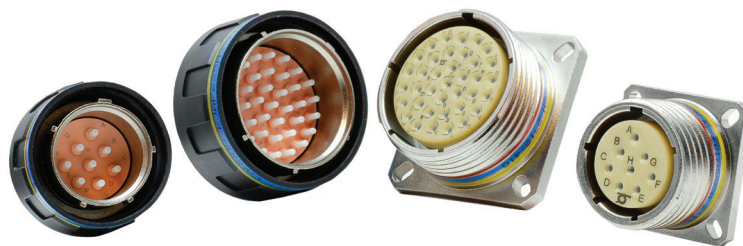




ITT Cannon KJAF Fiber Optics series qualified to JSFC15 to 18 for use in JSF/F35 applications

With a rich history of fiber optic connectivity solutions in harsh environments, ITT Cannon's high performance Fiber Optic connectors are fully qualified to JSFC 15 and 16 performance standard for JSF and F35 applications. Size #16 fiber optic termini are also qualified to JSFC 17 and 18 standards to offer the complete solution package.



Key Features

- Qualified source of supply to JSFC15/16 Connector.
- Specification to accommodate JSFC17/18 qualified termini.
- MIL-DTL-38999 style composite with corrosion resistant electroless nickel plating.
- Design to withstand high vibration and shock environment.
- Termini are size #16 stainless steel construction with precision ceramic ferrule that accommodate various single mode and multi mode fiber sizes.

JSFC15 and 16 Connector Ordering Guide

1	2	3	4	5	6	7
JSFC15	20	M	E	8	A	N

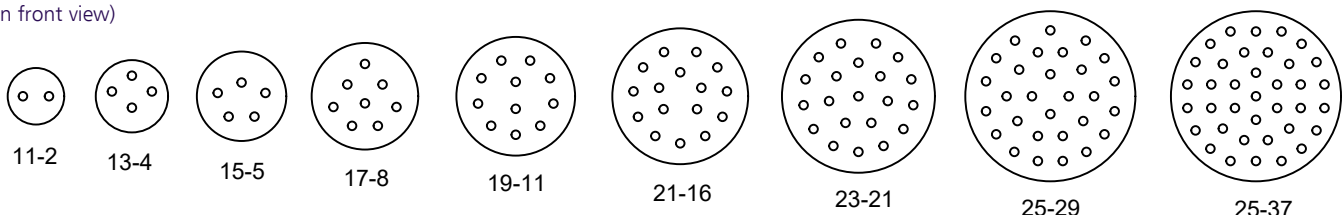
1- Series	4- Shell Size	5- Contact Arrangements
JSFC15 Receptacle Fiber Optic- Circular	B 11	See Contact Arrangement Table For alternative contact arrangements, consult factory
JSFC16 Plug Fiber Optic- Circular	C 13	
	D 15	
	E 17	
	F 19	
	G 21	
	H 23	
	J 25	

2- Style	6- Contact Style (contacts not included)
20 Wall Mount Receptacle	A Pin
26 Straight Plug	B Socket

3- Material Finish	7 - Position
M Composite/Electroless Nickel	N (normal) A, B, C, D, E.

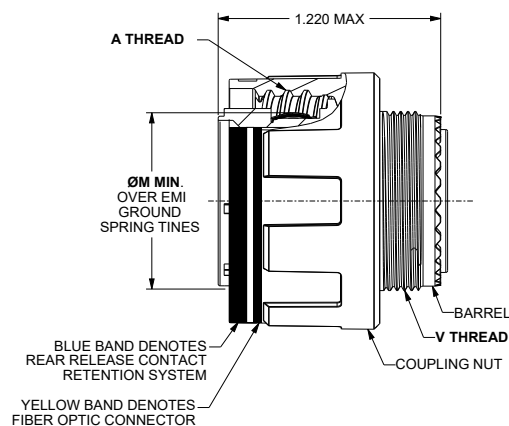
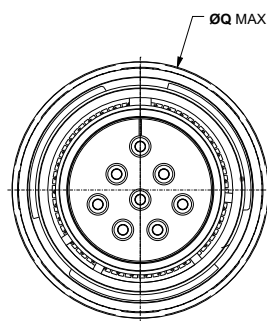
Contact Arrangement Table

