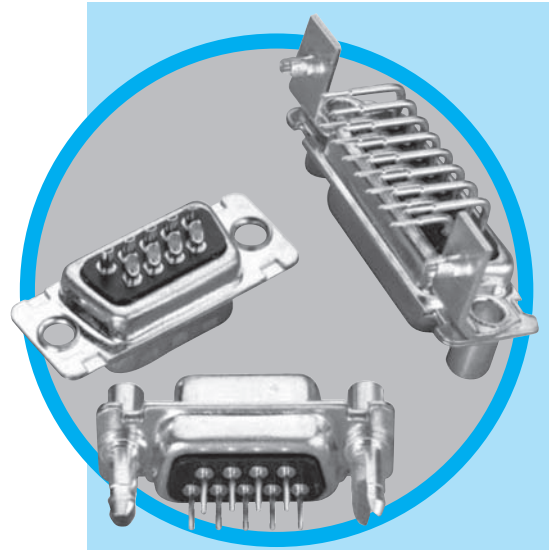


# D-DF

D-Sub connectors - Screw-machined Contacts

## FIXED MACHINED CONTACT CONNECTOR



CHARACTERISTICS

### Specifications

- Connectors according to MIL C24308 - NFC93425-HE5

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

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

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

Mechanical Data		
<b>Mating and unmating force</b>		
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)

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*

APPLICATIONS

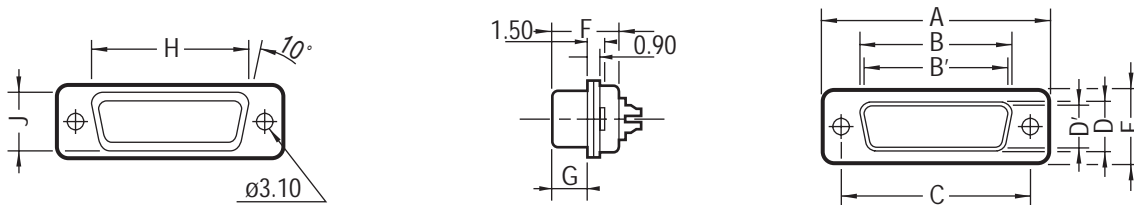
- Medical
- Industrial
- Telecom
- Any industry standard I / O connections



**Amphenol**

D-DF / E18

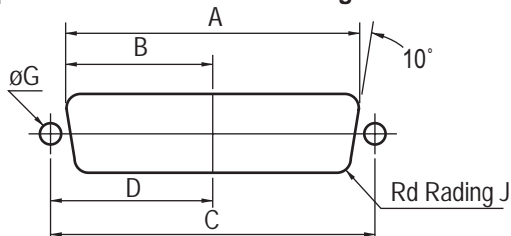
## Shell size dimensions



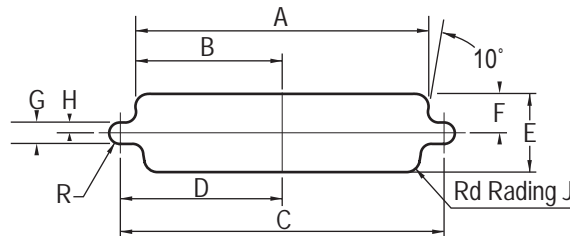
Shell size	Contact P: Pin S: Socket	A ±0.25 (±.010)	B 0/-0.20 (0/- .008)	B' +0.20/0 (+.008/0)	C ±0.10 (±.004)	D 0/-0.25 (0/- .010)	D' +0.25/0 (+.010/0)	E ±0.20 (±.008)	F +0.05/+0.20 (+.002/- .008)	F' +0.10/-0.20 (+.004/- .008)	G +0.10/-0.20 (+.004/- .008)	G' ±0.10 (±.004)	H +0.10/-0.40 (+.004/- .016)	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



