ITT developed a line of filter connectors to meet the industry's demand for improved control of Radio Frequency and Electro-magnetic Interference (RFI/EMI). These TD1* filter connectors, have been designed to combine the functions of a standard electrical connector and feed-thru filters into one compact package. In addition to offering greater design flexibility and system reliability, they are designed for applications where space and weight are prime considerations. These connectors are intermateable with all standard D-subminiature connectors. They are also intermateable with MIL-C-24308 types and meet applicable portions of that specification.
All TD1* filter contact assemblies are tested 100% during in-process and final inspection, for capacitance, insulation resistance and dielectric withstanding voltage. Attenuation is checked as required for each type of filter to assure performance to guaranteed levels.

Performance and Material Specifications

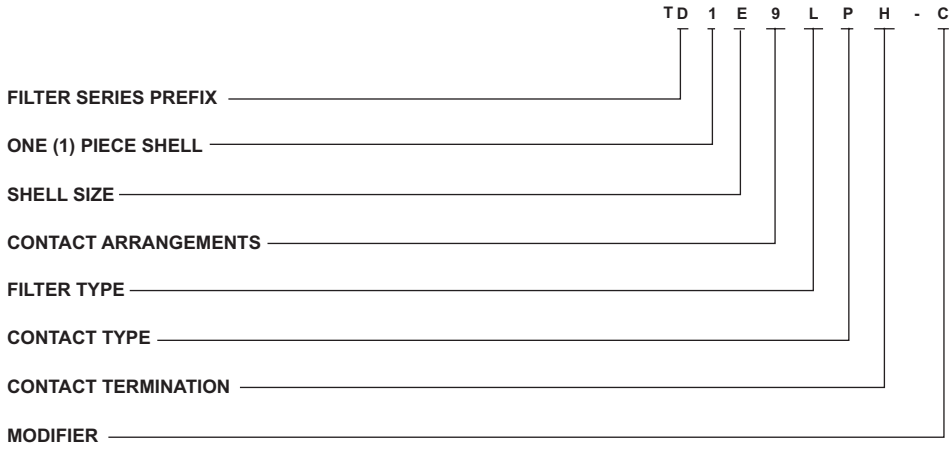
ELECTRICAL DATA

Available Filter		Low Freq.	Mid Freq.	Std Freq.	High Freq.
Catalog Indication - letter		L	M	T	H
Voltage Rating (working)		100 VDC		200 VDC	
Current Rating (amp DC)		7.5	7.5	7.5	7.5
Insulation Resistance, 2 min. electrification time max. at 25˚C, and 100 VDC		5000 megohms minimum	10,000 megohms minimum	10,000 megohms minimum	10,000 megohms minimum
DWV, sea level, with 500 microamps max. charge/discharge		300 VDC	500 VDC	500 VDC	500 VDC
Capacitance at 1 KHz, 0.1 V rms picofarads		50,000 minimum	7200 12,000	3000 5,000	780 1,300
	Freq. MHz	Attenuation (dB)			
Attenuation per MIL-STD-220 @ 25˚C with no applied voltage or current.	0.1	2 min.	-	-	-
	1	15 min.	2 min.	-	-
	2	20 min.	5 min.	2 min.	
	10	35 min.	15 min.	9 min.	2 min.
	100	60 min.	55 min.	50 min.	30 min.
	500 to 1,000	65 min.	60 min.	55 min.	50 min.
Filter Type		Pi	Pi	Pi	Pi

MATERIALS AND FINISHES

Description	Material	Finish
Contacts	Copper alloy	Gold plate per MIL-G-45204 Type 1, Class 1
Shell	Aluminum alloy 6061-T6 per QQ-A-225/8 or QQ-A-200/8	Electroless nickel per MIL-C-26074
Insulator: Socket	Polyphenylene Sulfide/ Epoxy	None
Pin	Epoxy	None
Ground Spring	Beryllium Copper	Gold plate

