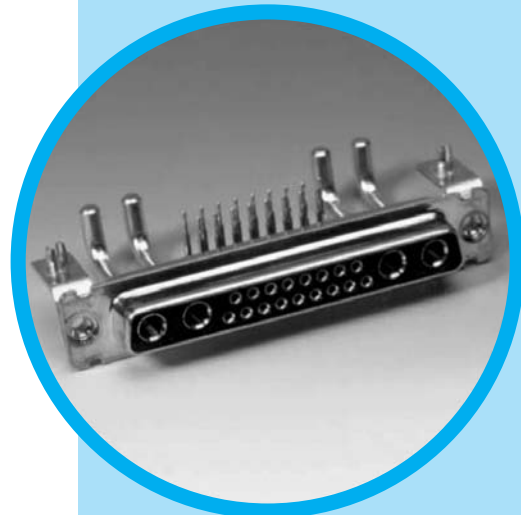




# TW

## Hybrid D'Sub series



CONTENT

### Specifications

- Connectors according to: MIL C24308 - NFC93425 - HE507

| Materials and platings                   |                                      | Electrical Data                         |                          |
|------------------------------------------|--------------------------------------|-----------------------------------------|--------------------------|
| Shells                                   | Steel-Tin plating                    | Current rating                          |                          |
| Insulators                               | High temperature black thermoplastic | Signal contacts                         | 7.5 A. with 10 A. peaks  |
| Signal contacts                          | Female: machined bronze              | Power contacts                          |                          |
| Material                                 | Male: machined brass                 | PCB terminations                        | 10 to 40 A.              |
| Plating finish                           | 16μ "Au over 79μ" Ni min.            | Solder cup terminations                 | 10 to 40 A.              |
| Or                                       | 30μ "Au over 79μ" Ni min.            | Crimp terminations                      | 10 to 40 A.              |
| Shielded contacts                        | Female: machined bronze              | Shielded contacts                       | 0.5 A.                   |
| Material                                 | Male: machined brass                 | Voltage rating                          |                          |
| Plating                                  |                                      | Signal and power contacts               | 300 V.R.M.S. at 50 Hz    |
| Inner conductor                          | 16μ "Au or 30μm Au over 79μ" Ni      | Shielded contacts                       | 150 V.R.M.S. at 50 Hz    |
| Outer ring                               | 10μ "Au over 79μ" Ni                 | Shielded contacts                       |                          |
| Terminations                             | Tinned                               | Frequency range                         | 0-1 GHz                  |
| Except solder cup and crimp terminations | gold flash                           | Attenuation                             | 0.2dB                    |
| Power contacts                           | Female: machined bronze              | V. S. W. R.                             | 1.4(+0.04/GHz)           |
| Material                                 | Male: machined brass                 | Characteristic impedance                | 50 Ohms                  |
| Plating                                  |                                      | Dielectric withstanding voltage         | ≥ 1000 V.R.M.S. at 50Hz  |
| Contacts                                 | 16μ "Au or 30μ" Au over 79μ" Ni      | Insulation resistance                   | ≥ 5000 M Ohms at 500 VDC |
| Terminations                             | Tinned                               | Contact resistance                      | ≤ 5m Ohms                |
| Except solder cup and crimp terminations | gold flash                           | Shell resistance (electrical grounding) | ≤ 1m Ohm                 |
| Brackets                                 | Steel-Tin plating                    |                                         |                          |
| Front jackscrews                         | Brass-Tin plating                    |                                         |                          |
| Rear clinch nuts                         | Brass-Tin plating                    |                                         |                          |
| Boardlocks                               | Bronze-Tin plating                   |                                         |                          |
| Stand-off                                | Brass-Tin plating                    |                                         |                          |

| Climatic Data         |                                           | Mechanical data                                |                                                                                      |
|-----------------------|-------------------------------------------|------------------------------------------------|--------------------------------------------------------------------------------------|
| Operating temperature | -55°C + 155°C<br>(with peaks up to 180°C) | Shells                                         | With or without dimples                                                              |
| Damp heat             | 56 days (40°C - 95% HR)                   | Contact retention force in dielectric material | > 40N                                                                                |
| Salt spray            | 48 hours                                  | Maximum mating and unmating force              |                                                                                      |
|                       |                                           | With dimples                                   | E size = 70 N<br>A size = 80 N<br>B size = 100 N<br>C size = 150 N<br>D size = 180 N |
|                       |                                           | Without dimples                                | E size = 30 N<br>A size = 50 N<br>B size = 80 N<br>C size = 120 N<br>D size = 160 N  |
|                       |                                           | Compatible with process                        |                                                                                      |
|                       |                                           | IR - Air convectioned                          | 260° for 20 s.                                                                       |
|                       |                                           | Resistance to solder iron heat                 | 260°C for 30 s.                                                                      |
|                       |                                           | Mating cycles                                  | ≥ 200 (classe II) or 500 (classe I)                                                  |
|                       |                                           | Blind mating system                            | Available upon request                                                               |
|                       |                                           | Polarization                                   | Available with locking accessories<br>Consult factory                                |



DESCRIPTION

Amphenol D'Sub TW Hybrid Series permits a mix of contacts including signal, power, shielded, high voltage and fiber optics in the same housing with 18 different contacts arrangements.

This economic series was first developed from our military series, and has improved features:

- new contacts
- new high temperature black thermoplastic insert
- PCB configurations come preloaded with fixed contacts and brackets.

These connectors are supplied with screw machined contacts which are fixed in the insulator.

A complete range of housings are also available for cable application.