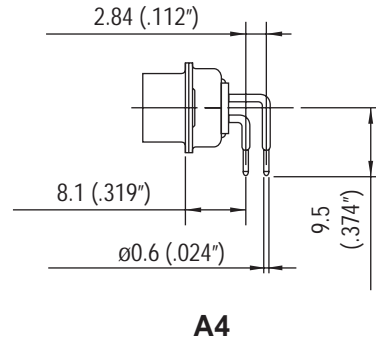
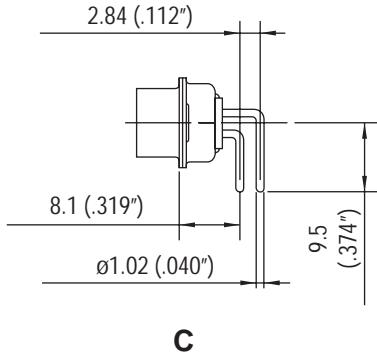
Shell size	Mounting method	A ±0.20 (±.008)	B ±0.20 (±.008)	C ±0.20 (±.008)	D ±0.20 (±.008)	E ±0.20 (±.008)	F ±0.20 (±.008)	G ±0.20 (±.008)	H ±0.20 (±.008)	J ±0.20 (±.008)
E	Front	22.2 (.874")	11.1 (.437")	25.0 (.984")	12.5 (.492")	13.0 (.512")	6.5 (.256")	3.0 (.118")	1.5 (.059")	2.1 (.083")
	Rear	20.5 (.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

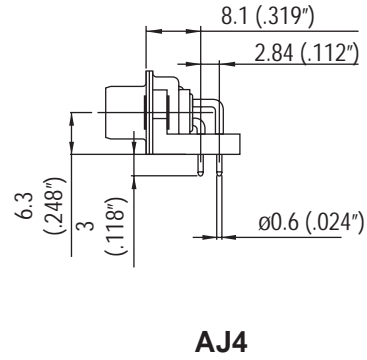
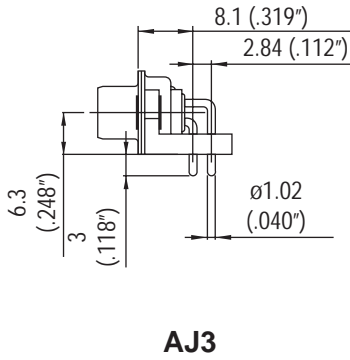
Right angle

## MIL Footprint

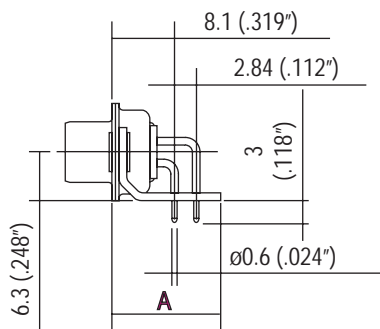
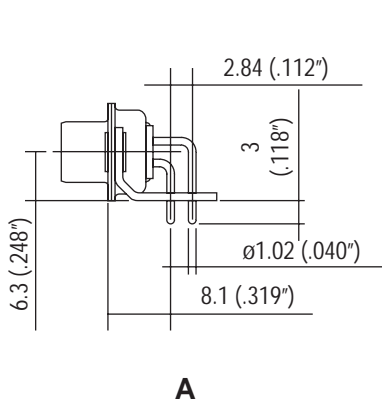
without bracket:



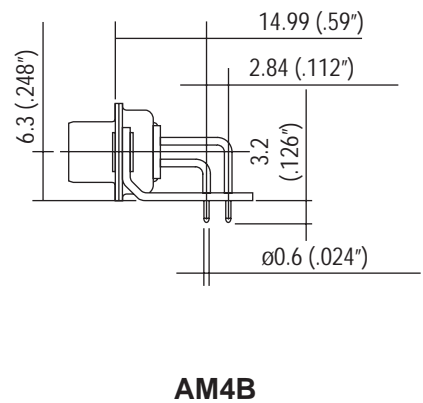
plastic bracket:



