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## SECTION 7

# IP67 COMBINATION D-SUB CONNECTORS

CONEC Combination D-SUB Connectors with IP67-rating are suitable for use in environments where increased protection against moisture and contamination is necessary. All IP67 protected Combination D-SUB Connectors are supplied already populated with signal, high voltage, high power or coaxial contacts. This is necessary to provide factory assurance that the connector is properly sealed thus ensuring its reliable protection in harsh environments.

The type of protection is defined by IEC 60529 which also specifies the suitability of electrical components for various ambient conditions. CONEC water resistant connectors ensure a continuously secure connection compliant with the IP67 rating. They are dustproof and protected against temporary submersion into water.



**Power details:**

- Standard design with metal frame and O-ring
- Inside seal in the connector plug - water cannot penetrate into the housing
- Available for front or rear panel mounting on the enclosure
- Connector without frame for cable mounting
- 4-40 UNC or M 3 threaded insert
- Plastic materials comply with UL 94 V0
- Machined precision contacts for heavy duty usage
- Various gold plating options available
- Basic connector dimensions - without frame - in compliance with DIN 41652 / MIL-C-24308
- Special accessories, including waterproof hoods and sealing caps



# PART NUMBER CREATOR

6 0 0 7 W 2 S A M 6 2 B 3 O X

**Product Line**

- 6 = Shell: Brass tin plated with die-cast frame
- 4\* = Shell: Brass tin plated with or without plastic frame
- 8\* = Shell: Stainless steel with or without die-cast frame
- 9\* = Shell: Stainless steel with plastic frame
- \* on request

**Variations**

- Shell size 1 = 5W1, 2W2C
- Shell size 2 = 3W3, 7W2, 11W1, 3W3C
- Shell size 3 = 5W5, 9W4, 13W3, 17W2, 21W1
- Shell size 4 = 8W8, 13W6, 17W5, 21WA4, 25W3, 27W2
- Shell size 5 = 24W7, 36W4, 43W2, 47W1
- Empty positions ADD „0“ for example 007W2

**Contact type**

- P = Plug connector
- S = Socket connector

**Plating code/Quality class for signal kontakte**

- A = Quality class 3 = 50 mating cycles
- B\* = Quality class 2 = 200 mating cycles
- C = Quality class 1 = 500 mating cycles
- \* on request

**Termination applies to signal contacts only**

- M = Solder cup
- R = Solder pin – Straight
- T = Solder pin – Angled, .189" / 4.80 mm
- U = Solder pin – Angled, .276" / 7.00 mm
- Z = Solder pin – Angled, .465" / 11.80 mm

**Termination for high power or coaxial contacts**

- |  |  |                                     |
|--|--|-------------------------------------|
| 61 / 41 = Solder cup 10 A                                | 85 / 65 = Solder pin – Angled 30 A       | G9 / 78 = 3 solder pins angled 50 Ω |
| 62 / 42 = Solder cup 20 A                                | 81 / 66 = Solder pin – Angled 20 A       | H1 / 79 = 3 solder pins angled 50 Ω |
| 68 / 48 = Solder pin – Straight 20 A, D= .077" / 1.95 mm | 82 / 67 = Solder pin – Angled 30 A       | H2 / 88 = 3 solder pins angled 75 Ω |
| 69 / 49 = Solder pin – Straight 20 A, D= .102" / 2.60 mm | F9 / H4 = Cable connection straight 75 Ω | H3 / 89 = 3 solder pins angled 75 Ω |
| 70 / 50 = Solder pin – Straight 20 A, D= .112" / 2.85 mm | G1 / H5 = Cable connection straight 75 Ω | R1 = Screw/Crimp 10 A               |
| 71 / 51 = Solder pin – Straight 30 A, D= .125" / 3.18 mm | G2 / H6 = Cable connection straight 50 Ω | R2 = Screw/Crimp 20 A               |
| 72 / 52 = Solder pin – Straight 40 A, D= .148" / 3.75 mm | G3 / H7 = Cable connection straight 50 Ω | R3 = Screw/Crimp 30 A               |
| 59 / 55 = Solder pin – Angled 15 A                       | G4 / H8 = Cable connection straight 50 Ω | R4 = Screw/Crimp 40 A               |
| 73 / 56 = Solder pin – Angled 20 A                       | G5 / H9 = Cable connection straight 50 Ω |                                     |
| 74 / 57 = Solder pin – Angled 30 A                       | G6 / K1 = Cable connection straight 50 Ω |                                     |
| 75 / 58 = Solder pin – Angled 40 A                       | G7 / 76 = 3 solder pins straight 50 Ω    |                                     |
| 77 / 60 = Solder pin – Angled 40 A                       | G8 / 86 = 3 solder pins straight 75 Ω    |                                     |

**Mounting style**

- |   |   |
|---|---|
| A1 = Riveted through hole for hood assembly                           | S1 = Metal bracket, M3 threaded insert                    |
| B2 = M3 threaded insert   | S2 = Metal bracket, 4-40 UNC threaded insert              |
| B3 = 4-40 UNC threaded insert   | S3 = Metal bracket, M3 threaded insert and PCB clip       |
| B4 = M3 front spacer  | S4 = Metal bracket, 4-40 UNC threaded insert and PCB clip |
| B5 = 4-40 UNC front spacer  | R1 = Metal bracket, M3 threaded insert                    |
| E1 = M3 threaded rear spacer with PCB clip, PCB .063" / 1.60 mm       | R2 = Metal bracket, 4-40 UNC threaded insert              |
| E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063" / 1.60 mm | R3 = Metal bracket, M3 threaded insert / PCB clip         |
|   | R4 = Metal bracket, 4-40 UNC threaded insert / PCB clip   |

- OX = Standard

# TECHNICAL DATA

Mechanical and electrical characteristics	Signal contacts	Coaxial contacts	High power contacts
Insulator	Polyester GF (UL 94V-0)	PTFE	
Shell	Brass tin plated		
Contact plating	Gold plated over nickel		
Contact material	CU alloy		
Retaining clip		CU alloy	CU alloy
Current rating	7.5 A (UL) / 5 A (CSA, VDE)		
Test voltage between 2 contacts shell and contact	1000 V, 50Hz 1 min.		
Resistance between mated contacts	≤ 2.7mΩ		
Insulation resistance	5GΩ	≤ 1GΩ	5GΩ
Volume resistivity	10 <sup>16</sup> Ωcm		
Dielectric with standing voltage	50KV/mm		
Impedance		50/75Ω	
Contact resistance inner- /outer conductor	≤ 2.7mΩ	≤ 2.7mΩ	≤ 1mΩ
VSWR-value at according MIL-C-39012 1.2GHz 1.5GHz 2.0GHz		≤ 1.2 ≤ 1.3 ≤ 1.5	
Dielectric with standing voltage		750 V 50Hz	
Frequency range		0-2GHz	
Working voltage	250 V	250 V	
Temperature range	-25°C to +105°C		
Degree of protection	Requirements according to IEC 60529 – IP67		
Insertion force per signal contact	≤ 3.4N	≤ 7N	≤ 7N
Extraction force per signal contact	≤ 0.2N	≤ 7N	ca. 5N
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles		

Technical alterations are subject to change without notice.

# TECHNICAL INFORMATIONS

## SKIN EFFECT

Alternating currents do not uniformly occupy the entire cross section of the conductor, rather inductance effect in the conductor deflects the current towards the surface of the conductor, whereby this deflection increases with the frequency.

The resistive attenuation of a transmission line increases with the frequency as a result of this skin effect.

The skin depth (equivalent thickness of the layer in which current flows) can be determined using

$$\delta = \frac{1}{\sqrt{f \pi \sigma \mu_0 \mu_r}}$$

f = frequency

$\sigma$  = conductivity of the conductor material

$\sigma_{Ag} = 62 \times 10^6 \text{ S/m}$

$\sigma_{Cu} = 58 \times 10^6 \text{ S/m}$

$\mu_0 = 1,256 \cdot 10^{-6} \text{ Vs / Am}$

$\mu_r$  ... relative permeability constant for the employed material

## VSWR-VALUE

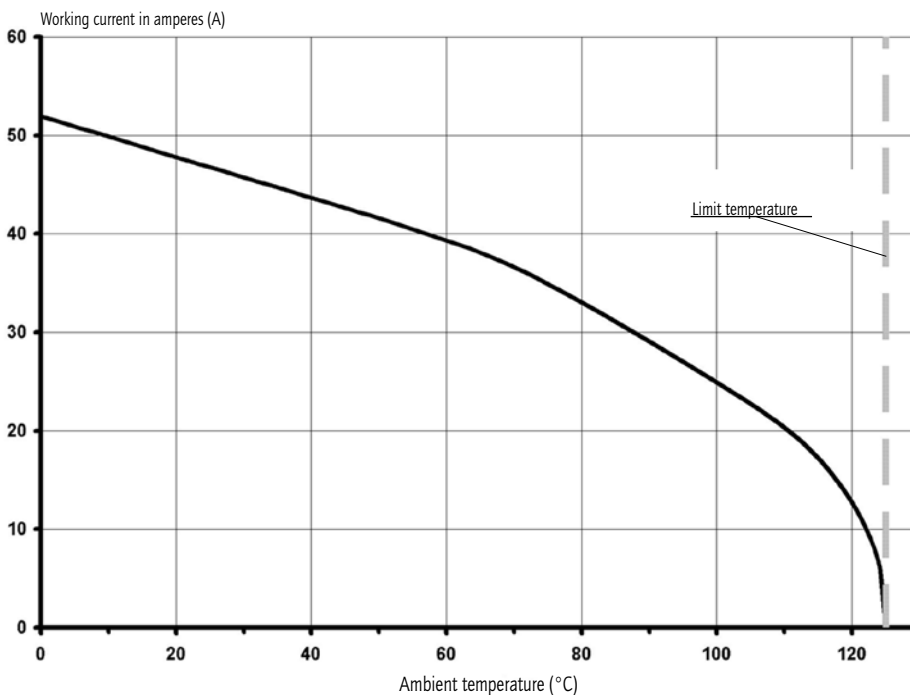
The ratio between the value of the largest and the smallest voltages on a loss-free line is known as the ripple or voltage standing wave ratio s (where  $1 \leq s < \infty$ ). The reciprocal value of the VSWR is known as the inverse voltage standing wave ratio m (where  $0 < m \leq 1$ ).

(VSWR = Voltage standing wave ratio)

The value of s is linked with the → reflection coefficient r on s transmission line according to the equation

$$s = \frac{(1 + |r|)}{(1 - |r|)}$$

## CURRENT RATING



All connectors in the Water Resistant Combination D-Subminiature series are fully loaded with contacts.

They are equipped with either signal, high voltage, high power or coaxial contacts according to requirements.

Our production standard requires that all connectors are fully loaded.

Connectors 3W3, 5W5 and 8W8 female: Socket contacts are fingerprobe safe according to UL1950 and CSA 22.2.950 specifications.

