



*AFSI APC28876 Connector & Termini*

### About the APC28876 Series

Amphenol Fiber Systems International (AFSI) is pleased to announce the introduction of our APC28876-series low backreflection, multi-channel fiber optic connectors. These cutting edge connectors are based on field proven, time tested MIL-PRF-28876 connectors. AFSI's industry leading position in both mil-spec and custom M28876 connector and M29504 terminus design has led AFSI engineers to design a next-generation connector that addresses the emerging needs of harsh environment optical systems requiring low backreflection, such as RF-over-fiber or fiber optic sensor systems.

### Features & Benefits

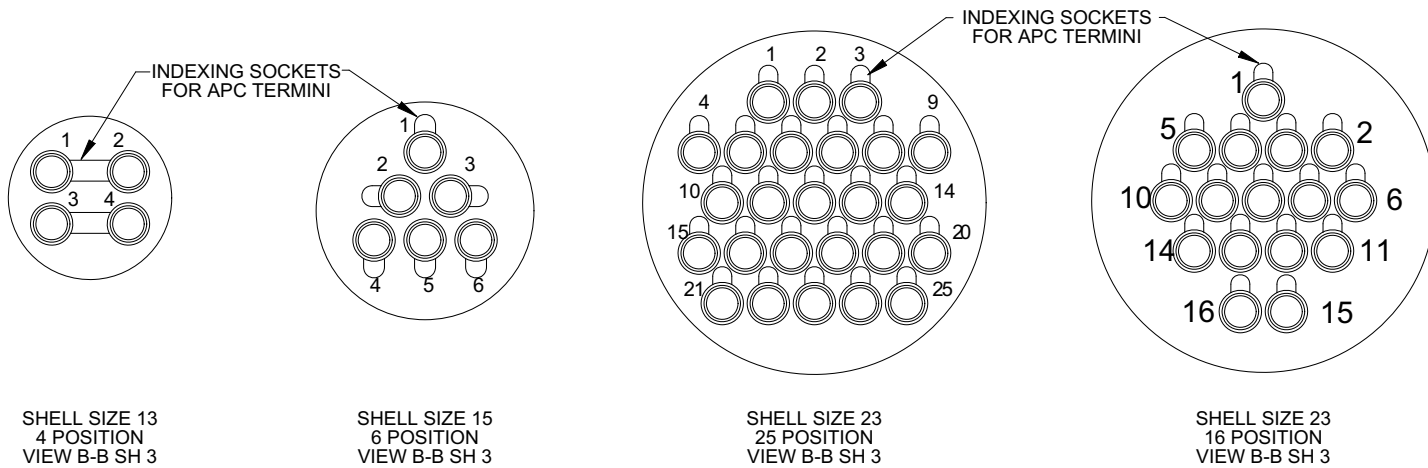
- Low backreflection, multi-channel connector series
- Tight tolerance ferrule design
- Direct panel replacements for legacy M28876 connectors
- Terminus end-face angles are located precisely and predictably for ideal optical alignment
- Compatible with all QPL M28876 backshells and dust covers
- Available in a variety of materials (aluminum, stainless steel, marine bronze and others)
- Available in a variety of finishes (cadmium, zinc-alloy, hard anodize and others)

### Applications

- Radar Systems
- RF-over-Fiber
- Satellite Systems
- LADAR
- Fiber Optic Analog Links
- Fiber Optic Sensor Technology
- Long Distance, High Data Rate Fiber Optic Links



### Insert Arrangements - Pin Face

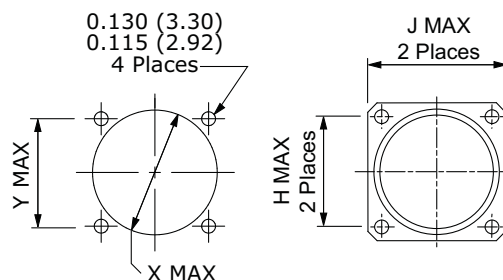
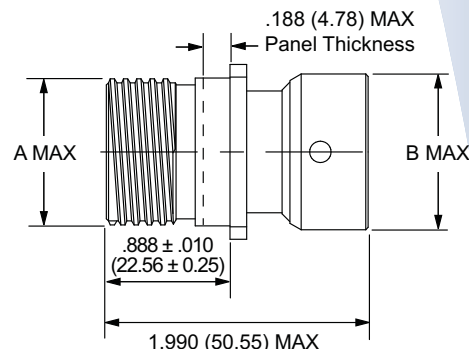