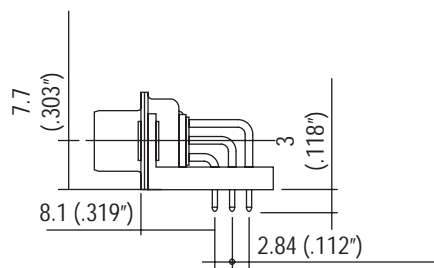
metal bracket:



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



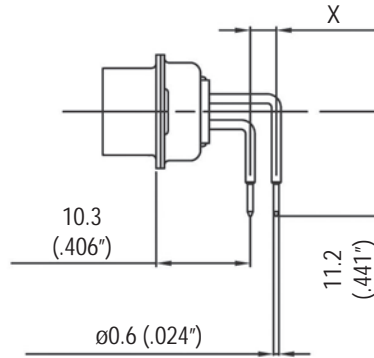
50 contacts:



# Termination

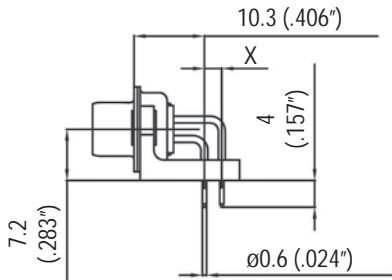
## European footprint

without bracket:

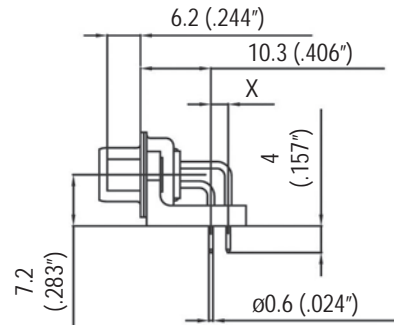


**1AON: X=2.54mm**  
**1BON: X=2.84mm**

plastic bracket:

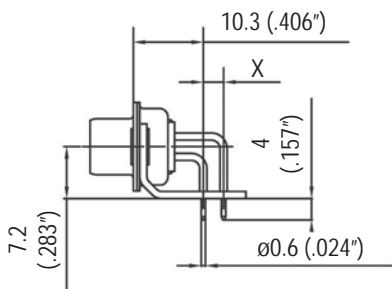


**1APN: X=2.54mm**  
**1BPN: X=2.84mm**

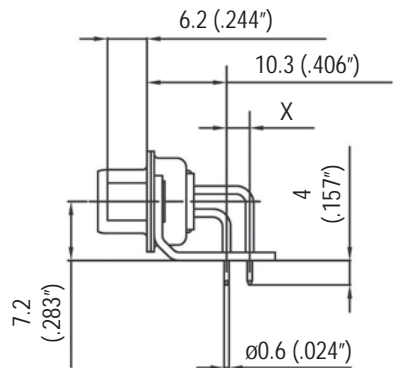


**1AUN: X=2.54mm**  
**1BUN: X=2.84mm**

metal bracket:

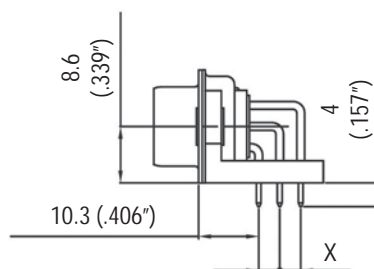


**1AMN: X=2.54mm**  
**1BMN: X=2.84mm**



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

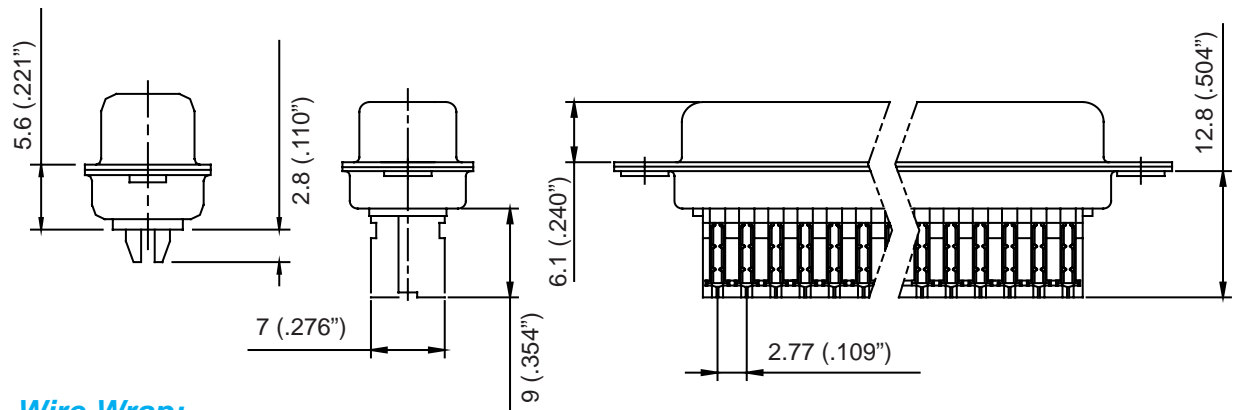
50 contacts:



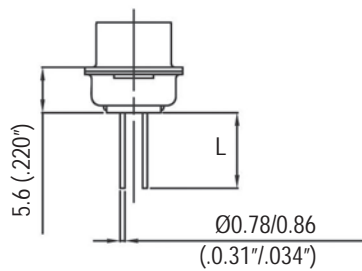
## Termination

### Solder Cup:

### IDC (Discrete Wire):

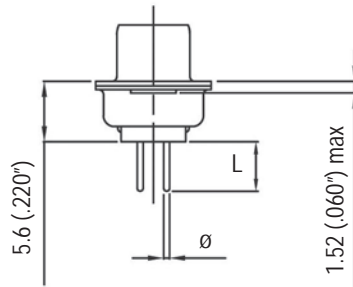


### Wire Wrap:



termination	Nb of wraps	L
<b>F179</b>	2	9.6 (.378")
<b>F179A</b>	3	13 (.512")

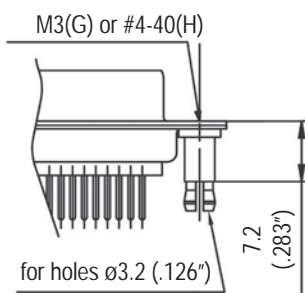
### Straight PCB:



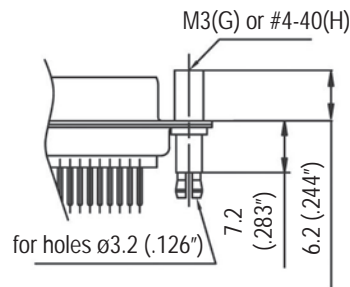
termination	Ø	L
<b>U</b>	0.6 (.024")	3.2 (.126")
<b>V</b>	1.02 (.040")	2.4 (.095")
<b>T</b>	0.6 (.024")	4 (.157")
<b>OL2</b>	0.6 (.024")	5.5 (.217")

