

MIL-C-26482 Series 2 / 83723 Series 1 Filter Connectors

TPV



These miniature circular filter connectors are designed to combine the functions of a standard electrical connector and a feed-thru filter into one compact package.

TPV filter connectors are designed to meet the applicable portions of military specifications MIL-C-26482 and MIL-C-83723. They are also

intermateable with the NAS1599 and the NASA 40M39569 type connectors. These connectors feature three-point bayonet lock coupling, five keyway polarization, and have contact arrangements that will accommodate up to 61 contacts in shell sizes, with both pin and socket contact versions available.

Note: The TPV replaces the obsolete PVJ Series

How to Order - TPV

	T	PV	O	C	24	B	61	T	P	N	*
FILTER SERIES INDICATOR											
SERIES PREFIX											
SHELL STYLE											
TERMINATION											
SHELL SIZE											
FINISH											
CONTACT ARRANGEMENT											
CAPACITANCE INDICATOR											
CONTACT TYPE											
INSERT POSITION											
MODIFICATION CODES											

FILTER SERIES INDICATOR

T - Transverse monolith

SERIES PREFIX

PV - MIL-C-26482 Series 2, MIL-C-83723 Series 1 type filter connectors, solder termination. ITT Cannon designation.

SHELL STYLE

0 - Flange mounting receptacle
7 - Jam nut mounting receptacle

TERMINATION

C - Solder Pot Termination
E - P.C. Tail
S - Crimp Piggyback
W - Wire Wraps

SHELL SIZE

10, 12, 14, 16, 18, 20, 22, 24

FINISH

A - Bright cadmium over nickel plate
B - Olive drab chromate over cadmium finish
G - Electroless nickel finish (preferred)

CONTACT ARRANGEMENTS

See page 311

CAPACITANCE INDICATOR

M - Mid-range frequency
L - Low frequency
T - Standard frequency
H - High frequency

CONTACT TYPE

P - Pin contacts
S - Socket contacts

INSERT POSITION

N - (Normal); Alternates - W, X, Y, Z
See page 162.

MODIFICATION CODES

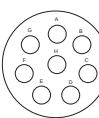
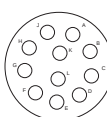
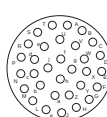
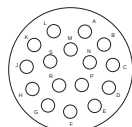
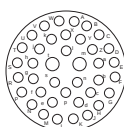
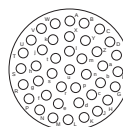
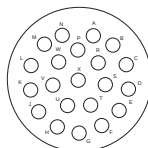
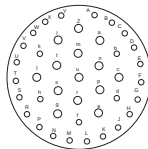
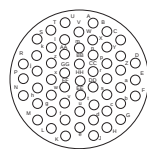
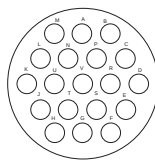
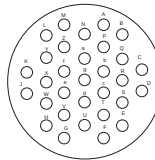
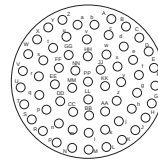
For backshell assembly consult factory.

NOTES:

- 1) Backshell threads and teeh - none provided.
- 2) Hermetic versions of the filter connectors can be provided. Consult ITT Cannon for availability.

Contact Arrangements

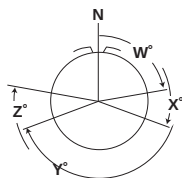
Face view, pin insert

Shell Size No. of Contacts Service Rating	 8-33* 3-#20 I	 8-98* 3-#20 I	 10-6 6-#20 I	 12-3 3-#16 II	 12-8 8-#20 I	 12-10 10-#20 I	 14-4 4-#12 I	 14-5 5-#16 II
Shell Size No. of Contacts Service Rating	 14-12 4-#16, 8-#20 I	 14-15 1-#16, 14-#20 I	 14-18 18-#20 I	 14-19 19-#20 I	 16-8 8-#16 II	 16-23 1-#16, 22-#20 I	 16-26 26-#20 I	 18-8 8-#12 I
Shell Size No. of Contacts Service Rating	 18-11 11-#16 II	 18-32 32-#20 I	 20-16 16-#16 II	 20-39 2-#16, 37-#20 I	 20-41 41-#20 I	 22-21 21-#16 II		
Shell Size No. of Contacts Service Rating	 22-41 24-#20, 14-#16 I	 22-55 55-#20 I	 24-19 19-#12 II	 24-31 31-#16 I	 24-61 61-#20 I			

* Layouts are available in shell styles MS3470 and MS3476 only.

