015G Connectors.
- F MIL-C-29504/8 & /9: For use in MIL-C-28840 Connectors.
- G (No Terminus Spec): For use in MIL-C-83723 Series III/82, /83, /86 & /87 Connectors.
- H (No Terminus spec): For use in D*M Mark I, G06, E2P (DIN) Fiber Optic/Coaxial Housing.

HOLE SIZE (MICRONS)* - JEWEL

1219 1321 1422 1650 2200 2400 2600 2800 1245 1346 1447 1700 2250 2450 2650 1270 1372 1550 1750 2300 2500 2700 1295 1397 1600 1800 2350 2550 2750

HOLE SIZE (MICRONS)* - CERAMIC TIP

· ·		
1400		1700
1420		1720
1440		1740
	1400 1420 1440	1400 1420 1440

ALIGNMENT SYSTEM

J - Jewel, Synthetic Ruby

P - Precision Ceramic Tip

PREFORM

- P Preform Epoxy Supplied (available for terminus/connector series A, B and G only)
- N No Preform Epoxy Supplied

*For Size not listed, consult factory.

How to Order Fiber Optic Receptacles (Mates with MIL-T-29504/4 Contacts)

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	FOHC	-	*	-
SERIES				
SHELL STYLE				
SEALING				

SERIES - Fiber Optic Hybrid Contacts

SHELL STYLE

- 3 Receptacle, Device, PCB Mount
- 4 Receptacle, Device, Flange Mount
- 7 Receptacle, Adapter, In-Line Cable Panel Mount





Adapter for in-line cable mechanical splice.



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N - Non-Sealed S - Sealed



Receptacle for mounting T0-18/T0-46/T0-52 devices.

Jewel Ferrule Alignment System

Cannon's patented* optical contacts allow the use of all standard fibers via the field-proven jewel ferrule alignment system in a size 16 pin or socket contact. The jewel ferrule system provides precise alignment regardless of fiber size, accommodates fiber tolerances, eliminates the requirement for a minimum end gap, and alloys for spring loading of contacts.



*U.S. Patent No 4,351,586, No. 3,947,182, and No. 4,747,658

Solid State Epoxy

Since the advent of fiber optics, fibers have **Pin** been terminated in optical contacts using messy two-part liquid expoxy. This process is cumbersome and not conducive to high volume prodution.

Optical contacts are now available with solid state epoxy. The fiber is inserted into the contact and the epoxy is reflowed in a cure fixture. No mixing of liquids is required; the volume and flow viscosity is controlled, resulting in a perfect bond and the elimination of clean-up.

Socket





Note: Dimensions are for 38999 contacts.

