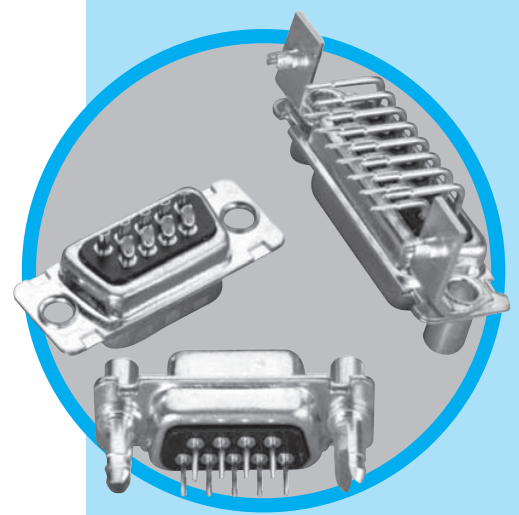


D-DF

D-Sub connectors - Screw-machined Contacts

FIXED MACHINED CONTACT CONNECTOR



CHARACTERISTICS

Specifications

- Connectors according to MIL C24308 - NFC93425-HE5

Materials and Plating	
Shells	Steel tinned, with dimples on plug connector
Insulator	Glass-filled thermoplastic, UL 94V-0
Rear insert	Brass, tin plated 2µm (79µ") over 1.25µm (49µ") nickel
Boardlock	Phosphor bronze, tin plated 2µm (79µ") over 1.25µm (49µ") nickel
Screwlock	Brass, tin plated 2µm (79µ") over 1.25µm (49µ") nickel
Contacts	D: brass, plug and socket DF: plug = brass socket = phosphor bronze Right angle version: full gold plating over 2µm (79µ") nickel Straight version: full gold plating over 2µm (79µ") nickel

DESCRIPTION

Amphenol's D and DF series fixed contact D-Subminiature connectors are suitable for industrial or telecom use.

The machined contacts provide stability and reliability.

This series offers the broadest range of termination options in the Amphenol line.

Connectors
for industrial
and
telecom use

Electrical Data	
Current rating	7.5A
Voltage rating	300V AC/rms 50Hz
Withstanding voltage	1000V AC/rms 50Hz for one minute
Insulation resistance	5000MΩ
Contact resistance	D: 8.5mΩ max DF: 5mΩ max

Climatic Data	
Operating temperature	D / DF: -55°C to + 125°C
Salt spray	48 hours
Humidity	D: 21 days (40 C - 95% HR) DF: 56 days (40 C - 95% HR)

Mechanical Data		
Mating and unmating force		
Unit: kg (lb)		
No. of Cts	Mate (max)	Unmate (min)
9 (size E)	3.05 (6.73)	0.36 (0.79)
15 (size A)	5.09 (11.22)	0.46 (1.01)
25 (size B)	8.44 (18.61)	0.81 (1.79)
37 (size C)	12.51 (27.58)	1.1 (2.42)
50 (size D)	14.65 (32.30)	1.6 (3.53)

APPLICATIONS

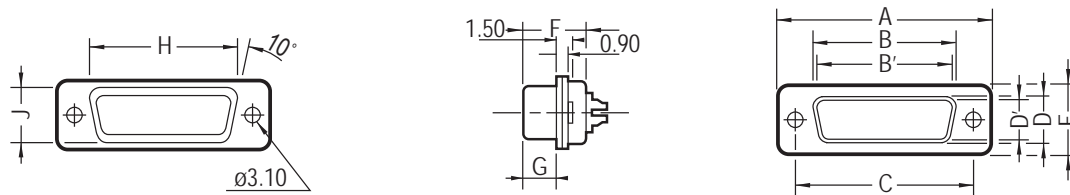
- Medical
- Industrial
- Telecom
- Any industry standard I / O connections