Alternate Insert Positions

Face view, pin insert



Contact arrangements requiring reduced diameter for lead-in chamfer on outer row of contact cavities as indicated below.

Shell	Contact Arrangements	Contact Cavities
8	33, 38	A, B, C
12	10	C, G
14	12	A, B, C, D, E, F, G, and H
14	18	A, C, E, G, J, and L
14	19	B, D, F, H, K, and M
16	26	A, B, C, D, E, F, G, H, J, K, L, M, N, P, and R)
18	32	A, B, C, D, E, F, G, H, J, K, L, M, N, P, R, S, and T
22	41	A, B, C, D, E, F, G, H, J, K, L, M, N, P, R, S, T, U, V, W, X, and Y

SHELL SIZE	ARRANGE-MENT	N	W	POS CODE X	Y	Z
8	33	0°	90°	-	-	-
	98	0°	-	-	-	-
10	6	0°	90°	-	-	-
	3	0°	-	-	180°	-
	8	0°	90°	112°	203°	292°
12	10	0°	60°	155°	270°	295°
	4	0°	45°	-	-	-
	5	0°	40°	92°	184°	273°
14	12	0°	43°	90°	-	-
	15	0°	17°	110°	155°	234°
	18	0°	15°	90°	180°	270°
	19	0°	30°	165°	315°	-
16	8	0°	54°	152°	180°	331°
	23	0°	158°	270°	-	-
	26	0°	60°	-	275°	338°
18	8	0°	180°	-	-	-
	11	0°	62°	119°	241°	340°
	32	0°	85°	138°	222°	265°
20	16	0°	238°	318°	333°	347°
	39	0°	63°	144°	252°	333°
	41	0°	45°	126°	225°	-
22	21	0°	16°	135°	175°	349°
	41	0°	39°	135°	264°	-
	55	0°	30°	142°	226°	314°
24	19	0°	30°	165°	315°	-
	31	0°	90°	225°	225°	-
	61	0°	90°	180°	270°	324°

MIL-C-26482 Series 2/-83723 Series 1 Filter Connectors

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Performance and Material Specification