*A full range of arrangements compatible with reflow process*

APPLICATIONS

- Commercial
- Medical
- Industrial
- Telecom
- Any application requiring optimization of space

TW / E1



**Amphenol**

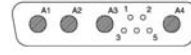
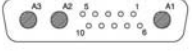
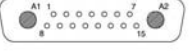
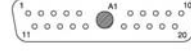
Shell and contacts plating

| CLASS II                                                   |                                                   |
|------------------------------------------------------------|---------------------------------------------------|
| 0.4µm (16µ") Au contacts gold plating<br>200 mating cycles |                                                   |
| Types                                                      | Shells and plating                                |
| 77 TW                                                      | Tin plated shell<br><i>*Male and female</i>       |
| 717 TW                                                     | Tin plated shell with dimples<br><i>Male only</i> |

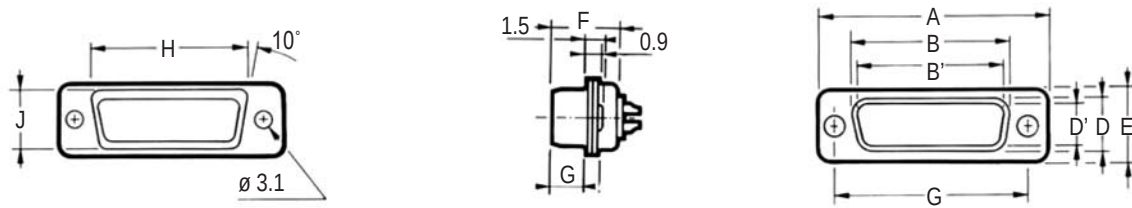
| CLASS I                                                     |                                                   |
|-------------------------------------------------------------|---------------------------------------------------|
| 0.76µm (30µ") Au contacts gold plating<br>500 mating cycles |                                                   |
| Types                                                       | Shells and plating                                |
| 177 TW                                                      | Tin plated shell<br><i>*Male and female</i>       |
| 777 TW                                                      | Tin plated shell with dimples<br><i>Male only</i> |

Housing arrangements

Male front view

|                                       |                                                                                                  |                                                                                                   |                                                                                                    |
|---------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Arrangement .....<br>Shell size ..... | <br>5W1<br>E    | <br>7W2<br>A     | <br>11W1<br>A   |
| Arrangement .....<br>Shell size ..... | <br>3W3<br>A  | <br>5W5<br>B   | <br>9W4<br>B  |
| Arrangement .....<br>Shell size ..... | <br>13W3<br>B | <br>17W2<br>B  | <br>21W1<br>B |
| Arrangement .....<br>Shell size ..... | <br>27W2<br>C | <br>13W6<br>C | <br>17W5<br>C |
| Arrangement .....<br>Shell size ..... | <br>21W4<br>C | <br>8W8<br>C  | <br>25W3<br>C |
| Arrangement .....<br>Shell size ..... | <br>24W7<br>D | <br>36W4<br>D | <br>43W2<br>D |

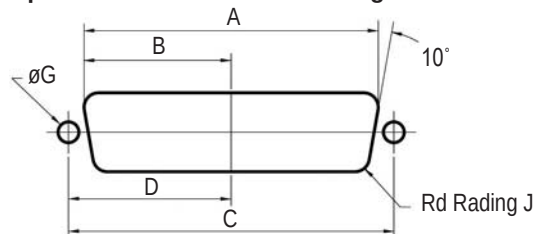
## Shell size dimensions



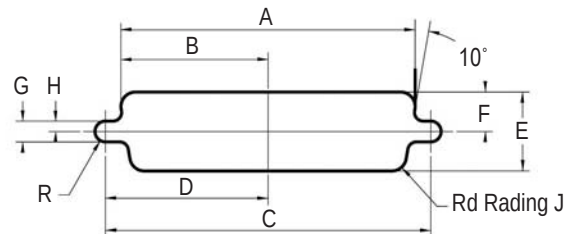
| Shell size | Contact<br>P: Pin<br>S: Socket | A<br>±0.25<br>(±.010) | B<br>0/-0.20<br>(0/- .008) | B'<br>+0.20/0<br>(+.008/0) | C<br>±0.10<br>(±.004) | D<br>0/-0.25<br>(0/- .010) | D'<br>+0.25/0<br>(+.010/0) | E<br>±0.20<br>(±.008) | F<br>+0.05/-0.20<br>(+.002/- .008) | F'<br>+0.10/-0.20<br>(+.004/-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