(Pin front view)



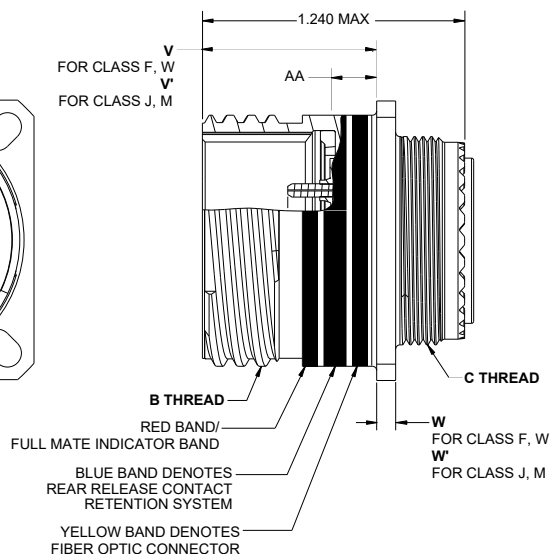
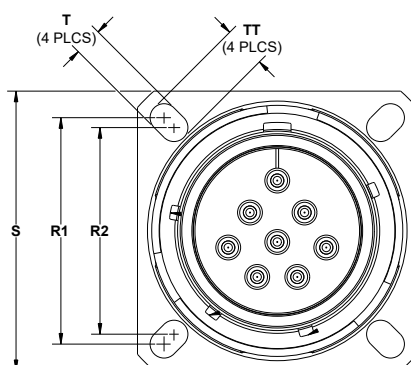
Consult the factory for additional Contact Arrangements.

Straight Plug



Shell Size	D Thread, Class - 2B Blunt Start	Ø M Min.	Ø Q Max.	V Thread Metric Thread
11	.7500-0.1P-0.3L-TS	.580 (14.73)	.969 (24.61)	M15X1-6g 0.100R
13	.8750-0.1P-0.3L-TS	.694 (17.63)	1.141 (28.98)	M18X1-6g 0.100R
15	1.0000-0.1P-0.3L-TS	.819 (20.80)	1.266 (32.16)	M22X1-6g 0.100R
17	1.1875-0.1P-0.3L-TS	.944 (23.98)	1.405 (35.69)	M25X1-6g 0.100R
19	1.2500-0.1P-0.3L-TS	1.049 (26.64)	1.516 (38.51)	M28X1-6g 0.100R
21	1.3750-0.1P-0.3L-TS	1.174 (29.82)	1.642 (41.71)	M31X1-6g 0.100R
23	1.5000-0.1P-0.3L-TS	1.299 (32.99)	1.750 (44.45)	M34X1-6g 0.100R
25	1.6250-0.1P-0.3L-TS	1.424 (36.17)	1.890 (48.01)	M37X1-6g 0.100R