## IP-CODE FIGURE DEFINITIONS

1. Code figure	Definition	Remark
0	Not protected	
1	Protected against access to hazardous parts by the back of the hand. Protected against fixed foreign objects $\varnothing \geq 1.969'' / 50 \text{ mm}$ .	
2	Protected against access to hazardous parts with a finger. Protected against fixed foreign objects $\varnothing \geq .492'' / 12.5 \text{ mm}$ .	
3	Protected against access to hazardous parts with a tool. Protected against fixed foreign objects $\varnothing \geq .098'' / 2.5 \text{ mm}$ .	
4	Protected against access to hazardous parts with a wire. Protected against fixed foreign objects $\varnothing \geq .039'' / 1 \text{ mm}$ .	
5	Protected against access to hazardous parts with a wire. Dust protected.	Ingress of dust is not completely blocked. But dust may not penetrate to the extent that satisfactory operation of the device or safety is impaired.
6	Protected against access to hazardous parts with a wire. Dustproof. No ingress of dust.	

2. Code figure	Definition	Remark
0	Not protected	
1	Protected against dropper.	
2	Protected against dropper when the shell is tipped as much as 15°.	
3	Protected against spray water	Up to 60° of either side of the vertical, such spray water shall have no harmful effects.
4	Protected against splash water	On the shell from all directions, no harmful effects shall be incurred.
5	Protected against jets of water.	
6	Protected against strong jets of water.	
7	Protected against the effects of temporary submersion in water.	Water may not ingress in a volume that would cause harmful effects when the shell is submerged in water for 30 min at a depth of 1 m.
8	Protected against the effects of continuous submersion in water.	Water may not ingress in a volume that would cause harmful effects when the shell is continuously submerged in water under conditions agreed between manufacturer and user. However, these conditions must be more stringent than those described under code figure 7.
9k	Protected against water from high-pressure or steam cleaning.	

### Explanation to spray water protected (IP) systems and their environment.

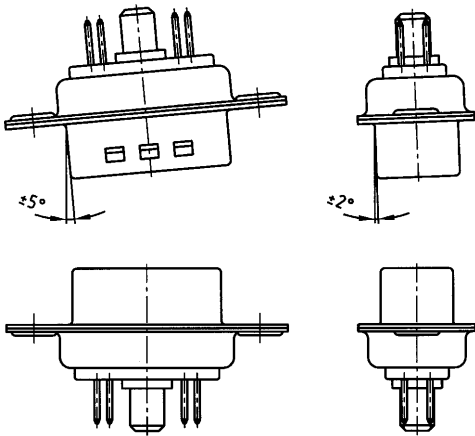
This system, described in IEC 60529, was developed to represent standard values for respective protection:

- a) Contact with, and ingress of, fixed foreign objects
- b) The ingress of liquids to which the inside is to be exposed.

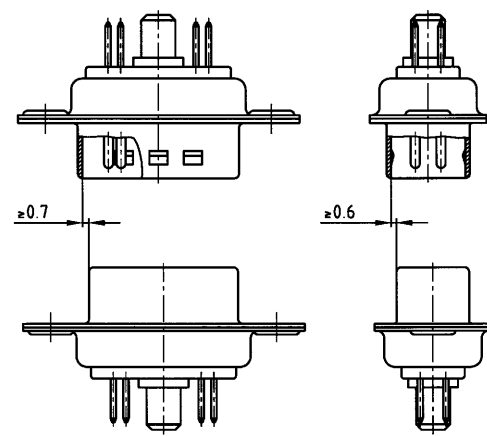
The first digit describes the level of protection for life, contacting objects and the intrusion of foreign bodies. The second digit describes the level of protection against the ingress of liquids. The larger the first and second digits are, the greater afforded protection is, e.g. IP55 must also meet the requirements of all lower protection levels, such as IP22, IP23, IP34 and IP54.

# MATING CONDITIONS

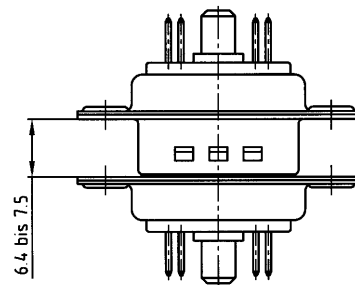
Float mount tolerance guide



Rigid mount tolerance guide



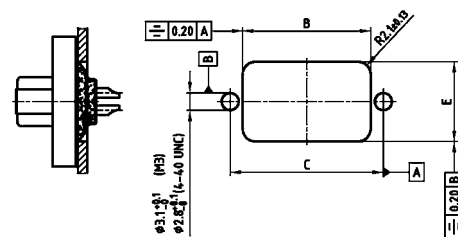
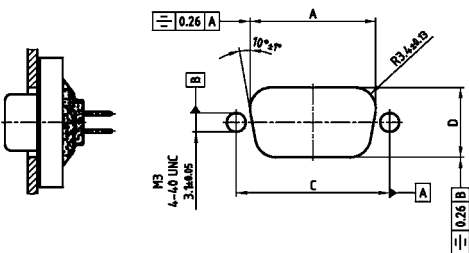
Rigid mount vertical to tolerance guide



## PANEL CUT-OUT

### Rear panel mounting

### Front panel mounting



Shell size	A $\pm 0.1$	B $\pm 0.1$	C $\pm 0.1$	D $\pm 0.1$	E $\pm 0.1$
1	20.50	20.90	25.00	11.40	13.00
2	28.80	29.20	33.30	11.40	13.00
3	42.50	42.90	47.04	11.40	13.00
4	59.10	59.40	63.50	11.40	13.00
5	56.30	57.00	61.10	14.10	15.80

# PANEL MOUNTING

Front panel mounting

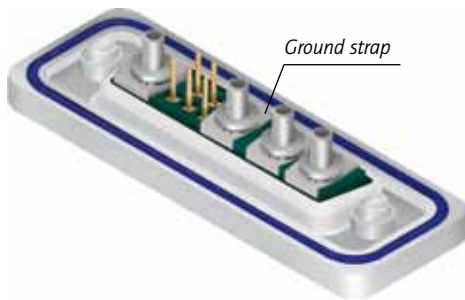


Rear panel mounting



### Grounding for Coaxial contacts

To optimize a perfect ground connection from the coaxial outer conductor to the metal shell (Factory installed).



Ground strap

### Hole plug

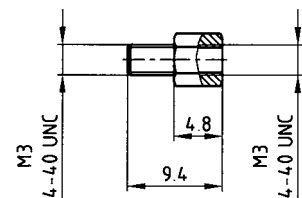
The hole plug can be used for both male and female connector. The assembly is implemented from the mating side. The hole plug is used to plug unwanted holes in the insulator. (Factory installed)



### Threaded insert

Suitable hex bolts with either 4-40 UNC or M3 thread are supplied with the IP67 rated connectors.

Hex bolt material: Stainless steel



## SOLDER PROFILE

Connector Type	Preheating		Solder terminal dipping parameters	
	max. Temperature	Duration	max. Solder bath Temperature	max. Terminal Immersion Time
Filter D-SUB	100°C	30s	260°C	5s
Combo D-SUB Filter	120°C	120s	260°C	5s
Filter D-SUB Water Resistant	100°C	30s	240°C	5s
Combo D-SUB Water Resistant	120°C	120s	240°C	5s
D-SUB Water Resistant	120°C	120s	240°C	5s
D-SUB Solid Body Type Water Resistant	150°C	180s	265°C	8s
RJ45 Modular Jack Filtered	150°C	180s	265°C	8s
Filter Plates	150°C	180s	265°C	8s

Recommended wave-solder parameters for CONEC connectors.

# IP67 COMBINATION D-SUB

Solder cup – Precision machined contacts – For wire size AWG 20

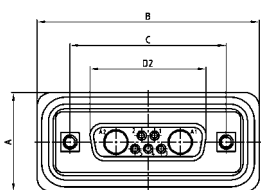


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

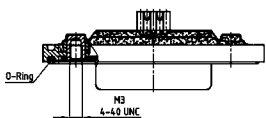
## DESCRIPTION

- Signal contacts for wire size **AWG 20**
- Contacts: high power or coaxial contacts
- Mounting style:  
with 4-40 UNC or M3 threaded insert
- Quality class 3 (Also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame  
(Black plastic frame on request)
- Suitable hex bolts are supplied loose

## SOCKET CONNECTOR

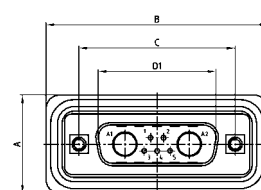


Shell size	A +0.2	B +0.2	C	D2 ±0.25
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.46
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.55

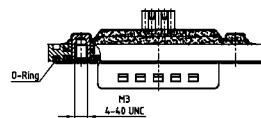


Shell size 1-4

Shell size 5

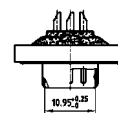
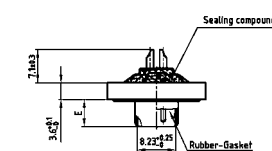
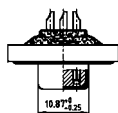
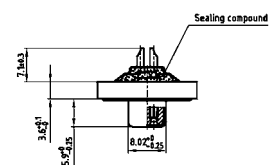


Shell size	A +0.2	B +0.2	C	D1 ±0.25	E ±0.30
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.68	5.69



Shell size 1-4

Shell size 5



## ORDER DATA

SOCKET CONNECTOR		High power contact		
Design	Mounting style 4-40 UNC	power contact	Part Number	
5W1	Threaded insert	10 A	6 005W1SAM 61	B30 X
7W2	Threaded insert	10 A	6 007W2SAM 61	B30 X
11W1	Threaded insert	10 A	6 011W1SAM 61	B30 X
9W4	Threaded insert	10 A	6 009W4SAM 61	B30 X
13W3	Threaded insert	10 A	6 013W3SAM 61	B30 X
17W2	Threaded insert	10 A	6 017W2SAM 61	B30 X
21W1	Threaded insert	10 A	6 021W1SAM 61	B30 X
13W6	Threaded insert	10 A	6 013W6SAM 61	B30 X
17W5	Threaded insert	10 A	6 017W5SAM 61	B30 X
21WA4	Threaded insert	10 A	6 21WA4SAM 61	B30 X
25W3	Threaded insert	10 A	6 025W3SAM 61	B30 X
27W2	Threaded insert	10 A	6 027W2SAM 61	B30 X
24W7	Threaded insert	10 A	6 024W7SAM 61	B30 X
36W4	Threaded insert	10 A	6 036W4SAM 61	B30 X
43W2	Threaded insert	10 A	6 043W2SAM 61	B30 X
47W1	Threaded insert	10 A	6 047W1SAM 61	B30 X

PLUG CONNECTOR		High power contact		
Design	Mounting style 4-40 UNC	power contact	Part Number	
5W1	Threaded insert	10 A	6 005W1PAM 61	B30 X
7W2	Threaded insert	10 A	6 007W2PAM 61	B30 X
11W1	Threaded insert	10 A	6 011W1PAM 61	B30 X
9W4	Threaded insert	10 A	6 009W4PAM 61	B30 X
13W3	Threaded insert	10 A	6 013W3PAM 61	B30 X
17W2	Threaded insert	10 A	6 017W2PAM 61	B30 X
21W1	Threaded insert	10 A	6 021W1PAM 61	B30 X
13W6	Threaded insert	10 A	6 013W6PAM 61	B30 X
17W5	Threaded insert	10 A	6 017W5PAM 61	B30 X
21WA4	Threaded insert	10 A	6 21WA4PAM 61	B30 X
25W3	Threaded insert	10 A	6 025W3PAM 61	B30 X
27W2	Threaded insert	10 A	6 027W2PAM 61	B30 X
24W7	Threaded insert	10 A	6 024W7PAM 61	B30 X
36W4	Threaded insert	10 A	6 036W4PAM 61	B30 X
43W2	Threaded insert	10 A	6 043W2PAM 61	B30 X
47W1	Threaded insert	10 A	6 047W1PAM 61	B30 X

For other contact configurations refer to part number creator.