## Panel cutouts

Optimal cutout for rear mounting

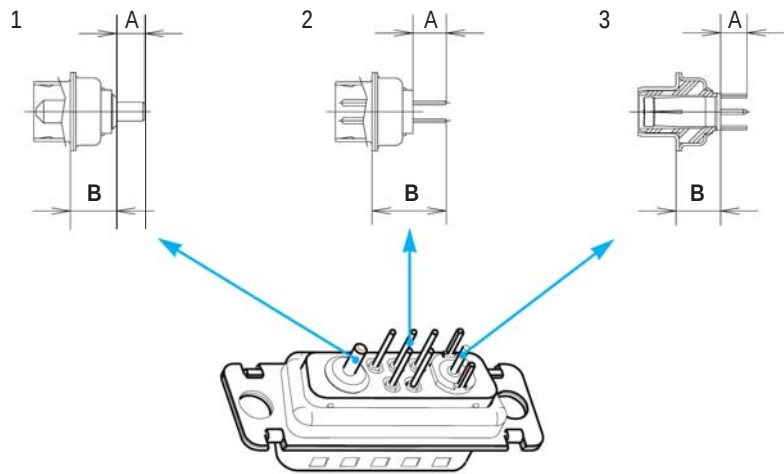


Standard cutout



| Shell size | Mounting method | A<br>±0.20<br>(±.008) | B<br>±0.20<br>(±.008) | C<br>±0.20<br>(±.008) | D<br>±0.20<br>(±.008) | E<br>±0.20<br>(±.008) | F<br>±0.20<br>(±.008) | G<br>±0.20<br>(±.008) | H<br>±0.20<br>(±.008) | J<br>±0.20<br>(±.008) |
|------------|-----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| E          | Front           | 22.2<br>(.874")       | 11.1<br>(.437")       | 25.0<br>(.984")       | 12.5<br>(.492")       | 13.0<br>(.512")       | 6.5<br>(.256")        | 3.0<br>(.118")        | 1.5<br>(.059")        | 2.1<br>(.083")        |
|            | Rear            | 20.5<br>(.807")       | 10.2<br>(.402")       |                       |                       | 11.4<br>(.449")       | 5.7<br>(.224")        |                       |                       | 3.4<br>(.134")        |
| A          | Front           | 30.5<br>(1.201")      | 15.3<br>(.602")       | 33.3<br>(1.311")      | 16.7<br>(.657")       | 13.0<br>(.512")       | 6.5<br>(.256")        | 3.0<br>(.118")        | 1.5<br>(.059")        | 2.1<br>(.083")        |
|            | Rear            | 28.8<br>(1.134")      | 14.4<br>(.567")       |                       |                       | 11.4<br>(.449")       | 5.7<br>(.224")        |                       |                       | 3.4<br>(.134")        |
| B          | Front           | 44.3<br>(1.744")      | 22.1<br>(.870")       | 47.0<br>(1.850")      | 23.5<br>(.925")       | 13.0<br>(.512")       | 6.5<br>(.256")        | 3.0<br>(.118")        | 1.5<br>(.059")        | 2.1<br>(.083")        |
|            | Rear            | 42.5<br>(1.673")      | 21.3<br>(.839")       |                       |                       | 11.4<br>(.449")       | 5.7<br>(.224")        |                       |                       | 3.4<br>(.134")        |
| C          | Front           | 60.7<br>(2.390")      | 30.4<br>(1.197")      | 63.5<br>(2.500")      | 31.7<br>(1.248")      | 13.0<br>(.512")       | 6.5<br>(.256")        | 3.0<br>(.118")        | 1.5<br>(.059")        | 2.1<br>(.083")        |
|            | Rear            | 59.1<br>(2.327")      | 29.5<br>(1.161")      |                       |                       | 11.4<br>(.449")       | 5.7<br>(.224")        |                       |                       | 3.4<br>(.134")        |
| D          | Front           | 58.3<br>(2.295")      | 29.2<br>(1.150")      | 61.1<br>(2.406")      | 30.6<br>(1.205")      | 15.8<br>(.622")       | 7.9<br>(.311")        | 3.0<br>(.118")        | 1.5<br>(.059")        | 2.1<br>(.083")        |
|            | Rear            | 56.3<br>(2.217")      | 28.2<br>(1.110")      |                       |                       | 14.1<br>(.555")       | 7.1<br>(.280")        |                       |                       | 3.4<br>(.134")        |

Straight connector footprint



Signal tail 0.6 mm Dia. (.0236")  
1.6 mm (.063")PCB  
For other PCB thickness: consult factory.

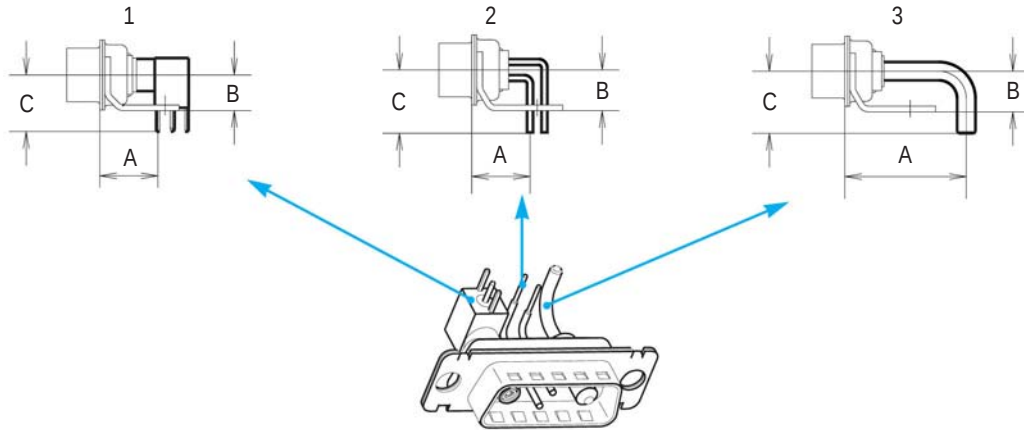
| Description              |   | Dimensions         |                     |
|--------------------------|---|--------------------|---------------------|
|                          |   | a                  | b                   |
| Power (.126" tail dia.)  | 1 | 4.80 mm<br>(.198") | 7.2 mm<br>(.283")   |
| Power (.0787" tail dia.) | 1 | 4.80 mm<br>(.198") | 7.2 mm<br>(.283")   |
| Shielded                 | 3 | 4.00 mm<br>(.157") | 7.2 mm<br>(.283")   |
| Signal                   | 2 | 5.00 mm<br>(.196") | 11.50 mm<br>(.453") |

Straight contact combinations

| Arrangement with signal contacts |                                                                                     | Arrangement without signal contacts<br>3W3 - 5W5 - 8W8 |                                                   |
|----------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------|
| See above dimensions             | Size 8 and 20 Contacts                                                              | See above dimensions                                   | Size 8 Contacts                                   |
| ↓                                |                                                                                     | ↓                                                      |                                                   |
| P 3SY                            | Power 3.2 mm DIA. (.126")<br>(20 to 40 A) and signal                                | P 3Y                                                   | Power only<br>3.2 mm DIA. (.126")<br>(20 to 40 A) |
| P 2SY                            | Power 2 mm DIA. (.0787")<br>(10 to 20 A) and signal                                 | P 2Y                                                   | Power only<br>2 mm DIA. (.0787")<br>(10 to 20 A)  |
| CSY                              | Shielded and signal                                                                 | CY                                                     | Shielded only                                     |
| SY                               | Signal only                                                                         |                                                        |                                                   |
| No reference                     | Signal (Size 20)<br>with solder cup terminations<br>Housing preloaded with contacts |                                                        |                                                   |



## Right angle connector footprint



Signal tail 0.6 mm Dia. (.0236")  
1.6 mm (.063") PCB  
For other PCB thickness: consult factory.