### Grounding tabs:

#### For straight termination



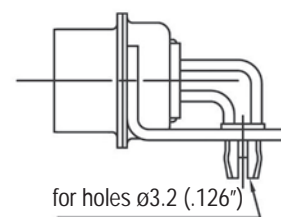
**RM5**



**RM8**

#### For R/A termination

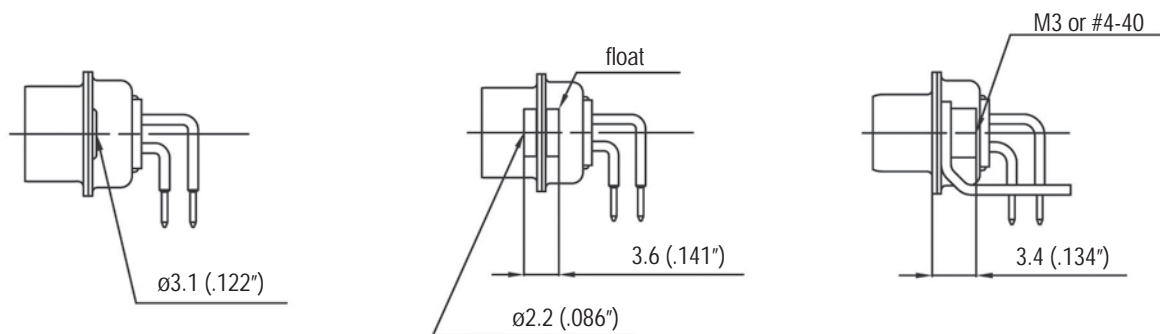
1.6mm PCB



**RM6**

## Panel mounting option

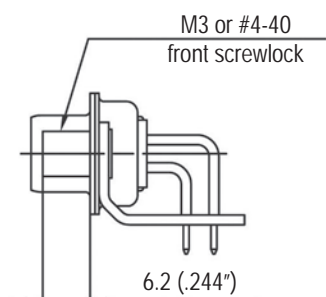
For straight and R/A termination



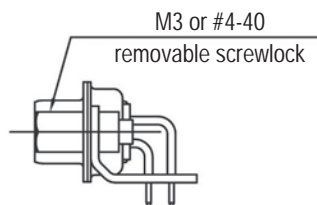
Standard rivet 3.1mm  
**no digit**

Float mounting  
**F**

Threaded rear insert  
**H / G**

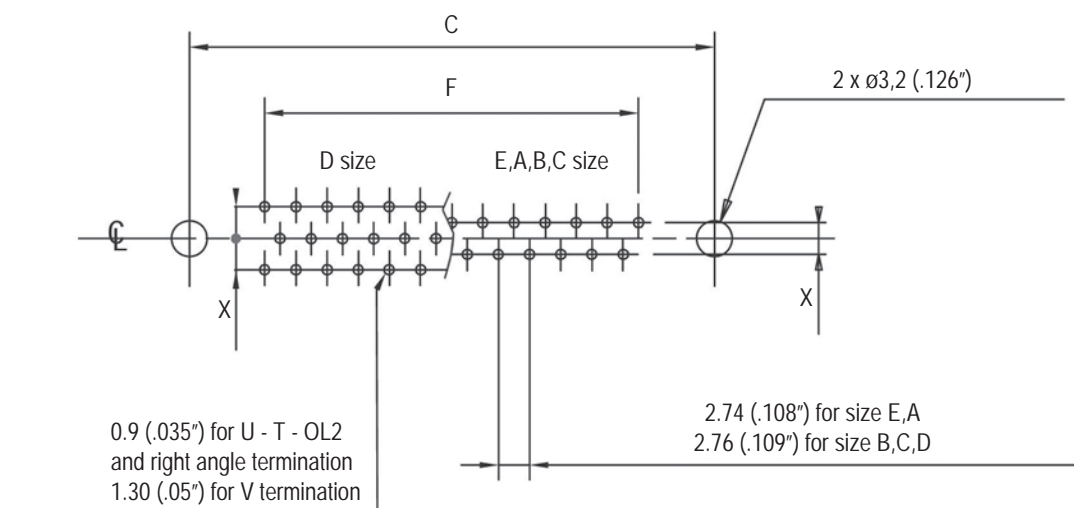


