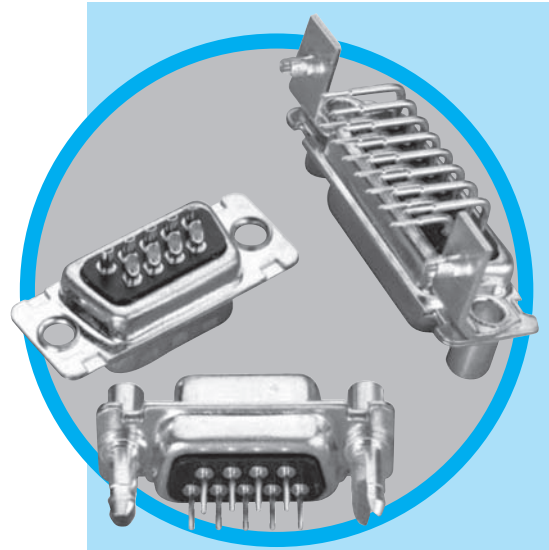


D-DF

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 |

| 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) |

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

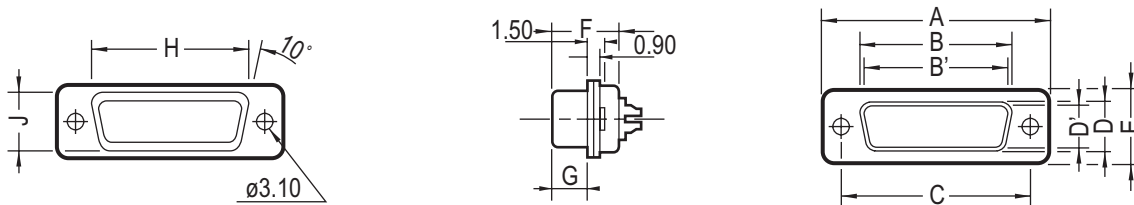
- Medical
- Industrial
- Telecom
- Any industry standard I / O connections



Amphenol

D-DF / E18

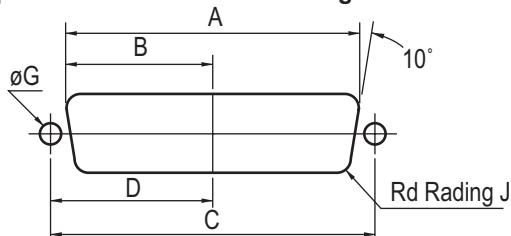
Shell size dimensions



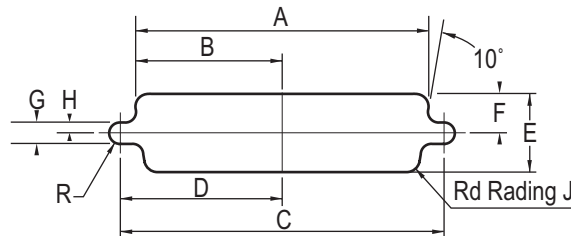
| Shell size | Contact P: Pin S: Socket | A ±0.25 (±.010) | B 0/-0.20 (0/- .008) | B' +0.20/0 (+.008/0) | C ±0.10 (±.004) | D 0/-0.25 (0/- .010) | D' +0.25/0 (+.010/0) | E ±0.20 (±.008) | F +0.05/-0.20 (+.002/- .008) | F' +0.10/-0.20 (+.004/- .008) | G +0.10/-0.20 (+.004/- .008) | G' ±0.10 (±.004) |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



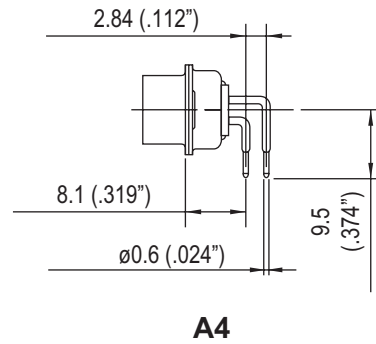
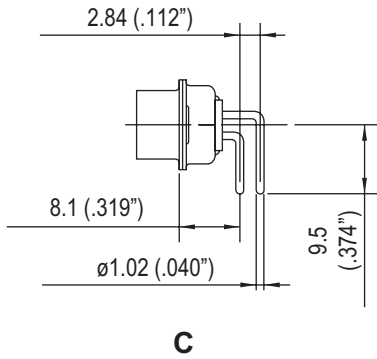
| Shell size | Mounting method | A ±0.20 (±.008) | B ±0.20 (±.008) | C ±0.20 (±.008) | D ±0.20 (±.008) | E ±0.20 (±.008) | F ±0.20 (±.008) | G ±0.20 (±.008) | H ±0.20 (±.008) | J ±0.20 (±.008) |
|------------|-----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 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