| Signal tail 0.6 mm Dia. (.0236")<br>1.6 mm (.063") PCB<br>For other PCB thickness: consult factory. |   | Europe                                                                                            |                   |                    | Mix                                                                                             |                   |                    | MIL                                                                                        |                   |                    |
|-----------------------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------|-------------------|--------------------|-------------------------------------------------------------------------------------------------|-------------------|--------------------|--------------------------------------------------------------------------------------------|-------------------|--------------------|
|                                                                                                     |   | HE 5 pattern =<br>- Europ. height<br>- Europ. footprint<br><i>pitch between<br/>2 rows: .100"</i> |                   |                    | Mixed pattern =<br>- MIL height<br>- Europ. footprint<br><i>pitch between<br/>2 rows: .100"</i> |                   |                    | MIL pattern =<br>- MIL height<br>- MIL footprint<br><i>pitch between<br/>2 rows: .112"</i> |                   |                    |
| Description                                                                                         |   | a                                                                                                 | b                 | c                  | a                                                                                               | b                 | c                  | a                                                                                          | b                 | c                  |
| Shielded                                                                                            | 1 | -                                                                                                 | -                 | -                  | 10.30mm<br>(.406")                                                                              | 6.30mm<br>(.248") | 10.00mm<br>(.394") | 10.30mm<br>(.406")                                                                         | 6.30mm<br>(.248") | 10.00mm<br>(.394") |
| Signal                                                                                              | 2 | 10.30mm<br>(.406")                                                                                | 7.20mm<br>(.283") | 11.20mm<br>(.441") | 10.30mm<br>(.406")                                                                              | 6.30mm<br>(.248") | 9.50mm<br>(.374")  | 8.10mm<br>(.319")                                                                          | 6.30mm<br>(.248") | 9.50mm<br>(.374")  |
| Power (.0787" tail dia.)                                                                            | 3 | 11.57mm<br>(.456")                                                                                | 7.20mm<br>(.283") | 10.50mm<br>(.413") | 11.57mm<br>(.456")                                                                              | 6.30mm<br>(.248") | 9.50mm<br>(.374")  | 9.52mm<br>(.375")                                                                          | 6.30mm<br>(.248") | 9.50mm<br>(.374")  |
| Power (.126" tail dia.)                                                                             | 3 | 21.46mm<br>(.845")                                                                                | 7.20mm<br>(.283") | 10.50mm<br>(.413") | 21.46mm<br>(.845")                                                                              | 6.30mm<br>(.248") | 9.50mm<br>(.374")  | 21.46mm<br>(.845")                                                                         | 6.30mm<br>(.248") | 9.50mm<br>(.374")  |

Note: above dimensions correspond to sizes E to C. Consult factory for D sizes.  
Connector comes equipped with contacts and brackets.

## Right angle contacts combinations

### Arrangement with signal contacts

| European footprint | Mixed footprint | MIL (U.S.) footprint | Size 8 and 20 Contacts                            |
|--------------------|-----------------|----------------------|---------------------------------------------------|
| EP3SV              | HP3SV           | MP3SV                | Power 3.2 mm DIA. (.126") (20 to 40 A) and signal |
| EP2SV              | HP2SV           | MP2SV                | Power 2 mm DIA. (.0787") (10 to 20 A) and signal  |
| -                  | HCSV            | MCSV                 | Shielded and signal                               |
| ESV                | HSV             | MSV                  | Signal only                                       |

### Arrangement without signal contacts 3W3 - 5W5 - 8W8

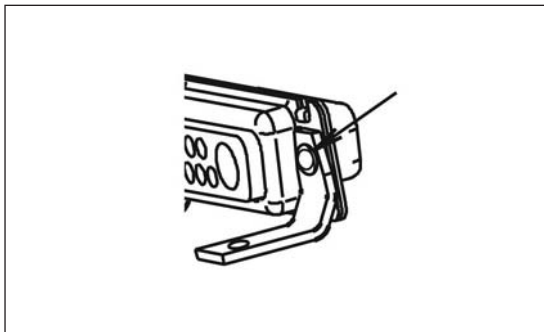
| European footprint | Mixed footprint | MIL (U.S.) footprint | Size 8 contacts only                         |
|--------------------|-----------------|----------------------|----------------------------------------------|
| EP3V               | HP3V            | MP3V                 | Power only 3.2 mm DIA. (.126") (20 to 40 A)  |
| EP2V               | HP2V            | MP2V                 | Power only 2.0 mm DIA. (.0787") (10 to 20 A) |
| -                  | HCV             | MCV                  | Shielded only                                |