Wall Mount



Shell Size	AA Max. Panel Thickness	B Thread Class - 2B Blunt Start	S	R1	R2	T ±.007	TT ±.007	V +.000 -.049	V' +.055 -.000	W	W'	C Thread Metric Thread
11	.234 (5.94)	.7500-0.1P-0.3L-TS	1.031 (26.19)	.812 (20.62)	.719 (18.26)	.128 (3.25)	.194 (4.93)	.820 (20.83)	.768 (19.51)	.098 (2.49) .083 (2.11)	.143 (3.63) .083 (2.11)	M15X1-6g 0.100R
13	.234 (5.94)	.8750-0.1P-0.3L-TS	1.125 (28.57)	.906 (23.01)	.812 (20.62)	.128 (3.25)	.194 (4.93)	.820 (20.83)	.768 (19.51)	.098 (2.49) .083 (2.11)	.143 (3.63) .083 (2.11)	M18X1-6g 0.100R
15	.234 (5.94)	1.0000-0.1P-0.3L-TS	1.219 (30.96)	.969 (24.61)	.906 (23.01)	.128 (3.25)	.173 (4.39)	.820 (20.83)	.768 (19.51)	.098 (2.49) .083 (2.11)	.143 (3.63) .083 (2.11)	M22X1-6g 0.100R
17	.234 (5.94)	1.1875-0.1P-0.3L-TS	1.312 (33.32)	1.062 (26.97)	.969 (24.61)	.128 (3.25)	.194 (4.93)	.820 (20.83)	.768 (19.51)	.098 (2.49) .083 (2.11)	.143 (3.63) .083 (2.11)	M25X1-6g 0.100R
19	.234 (5.94)	1.2500-0.1P-0.3L-TS	1.438 (36.53)	1.156 (29.36)	1.062 (26.97)	.128 (3.25)	.194 (4.93)	.820 (20.83)	.768 (19.51)	.098 (2.49) .083 (2.11)	.143 (3.63) .083 (2.11)	M28X1-6g 0.100R
21	.204 (5.18)	1.3750-0.1P-0.3L-TS	1.562 (39.67)	1.250 (31.75)	1.156 (29.36)	.128 (3.25)	.194 (4.93)	.790 (20.07)	.736 (18.69)	.126 (3.20) .083 (2.11)	.171 (4.34) .083 (2.11)	M31X1-6g 0.100R
23	.204 (5.18)	1.5000-0.1P-0.3L-TS	1.688 (42.88)	1.375 (34.92)	1.250 (31.75)	.154 (3.91)	.242 (6.15)	.790 (20.07)	.736 (18.69)	.126 (3.20) .083 (2.11)	.171 (4.34) .083 (2.11)	M34X1-6g 0.100R
25	.204 (5.18)	1.6250-0.1P-0.3L-TS	1.812 (46.02)	1.500 (38.1)	1.375 (34.92)	.154 (3.91)	.242 (6.15)	.790 (20.07)	.736 (18.69)	.126 (3.20) .083 (2.11)	.171 (4.34) .083 (2.11)	M37X1-6g 0.100R

Dimensions shown in inches and (mm)
Specifications and dimensions subject to change

JSFC17 and JSFC18 Termini



ITT Cannon expands its wide range of highly-engineered fiber optic termini with the qualification of JSFC17 optical sockets and JSFC18 optical pins for aerospace applications such as the F-35 Joint Strike Fighter (JSF) platform.

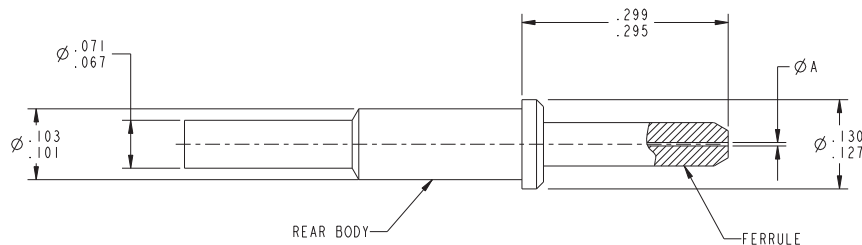
These size #16 termini provides a high-performance design, up to 500 mating cycles, and can be terminated to variety of single-mode (SM) and multi-mode (MM) optical cables.