Amphenol

D-DF / E18

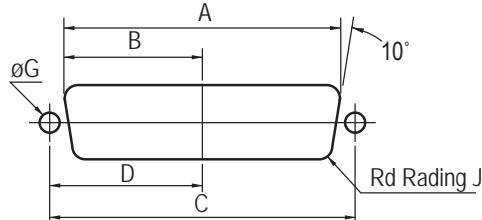
Shell size dimensions



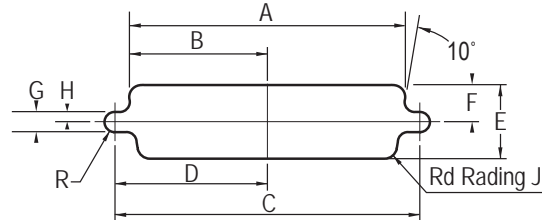
Shell size	Contact P: Pin S: Socket	A ±0.25 (±.010)	B 0/-0.20 (0/- .008)	B' +0.20/0 (+.008/0)	C ±0.10 (±.004)	D 0/-0.25 (0/- .010)	D' +0.25/0 (+.010/0)	E ±0.20 (±.008)	F +0.05/-0.20 (+.002/- .008)	F' +0.10/-0.20 (+.004/- .008)	G +0.10/-0.20 (+.004/- .008)	G' ±0.10 (±.004)	H +0.10/-0.40 (+.004/- .016)	J 0/-0.50 (0/- .020)
E	P	30.7 (1.209")		16.8 (.661")	25.0 (.984")		8.2 (.323")	12.4 (.488")		10.9 (.429")		5.9 (.232")	19.4 (.764")	11.0 (.433")
	S		16.4 (.646")			8.0 (.315")			11.1 (.437")		6.2 (.244")			
A	P	39.0 (1.535")		25.1 (.988")	33.3 (1.311")		8.2 (.323")	12.4 (.488")		10.9 (.429")		5.9 (.232")	27.7 (1.091")	11.0 (.433")
	S		24.8 (.976")			8.0 (.315")			11.1 (.437")		6.2 (.244")			
B	P	52.9 (2.083")		38.8 (1.528")	47.0 (1.850")		8.2 (.323")	12.4 (.488")		11.0 (.433")		5.8 (.228")	41.4 (1.630")	11.0 (.433")
	S		38.5 (1.513")			8.0 (.315")			11.1 (.437")		6.2 (.244")			
C	P	69.2 (2.724")		55.3 (2.177")	63.5 (2.500")		8.2 (.323")	12.4 (.488")		11.0 (.433")		5.8 (.228")	57.9 (2.280")	11.0 (.433")
	S		54.9 (2.161")			8.0 (.315")			11.1 (.437")		6.2 (.244")			
D	P	66.8 (2.630")		52.7 (2.075")	61.1 (2.406")		11.0 (.433")	15.2 (.598")		11.0 (.433")		5.8 (.228")	55.5 (2.185")	13.8 (.543")
	S		52.5 (2.067")			10.9 (.429")			11.1 (.437")		6.2 (.244")			

Panel cutouts

Optimal cutout for rear mounting



Standard cutout



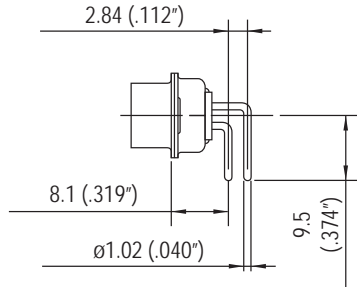
Shell size	Mounting method	A ±0.20 (±.008)	B ±0.20 (±.008)	C ±0.20 (±.008)	D ±0.20 (±.008)	E ±0.20 (±.008)	F ±0.20 (±.008)	G ±0.20 (±.008)	H ±0.20 (±.008)	J ±0.20 (±.008)
E	Front	22.2 (.874")	11.1 (.437")	25.0 (.984")	12.5 (.492")	13.0 (.512")	6.5 (.256")	3.0 (.118")	1.5 (.059")	2.1 (.083")
	Rear	20.5 (.807")	10.2 (.402")							
A	Front	30.5 (1.201")	15.3 (.602")	33.3 (1.311")	16.7 (.657")	13.0 (.512")	6.5 (.256")	3.0 (.118")	1.5 (.059")	2.1 (.083")
	Rear	28.8 (1.134")	14.4 (.567")							
B	Front	44.3 (1.744")	22.1 (.870")	47.0 (1.850")	23.5 (.925")	13.0 (.512")	6.5 (.256")	3.0 (.118")	1.5 (.059")	2.1 (.083")
	Rear	42.5 (1.673")	21.3 (.839")							
C	Front	60.7 (2.390")	30.4 (1.197")	63.5 (2.500")	31.7 (1.248")	13.0 (.512")	6.5 (.256")	3.0 (.118")	1.5 (.059")	2.1 (.083")
	Rear	59.1 (2.327")	29.5 (1.161")							
D	Front	58.3 (2.295")	29.2 (1.150")	61.1 (2.406")	30.6 (1.205")	15.8 (.622")	7.9 (.311")	3.0 (.118")	1.5 (.059")	2.1 (.083")
	Rear	56.3 (2.217")	28.2 (1.110")							