## Mounting options

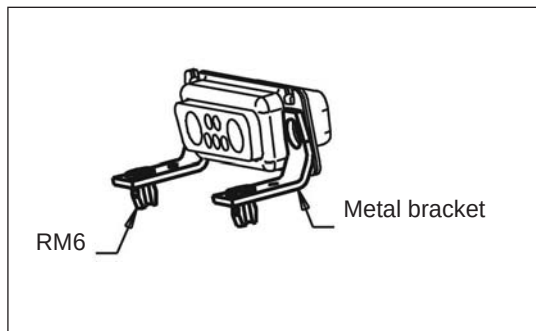
### Right angle version

Connectors come equipped with metal brackets

**BLANK:** 3.10mm (.122") dia mounting hole

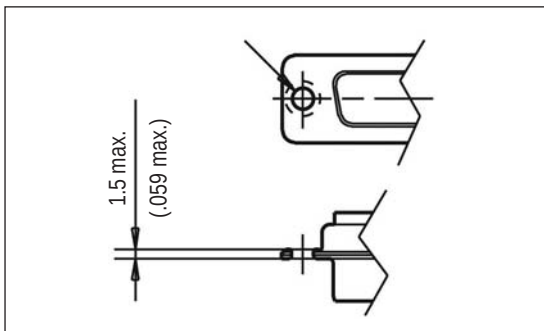


**RM6:** metal brackets + boardlock



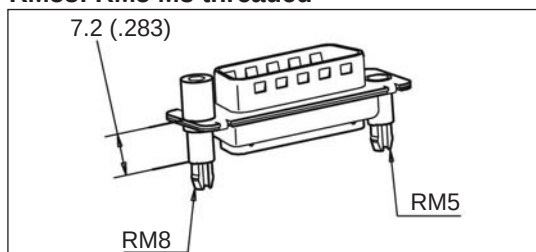
### Straight version

**BLANK:** 3.10mm (.122") dia mounting hole



**RM54:** RM5 4.40 threaded

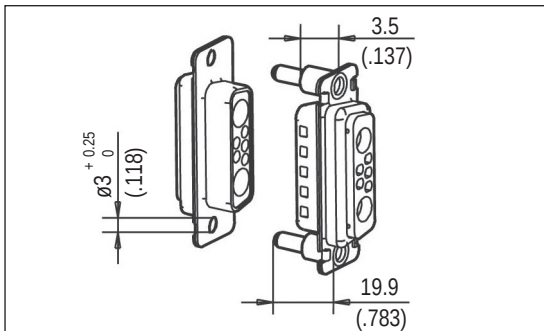
**RM53:** RM5 M3 threaded



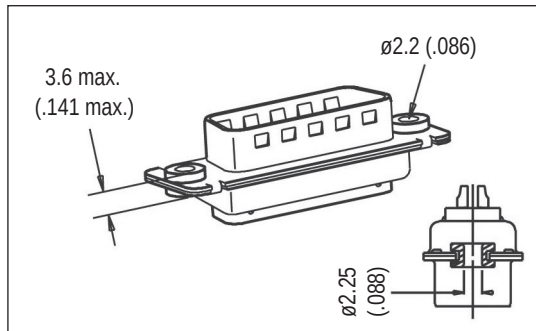
**RM84:** RM8 4.40 threaded

**RM83:** RM8 M3 threaded

**A514:** blind mating system



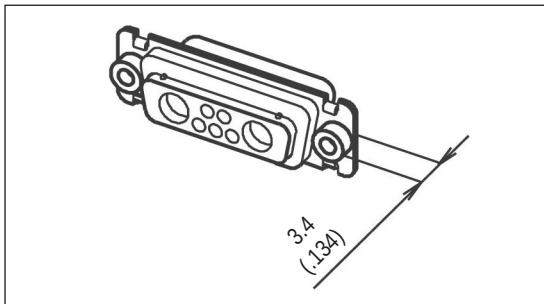
**FM:** float mounting system



### Straight and right angle version

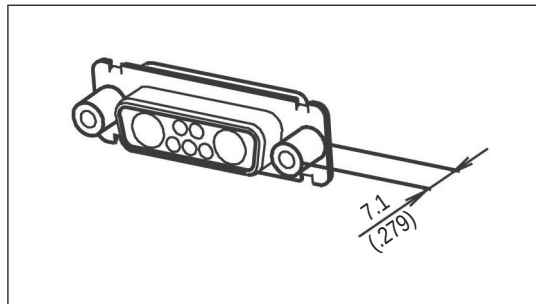
**4R:** 4.40 rear nut

**3R:** M3 rear nut

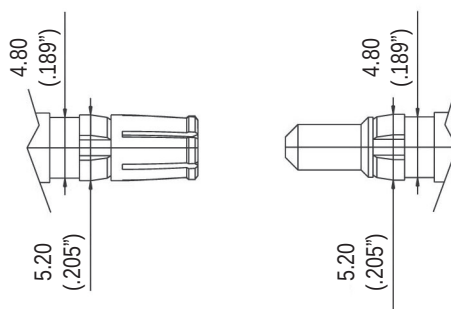


**4F:** 4.40 front female screwlock

**3F:** M3 front female screwlock



## High power contacts



## Solder cup version

| P/N            |                | Current       | Dimensions   |              |
|----------------|----------------|---------------|--------------|--------------|
| Plug           | Socket         |               | A mm (inch)  | B mm (inch)  |
| L 17DM 53745-8 | L 17DM 53744-7 | 10 to 20 Amp. | 1.80 (.071") | 2.55 (.100") |
| L 17DM 53745-7 | L 17DM 53744-6 | 20 to 30 Amp. | 2.80 (.110") | 3.70 (.145") |
| L 17DM 53745-1 | L 17DM 53744-1 | 30 to 40 Amp. | 4.80 (.189") | 5.60 (.220") |

Trim dimensions: 7.5 mm (.295")

## Crimp version

| P/N              |                  | Current       | Dimensions   |              |
|------------------|------------------|---------------|--------------|--------------|
| Plug             | Socket           |               | A mm (inch)  | B mm (inch)  |
| L 17DM 53745-208 | L 17DM 53744-207 | 10 to 20 Amp. | 1.80 (.071") | 2.55 (.100") |
| L 17DM 53745-207 | L 17DM 53744-206 | 20 to 30 Amp. | 2.80 (.110") | 3.70 (.145") |
| L 17DM 53745-201 | L 17DM 53744-201 | 30 to 40 Amp. | 4.80 (.189") | 5.60 (.220") |

Trim dimensions: 7.5 mm (.295")

