QPL AND COMMERCIAL
MIL-PRF-28876
Fiber optic connection system

Qualified MIL-PRF-28876 fiber optic connectors and MIL-PRF-29504 termini—Navy approved, in stock, and ready for immediate shipment

M28876/11 jam nut receptacle

M28876/7 plug with backshell

M28876/2 receptacle with backshell

- **Connectors qualified to the complete requirements of mil-prf-28876 including plugs, wall-mount receptacles, jam-nut mount receptacles and in-line receptacles**
- **Multiple shell sizes and insert arrangements, including 2, 4, 6, 8, 18 and 31 channel layouts**
- **Backshells in straight, 45° and 90° configurations**
- **Corrosion-resistant and environmentally sealed**
- **Qualified mil-prf-29504/14 and /15 pin and socket termini and /03 dummy terminus**
- **Connectors, backshells and protective covers available for immediate, same-day shipment**

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Rugged Fiber Optic CONNECTORS

Connector/Backshell Types

Connector Type	Backshell Type	MIL-Spec	Commercial Connector Type Code
Wall Mount Receptacle	None	M28876/1	03
	Straight	M28876/2	13
	45°	M28876/3	23
	90°	M28876/4	33
In-Line Receptacle	Straight	M28876/5	15
Plug	None	M28876/6	06
	Straight	M28876/7	16
	45°	M28876/8	26
	90°	M28876/9	36
Jam Nut Receptacle	None	M28876/11	04
	Straight	M28876/12	14
	45°	M28876/13	24
	90°	M28876/14	34

Qualified QPL-29504 pin and socket termini

Qualified Fiber Optic Termini

Type	Military Part Number	A Dia (Microns)	Typical Fiber Type
Pin Termini	M29504/14-4131C	126.0	Multi Mode
	M29504/14-4132C	127.0	Multi Mode
	M29504/14-4135C	142.0	Multi Mode
Socket Termini	M29504/15-4171C	126.0	Multi Mode
	M29504/15-4172C	127.0	Multi Mode
	M29504/15-4175C	142.0	Multi Mode
Dummy Terminus	M29504/03-4038		

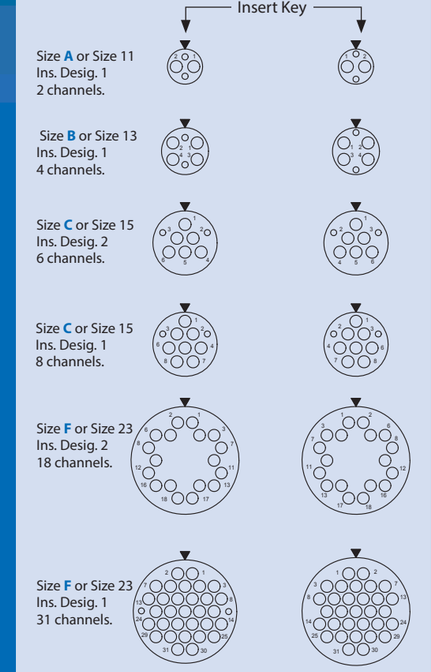
Crimp sleeve is supplied with terminus assembly and may be ordered separately (see Table II). For terminus less crimp sleeve, omit **C** from end of part number. Consult factory for additional sizes.

Terminated and tested MIL-PRF-28876 fiber optic cable assembly

Test Description	Performance Requirements/ Specifications
Optical Insertion Loss, Multimode	-0.3 dB Typical (62.5/125)
Optical Insertion Loss, Singlemode	-0.3 dB Typical (9/125)
Optical Back Reflection, Singlemode	Better than -40 dB - PC Polish • Better than -50 dB - Enhanced PC Polish
Operating Temperature	-28°C to +65°C (MIL-Spec Epoxy and Cable) -55°C to +125°C (alternative Epoxy and Cable)
Temperature (Thermal) Shock	-40°C to +70°C, 5 Cycles
Temperature Cycling	-28°C to +65°C, 5 Cycles
Temperature/Humidity Cycling	-10°C to +65°C, 10 Cycles, 240 hours, 98% RH
Temperature Life Aging	+110°C, 240 hours, Dry Air
Mating Durability	500 cycles
Vibration - Sinusoidal	10 g Peak, 5-500 Hz sin./ 10.2 g RMS, 50-2000 Hz random
Impact	8 Drops from 8 feet
Crush Resistance	281 lbs, 7 Cycles
Cable Pull Out Force - Termini	Termini: 22 lbs min for 1 minute Connector: 162 lbs min for 10 minutes
Fluid Immersion	Turbine Fuel, Isopropyl Alcohol, Hydraulic Fluid, Lubricating Oil, Coolant, Tap- and seawater, 24 hrs
Water Pressure	32 feet for 48 hours at +10°C to +35°C
Mechanical Shock (High Impact)	MIL-S-901, Grade A, Type B, Class I
Corrosion Resistance (Salt Spray)	500 hours
Sand and Dust	12 hours
Flammability	0.75 inch flame for 10 sec. mated, 1.50 inch flame for 60 sec. unmated

*Performance Specifications/Requirements based on the use of MIL-PRF-24792 Epoxy and MIL-PRF-85045 Simplex and Breakout Shipboard Optical Fiber.

Insert Arrangements



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