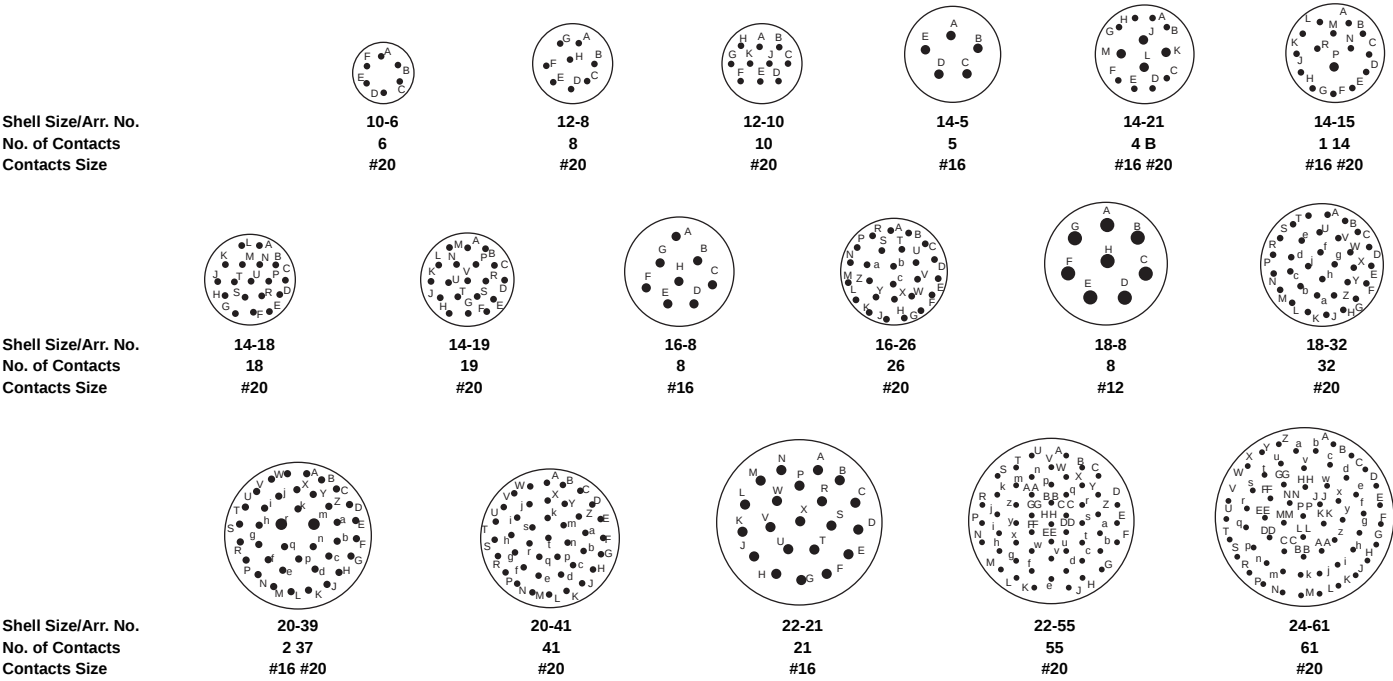
MATERIALS AND FINISHES			
Jam Nut	Material:	Aluminum Alloy	
	Finish:	Class "B" Series	Class "G" Series
		Olive drab chromeplate over cadmium finish per QQ-P-416	Electroless nickel plating Per MIL-C-26074
Coupling Pins	Material:	Copper Alloy	
	Finish:	Passivated	
Contacts	Material:	Copper Alloy	
	Finish:	Gold plated per MIL-G-45204, Type 1 Class 1 with nickel underplate per QQ-N-290	
Insulator	Material:	Suitable high temperature plastic/epoxy	
	Finish:	none	
Interfacial and	Material:	Fluorosilicone rubber (ITT Cannon blend)	
Peripheral Seals	Finish:	none	
O ring	Material:	Silicone rubber (ITT Cannon blend)	
(Jam Nut Mounting Only)	Finish:	none	
Ground Spring	Material:	Beryllium Copper	
	Finish:	Silver Plated	

ELECTRICAL (Size #16 and #20 Contacts)

Filter Description	Low Freq.	Mid Freq.	Std. Freq.	High Freq.
Catalog Indicator	L	M	T	H
Voltage Rating	200 VDC - 120 VAC rms 400 Hz			
Current Rating (amp DC)	15 amp, size 16/7.5 amp, size 20			
Insulation Resistance, 2 min. electrification time max. at 25°C	5000, megohms min. @ 100 VDC			
DWV, sea level, with 500 microamps max. charge/discharge	500 VDC size 16 & 20		500 VDC	
Capacitance at 1 KHz 0.1V rms Picofarads	32000	8000	3300	850
	45000	12000	5000	1300
	Freq. MHz			
	0.1	2 min.	-	-
	1.0	10 min.	2 min.	-
	2	16 min.	7 min.	2 min.
Attenuation per MIL-STD-220 @ 25°C with no applied voltage or current.	10	40 min.	18 min.	8 min.
	100	60 min.	55 min.	45 min.
	500 to 1000	70 min.	60 min.	55 min.
				50 min.
Filter Type/Construction	Pi	Pi	Pi	Pi
Consult factory for higher or mixed attenuation values and higher voltage ratings.				