Crimping tool for all sizes  
L17D479SP

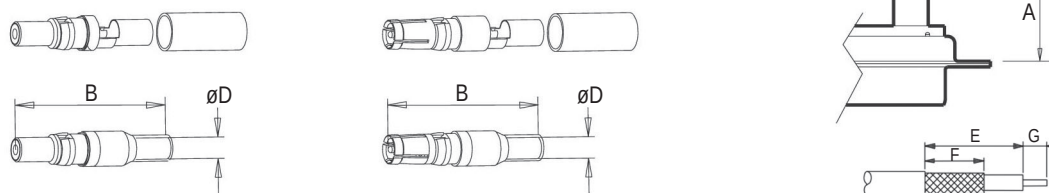


Extraction tool for sizes 8 cts



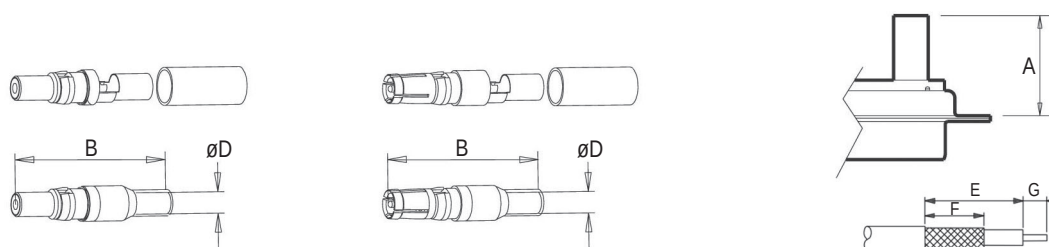
## Straight shielded contacts

### Crimp ferrule and inner solder



| Type   | P/N           | Dimensions (inch) |              |             | Cable - RG      | Trim dimensions (inch) |             |           |
|--------|---------------|-------------------|--------------|-------------|-----------------|------------------------|-------------|-----------|
|        |               | A Max             | B            | D           |                 | E                      | F           | G         |
| plug   | L17DM 53740   | 18.8 (740")       | 23.6 (.929") | 1.0 (.039") | 178 B/U         | 7.9 (.311")            | 6.3 (.248") | 2 (.078") |
| plug   | L17DM 53740-1 | 18.8 (740")       | 23.6 (.929") | 1.7 (.066") | 179 B/U 316 B/U | 7.9 (.311")            | 6.3 (.248") | 2 (.078") |
| plug   | L17DM 53740-3 | 21.5 (846")       | 23.6 (.929") | 2.8 (.110") | 180 B/U         | 9.5 (.374")            | 7.9 (.311") | 2 (.078") |
| plug   | L17DM 53740-5 | 21.5 (846")       | 23.6 (.929") | 3.2 (.126") | 58 C/U          | 9.5 (.374")            | 7.9 (.311") | 2 (.078") |
| socket | L17DM 53742   | 18.8 (740")       | 23.6 (.929") | 1.0 (.039") | 178 B/U         | 7.9 (.311")            | 6.3 (.248") | 2 (.078") |
| socket | L17DM 53742-1 | 18.8 (740")       | 23.6 (.929") | 1.7 (.066") | 179 B/U 316 B/U | 7.9 (.311")            | 6.3 (.248") | 2 (.078") |
| socket | L17DM 53742-3 | 21.5 (846")       | 23.6 (.929") | 2.8 (.110") | 180 B/U         | 9.5 (.374")            | 7.9 (.311") | 2 (.078") |
| socket | L17DM 53742-5 | 21.5 (846")       | 23.6 (.929") | 3.2 (.126") | 58 C/U          | 9.5 (.374")            | 7.9 (.311") | 2 (.078") |

### Ferrule and inner solder

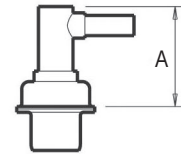
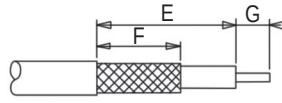
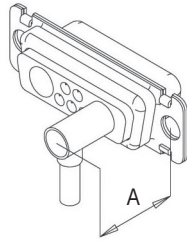


| Type         | P/N               | Dimensions (inch) |               |             | Cable - RG      | Trim dimensions (inch) |             |           |
|--------------|-------------------|-------------------|---------------|-------------|-----------------|------------------------|-------------|-----------|
|              |                   | A Max             | B             | D           |                 | E                      | F           | G         |
| short plug   | L17DM 53740-5000  | 17.0 (669")       | 21.8 (.858")  | 1.0 (.039") | 178 B/U         | 7.9 (.311")            | 6.3 (.248") | 2 (.078") |
| plug         | L17DM 53740-5001  | 18.8 (740")       | 23.6 (.929")  | 1.7 (.066") | 179 B/U 316 B/U | 7.9 (.311")            | 6.3 (.248") | 2 (.078") |
| plug         | L17DM 53740-5002  | 21.5 (846")       | 26.3 (1.035") | 2.8 (.110") | 180 B/U         | 9.5 (.374")            | 7.9 (.311") | 2 (.078") |
| plug         | L17DM 53740-5005  | 21.5 (846")       | 26.3 (1.035") | 3.2 (.126") | 58 C/U          | 9.5 (.374")            | 7.9 (.311") | 2 (.078") |
| plug         | L17DM 53740-5008  | 18.8 (740")       | 23.6 (.929")  | 1.0 (.039") | 178 B/U         | 7.9 (.311")            | 6.3 (.248") | 2 (.078") |
| short socket | L17DM 53742-5000  | 17.0 (669")       | 21.8 (.858")  | 1.0 (.039") | 178 B/U         | 7.9 (.311")            | 6.3 (.248") | 2 (.078") |
| socket       | L17DM 53742-5001  | 18.8 (740")       | 23.6 (.929")  | 1.7 (.066") | 179 B/U 316 B/U | 7.9 (.311")            | 6.3 (.248") | 2 (.078") |
| socket       | L17DM 53742-5002  | 21.5 (846")       | 26.3 (1.035") | 2.8 (.110") | 180 B/U         | 9.5 (.374")            | 7.9 (.311") | 2 (.078") |
| socket       | L17DM 53742-5004  | 21.5 (846")       | 26.3 (1.035") | 3.2 (.126") | 58 C/U          | 9.5 (.374")            | 7.9 (.311") | 2 (.078") |
| socket       | L17DM 53742-50060 | 18.8 (740")       | 23.6 (.929")  | 1.0 (.039") | 178 B/U         | 7.9 (.311")            | 6.3 (.248") | 2 (.078") |



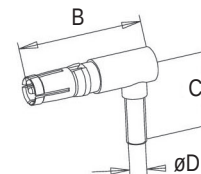
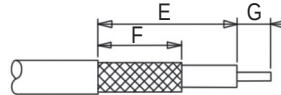
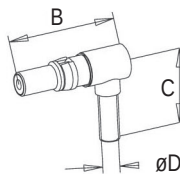
## Right angled shielded contact

