

ITT fiber optic contacts are 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.

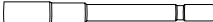
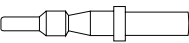
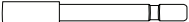
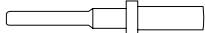
- Conforms to MIL-T-29504 fiber optic termini.
- Fits any size 16 cavity with no modification to connector.
- Designed for use with standard size 16 contact insertion/extraction tool.
- Both pin and socket contact end faces are easily cleaned.



## 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<br>(16 hrs/MIL-C-38999) | < 0.5 dB change during and after test       |
| Optical Loss Performance                  | 1.0 dB loss for 62.5 / 125 fiber            |

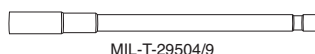
## Standard MIL-Spec Connector

| Standard Connector                                                                                                                                             | Cannon Designator  | Number of Size #16 Cavities Available<br>Dependent Upon Shell Size | Fiber Optic Contact                                                                                    |                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                |                    |                                                                    | Socket (Body)                                                                                          | Pin (Body)                                                                                              |
| MIL-C-38999 Series I<br>                                                    | KJL                | 1-29                                                               | <br>MIL-T-29504/5  | <br>MIL-T-29504/4  |
| MIL-C-38999 Series III<br>MIL-C-38999 Series IV                                                                                                                | KJA                | 1-29                                                               |                                                                                                        |                                                                                                         |
| MIL-C-26482 Series I<br>                                                    | KPSE               | 1-31                                                               |                    |                    |
| MIL-C-26482 Series II<br>MIL-C-83723 Series I<br>MIL-C-83723 Series III<br> | PV7<br>PVA<br>HTMF | 1-31<br>1-31<br>1-52                                               | <br>MIL-T-29504/11 | <br>MIL-T-29504/10 |
| MIL-C-83733                                                                                                                                                    | DPK                | Up to 64                                                           |                                                                                                        |                                                                                                         |

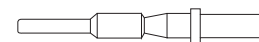
MIL-C-28840

KFS

Up to 8



MIL-T-29504/9



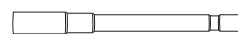
MIL-T-29504/8



ARINC 600

BKAD

Up to 6



MIL-T-29504/7



MIL-T-29504/6

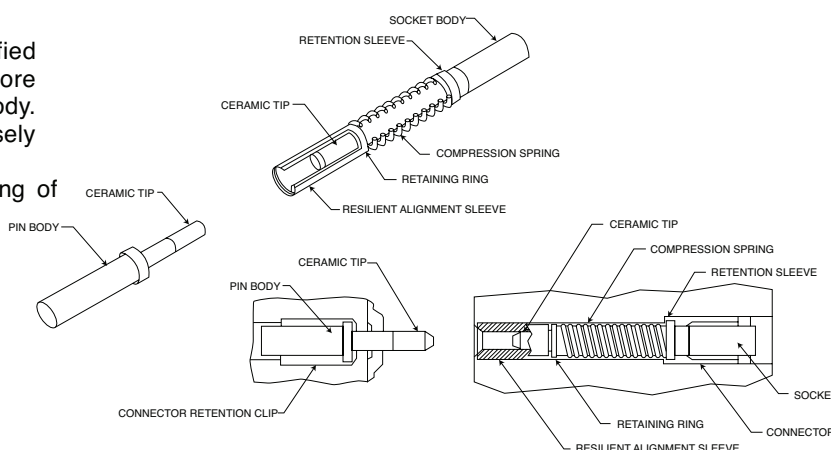
MIL-C-83527

BKW

Up to 30

## Ceramic Tip Optical Contacts

ITT'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 Optic Hybrid Contacts

SERIES \_\_\_\_\_ FOHC - P A 1422 J P  
 GENDER \_\_\_\_\_  
 TERMINUS/CONNECTOR SERIES \_\_\_\_\_  
 HOLE SIZE (1422 means 142.2 microns) \_\_\_\_\_  
 ALIGNMENT SYSTEM \_\_\_\_\_  
 PREFORM \_\_\_\_\_  
 SERIES - Fiber Optic Hybrid Contacts  
 GENDER  
 P - Pin  
 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

|      |      |      |
|------|------|------|
| 1250 | 1400 | 1700 |
| 1270 | 1420 | 1720 |
| 1290 | 1440 | 1740 |