Contact Arrangements

(Face view, pin insert)



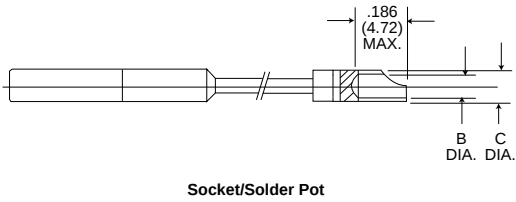
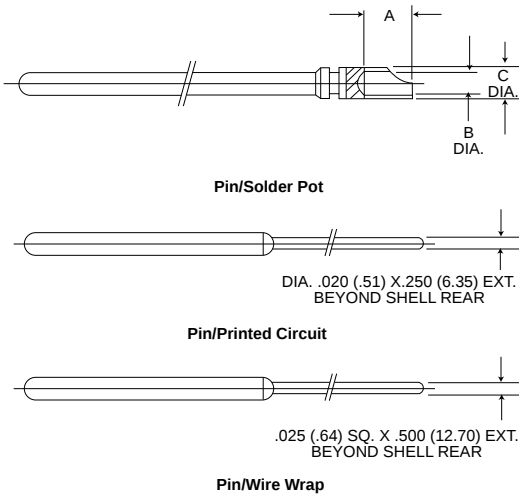
Consult factory for availability of other contact arrangements. Availabl for In-Line Adapters also.

Alternate Polarizing Positions - Page 162

Contact - Pin and Socket

Standard Contact Terminations

Finish: Gold plate per MIL-G-45204, Type 1,
Class 1, over nickel plate per QQ-N-290.



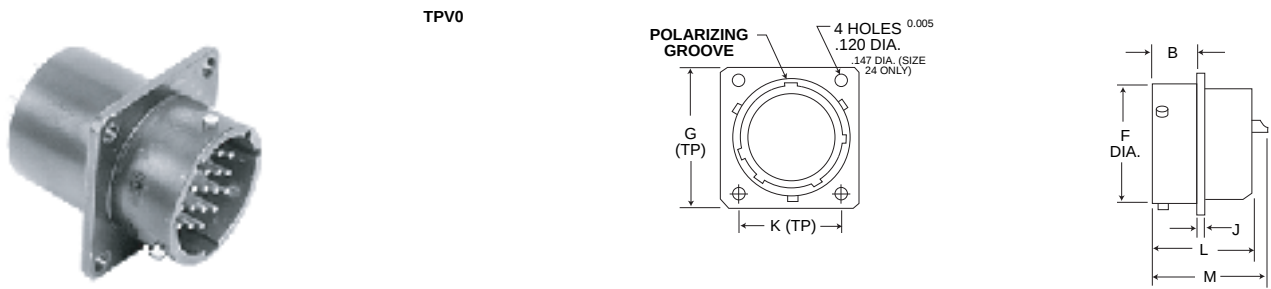
Contact Size	A	B Dia.	C Dia.
#20	.125 (3.18)	.049 (1.24)	.073 (1.85)
	.110 (2.79)	.045 (1.14)	.068 (1.73)
#16	.160 (4.06)	.077 (1.96)	.104 (2.64)
	.150 (3.81)	.068 (1.73)	.097 (2.46)

Note: Solder pot extension typically will be .200 (5.08) max. beyond shell rear.

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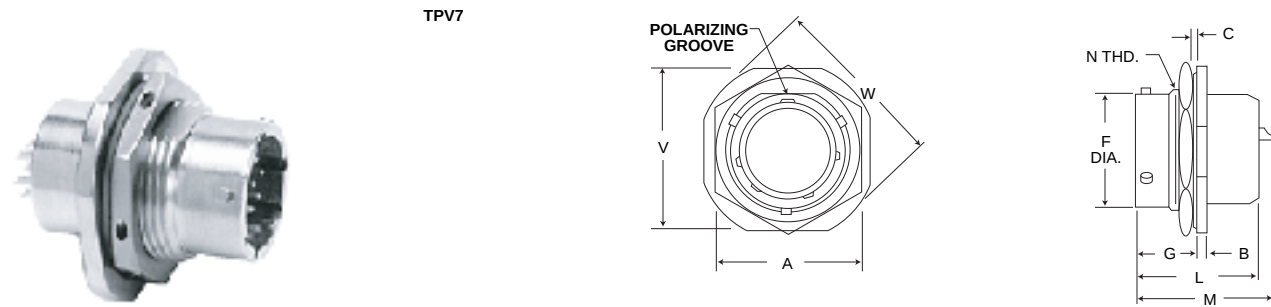
TPV