How to Order



FILTER SERIES PREFIX
TD - Miniature, rectangular, solder termination

SHELL SIZE (one piece shell)
E, A, B, C, D

CONTACT ARRANGEMENTS
See page 7

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

CONTACT TYPE
P - Pin contacts
S - Socket contacts

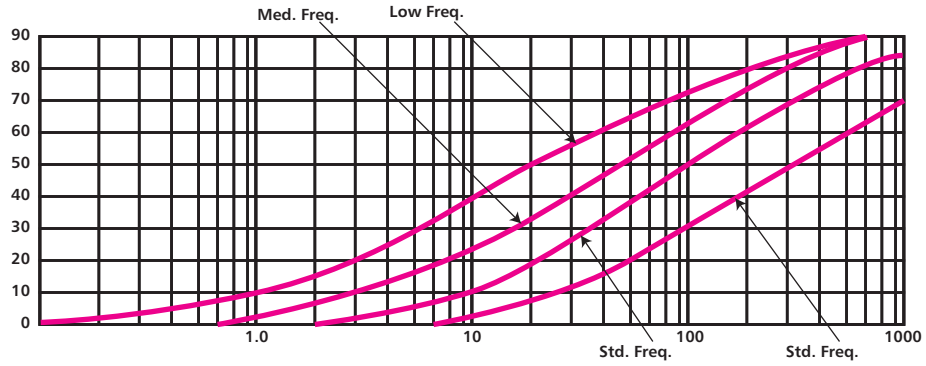
PRINTED CIRCUIT CONTACTS
Consult factory. Both 90˚ and straight types are available.

CONTACT TERMINATION
See page 7
Lack of termination indicator signifies solder cup.

MODIFIER
C - Clinch nut

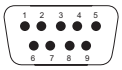
Dimensions shown in inch (mm)
Specifications and dimensions subject to change

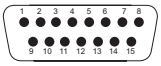
Typical Filter Performance

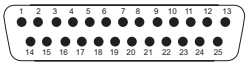


Contact Arrangements

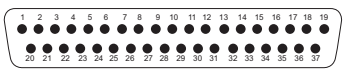
Face View Pin Insert

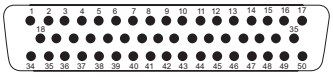






Shell Size	**E**	**A**	**B**
Contact Arrangement	**9**	**15**	**25**
Contact Size	**#20**	**#20**	**#20**

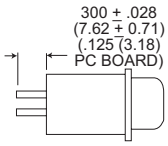




Shell Size	**C**	**D**
Contact Arrangement	**37**	**50**
Contact Size	**#20**	**#20**

Contacts

Straight Printed Circuit

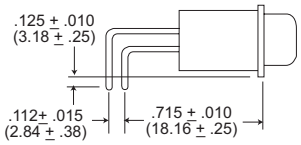


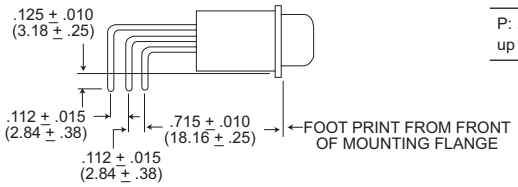
Modifier

H: .040 (1.02) Dia. terminals and accommodates up to 1/8 Max. thick P.C. boards.

M: .030 (.76) Dia. terminals and accommodates up to 1/8 Max. thick P.C. boards.

Right Angle Printed Circuit



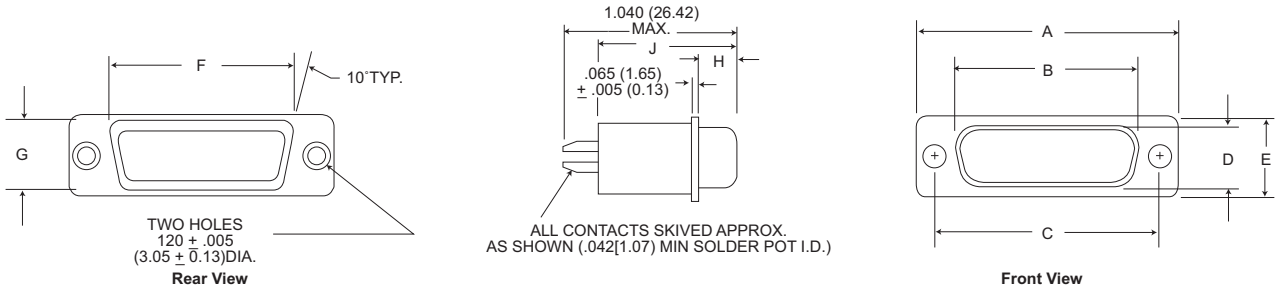


Modifier

P: .030 (.76) Dia. terminals and accommodates P.C. boards up to 3/32 Max. Thickness.

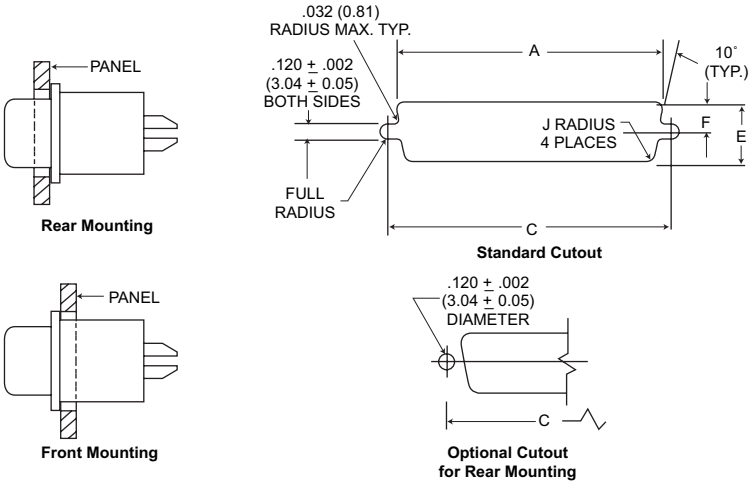
Dimensions shown in inch (mm)
Specifications and dimensions subject to change