Contact	Code
High power 10 A	= 61
High power 20 A	= 62

# IP67 COMBINATION D-SUB

## Solder pin – Straight – Precision machined contacts

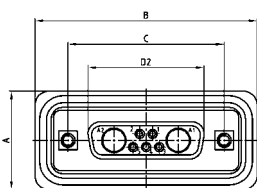


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

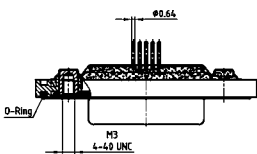
### DESCRIPTION

- Contacts: high power or coaxial contacts
- Mounting style: with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Suitable hex bolts are supplied loose

### SOCKET CONNECTOR



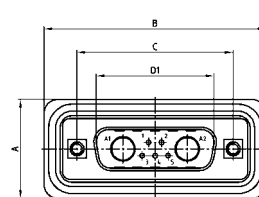
Shell size	A +0.2	B +0.2	C	D2 +0.25
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.46
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.55



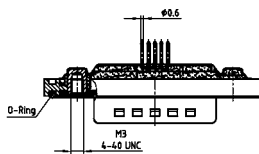
Shell size 1-4

Shell size 5

### PLUG CONNECTOR

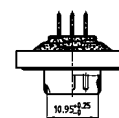
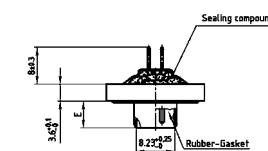
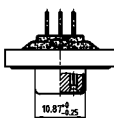
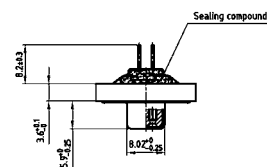


Shell size	A +0.2	B +0.2	C	D1 +0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.68	5.69



Shell size 1-4

Shell size 5



### ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
5W1	Threaded insert	20 A	6 005W1SAR68 B30 X
7W2	Threaded insert	20 A	6 007W2SAR68 B30 X
11W1	Threaded insert	20 A	6 011W1SAR 68 B30 X
9W4	Threaded insert	20 A	6 009W4SAR68 B30 X
13W3	Threaded insert	20 A	6 013W3SAR 68 B30 X
17W2	Threaded insert	20 A	6 017W2SAR 68 B30 X
21W1	Threaded insert	20 A	6 021W1SAR 68 B30 X
13W6	Threaded insert	20 A	6 013W6SAR 68 B30 X
17W5	Threaded insert	20 A	6 017W5SAR 68 B30 X
21WA4	Threaded insert	20 A	6 21WA4SAR 68 B30 X
25W3	Threaded insert	20 A	6 025W3SAR68 B30 X
27W2	Threaded insert	20 A	6 027W2SAR68 B30 X
24W7	Threaded insert	20 A	6 024W7SAR68 B30 X
36W4	Threaded insert	20 A	6 036W4SAR68 B30 X
43W2	Threaded insert	20 A	6 043W2SAR68 B30 X
47W1	Threaded insert	20 A	6 047W1SAR68 B30 X

PLUG CONNECTOR		High power contact	Part Number
5W1	Threaded insert	20 A	6 005W1PAR68 B30 X
7W2	Threaded insert	20 A	6 007W2PAR68 B30 X
11W1	Threaded insert	20 A	6 011W1PAR 68 B30 X
9W4	Threaded insert	20 A	6 009W4PAR68 B30 X
13W3	Threaded insert	20 A	6 013W3PAR68 B30 X
17W2	Threaded insert	20 A	6 017W2PAR68 B30 X
21W1	Threaded insert	20 A	6 021W1PAR68 B30 X
13W6	Threaded insert	20 A	6 013W6PAR 68 B30 X
17W5	Threaded insert	20 A	6 017W5PAR68 B30 X
21WA4	Threaded insert	20 A	6 21WA4PAR68 B30 X
25W3	Threaded insert	20 A	6 025W3PAR68 B30 X
27W2	Threaded insert	20 A	6 027W2PAR68 B30 X
24W7	Threaded insert	20 A	6 024W7PAR68 B30 X
36W4	Threaded insert	20 A	6 036W4PAR68 B30 X
43W2	Threaded insert	20 A	6 043W2PAR68 B30 X
47W1	Threaded insert	20 A	6 047W1PAR68 B30 X

For other contact configurations refer to part number creator.

Contact	Code
High power 20 A; D=.080/1.95 mm =	68
High power 20 A; D=.102/2.60 mm =	69
High power 20 A; D=.110/2.85 mm =	70
High power 30 A; D=.130/3.18 mm =	71
High power 40 A; D=.150/3.75 mm =	72

# IP67 COMBINATION D-SUB

Solder pin – Straight – Precision machined contacts – Threaded rear spacer with PCB clip

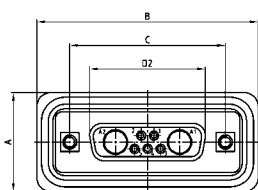


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

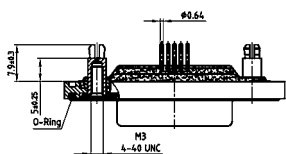
## DESCRIPTION

- Contacts: high power or coaxial contacts
- Mounting style: with 4-40 UNC or M3 threaded rear spacer with PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Suitable hex bolts are supplied loose

## SOCKET CONNECTOR

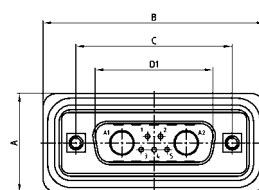
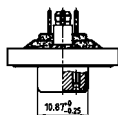
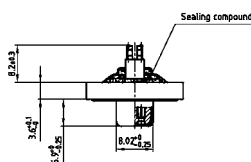


Shell size	A +0.2	B +0.2	C	D2 +0.25
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.46
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.55

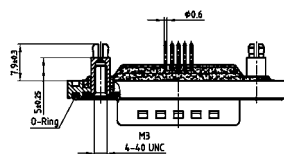


Shell size 1-4

Shell size 5

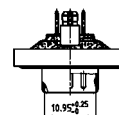
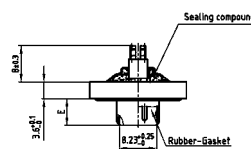


Shell size	A +0.2	B +0.2	C	D1 +0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.68	5.69



Shell size 1-4

Shell size 5



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
5W1	Threaded rear spacer PCB clip	20 A	6 005W1SAR 68 E20X
7W2	Threaded rear spacer PCB clip	20 A	6 007W2SAR 68 E20X
11W1	Threaded rear spacer PCB clip	20 A	6 011W1SAR 68 E20X
9W4	Threaded rear spacer PCB clip	20 A	6 009W4SAR 68 E20X
13W3	Threaded rear spacer PCB clip	20 A	6 013W3SAR 68 E20X
17W2	Threaded rear spacer PCB clip	20 A	6 017W2SAR 68 E20X
21W1	Threaded rear spacer PCB clip	20 A	6 021W1SAR 68 E20X
13W6	Threaded rear spacer PCB clip	20 A	6 013W6SAR 68 E20X
17W5	Threaded rear spacer PCB clip	20 A	6 017W5SAR 68 E20X
21WA4	Threaded rear spacer PCB clip	20 A	6 21WA4SAR 68 E20X
25W3	Threaded rear spacer PCB clip	20 A	6 025W3SAR 68 E20X
27W2	Threaded rear spacer PCB clip	20 A	6 027W2SAR 68 E20X
24W7	Threaded rear spacer PCB clip	20 A	6 024W7SAR 68 E20X
36W4	Threaded rear spacer PCB clip	20 A	6 036W4SAR 68 E20X
43W2	Threaded rear spacer PCB clip	20 A	6 043W2SAR 68 E20X
47W1	Threaded rear spacer PCB clip	20 A	6 047W1SAR 68 E20X

PLUG CONNECTOR		High power contact	Part Number
5W1	Threaded rear spacer PCB clip	20 A	6 005W1PAR 68 E20X
7W2	Threaded rear spacer PCB clip	20 A	6 007W2PAR 68 E20X
11W1	Threaded rear spacer PCB clip	20 A	6 011W1PAR 68 E20X
9W4	Threaded rear spacer PCB clip	20 A	6 009W4PAR 68 E20X
13W3	Threaded rear spacer PCB clip	20 A	6 013W3PAR 68 E20X
17W2	Threaded rear spacer PCB clip	20 A	6 017W2PAR 68 E20X
21W1	Threaded rear spacer PCB clip	20 A	6 021W1PAR 68 E20X
13W6	Threaded rear spacer PCB clip	20 A	6 013W6PAR 68 E20X
17W5	Threaded rear spacer PCB clip	20 A	6 017W5PAR 68 E20X
21WA4	Threaded rear spacer PCB clip	20 A	6 21WA4PAR 68 E20X
25W3	Threaded rear spacer PCB clip	20 A	6 025W3PAR 68 E20X
27W2	Threaded rear spacer PCB clip	20 A	6 027W2PAR 68 E20X
24W7	Threaded rear spacer PCB clip	20 A	6 024W7PAR 68 E20X
36W4	Threaded rear spacer PCB clip	20 A	6 036W4PAR 68 E20X
43W2	Threaded rear spacer PCB clip	20 A	6 043W2PAR 68 E20X
47W1	Threaded rear spacer PCB clip	20 A	6 047W1PAR 68 E20X

PCB clip .122"/.31 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness.

For other contact configurations refer to part number creator.