Termination

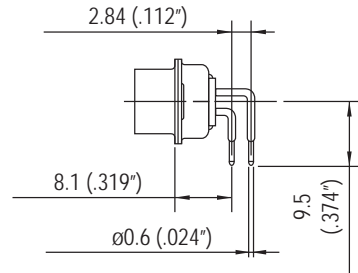
Right angle

MIL Footprint

without bracket:

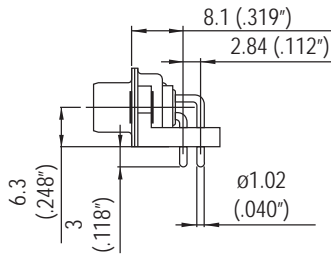


C

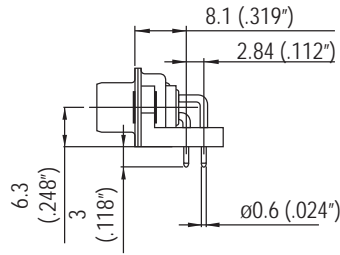


A4

plastic bracket:

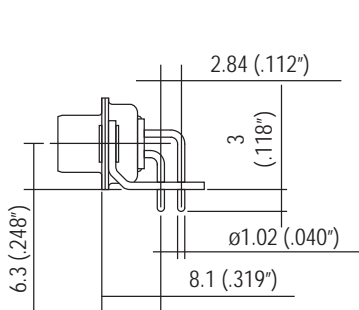


AJ3

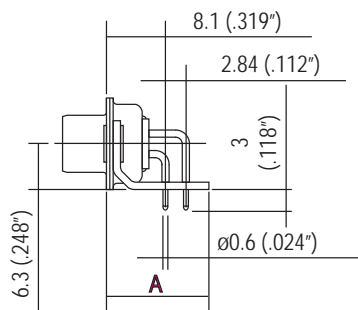


AJ4

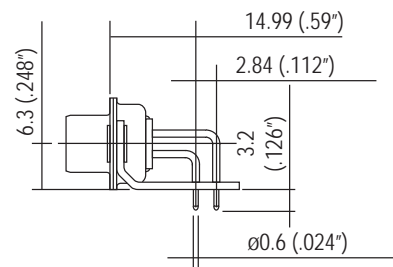
metal bracket:



A

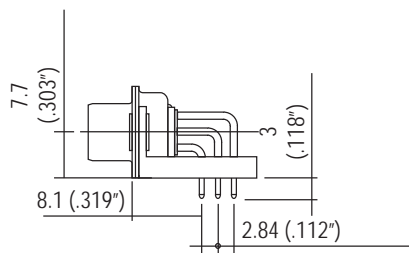


AM4: A=13.2mm
AZ4: A=11.5mm



AM4B

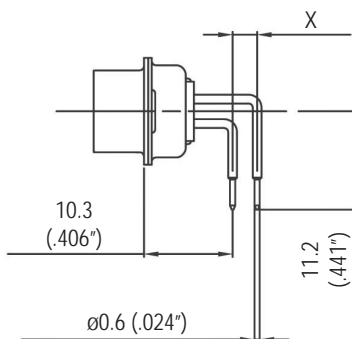
50 contacts:



Termination

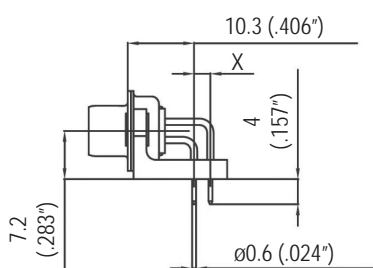
European footprint

without bracket:

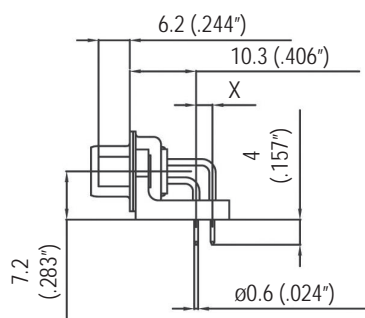


1AON: X=2.54mm
1BON: X=2.84mm

plastic bracket:

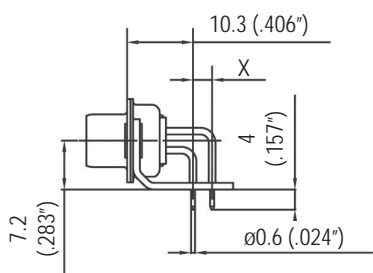


1APN: X=2.54mm
1BPN: X=2.84mm

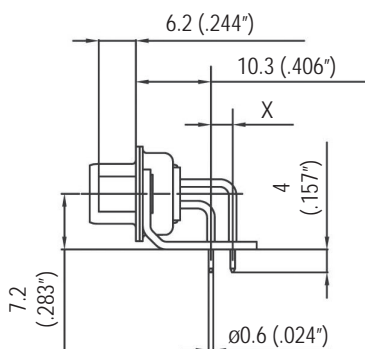


1AUN: X=2.54mm
1BUN: X=2.84mm

metal bracket:

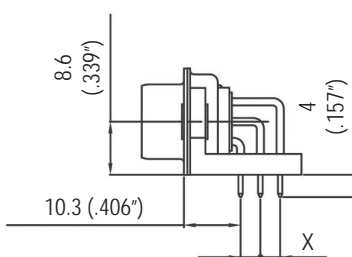


1AMN: X=2.54mm
1BMN: X=2.84mm



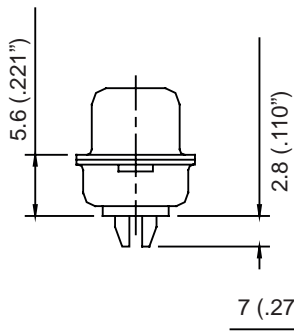
1ATN: X=2.54mm
1BTN: X=2.84mm

50 contacts:

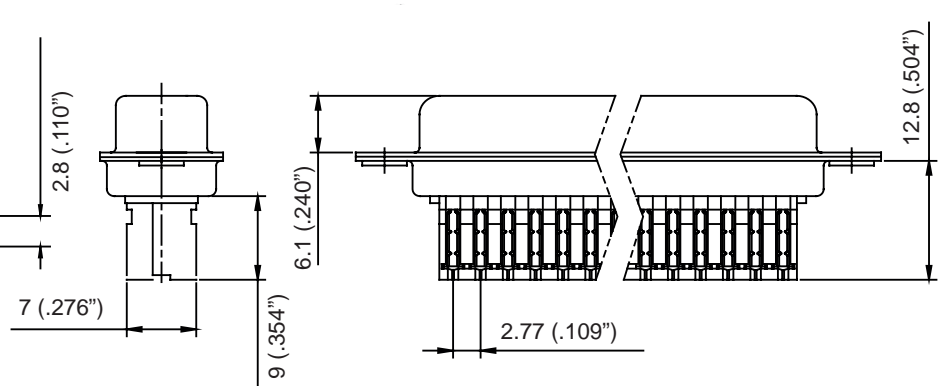


Termination

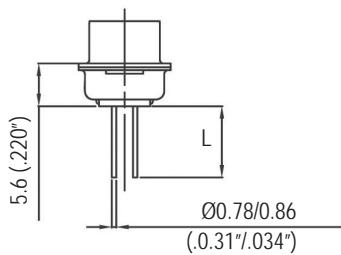
Solder Cup:



IDC (Discrete Wire):

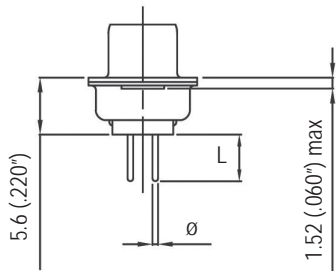


Wire Wrap:



termination	Nb of wraps	L
F179	2	9.6 (.378'')
F179A	3	13 (.512'')

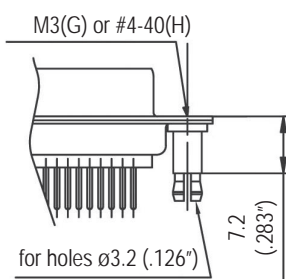
Straight PCB:



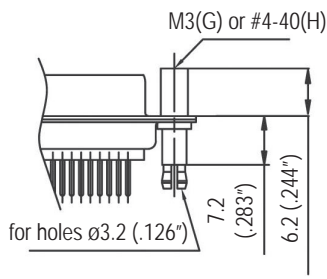
termination	Ø	L
U	0.6 (.024'')	3.2 (.126'')
V	1.02 (.040'')	2.4 (.095'')
T	0.6 (.024'')	4 (.157'')
OL2	0.6 (.024'')	5.5 (.217'')

Grounding tabs:

For straight termination



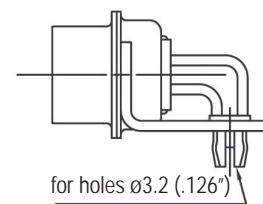
RM5



RM8

For R/A termination

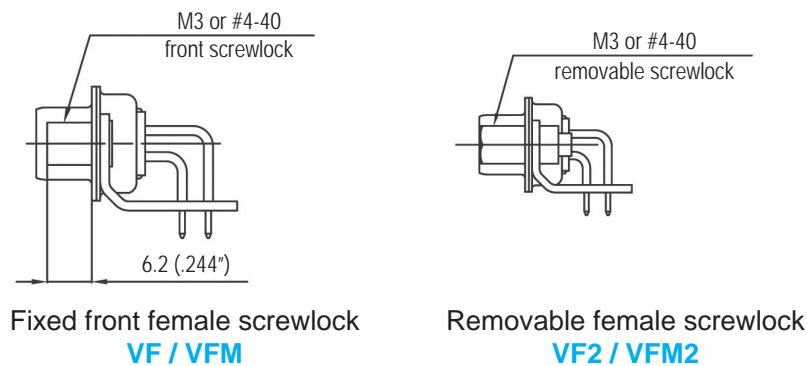
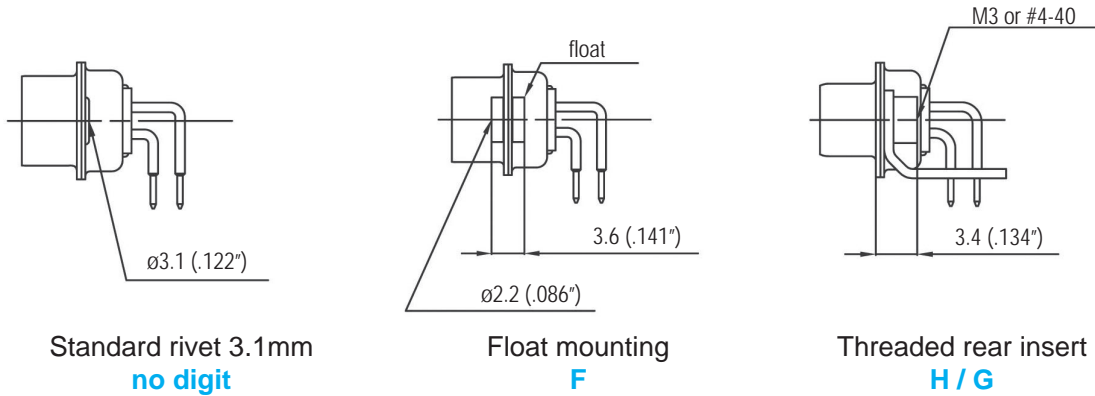
1.6mm PCB