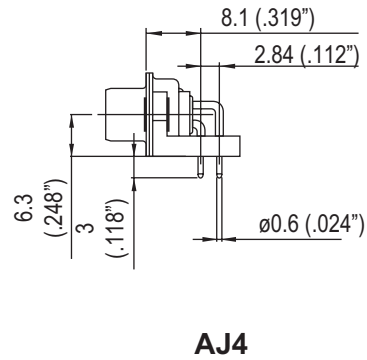
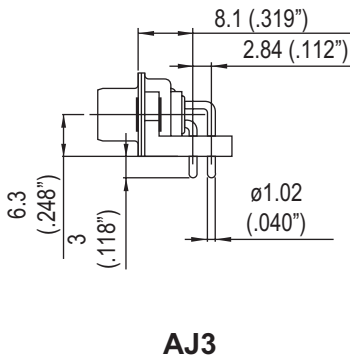
Right angle

MIL Footprint

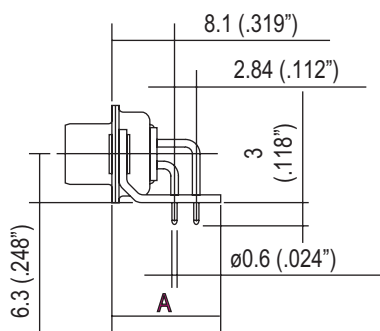
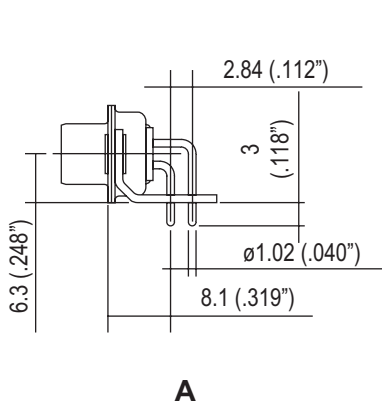
without bracket:



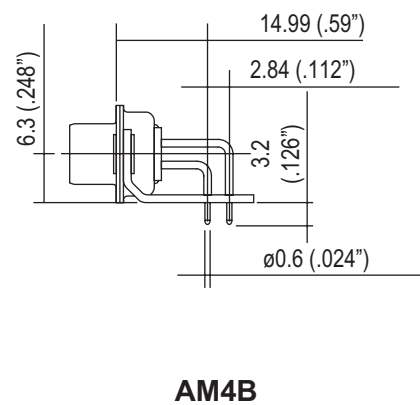
plastic bracket:



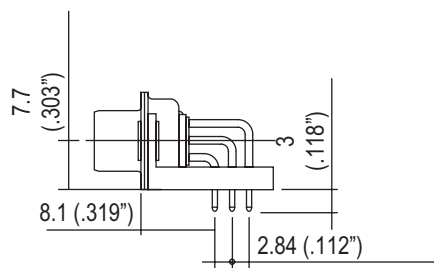
metal bracket:



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



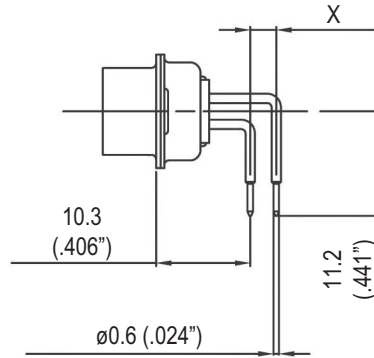
50 contacts:



Termination

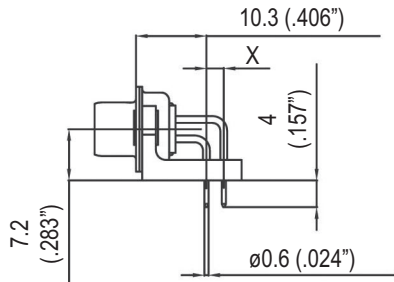
European footprint

without bracket:

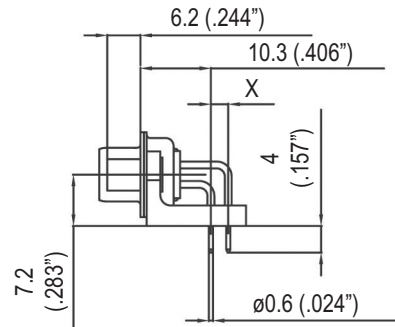


1AON: X=2.54mm
1BON: X=2.84mm

plastic bracket:

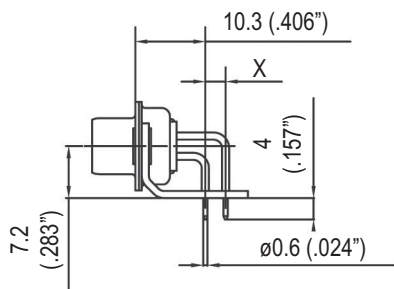


1APN: X=2.54mm
1BPN: X=2.84mm

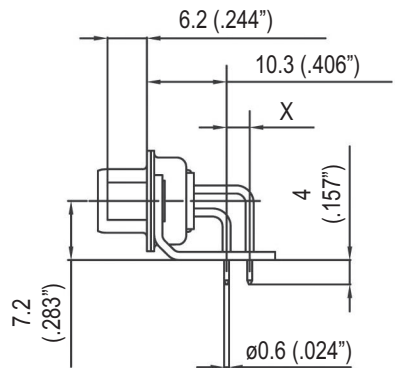


1AUN: X=2.54mm
1BUN: X=2.84mm

metal bracket:

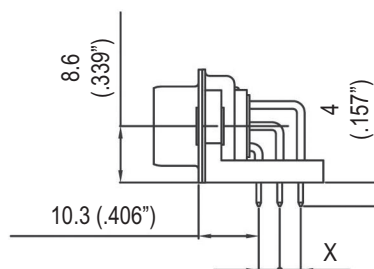


1AMN: X=2.54mm
1BMN: X=2.84mm



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

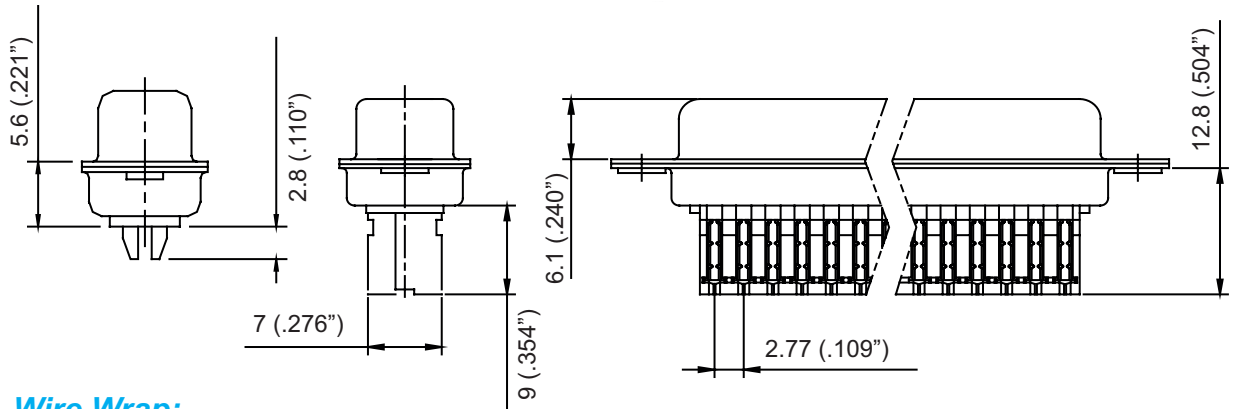
50 contacts:



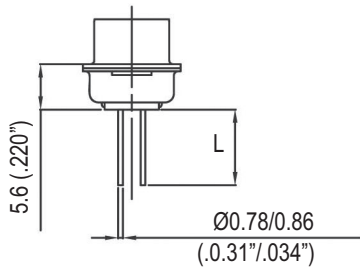
Termination

Solder Cup:

IDC (Discrete Wire):

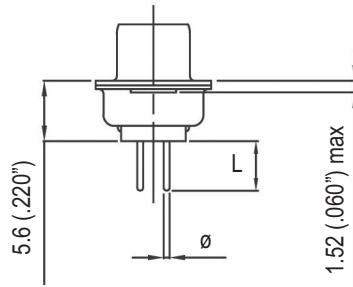


Wire Wrap:



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

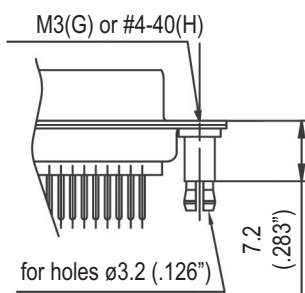
Straight PCB:



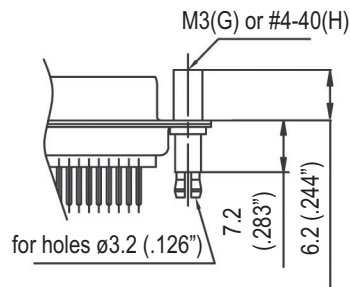
| termination | Ø | L |
|-------------|--------------|-------------|
| U | 0.6 (.024") | 3.2 (.126") |
| V | 1.02 (.040") | 2.4 (.095") |
| T | 0.6 (.024") | 4 (.157") |
| OL2 | 0.6 (.024") | 5.5 (.217") |

Grounding tabs:

For straight termination



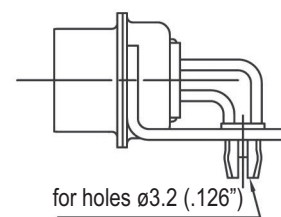
RM5



RM8

For R/A termination

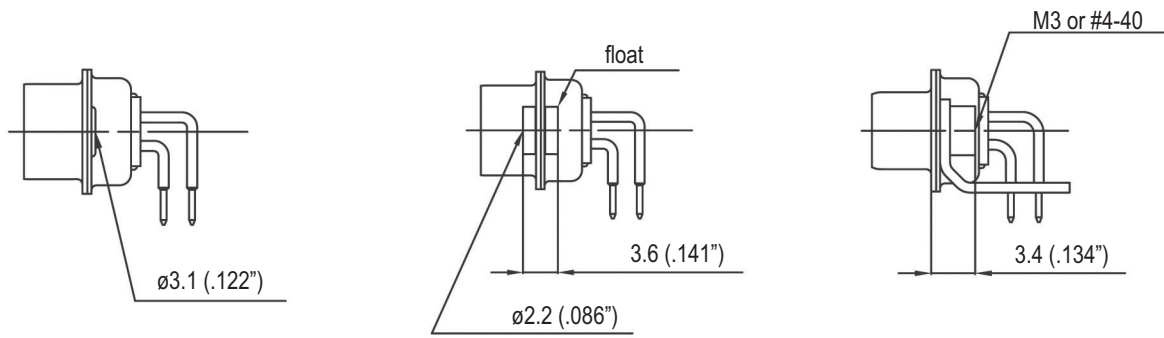
1.6mm PCB



RM6

Panel mounting option

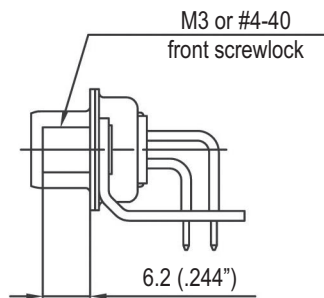
For straight and R/A termination



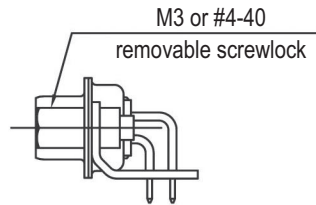
Standard rivet 3.1mm
no digit

Float mounting
F

Threaded rear insert
H / G

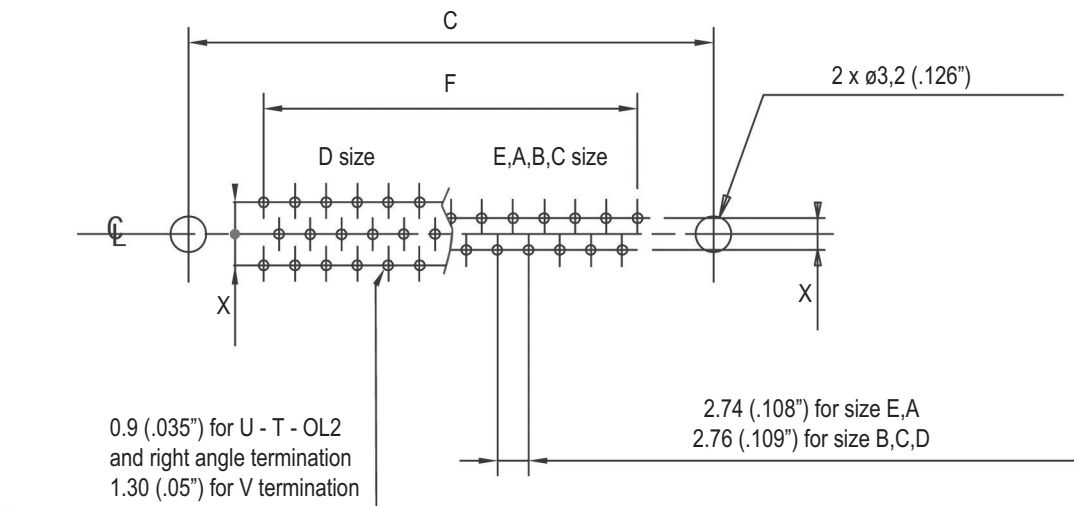