Contact	Code
High power 20 A; D=.080/1.95 mm	68
High power 20 A; D=.102/2.60 mm	69
High power 20 A; D=.110/2.85 mm	70
High power 30 A; D=.130/3.18 mm	71
High power 40 A; D=.150/3.75 mm	72

# IP67 COMBINATION D-SUB

Solder pin – Angled – .189" / 4.8 mm – Precision machined contacts – Metal bracket

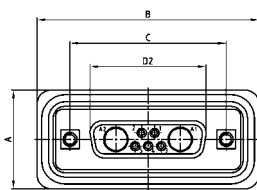


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

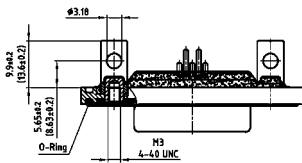
## DESCRIPTION

- Contacts: high power or coaxial contacts
- Mounting style: metal bracket with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Suitable hex bolts are supplied loose

## SOCKET CONNECTOR

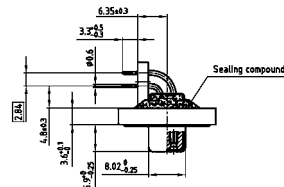


Shell size	A +0.2	B +0.2	C	D2 +0.25
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.46
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.55

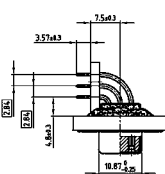


Dim. in ( ) = Shell size 5

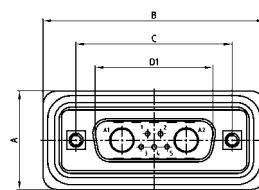
Shell size 1-4



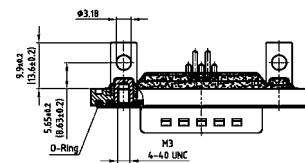
Shell size 5



## PLUG CONNECTOR

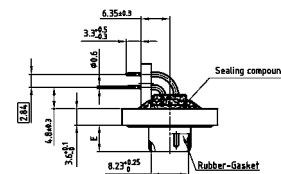


Shell size	A +0.2	B +0.2	C	D1 +0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.68	5.69

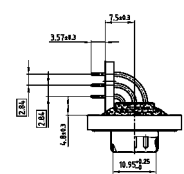


Dim. in ( ) = Shell size 5

Shell size 1-4



Shell size 5



## ORDER DATA

SOCKET CONNECTOR		High power contact		Part Number
Design	Mounting style 4-40 UNC			
5W1	Threaded insert	15 A		6 005W1SAT 59 S20 X
7W2	Threaded insert	15 A		6 007W2SAT 59 S20 X
11W1	Threaded insert	15 A		6 011W1SAT 59 S20 X
9W4	Threaded insert	15 A		6 009W4SAT 59 S20 X
13W3	Threaded insert	15 A		6 013W3SAT 59 S20 X
17W2	Threaded insert	15 A		6 017W2SAT 59 S20 X
21W1	Threaded insert	15 A		6 021W1SAT 59 S20 X
13W6	Threaded insert	15 A		6 013W6SAT 59 S20 X
17W5	Threaded insert	15 A		6 017W5SAT 59 S20 X
21WA4	Threaded insert	15 A		6 21WA4SAT 59 S20 X
25W3	Threaded insert	15 A		6 025W3SAT 59 S20 X
27W2	Threaded insert	15 A		6 027W2SAT 59 S20 X
24W7	Threaded insert	20 A		6 024W7SAT 81 S20 X
36W4	Threaded insert	20 A		6 036W4SAT 81 S20 X
43W2	Threaded insert	20 A		6 043W2SAT 81 S20 X
47W1	Threaded insert	20 A		6 047W1SAT 81 S20 X

PLUG CONNECTOR		High power contact		Part Number
Design	Mounting style 4-40 UNC			
5W1	Threaded insert	15 A		6 005W1PAT 59 S20 X
7W2	Threaded insert	15 A		6 007W2PAT 59 S20 X
11W1	Threaded insert	15 A		6 011W1PAT 59 S20 X
9W4	Threaded insert	15 A		6 009W4PAT 59 S20 X
13W3	Threaded insert	15 A		6 013W3PAT 59 S20 X
17W2	Threaded insert	15 A		6 017W2PAT 59 S20 X
21W1	Threaded insert	15 A		6 021W1PAT 59 S20 X
13W6	Threaded insert	15 A		6 013W6PAT 59 S20 X
17W5	Threaded insert	15 A		6 017W5PAT 59 S20 X
21WA4	Threaded insert	15 A		6 21WA4PAT 59 S20 X
25W3	Threaded insert	15 A		6 025W3PAT 59 S20 X
27W2	Threaded insert	15 A		6 027W2PAT 59 S20 X
24W7	Threaded insert	20 A		6 024W7PAT 81 S20 X
36W4	Threaded insert	20 A		6 036W4PAT 81 S20 X
43W2	Threaded insert	20 A		6 043W2PAT 81 S20 X
47W1	Threaded insert	20 A		6 047W1PAT 81 S20 X

For other contact configurations refer to part number creator.

Contact for shellsize 1-4	Code	Contact for shellsize 5	Code
High power 15 A; E=.075/1.90 mm =	59	High power 20 A; E=.110/2.85 mm =	81
High power 20 A; E=.110/2.85 mm =	73	High power 30 A; E=.150/3.75 mm =	85
High power 30 A; E=.126/3.20 mm =	74	High power 30 A; E=.126/3.20 mm =	82
High power 40 A; E=.150/3.75 mm =	75	High power 40 A; E=.150/3.75 mm =	77

# IP67 COMBINATION D-SUB

Solder pin – Angled – .189" / 4.8 mm – Precision machined contacts –  
Metal bracket with PCB clip

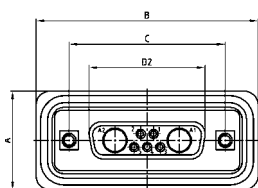


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

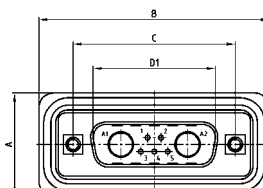
- Contacts: high power or coaxial contacts
- Mounting style: metal bracket, threaded insert and 4-40 UNC or M3 PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Suitable hex bolts are supplied loose

## SOCKET CONNECTOR

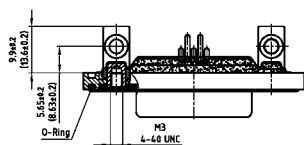


Shell size	A +0.2	B +0.2	C	D2 +0.25
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.46
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.55

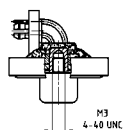
## PLUG CONNECTOR



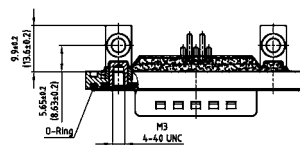
Shell size	A +0.2	B +0.2	C	D1 +0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.68	5.69



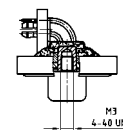
Dim. in ( ) = Shell size 5



Shell size 5

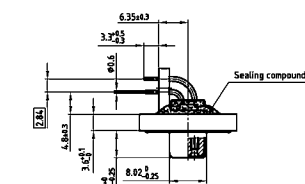


Dim. in ( ) = Shell size 5

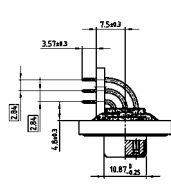


Shell size 5

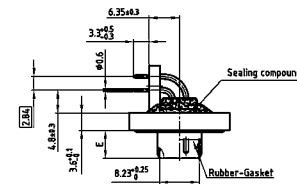
Shell size 1-4



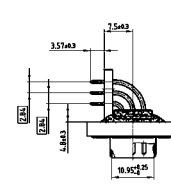
View without clip



View without clip



View without clip



View without clip

## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
5W1	PCB clip / Thread	15 A	6 005W1SAT 59 S40 X
7W2	PCB clip / Thread	15 A	6 007W2SAT 59 S40 X
11W1	PCB clip / Thread	15 A	6 011W1SAT 59 S40 X
9W4	PCB clip / Thread	15 A	6 009W4SAT 59 S40 X
13W3	PCB clip / Thread	15 A	6 013W3SAT 59 S40 X
17W2	PCB clip / Thread	15 A	6 017W2SAT 59 S40 X
21W1	PCB clip / Thread	15 A	6 021W1SAT 59 S40 X
13W6	PCB clip / Thread	15 A	6 013W6SAT 59 S40 X
17W5	PCB clip / Thread	15 A	6 017W5SAT 59 S40 X
21WA4	PCB clip / Thread	15 A	6 21WA4SAT 59 S40 X
25W3	PCB clip / Thread	15 A	6 025W3SAT 59 S40 X
27W2	PCB clip / Thread	15 A	6 027W2SAT 59 S40 X
24W7	PCB clip / Thread	20 A	6 024W7SAT 81 S40 X
36W4	PCB clip / Thread	20 A	6 036W4SAT 81 S40 X
43W2	PCB clip / Thread	20 A	6 043W2SAT 81 S40 X
47W1	PCB clip / Thread	20 A	6 047W1SAT 81 S40 X

PLUG CONNECTOR		High power contact	Part Number
5W1	PCB clip / Thread	15 A	6 005W1PAT 59 S40 X
7W2	PCB clip / Thread	15 A	6 007W2PAT 59 S40 X
11W1	PCB clip / Thread	15 A	6 011W1PAT 59 S40 X
9W4	PCB clip / Thread	15 A	6 009W4PAT 59 S40 X
13W3	PCB clip / Thread	15 A	6 013W3PAT 59 S40 X
17W2	PCB clip / Thread	15 A	6 017W2PAT 59 S40 X
21W1	PCB clip / Thread	15 A	6 021W1PAT 59 S40 X
13W6	PCB clip / Thread	15 A	6 013W6PAT 59 S40 X
17W5	PCB clip / Thread	15 A	6 017W5PAT 59 S40 X
21WA4	PCB clip / Thread	15 A	6 21WA4PAT 59 S40 X
25W3	PCB clip / Thread	15 A	6 025W3PAT 59 S40 X
27W2	PCB clip / Thread	15 A	6 027W2PAT 59 S40 X
24W7	PCB clip / Thread	20 A	6 024W7PAT 81 S40 X
36W4	PCB clip / Thread	20 A	6 036W4PAT 81 S40 X
43W2	PCB clip / Thread	20 A	6 043W2PAT 81 S40 X
47W1	PCB clip / Thread	20 A	6 047W1PAT 81 S40 X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness.

For other contact configurations refer to part number creator.

Contact for shellsize 1-4	Code	Contact for shellsize 5	Code
High power 15 A; E=.075/1.90 mm	= 59	High power 20 A; E=.110/2.85 mm	= 81
High power 20 A; E=.110/2.85 mm	= 73	High power 30 A; E=.150/3.75 mm	= 85
High power 30 A; E=.126/3.20 mm	= 74	High power 30 A; E=.126/3.20 mm	= 82
High power 40 A; E=.150/3.75 mm	= 75	High power 40 A; E=.150/3.75 mm	= 77

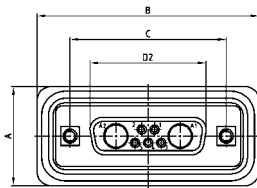
# IP67 COMBINATION D-SUB

Solder pin – Angled – .276"/7.0 mm – Precision machined contacts – Metal bracket

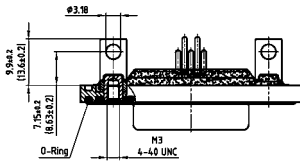


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR

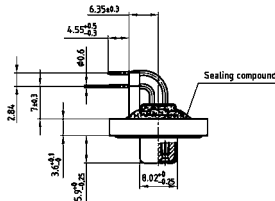


Shell size	A +0.2	B +0.2	C	D2 +0.25
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.46
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.55

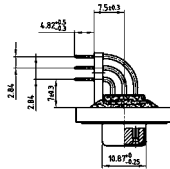


Dim. in ( ) = Shell size 5

Shell size 1-4



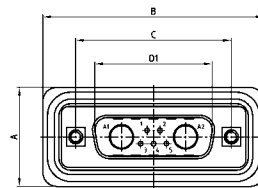
Shell size 5



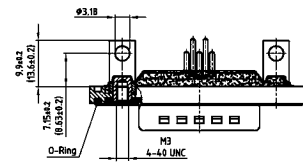
## DESCRIPTION

- Contacts: high power or coaxial contacts
- Mounting style:  
Metal bracket with 4-40 UNC threaded insert (M3 on request)
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame  
(Black plastic frame on request)
- Suitable hex bolts are supplied loose