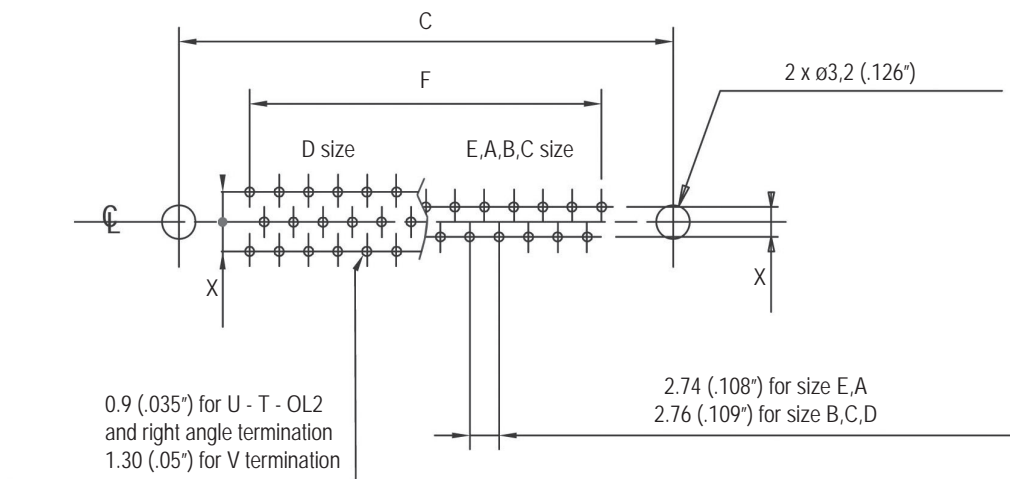
RM6

Panel mounting option

For straight and R/A termination



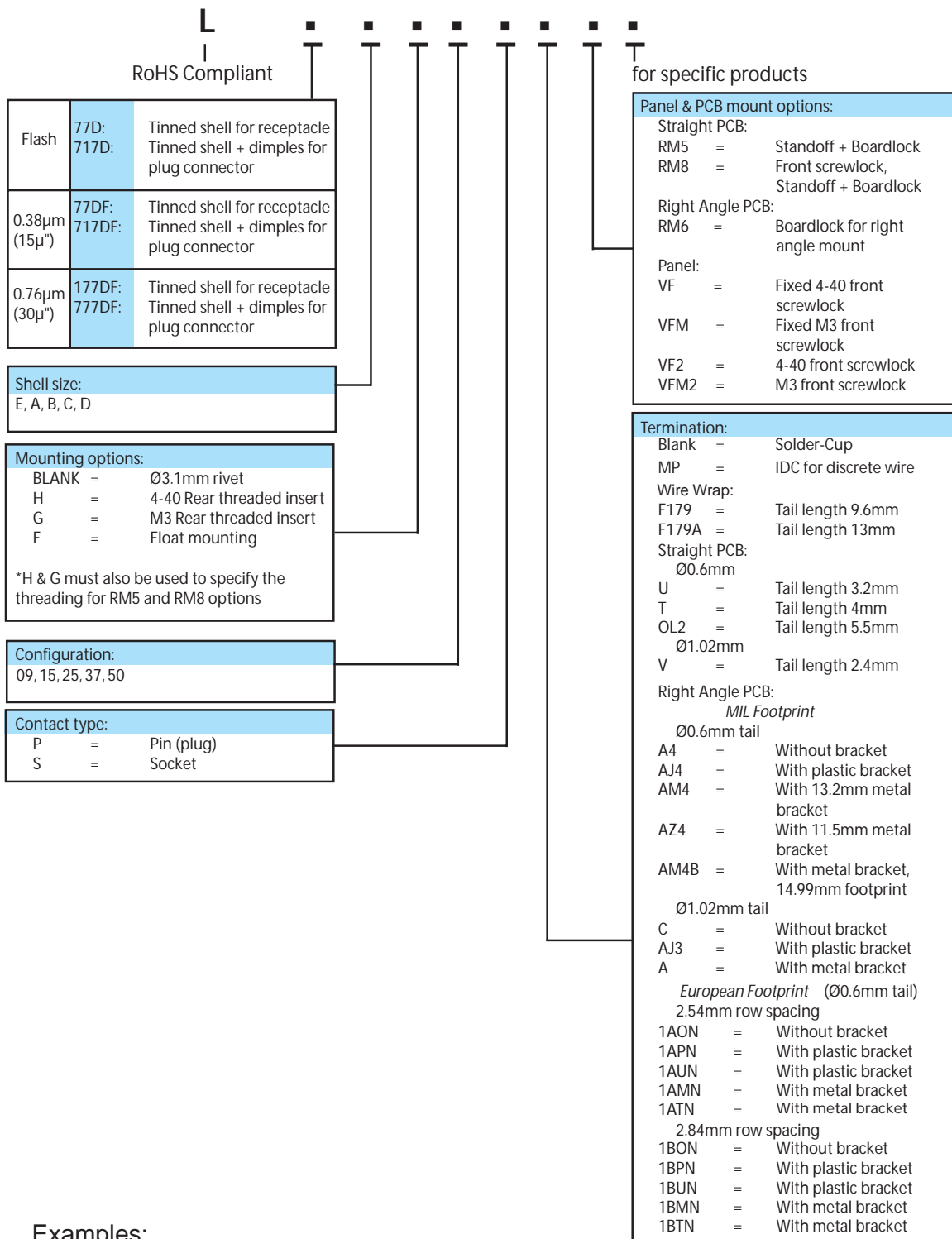
Recommended PCB Layout



For straight PCB: X = 2.84mm (.112")
 For right angle PCB: MIL: X = 2.84mm (.112")
 European: X = 2.54mm (.100"), 2.84mm in option

	size E	size A	size B	size C	size D
C\pm0,1 (.004)	25 (.984)	33.3 (1.311)	47 (1.85)	63.5 (2.5)	61.1 (2.406)
F\pm0,05 (.002)	10.96 (.431)	19.18 (.755)	33.12 (1.304)	49.68 (1.956)	44.2 (1.74)

How to order



Examples:

L717D E H 09 P OL2 RM8

L177DF A 09 S 1AMN VF2 RM6