Standard Shell Dimensions



Shell Size	A ± .015 (0.38)	B ± .010 (0.25)	C ± .005 (0.13)	D ± .010 (0.25)	E ± .005 (0.13)	F ± .010 (0.25)	G ± .010 (0.25)	H ± .010 (0.25)	J ± .010 (0.25)
9P	1.213 (30.81)	.738 (18.75)	.984 (24.99)	.400 (10.16)	.502 (12.75)	.792 (20.12)	.469 (11.91)	.236 (5.99)	.841 (21.36)
9S	1.213 (30.81)	.642 (16.31)	.984 (24.99)	.310 (7.87)	.502 (12.75)	.792 (20.12)	.469 (11.91)	.243 (6.17)	.852 (21.64)
15P	1.541 (39.14)	1.066 (27.08)	1.312 (33.32)	.400 (10.16)	.502 (12.75)	1.116 (28.35)	.469 (11.91)	.236 (5.99)	.841 (21.36)
15S	1.541 (39.14)	.970 (24.64)	1.312 (33.32)	.310 (7.87)	.502 (12.75)	1.116 (28.35)	.469 (11.91)	.243 (6.17)	.852 (21.64)
25P	2.087 (53.01)	1.606 (40.79)	1.852 (47.04)	.400 (10.16)	.502 (12.75)	1.664 (42.27)	.469 (11.91)	.231 (5.87)	.841 (21.36)
25S	2.087 (53.01)	1.510 (38.35)	1.852 (47.04)	.310 (7.87)	.502 (12.75)	1.664 (42.27)	.469 (11.91)	.243 (6.17)	.852 (21.64)
37P	2.729 (69.32)	2.254 (57.25)	2.500 (63.50)	.400 (10.16)	.502 (12.75)	2.316 (58.83)	.469 (11.91)	.231 (5.87)	.841 (21.36)
37S	2.729 (69.32)	2.158 (54.81)	2.500 (63.50)	.310 (7.87)	.502 (12.75)	2.316 (58.83)	.469 (11.91)	.243 (6.17)	.852 (21.64)
50P	2.635 (66.93)	2.151 (54.64)	2.406 (61.11)	.512 (13.00)	.612 (15.54)	2.198 (55.83)	.576 (14.63)	.231 (5.87)	.841 (21.36)
50S	2.635 (66.93)	2.064 (52.43)	2.406 (61.11)	.422 (10.72)	.612 (15.54)	2.198 (55.83)	.576 (14.63)	.243 (6.17)	.852 (21.64)

Mounting Panel Cutout Dimensions



Connector	Mounting Method	A ± .005 (0.13)	C ± .005 (0.13)	E ± .005 (0.13)	F ± .005 (0.13)	J ± .005 (0.13)
TD1E	Front Mounting	.833 (21.16)	.984 (24.99)	.485 (12.32)	.243 (6.17)	.065 (1.65)
	Rear Mounting	.806 (20.47)	.984 (24.99)	.449 (11.40)	.225 (5.72)	.132 (3.35)
TD1A	Front Mounting	1.161 (29.49)	1.312 (33.32)	.485 (12.32)	.243 (6.17)	.065 (1.65)
	Rear Mounting	1.134 (28.80)	1.312 (33.32)	.449 (11.40)	.225 (5.72)	.132 (3.35)
TD1B	Front Mounting	1.700 (43.18)	1.852 (47.04)	.485 (12.32)	.243 (6.17)	.065 (1.65)
	Rear Mounting	1.674 (42.52)	1.852 (47.04)	.449 (11.40)	.225 (5.72)	.132 (3.35)
TD1C	Front Mounting	2.349 (59.66)	2.500 (63.50)	.485 (12.32)	.243 (6.17)	.065 (1.65)
	Rear Mounting	2.326 (59.08)	2.500 (63.50)	.449 (11.40)	.225 (5.72)	.132 (3.35)
TD1D	Front Mounting	2.254 (57.25)	2.406 (61.11)	.593 (15.06)	.297 (7.54)	.065 (1.65)
	Rear Mounting	2.218 (56.34)	2.406 (61.11)	.555 (14.09)	.278 (7.06)	.132 (3.35)