## PLUG CONNECTOR

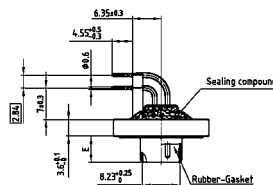


Shell size	A +0.2	B +0.2	C	D1 +0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.68	5.69

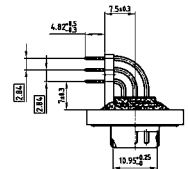


Dim. in ( ) = Shell size 5

Shell size 1-4



Shell size 5



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
5W1	PCB clip/Threaded insert	15 A	6 005W1SAU 59 R20 X
7W2	PCB clip/Threaded insert	15 A	6 007W2SAU 59 R20 X
11W1	PCB clip/Threaded insert	15 A	6 011W1SAU 59 R20 X
9W4	PCB clip/Threaded insert	15 A	6 009W4SAU 59 R20 X
13W3	PCB clip/Threaded insert	15 A	6 013W3SAU 59 R20 X
17W2	PCB clip/Threaded insert	15 A	6 017W2SAU 59 R20 X
21W1	PCB clip/Threaded insert	15 A	6 021W1SAU 59 R20 X
13W6	PCB clip/Threaded insert	15 A	6 013W6SAU 59 R20 X
17W5	PCB clip/Threaded insert	15 A	6 017W5SAU 59 R20 X
21WA4	PCB clip/Threaded insert	15 A	6 21WA4SAU 59 R20 X
25W3	PCB clip/Threaded insert	15 A	6 025W3SAU 59 R20 X
27W2	PCB clip/Threaded insert	15 A	6 027W2SAU 59 R20 X
24W7	PCB clip/Threaded insert	20 A	6 024W7SAU 81 R20 X
36W4	PCB clip/Threaded insert	20 A	6 036W4SAU 81 R20 X
43W2	PCB clip/Threaded insert	20 A	6 043W2SAU 81 R20 X
47W1	PCB clip/Threaded insert	20 A	6 047W1SAU 81 R20 X

PLUG CONNECTOR		High power contact	Part Number
5W1	PCB clip/Threaded insert	15 A	6 005W1PAU 59 R20 X
7W2	PCB clip/Threaded insert	15 A	6 007W2PAU 59 R20 X
11W1	PCB clip/Threaded insert	15 A	6 011W1PAU 59 R20 X
9W4	PCB clip/Threaded insert	15 A	6 009W4PAU 59 R20 X
13W3	PCB clip/Threaded insert	15 A	6 013W3PAU 59 R20 X
17W2	PCB clip/Threaded insert	15 A	6 017W2PAU 59 R20 X
21W1	PCB clip/Threaded insert	15 A	6 021W1PAU 59 R20 X
13W6	PCB clip/Threaded insert	15 A	6 013W6PAU 59 R20 X
17W5	PCB clip/Threaded insert	15 A	6 017W5PAU 59 R20 X
21WA4	PCB clip/Threaded insert	15 A	6 21WA4PAU 59 R20 X
25W3	PCB clip/Threaded insert	15 A	6 025W3PAU 59 R20 X
27W2	PCB clip/Threaded insert	15 A	6 027W2PAU 59 R20 X
24W7	PCB clip/Threaded insert	20 A	6 024W7PAU 81 R20 X
36W4	PCB clip/Threaded insert	20 A	6 036W4PAU 81 R20 X
43W2	PCB clip/Threaded insert	20 A	6 043W2PAU 81 R20 X
47W1	PCB clip/Threaded insert	20 A	6 047W1PAU 81 R20 X

For other contact configurations refer to part number creator.

Contact for shellsize 1-4	Code	Contact for shellsize 5	Code
High power 15 A; E=.075/1.90 mm =	59	High power 20 A; E=.110/2.85 mm =	81
High power 20 A; E=.110/2.85 mm =	73	High power 30 A; E=.150/3.75 mm =	85
High power 30 A; E=.126/3.20 mm =	74	High power 30 A; E=.126/3.20 mm =	82
High power 40 A; E=.150/3.75 mm =	75	High power 40 A; E=.150/3.75 mm =	77

# IP67 COMBINATION D-SUB

Solder pin – Angled – .276" / 7.0 mm – Precision machined contacts – Metal bracket with PCB clip

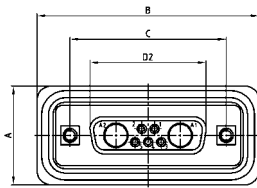


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

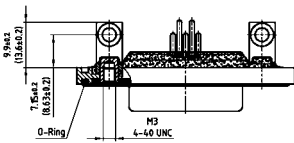
## DESCRIPTION

- Contacts: high power or coaxial contacts
- Mounting style: metal bracket, threaded insert and 4-40 UNC or M3 PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Suitable hex bolts are supplied loose

## SOCKET CONNECTOR

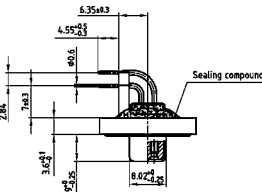


Shell size	A +0.2	B +0.2	C	D2 +0.25
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.46
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.55

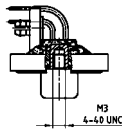


Dim. in ( ) = Shell size 5

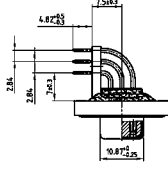
Shell size 1-4



View without clip

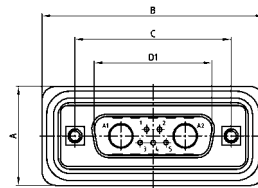


Shell size 5

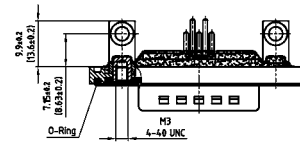


View without clip

## PLUG CONNECTOR

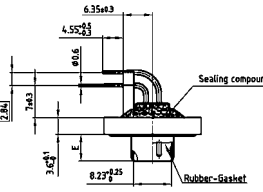


Shell size	A +0.2	B +0.2	C	D1 +0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.68	5.69

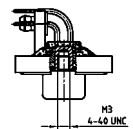


Dim. in ( ) = Shell size 5

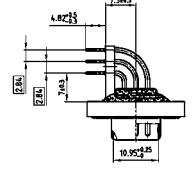
Shell size 1-4



View without clip



Shell size 5



View without clip

## ORDER DATA

SOCKET CONNECTOR		High power contact		Part Number
Design	Mounting style 4-40 UNC			
5W1	PCB clip/Thread	15 A		6 005W1SAU 59 R40 X
7W2	PCB clip/Thread	15 A		6 007W2SAU 59 R40 X
11W1	PCB clip/Thread	15 A		6 011W1SAU 59 R40 X
9W4	PCB clip/Thread	15 A		6 009W4SAU 59 R40 X
13W3	PCB clip/Thread	15 A		6 013W3SAU 59 R40 X
17W2	PCB clip/Thread	15 A		6 017W2SAU 59 R40 X
21W1	PCB clip/Thread	15 A		6 021W1SAU 59 R40 X
13W6	PCB clip/Thread	15 A		6 013W6SAU 59 R40 X
17W5	PCB clip/Thread	15 A		6 017W5SAU 59 R40 X
21WA4	PCB clip/Thread	15 A		6 21WA4SAU 59 R40 X
25W3	PCB clip/Thread	15 A		6 025W3SAU 59 R40 X
27W2	PCB clip/Thread	15 A		6 027W2SAU 59 R40 X
24W7	PCB clip/Thread	20 A		6 024W7SAU 81 R40 X
36W4	PCB clip/Thread	20 A		6 036W4SAU 81 R40 X
43W2	PCB clip/Thread	20 A		6 043W2SAU 81 R40 X
47W1	PCB clip/Thread	20 A		6 047W1SAU 81 R40 X

PLUG CONNECTOR		High power contact		Part Number
Design	Mounting style 4-40 UNC			
5W1	PCB clip/Thread	15 A		6 005W1PAU 59 R40 X
7W2	PCB clip/Thread	15 A		6 007W2PAU 59 R40 X
11W1	PCB clip/Thread	15 A		6 011W1PAU 59 R40 X
9W4	PCB clip/Thread	15 A		6 009W4PAU 59 R40 X
13W3	PCB clip/Thread	15 A		6 013W3PAU 59 R40 X
17W2	PCB clip/Thread	15 A		6 017W2PAU 59 R40 X
21W1	PCB clip/Thread	15 A		6 021W1PAU 59 R40 X
13W6	PCB clip/Thread	15 A		6 013W6PAU 59 R40 X
17W5	PCB clip/Thread	15 A		6 017W5PAU 59 R40 X
21WA4	PCB clip/Thread	15 A		6 21WA4PAU 59 R40 X
25W3	PCB clip/Thread	15 A		6 025W3PAU 59 R40 X
27W2	PCB clip/Thread	15 A		6 027W2PAU 59 R40 X
24W7	PCB clip/Thread	20 A		6 024W7PAU 81 R40 X
36W4	PCB clip/Thread	20 A		6 036W4PAU 81 R40 X
43W2	PCB clip/Thread	20 A		6 043W2PAU 81 R40 X
47W1	PCB clip/Thread	20 A		6 047W1PAU 81 R40 X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness.

For other contact configurations refer to part number creator.