JSFC17 and JSFC18 Termini Ordering Guide

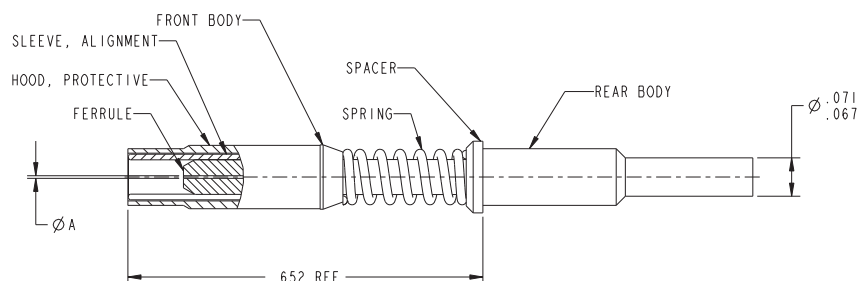
Gender	LM Part #	ITT Part #	Fiber ϕ A (μ m)	Circular Runout (μ m)	Typical Use
Socket	JSFC17-1	031-9741-001	125.5 +1/-0	1	Single-Mode
Socket	JSFC17-2	031-9741-003	126.0 +2/-0	2	Multi-Mode
Socket	JSFC17-3	031-9741-012	236.0 +4/-0	8	Multi-Mode
Pin	JSFC18-1	031-9740-001	125.5 +1/-0	1	Single-Mode
Pin	JSFC18-2	031-9740-003	126.0 +2/-0	2	Multi-Mode
Pin	JSFC18-3	031-9740-012	236.0 +4/-0	8	Multi-Mode

Please contact your Cannon representative for Customer Use Drawings, termination instruction, replacement socket hoods & alignment sleeves, or if you would like information on Cannon's alternative fiber diameters (non-JSFC17-18) termini.

JSFC18 Optical Pin Termini



JSFC17 Optical Socket Termini



Dimensions shown in inches and (mm)
Specifications and dimensions subject to change

Test Summary for Connectors

Group	Test	Requirements
1	Visual and Mechanical Examination	Per JSFC15 and JSFC16 and Mil-DTL-38999M(1)
2	Terminus Retention	EIA 364-29, Method B- 25 pounds
3	Salt Spray	MIL-DTL-38999M(1) and EIA-364-26- 2,000 hours
	Mating Durability	Per MIL-DTL-38999M(1), 500 Cycles
4	Coupling and Uncoupling Torque	Per AS5590B 6.6.3
5	Shaker shock	TIA-455-14 Cond D, 300G, 3ms, 3-axis, 18 shocks total
	Random Vibration at 125°C	43.92 Grams at +125°C
6	Random Vibration at Ambient Temp	50 Grams at Ambient
	Sine Vibration, +200°C, -55°C	MIL-DTL-38999M(1), 60 G pk Sine, +200°C, -55°C
	Hammer Shock	MIL-DTL-901, Grade A, Class I, Type A
	Thermal Shock	EIA 364-32G, -65°C to +175°C, 5-Cycles
	Temperature Life	TIA-455-4C, 1,000 hours, +165°C

Test Summary for Termini

Group	Test	JSFC17-18 and MIL-PRF-29504 Requirements
1	Size	3.6.1
	Weight	3.6.2
	Terminus Retention	3.6.6, 22 pounds for 5 second minimum
	Terminus Cleaning	3.6.4
2	Cable Pull-out Force	TIA-455-6-B, 22 pounds for 60 seconds
	Salt Spray	TIA/EIA-455-16A, 48 hours exposure
3	Optical Insertion Loss (Initial)	MIL-STD-1678-2A Method 2101
	Mating Durability	TIA/EIA-455-21A, 500 mating cycles
	Terminus Cleaning	3.6.4
	Shock	Hammer Shock: MIL-S-901E Shock Tests, H.I. (High-Impact) Shaker Shock: TIA-455-14 FOTP-14, 300G
	Vibration	Sine Vibration (3 Axes), 60G Ambient Temperature Random Vibration (3 Axes), 43.92 Grms at 125°C Random Vibration (3 Axes), 49.5 Grms at Ambient Temperature
	Insertion Loss	MIL-STD-1678-2A Method 2101
4	Optical Insertion Loss (Initial)	MIL-STD-1678-2A Method 2101
	Thermal Shock	TIA-455-71 schedule (C-0, five cycles), -55°C to 165°C
	Temperature Life	TIA/EIA-455-4C, 1,000 hours at 165°C
	Insertion Loss	MIL-STD-1678-2A Method 2101



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