Fixed front female screwlock
VF / VFM



Removable female screwlock
VF2 / VFM2

Recommended PCB Layout



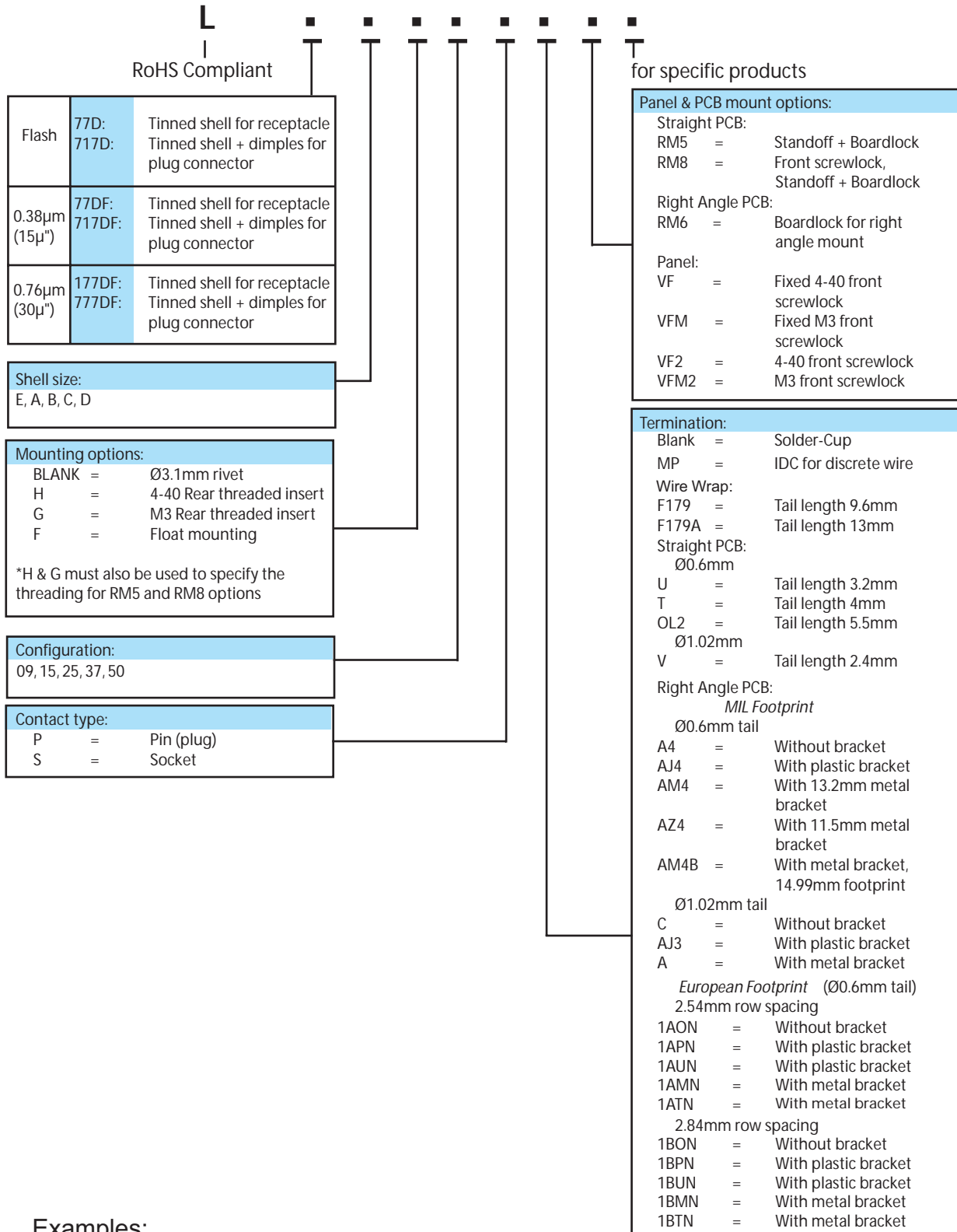
For straight PCB: $X = 2.84\text{mm} (.112")$

For right angle PCB: MIL: $X = 2.84\text{mm} (.112")$

European: $X = 2.54\text{mm} (.100")$, 2.84mm in option

| | size E | size A | size B | size C | size D |
|--------------------------------------|--------------|--------------|---------------|---------------|--------------|
| C$\pm 0,1 (.004)$ | 25 (.984) | 33.3 (1.311) | 47 (1.85) | 63.5 (2.5) | 61.1 (2.406) |
| F$\pm 0,05 (.002)$ | 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

For special request, please consult factory