Contact for shellsize 1-4	Code	Contact for shellsize 5	Code
High power 15 A; E=.075/1.90 mm	= 59	High power 20 A; E=.110/2.85 mm	= 81
High power 20 A; E=.110/2.85 mm	= 73	High power 30 A; E=.150/3.75 mm	= 85
High power 30 A; E=.126/3.20 mm	= 74	High power 30 A; E=.126/3.20 mm	= 82
High power 40 A; E=.150/3.75 mm	= 75	High power 40 A; E=.150/3.75 mm	= 77

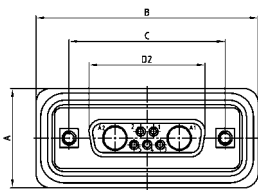
# IP67 COMBINATION D-SUB

Solder pin – Angled – .465" / 11.8 mm – Precision machined contacts – Metal bracket

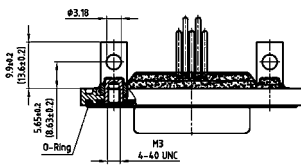


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

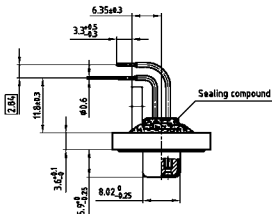
## SOCKET CONNECTOR



Shell size	A +0.2	B +0.2	C	D2 ±0.25
1	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.46
2	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 ±0.13	54.96



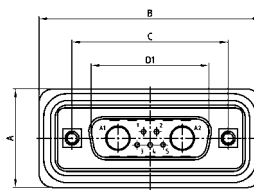
Shell size 1-4



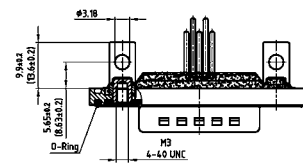
## DESCRIPTION

- Contacts: high power or coaxial contacts
- Mounting style: metal bracket with 4-40 UNC or M3 threaded insert
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Shell size 5 on request
- Suitable hex bolts are supplied loose

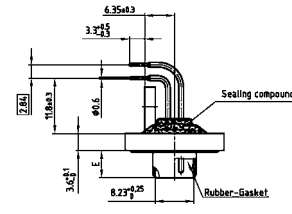
## PLUG CONNECTOR



Shell size	A +0.2	B +0.2	C	D1 ±0.25	E ±0.30
1	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 ±0.13	55.30	5.69



Shell size 1-4



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	Threaded insert	15 A	6 005W1SAZ59S20 X
7W2	Threaded insert	15 A	6 007W2SAZ59S20 X
11W1	Threaded insert	15 A	6 011W1SAZ59S20 X
9W4	Threaded insert	15 A	6 009W4SAZ59S20 X
13W3	Threaded insert	15 A	6 013W3SAZ59S20 X
17W2	Threaded insert	15 A	6 017W2SAZ59S20 X
21W1	Threaded insert	15 A	6 021W1SAZ59S20 X
13W6	Threaded insert	15 A	6 013W6SAZ59S20 X
17W5	Threaded insert	15 A	6 017W5SAZ59S20 X
21WA4	Threaded insert	15 A	6 21WA4SAZ59S20 X
25W3	Threaded insert	15 A	6 025W3SAZ59S20 X
27W2	Threaded insert	15 A	6 027W2SAZ59S20 X

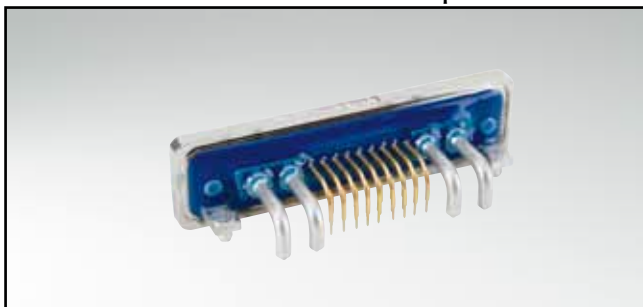
PLUG CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	Threaded insert	15 A	6 005W1PAZ59S20 X
7W2	Threaded insert	15 A	6 007W2PAZ59S20 X
11W1	Threaded insert	15 A	6 011W1PAZ59S20 X
9W4	Threaded insert	15 A	6 009W4PAZ59S20 X
13W3	Threaded insert	15 A	6 013W3PAZ59S20 X
17W2	Threaded insert	15 A	6 017W2PAZ59S20 X
21W1	Threaded insert	15 A	6 021W1PAZ59S20 X
13W6	Threaded insert	15 A	6 013W6PAZ59S20 X
17W5	Threaded insert	15 A	6 017W5PAZ59S20 X
21WA4	Threaded insert	15 A	6 21WA4PAZ59S20 X
25W3	Threaded insert	15 A	6 025W3PAZ59S20 X
27W2	Threaded insert	15 A	6 027W2PAZ59S20 X

For other contact configurations refer to part number creator.

Contact	Code
High power 15 A ; E= .075" / 1.90 mm =	59
High power 20 A ; E= .110" / 2.85 mm =	73
High power 30 A ; E= .126" / 3.20 mm =	74
High power 40 A ; E= .150" / 3.75 mm =	75

# IP67 COMBINATION D-SUB

Solder pin – Angled – .465" / 11.8 mm – Precision machined contacts – Metal bracket with PCB clip

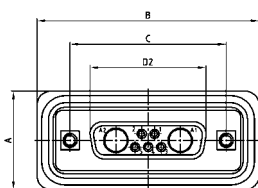


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

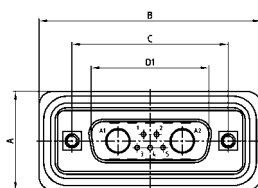
- Contacts: high power or coaxial contacts
- Mounting style: metal bracket, threaded insert and 4-40 UNC or M3 PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Shell size 5 on request
- Suitable hex bolts are supplied loose

## SOCKET CONNECTOR

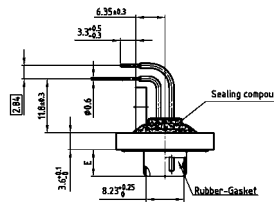
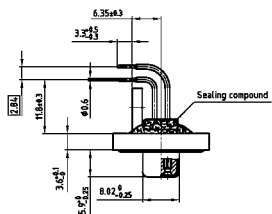
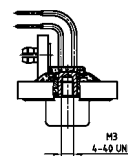
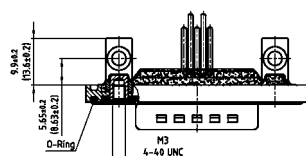
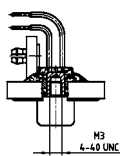
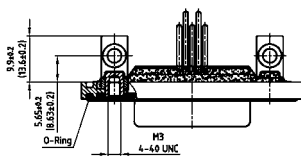


Shell size	A +0.2	B +0.2	C	D2 ±0.25
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.46
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 ±0.13	54.96

## PLUG CONNECTOR



Shell size	A +0.2	B +0.2	C	D1 ±0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	25.12	5.82
3	21.10	61.40	47.04 ±0.13	38.84	5.69
4	21.10	77.90	63.50 ±0.13	55.30	5.69



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	PCB clip/Threaded insert	15 A	6 005W1SAZ 59 S40 X
7W2	PCB clip/Threaded insert	15 A	6 007W2SAZ 59 S40 X
11W1	PCB clip/Threaded insert	15 A	6 011W1SAZ 59 S40 X
9W4	PCB clip/Threaded insert	15 A	6 009W4SAZ 59 S40 X
13W3	PCB clip/Threaded insert	15 A	6 013W3SAZ 59 S40 X
17W2	PCB clip/Threaded insert	15 A	6 017W2SAZ 59 S40 X
21W1	PCB clip/Threaded insert	15 A	6 021W1SAZ 59 S40 X
13W6	PCB clip/Threaded insert	15 A	6 013W6SAZ 59 S40 X
17W5	PCB clip/Threaded insert	15 A	6 017W5SAZ 59 S40 X
21WA4	PCB clip/Threaded insert	15 A	6 21WA4SAZ 59 S40 X
25W3	PCB clip/Threaded insert	15 A	6 025W3SAZ 59 S40 X
27W2	PCB clip/Threaded insert	15 A	6 027W2SAZ 59 S40 X

PLUG CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
5W1	PCB clip/Threaded insert	15 A	6 005W1PAZ 59 S40 X
7W2	PCB clip/Threaded insert	15 A	6 007W2PAZ 59 S40 X
11W1	PCB clip/Threaded insert	15 A	6 011W1PAZ 59 S40 X
9W4	PCB clip/Threaded insert	15 A	6 009W4PAZ 59 S40 X
13W3	PCB clip/Threaded insert	15 A	6 013W3PAZ 59 S40 X
17W2	PCB clip/Threaded insert	15 A	6 017W2PAZ 59 S40 X
21W1	PCB clip/Threaded insert	15 A	6 021W1PAZ 59 S40 X
13W6	PCB clip/Threaded insert	15 A	6 013W6PAZ 59 S40 X
17W5	PCB clip/Threaded insert	15 A	6 017W5PAZ 59 S40 X
21WA4	PCB clip/Threaded insert	15 A	6 21WA4PAZ 59 S40 X
25W3	PCB clip/Threaded insert	15 A	6 025W3PAZ 59 S40 X
27W2	PCB clip/Threaded insert	15 A	6 027W2PAZ 59 S40 X

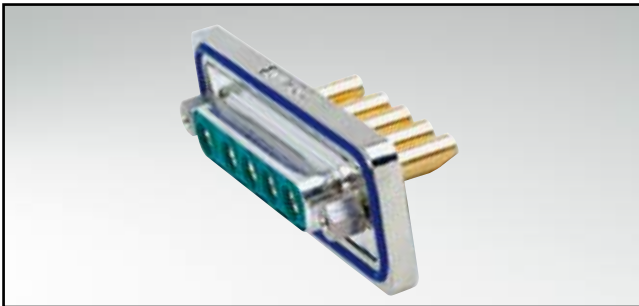
PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness.

For other contact configurations refer to part number creator.

Contact	Code
High power 15 A ; E= .075" / 1.90 mm =	59
High power 20 A ; E= .110" / 2.85 mm =	73
High power 30 A ; E= .126" / 3.20 mm =	74
High power 40 A ; E= .150" / 3.75 mm =	75

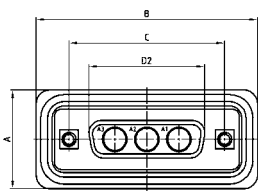
# IP67 COMBINATION D-SUB

Solder cup – Solder ping – Straight – With power or coaxial contacts – Precision machined contacts



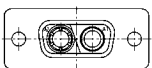
RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR

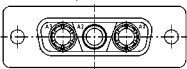


Shell size	A +0.2	B +0.2	C	D2 +0.25
1	21.10	39.40	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	16.46
2	21.10	47.70	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup> / <sub>-0.10</sub>	54.96

### Coded socket connectors

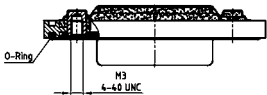


2W2C = 1 Socket – 1 Plug

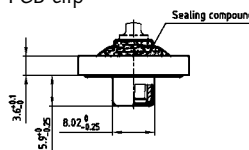
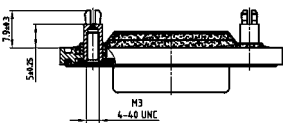


3W3C = 2 Sockets – 1 Plug

Mounting style: Threaded insert



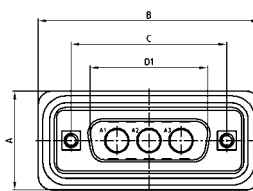
Mounting style: Threaded rear spacer with PCB clip



## DESCRIPTION

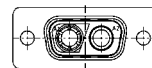
- Designs: 2W2C; 3W3; 3W3C; 5W5; 8W8
- Contacts: high power or coaxial contacts
- Mounting styles:
  - with 4-40 UNC or M3 threaded insert
  - with 4-40 UNC or M3 threaded rear spacer with PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)
- Suitable hex bolts are supplied loose

## PLUG CONNECTOR

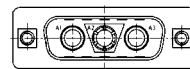


Shell size	A +0.2	B +0.2	C	D1 +0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12</sup> / <sub>-0.13</sub>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15</sup> / <sub>-0.10</sub>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup> / <sub>-0.10</sub>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup> / <sub>-0.10</sub>	55.30	5.69

### Coded plug connectors

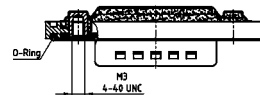


2W2C = 1 Plug – 1 Socket

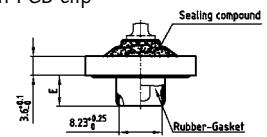
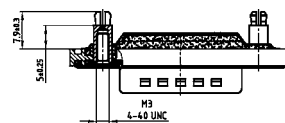