Flange Mounting Receptacle



Shell Size	B Max.	F Max.	L Max.	M Max.	J Max.	K Basic	G Max.
10	.462 (11.73)	.591 (15.01)	1.215 (30.86)	1.530 (38.86)	.078 (1.98)	.719 (18.26)	.954 (24.23)
12	.462 (11.73)	.751 (19.08)	1.215 (30.86)	1.530 (38.86)	.078 (1.98)	.812 (20.62)	1.047 (26.59)
14	.462 (11.73)	.876 (22.25)	1.215 (30.86)	1.530 (38.86)	.078 (1.98)	.906 (23.01)	1.141 (28.98)
16	.462 (11.73)	1.001 (25.43)	1.215 (30.86)	1.530 (38.86)	.078 (1.98)	.969 (24.61)	1.234 (31.34)
18	.462 (11.73)	1.126 (28.60)	1.215 (30.86)	1.530 (38.86)	.078 (1.98)	1.062 (26.97)	1.328 (33.73)
20	.587 (14.91)	1.251 (31.78)	1.275 (32.39)	1.590 (40.38)	.110 (2.79)	1.156 (29.36)	1.453 (36.91)
22	.587 (14.91)	1.376 (34.95)	1.275 (32.39)	1.590 (40.38)	.110 (2.79)	1.250 (31.75)	1.578 (40.08)
24	.620 (15.75)	1.501 (38.13)	1.275 (32.39)	1.590 (40.38)	.110 (2.79)	1.375 (34.93)	1.703 (43.26)

Jam Nut Receptacle



Shell Size	V Max.	A Max.	B Max.	F Max.	G ± .009 (0.23)	C Panel Thickness	L Max.	M Max.	W Dia.	N Thread Class 2A
10	1.078 (27.38)	.892 (22.66)	.113 (2.87)	.591 (15.01)	.698 (17.73)	.187 (4.75)	1.215 (30.86)	1.530 (38.86)	1.203 (30.56)	11/16-24UNEF
12	1.266 (32.16)	1.079 (27.41)	.113 (2.87)	.751 (19.08)	.698 (17.73)	.187 (4.75)	1.215 (30.86)	1.530 (38.86)	1.391 (35.33)	7/8-20 UNEF
14	1.391 (35.33)	1.205 (30.61)	.113 (2.87)	.876 (22.25)	.698 (17.73)	.187 (4.75)	1.215 (30.86)	1.530 (38.86)	1.516 (38.51)	1 -20UNEF
16	1.516 (38.51)	1.329 (33.76)	.113 (2.87)	1.001 (25.43)	.698 (17.73)	.187 (4.75)	1.215 (30.86)	1.530 (38.86)	1.641 (41.68)	1-1/8-18UNEF
18	1.641 (41.68)	1.455 (36.96)	.113 (2.87)	1.126 (28.60)	.698 (17.73)	.187 (4.75)	1.215 (30.86)	1.530 (38.86)	1.766 (44.86)	1-1/4-18UNEF
20	1.828 (46.43)	1.579 (40.11)	.148 (3.76)	1.251 (31.78)	.763 (19.38)	.250 (6.35)	1.275 (32.39)	1.590 (40.39)	1.954 (49.63)	1-3/8-18UNEF
22	1.954 (49.63)	1.705 (43.31)	.148 (3.76)	1.376 (34.95)	.763 (19.38)	.250 (6.35)	1.275 (32.39)	1.590 (40.39)	2.078 (52.78)	1-1/2-18UNEF
24	2.078 (52.78)	1.829 (46.46)	.148 (3.76)	1.501 (38.13)	.763 (19.38)	.219 (5.56)	1.275 (32.39)	1.590 (40.39)	2.203 (55.96)	1-5/8-18UNEF