Fixed front female screwlock  
**VF / VFM**



Removable female screwlock  
**VF2 / VFM2**

## Recommended PCB Layout



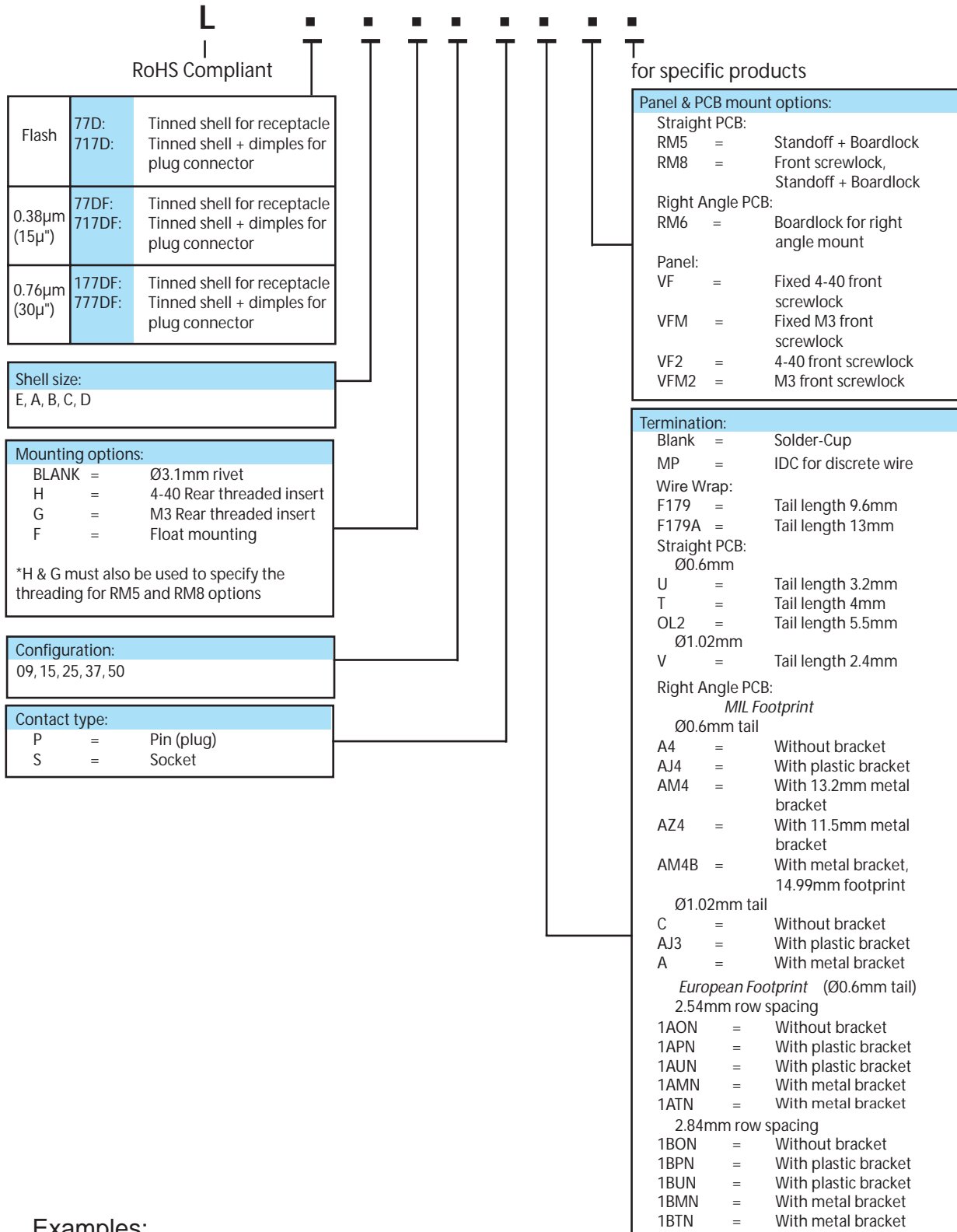
For straight PCB: X = 2.84mm (.112")

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
<b>C±0,1 (.004)</b>	25 (.984)	33.3 (1.311)	47 (1.85)	63.5 (2.5)	61.1 (2.406)
<b>F±0,05 (.002)</b>	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

For special request, please consult factory