3W3C = 2 Plugs – 1 Socket

Mounting style: Threaded insert



Mounting style: Threaded rear spacer with PCB clip



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
2W2C	Threaded insert	10 A	6 02W2CSXX 61 B30 X
3W3	Threaded insert	10 A	6 003W3SXX 61 B30 X
3W3C	Threaded insert	10 A	6 03W3CSXX 61 B30 X
5W5	Threaded insert	10 A	6 005W5SXX 61 B30 X
8W8	Threaded insert	10 A	6 008W8SXX 61 B30 X
2W2C	Threaded rear spacer PCB clip	10 A	6 02W2CPXX 61 E20 X
3W3	Threaded rear spacer PCB clip	10 A	6 003W3PXX 61 E20 X
3W3C	Threaded rear spacer PCB clip	10 A	6 03W3CPXX 61 E20 X
5W5	Threaded rear spacer PCB clip	10 A	6 005W5PXX 61 E20 X
8W8	Threaded rear spacer PCB clip	10 A	6 008W8PXX 61 E20 X

PLUG CONNECTOR		High power contact	Part Number
Design	Mounting style 4-40 UNC		
2W2C	Threaded insert	10 A	6 02W2CPXX 61 B30 X
3W3	Threaded insert	10 A	6 003W3PXX 61 B30 X
3W3C	Threaded insert	10 A	6 03W3CPXX 61 B30 X
5W5	Threaded insert	10 A	6 005W5PXX 61 B30 X
8W8	Threaded insert	10 A	6 008W8PXX 61 B30 X
2W2C	Threaded rear spacer PCB clip	10 A	6 02W2CPXX 61 E20 X
3W3	Threaded rear spacer PCB clip	10 A	6 003W3PXX 61 E20 X
3W3C	Threaded rear spacer PCB clip	10 A	6 03W3CPXX 61 E20 X
5W5	Threaded rear spacer PCB clip	10 A	6 005W5PXX 61 E20 X
8W8	Threaded rear spacer PCB clip	10 A	6 008W8PXX 61 E20 X

PCB clip .122"/.31 ± .004"/.10 mm hole diameter and .063"/.16 mm circuit board thickness.

For other contact configurations refer to part number creator.

Contact solder cup	Code
High power 10 A	= 61
High power 20 A	= 62

Contact solder pin straight	Code
High power 20 A	= 68
High power 20 A	= 69
High power 20 A	= 70
High power 30 A	= 71
High power 30 A	= 72

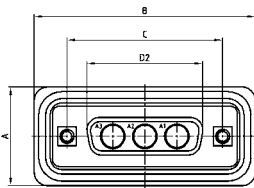
# IP67 COMBINATION D-SUB

Solder pin – Angled – With power or coaxial contacts –  
Precision machined contacts – Metal bracket



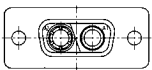
RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## SOCKET CONNECTOR

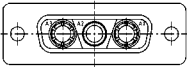


Shell size	A +0.2	B +0.2	C	D1 ±0.25	D2 ±0.25
1	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 ±0.13	55.30	5.69

Coded socket connectors

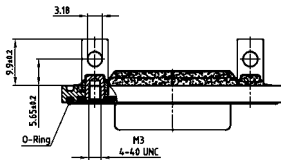


2W2C = 1 Socket – 1 Plug

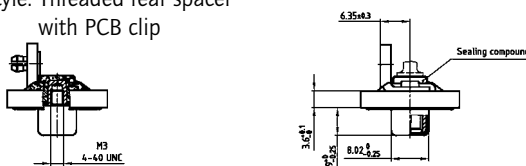


3W3C = 2 Sockets – 1 Plug

Mounting style: Mounting bracket, threaded insert



Mounting style: Threaded rear spacer with PCB clip



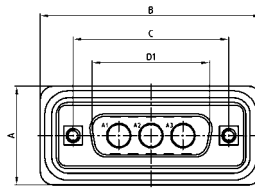
## ORDER DATA

SOCKET CONNECTOR		High	power contact	Part Number
Design	Mounting style 4-40 UNC			
2W2C	Threaded insert	15 A		6 02W2CSXX 59 S20 X
3W3	Threaded insert	15 A		6 003W3SXX 59 S20 X
3W3C	Threaded insert	15 A		6 03W3CSXX 59 S20 X
5W5	Threaded insert	15 A		6 005W5SXX 59 S20 X
8W8	Threaded insert	15 A		6 008W8SXX 59 S20 X
2W2C	Threaded rear spacer / PCB clip	15 A		6 02W2CSXX 59 S40 X
3W3	Threaded rear spacer / PCB clip	15 A		6 003W3SXX 59 S40 X
3W3C	Threaded rear spacer / PCB clip	15 A		6 03W3CSXX 59 S40 X
5W5	Threaded rear spacer / PCB clip	15 A		6 005W5SXX 59 S40 X
8W8	Threaded rear spacer / PCB clip	15 A		6 008W8SXX 59 S40 X

## DESCRIPTION

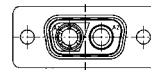
- Designs: 2W2C; 3W3; 3W3C; 5W5; 8W8
- Contacts: high power or coaxial contacts
- Mounting styles:
  - with 4-40 UNC or M3 threaded insert
  - with 4-40 UNC or M3 threaded rear spacer with PCB clip
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame (Black plastic frame on request)

## PLUG CONNECTOR

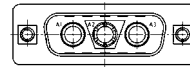


Shell size	A +0.2	B +0.2	C	D1 ±0.25	E ±0.30
1	21.10	39.40	25.00 <sup>+0.12</sup> <sub>-0.13</sub>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15</sup> <sub>-0.10</sub>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 ±0.13	55.30	5.69

Coded plug connectors

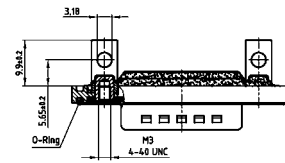


2W2C = 1 Plug – 1 Socket

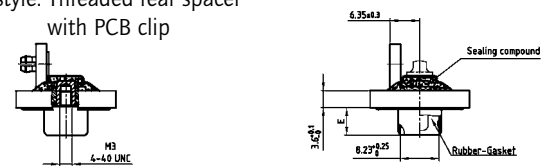


3W3C = 2 Plugs – 1 Socket

Mounting style: Mounting bracket, threaded insert



Mounting style: Threaded rear spacer with PCB clip



PLUG CONNECTOR		High	power contact	Part Number
Design	Mounting style 4-40 UNC			
2W2C	Threaded insert	15 A		6 02W2CPXX 59 S20 X
3W3	Threaded insert	15 A		6 003W3PXX 59 S20 X
3W3C	Threaded insert	15 A		6 03W3CPXX 59 S20 X
5W5	Threaded insert	15 A		6 005W5PXX 59 S20 X
8W8	Threaded insert	15 A		6 008W8PXX 59 S20 X
2W2C	Threaded rear spacer / PCB clip	15 A		6 02W2CPXX 59 S40 X
3W3	Threaded rear spacer / PCB clip	15 A		6 003W3PXX 59 S40 X
3W3C	Threaded rear spacer / PCB clip	15 A		6 03W3CPXX 59 S40 X
5W5	Threaded rear spacer / PCB clip	15 A		6 005W5PXX 59 S40 X
8W8	Threaded rear spacer / PCB clip	15 A		6 008W8PXX 59 S40 X

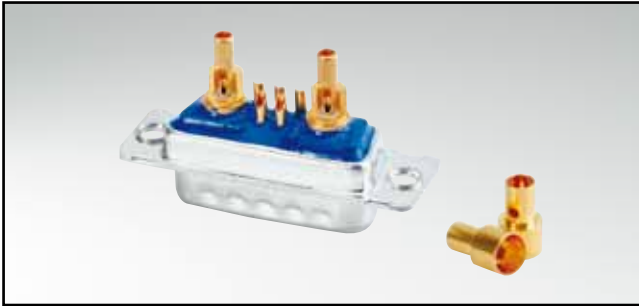
PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness.

For other contact configurations refer to part number creator.

Contact	Code
High power 15 A	= 59
High power 20 A	= 73
High power 30 A	= 74
High power 40 A	= 75

# IP67 COMBINATION D-SUB – WITHOUT FRAME

Solder cup – Precision machined contacts – Design for use with hood –  
For wire size AWG20

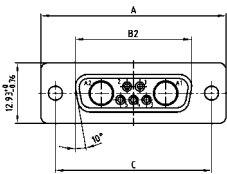


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

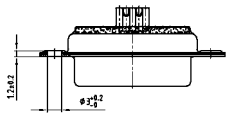
## DESCRIPTION

- Signal contacts for wire size **AWG 20**
- Contacts: high power or coaxial contacts
- Mounting style:  
through-hole  $\varnothing .118" / 3.0 \text{ mm}$
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)

## SOCKET CONNECTOR

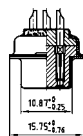
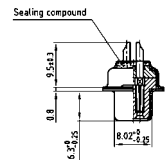


Shell size	A -0.76	B -0.25	C
1	31.19	16.46	25.00 $^{+0.12}_{-0.13}$
2	39.52	24.79	33.30 $^{+0.15}_{-0.10}$
3	53.42	38.50	47.04 $\pm 0.13$
4	69.70	54.96	63.50 $\pm 0.13$
5	67.31	52.55	61.10 $^{+0.14}_{-0.11}$

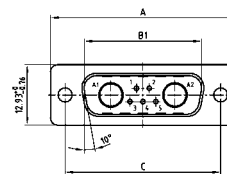


Shell size 1-4

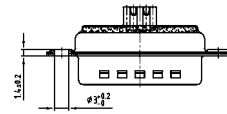
Shell size 5



## PLUG CONNECTOR

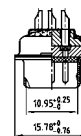
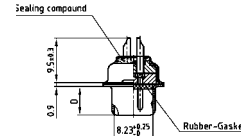


Shell size	A -0.76	B +0.25	C	D -0.30
1	31.19	16.79	25.00 $^{+0.12}_{-0.13}$	6.12
2	39.52	25.12	33.30 $^{+0.15}_{-0.10}$	6.12
3	53.42	38.84	47.04 $\pm 0.13$	5.99
4	69.70	55.30	63.50 $\pm 0.13$	5.99
5	67.31	52.68	61.10 $^{+0.14}_{-0.11}$	5.99



Shell size 1-4

Shell size 5



## ORDER DATA

SOCKET CONNECTOR		High power contact		Part Number
Design	Mounting style			
5W1	Through-hole	10 A		4 005W1SAM 61 A10 X
7W2	Through-hole	10 A		4 007W2SAM 61 A10 X
11W1	Through-hole	10 A		4 011W1SAM 61 A10 X
9W4	Through-hole	10 A		4 009W4SAM 61 A10 X
13W3	Through-hole	10 A		4 013W3SAM 61 A10 X
17W2	Through-hole	10 A		4 017W2SAM 61 A10 X
21W1	Through-hole	10 A		4 021W1SAM 61 A10 X
13W6	Through-hole	10 A		4 013W6SAM 61 A10 X
17W5	Through-hole	10 A		4 017W5SAM 61 A10 X
21WA4	Through-hole	10 A		4 21WA4SAM 61 A10 X
25W3	Through-hole	10 A		4 025W3SAM 61 A10 X
27W2	Through-hole	10 A		4 027W2SAM 61 A10 X
24W7	Through-hole	10 A		4 024W7SAM 61 A10 X
36W4	Through-hole	10 A		4 036W4SAM 61 A10 X
43W2	Through-hole	10 A		4 043W2SAM 61 A10 X
47W1	Through-hole	10 A		4 047W1SAM 61 A10 X