### Specifications

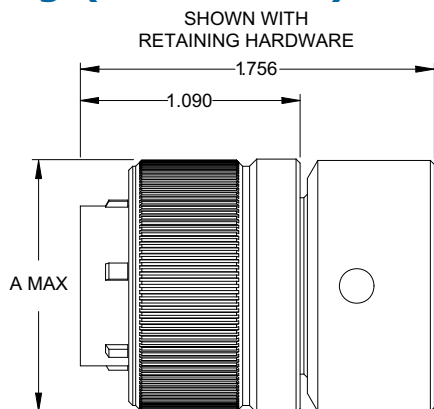
Specification	Measurement/Detail
Insertion Loss (Multimode)	0.35 dB typ (62.5/125), 0.75 dB max
Insertion Loss (Single Mode)	0.35 dB typ (9/125), 0.75 dB max
Back Reflection	(Single Mode) -60 dB max, - 65 dB typical
Operating Temperature	-28°C to +65°C
Storage Temperature	-40°C to +70°C
Cross Talk	Per EIA/TIA 455-42 $\geq 60$ dB channel separation
Mating Durability	500 cycles per EIA/TIA-455-21
Vibration	EIA/TIA-455-11, TC II & VII, 30 min / axis, 5-500 Hz sinusoidal, 5 - 2000 Hz random, 10 g
Mechanical Shock	MIL-STD-901, Grade A, Class I
Thermal Shock	-40°C to +70°C, EIA/TIA-455-71, test schedule C, 5 cycles
Thermal Cycling	-28°C to +25°C, 5 cycles per EIA/TIA-455-3
Corrosion Resistance	500 hour salt spray per EIA/TIA-455-16, Test Condition I
Ozone Exposure	150 ppm for 2 hours per EIA/TIA-455-189
Humidity	240 hours @ 98% RH per EIA/TIA-455-5, Method B
Fluid Immersion	EIA/TIA-455-12
Crush Resistance	7 tests @ 1250 Newtons per EIA/TIA-455-26
Maintenance Aging	Terminus insertion and removal, 10 times
Terminus Retention Force	22 lbs for 5 seconds
Insert Retention Axial	100 psi torque for 1 minute
Cable Pull Out Force	162 lbs for 10 minutes per EIA/TIA-455-6
Cable Sealing Flexing	200 cycles at 180° flex per EIA/TIA-455-1
Impact	64 drops @ 7 feet rotated each time per EIA/TIA-455-2, Method B
Flammability	0.75 inch flame for 10 seconds mated, 1.5 inch flame for 60 seconds unmated per EIA/TIA-364-81

### Wall Flange Mount Receptacle & Panel Cutout (APC28876)

Shell Size	A Max	B Max	H Max	J Max	X ± .005 (0.13)	Y ± .005 (0.13)
13	0.875 (22.23)	1.085 (27.56)	0.843 (21.41)	1.158 (29.41) 1.116 (28.35)	0.937 (23.80)	0.843 (21.41)
15	1.062 (26.97)	1.255 (31.88)	0.968 (24.59)	1.278 (32.46) 1.236 (31.39)	1.124 (28.55)	0.968 (24.59)
23	1.500 (38.10)	1.695 (43.05)	1.281 (32.54)	1.738 (44.15) 1.698 (43.13)	1.562 (39.67)	1.281 (32.54)

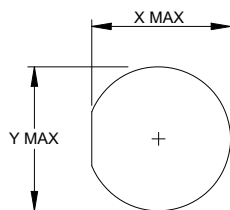
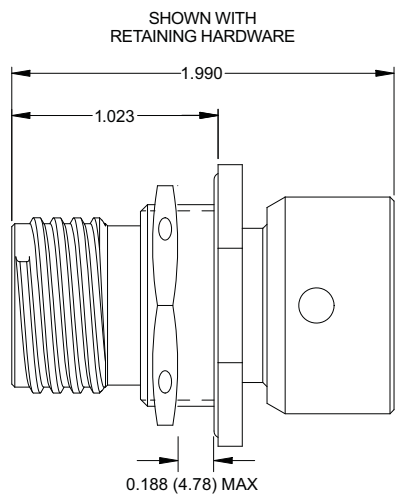


### Plug (APC28876)



Shell Sizes	A Max
13	1.141 (28.98)
15	1.263 (32.08)
23	1.705 (43.31)

### Jam Nut Receptacle & Panel Cutout (APC28876)



RECOMMENDED  
MTG CUT-OUT  
SEE TABLE II  
SCALE: NONE

Shell Size	A Max	B Max	X ± .005 (0.13)	Y ± .005 (0.13)
13	0.875 (22.23)	1.085 (27.56)	0.973 (24.71)	1.010 (25.65)
15	1.062 (26.97)	1.255 (31.88)	1.160 (29.46)	1.198 (30.43)
23	1.500 (38.10)	1.703 (43.26)	1.593 (40.46)	1.630 (41.40)

Note: Dimensions are for reference only. Dimensions are in inches and (mm).

**Table I - Shell Size Designation**

Shell Size	Shell Size Designator	Number of Cavities
13	B	04
15	C	06
23	F	25
23	F	16

**Table II - Shell Sizes with Key & Keyway Arrangements**

Shell Sizes	Key & Keyway Arrangements
13, 15, 23	U*
	1
	2
	3
	4
	5
	6

\*U indicates universal keying arrangement.

### APC28876 Connector Series Ordering Nomenclature