### 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)

SERIES \_\_\_\_\_  
SHELL STYLE \_\_\_\_\_  
SEALING \_\_\_\_\_

FOHC- \* - \*

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

SEALING  
N - Non-Sealed  
S - Sealed



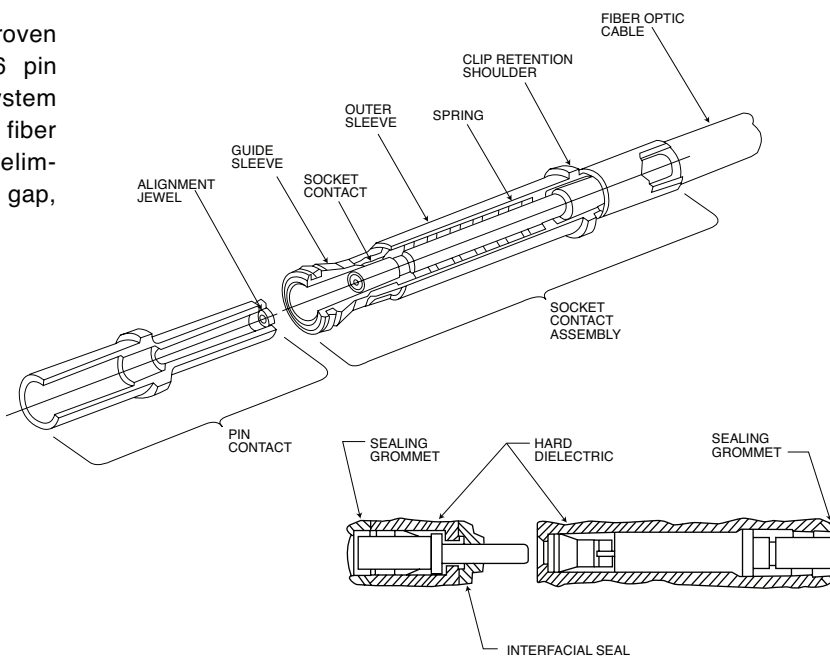
Adapter for in-line cable mechanical splice.



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

## Jewel Ferrule Alignment System

ITT'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 allows for spring loading of contacts.

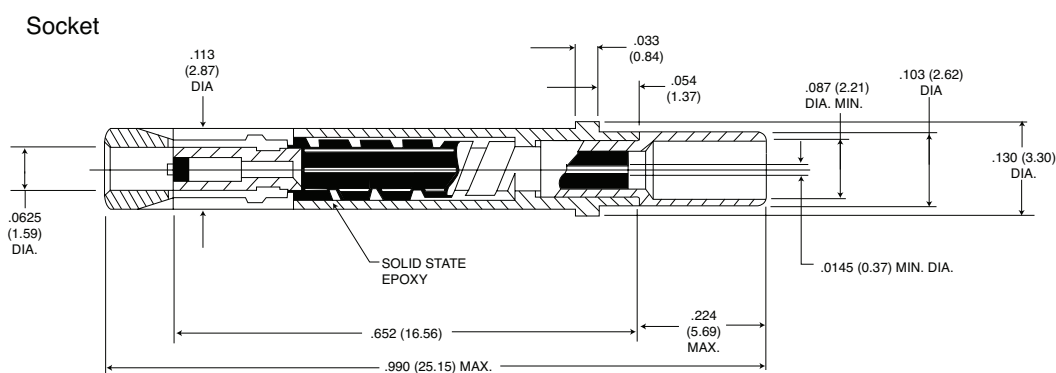
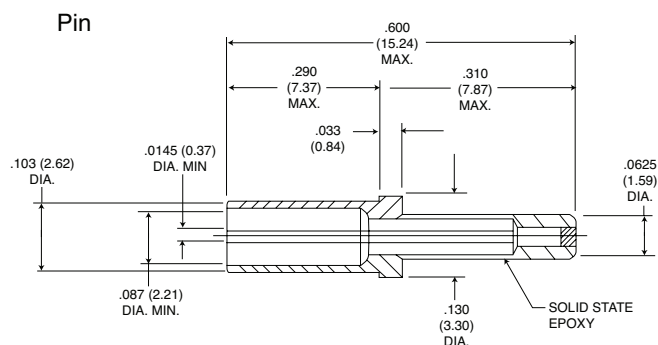


\*U.S. Patent No 4,351,586, No. 3,947,182, and No. 4,747,658

## Solid State Epoxy

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

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.



Note: Dimensions are for 38999 contacts.