### Crimp ferrule and inner solder



| Type   | P/N           | Dimensions (inch) |              |             | Cable - RG      | Trim dimensions (inch) |             |             |
|--------|---------------|-------------------|--------------|-------------|-----------------|------------------------|-------------|-------------|
|        |               | A Max             | B            | D           |                 | E                      | F           | G           |
| plug   | L17DM 53741   | 13.5 (.531")      | 18.6 (.732") | 1.0 (.039") | 178 B/U         | 9.5 (.374")            | 5.9 (.232") | 1.6 (.062") |
| plug   | L17DM 53741-1 | 13.5 (.531")      | 18.6 (.732") | 1.7 (.066") | 179 B/U 316 B/U | 9.5 (.374")            | 5.9 (.232") | 1.6 (.062") |
| plug   | L17DM 53741-3 | 13.5 (.531")      | 18.6 (.732") | 2.8 (.110") | 180 B/U         | 10.7 (.421")           | 7.9 (.311") | 2.4 (.094") |
| plug   | L17DM 53741-4 | 13.5 (.531")      | 18.6 (.732") | 3.2 (.126") | 58 C/U          | 10.7 (.421")           | 7.9 (.311") | 2.4 (.094") |
| socket | L17DM 53743-2 | 13.5 (.531")      | 18.6 (.732") | 1.0 (.039") | 178 B/U         | 9.5 (.374")            | 5.9 (.232") | 1.6 (.062") |
| socket | L17DM 53743-3 | 13.5 (.531")      | 18.6 (.732") | 1.7 (.066") | 179 B/U 316 B/U | 9.5 (.374")            | 5.9 (.232") | 1.6 (.062") |
| socket | L17DM 53743-5 | 13.5 (.531")      | 18.6 (.732") | 2.8 (.110") | 180 B/U         | 10.7 (.421")           | 7.9 (.311") | 2.4 (.094") |
| socket | L17DM 53743-6 | 13.5 (.531")      | 18.6 (.732") | 3.2 (.126") | 58 C/U          | 10.7 (.421")           | 7.9 (.311") | 2.4 (.094") |

### Ferrule and inner solder



| Type   | P/N              | Dimensions (inch) |              |             | Cable - RG      | Trim dimensions (inch) |             |             |
|--------|------------------|-------------------|--------------|-------------|-----------------|------------------------|-------------|-------------|
|        |                  | A Max             | B            | D           |                 | E                      | F           | G           |
| plug   | L17DM 53741-5000 | 13.5 (.531")      | 18.6 (.732") | 1.0 (.039") | 178 B/U         | 9.5 (.374")            | 5.9 (.232") | 1.6 (.062") |
| plug   | L17DM 53741-5001 | 13.5 (.531")      | 18.6 (.732") | 1.7 (.066") | 179 B/U 316 B/U | 9.5 (.374")            | 5.9 (.232") | 1.6 (.062") |
| plug   | L17DM 53741-5003 | 13.5 (.531")      | 18.6 (.732") | 2.8 (.110") | 180 B/U         | 10.7 (.421")           | 7.9 (.311") | 2.4 (.094") |
| plug   | L17DM 53741-5004 | 13.5 (.531")      | 18.6 (.732") | 3.2 (.126") | 58 C/U          | 10.7 (.421")           | 7.9 (.311") | 2.4 (.094") |
| socket | L17DM 53743-5000 | 13.5 (.531")      | 18.6 (.732") | 1.0 (.039") | 178 B/U         | 9.5 (.374")            | 5.9 (.232") | 1.6 (.062") |
| socket | L17DM 53743-5001 | 13.5 (.531")      | 18.6 (.732") | 1.7 (.066") | 179 B/U 316 B/U | 9.5 (.374")            | 5.9 (.232") | 1.6 (.062") |
| socket | L17DM 53743-5003 | 13.5 (.531")      | 18.6 (.732") | 2.8 (.110") | 180 B/U         | 10.7 (.421")           | 7.9 (.311") | 2.4 (.094") |
| socket | L17DM 53743-5004 | 13.5 (.531")      | 18.6 (.732") | 3.2 (.126") | 58 C/U          | 10.7 (.421")           | 7.9 (.311") | 2.4 (.094") |

## Crimping tool

### Hand crimp tool

227-0944 (without dies) (M 22 520/5-01)

| RG cables  | MIL reference | Amphenol P/N | dim. between 2 flat surface |          |
|------------|---------------|--------------|-----------------------------|----------|
|            |               |              | cavity A                    | cavity B |
| RG 58 C/U  | M 22 520/5-05 | 227 1221-05  | 5.41                        | -        |
| RG 178 B/U | M 22 520/5-03 | 227 1221-03  | -                           | 2.67     |
| RG 179 B/U | M 22 520/5-03 | 227 1221-03  | 3.25                        | -        |
| RG 180 B/U | M 22 520/5-05 | 227 1221-05  | -                           | 4.52     |

## Extraction tool

Extraction tool for sizes 8 cts

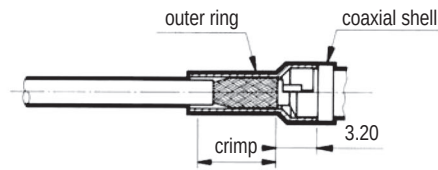
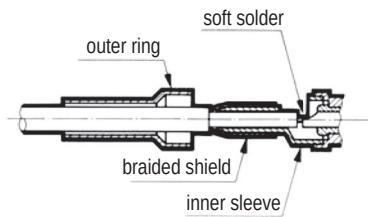
L17D429SP



## Cabling instructions for shielded contacts

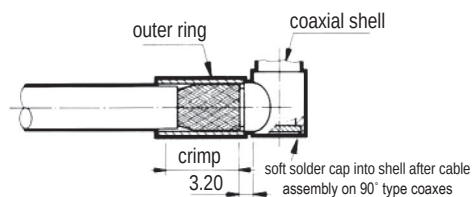
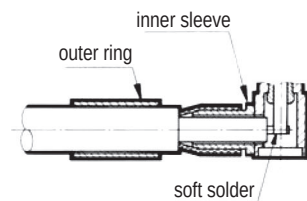
### Straight crimp shielded contacts:

*inner solder contact  
outer crimp contact*



### Right angle crimp shielded contacts:

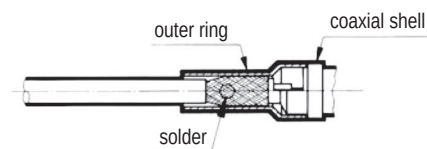
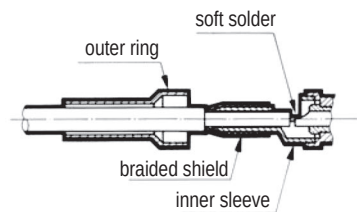
*inner solder contact  
outer crimp contact*



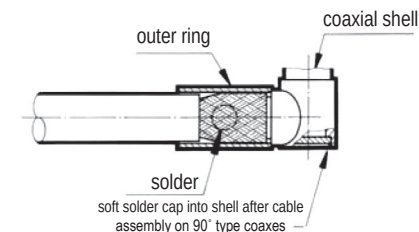
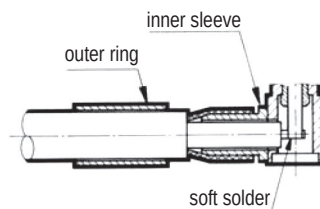
### Assembly method

- Slide the outer ring over the cable jacket. Trim the cable according to the recommended dimensions.
- Insert the cable dielectric and the center conductor inside the inner sleeve.
- Solder the central conductor to the shielded center contacts.
- Slide the outer ring towards the inner sleeve and recover the braid.
- Using crimp hand tool equipped with the appropriate dies, crimp in the area defined.

### Solder straight shielded contacts:



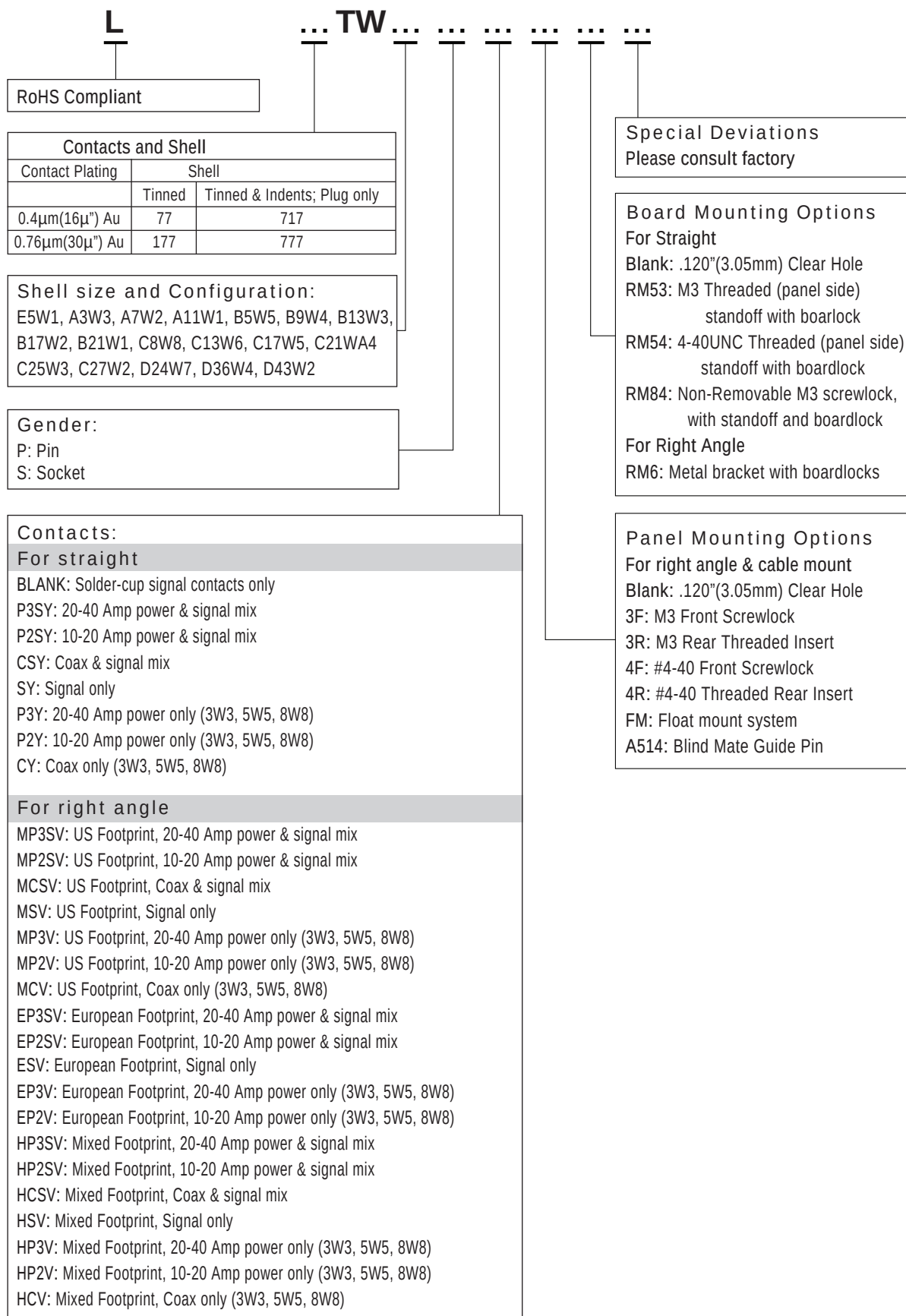
### Solder right angle shielded contacts:



### Assembly method

- Slide the outer ring over the cable jacket. Trim the cable according to the recommended dimensions.
- Insert the cable dielectric and the center conductor inside the inner sleeve.
- Solder the central conductor to the shielded center contacts.
- Slide the outer ring towards the inner sleeve and recover the braid.
- Solder by introducing metal through the outer ring hole.

## How to build your part number



The first two steps are relatively straightforward. The third step involves identifying the specific components of the system that are most likely to cause problems. This can be done by reviewing the design specifications and comparing them to the actual performance of the system. Once the problem areas have been identified, the next step is to develop a plan to address them. This plan should take into account the resources available and the time constraints. Finally, the plan should be implemented and the results monitored.

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