PLUG CONNECTOR		High power contact		Part Number
Design	Mounting style			
5W1	Through-hole	10 A		4 005W1PAM61 A10 X
7W2	Through-hole	10 A		4 007W2PAM61 A10 X
11W1	Through-hole	10 A		4 011W1PAM 61 A10 X
9W4	Through-hole	10 A		4 009W4PAM61 A10 X
13W3	Through-hole	10 A		4 013W3PAM 61 A10 X
17W2	Through-hole	10 A		4 017W2PAM 61 A10 X
21W1	Through-hole	10 A		4 021W1PAM 61 A10 X
13W6	Through-hole	10 A		4 013W6PAM 61 A10 X
17W5	Through-hole	10 A		4 017W5PAM 61 A10 X
21WA4	Through-hole	10 A		4 21WA4PAM 61 A10 X
25W3	Through-hole	10 A		4 025W3PAM61 A10 X
27W2	Through-hole	10 A		4 027W2PAM61 A10 X
24W7	Through-hole	10 A		4 024W7PAM61 A10 X
36W4	Through-hole	10 A		4 036W4PAM61 A10 X
43W2	Through-hole	10 A		4 043W2PAM61 A10 X
47W1	Through-hole	10 A		4 047W1PAM61 A10 X

For other contacts refer to page 7 | 24 up to 7 | 29.

Contact	Code
High power 10 A	= 61
High power 20 A	= 62

# IP67 COMBINATION D-SUB – WITHOUT FRAME

Solder cup – Precision machined contacts – Design for use with hood

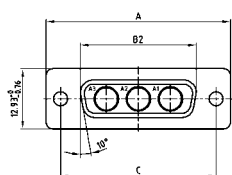


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

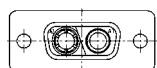
- Designs: 2W2C; 3W3; 3W3C; 5W5; 8W8
- Contacts: high power or coaxial contacts
- Mounting style: through-hole  $\varnothing$  .118" / 3.0 mm
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)

## SOCKET CONNECTOR

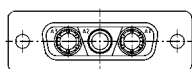


Shell size	A -0.76	B +0.25	C	D1 -0.30
1	31.19	16.79	25.00 $\begin{smallmatrix} +0.12 \\ -0.13 \end{smallmatrix}$	6.12
2	39.52	25.12	33.30 $\begin{smallmatrix} +0.15 \\ -0.10 \end{smallmatrix}$	6.12
3	53.42	38.84	47.04 $\pm 0.13$	5.99
4	69.70	55.30	63.50 $\pm 0.13$	5.99

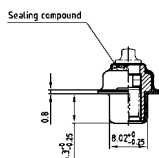
Coded socket connectors



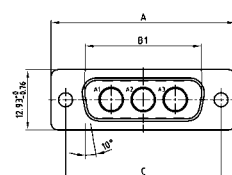
2W2C = 1 Socket – 1 Plug



3W3C = 2 Sockets – 1 Plug

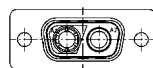


## PLUG CONNECTOR

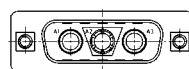


Shell size	A -0.76	B +0.25	C	D1 -0.30
1	31.19	16.79	25.00 $\begin{smallmatrix} +0.12 \\ -0.13 \end{smallmatrix}$	6.12
2	39.52	25.12	33.30 $\begin{smallmatrix} +0.15 \\ -0.10 \end{smallmatrix}$	6.12
3	53.42	38.84	47.04 $\pm 0.13$	5.99
4	69.70	55.30	63.50 $\pm 0.13$	5.99

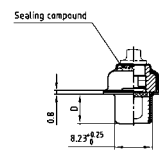
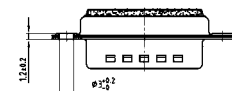
Coded plug connectors



2W2C = 1 Plug – 1 Socket



3W3C = 2 Plugs – 2 Socket



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
Design	Mounting style		
2W2C	Through-hole	10 A	4 02W2CSXX 61 A10 X
3W3	Through-hole	10 A	4 003W3SXX 61 A10 X
3W3C	Through-hole	10 A	4 03W3CSXX 61 A10 X
5W5	Through-hole	10 A	4 005W5SXX 61 A10 X
8W8	Through-hole	10 A	4 008W8SXX 61 A10 X

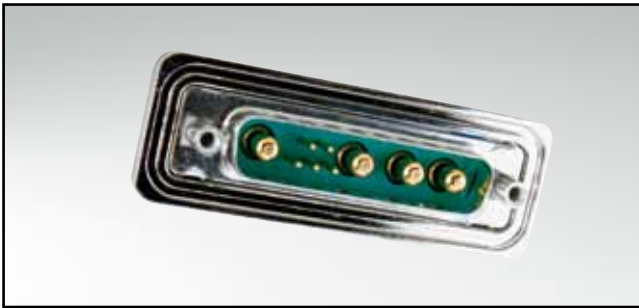
PLUG CONNECTOR		High power contact	Part Number
Design	Mounting style		
2W2C	Through-hole	10 A	4 02W2CPXX 61 A10 X
3W3	Through-hole	10 A	4 003W3PXX 61 A10 X
3W3C	Through-hole	10 A	4 03W3CPXX 61 A10 X
5W5	Through-hole	10 A	4 005W5PXX 61 A10 X
8W8	Through-hole	10 A	4 008W8PXX 61 A10 X

For other contacts refer to page 7 | 24 up to 7 | 29.

Contact solder cup	Code
High power 10 A	= 61
High power 20 A	= 62

# IP67 COMBINATION D-SUB – FRONT PANEL MOUNTING

Solder cup – Precision machined contacts – For wire size AWG 20

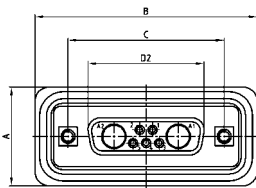


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

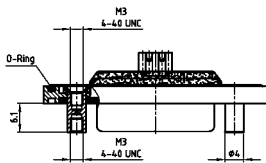
## DESCRIPTION

- Signal contacts for wire size **AWG 20**
- Contacts: high power or coaxial contacts
- Mounting style:  
with 4-40 UNC or M3 front spacer
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (Stainless steel on request)
- Nickel plated die-cast frame  
(Black plastic frame on request)

## SOCKET CONNECTOR



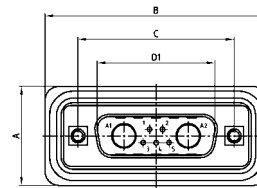
Shell size	A +0.2	B +0.2	C	D2 +0.25
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.46
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	24.79
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.50
4	21.10	77.90	63.50 <sup>+0.13</sup>	54.96
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.55



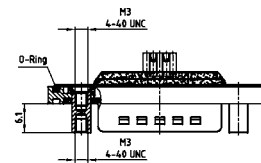
Shell size 1-4

Shell size 5

## PLUG CONNECTOR

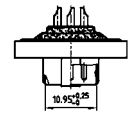
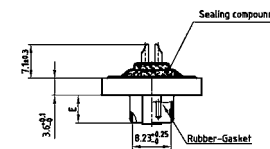
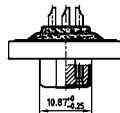
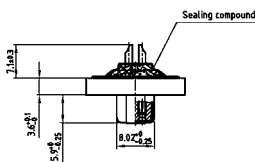


Shell size	A +0.2	B +0.2	C	D1 +0.25	E -0.30
1	21.10	39.40	25.00 <sup>+0.12/-0.13</sup>	16.79	5.82
2	21.10	47.70	33.30 <sup>+0.15/-0.10</sup>	25.12	5.82
3	21.10	61.40	47.04 <sup>+0.13</sup>	38.84	5.69
4	21.10	77.90	63.50 <sup>+0.13</sup>	55.30	5.69
5	23.90	75.50	61.10 <sup>+0.14/-0.11</sup>	52.68	5.69



Shell size 1-4

Shell size 5



## ORDER DATA

SOCKET CONNECTOR		High power contact	Part Number
5W1	Front spacer	10 A	6 005W1SAM61 B50 X
7W2	Front spacer	10 A	6 007W2SAM61 B50 X
11W1	Front spacer	10 A	6 011W1SAM 61 B50 X
9W4	Front spacer	10 A	6 009W4SAM61 B50 X
13W3	Front spacer	10 A	6 013W3SAM 61 B50 X
17W2	Front spacer	10 A	6 017W2SAM 61 B50 X
21W1	Front spacer	10 A	6 021W1SAM 61 B50 X
13W6	Front spacer	10 A	6 013W6SAM 61 B50 X
17W5	Front spacer	10 A	6 017W5SAM 61 B50 X
21W4	Front spacer	10 A	6 21WA4SAM 61 B50 X
25W3	Front spacer	10 A	6 025W3SAM 61 B50 X
27W2	Front spacer	10 A	6 027W2SAM 61 B50 X
24W7	Front spacer	10 A	6 024W7SAM 61 B50 X
36W4	Front spacer	10 A	6 036W4SAM 61 B50 X
43W2	Front spacer	10 A	6 043W2SAM 61 B50 X
47W1	Front spacer	10 A	6 047W1SAM 61 B50 X

PLUG CONNECTOR		High power contact	Part Number
5W1	Front spacer	10 A	6 005W1PAM61 B50 X
7W2	Front spacer	10 A	6 007W2PAM61 B50 X
11W1	Front spacer	10 A	6 011W1PAM 61 B50 X
9W4	Front spacer	10 A	6 009W4PAM61 B50 X
13W3	Front spacer	10 A	6 013W3PAM 61 B50 X
17W2	Front spacer	10 A	6 017W2PAM 61 B50 X
21W1	Front spacer	10 A	6 021W1 PAM 61 B50 X
13W6	Front spacer	10 A	6 013W6PAM 61 B50 X
17W5	Front spacer	10 A	6 017W5PAM 61 B50 X
21W4	Front spacer	10 A	6 21WA4PAM 61 B50 X
25W3	Front spacer	10 A	6 025W3PAM 61 B50 X
27W2	Front spacer	10 A	6 027W2PAM 61 B50 X
24W7	Front spacer	10 A	6 024W7PAM 61 B50 X
36W4	Front spacer	10 A	6 036W4PAM 61 B50 X
43W2	Front spacer	10 A	6 043W2PAM 61 B50 X
47W1	Front spacer	10 A	6 047W1PAM 61 B50 X

For other contacts refer to page 7 | 24 up to 7 | 29.

Contact	Code
High power 10 A	= 61
High power 20 A	= 62

# IP67 COMBINATION D-SUB – FRONT PANEL MOUNTING

Solder cup – With power or coaxial contacts – Precision machined contacts

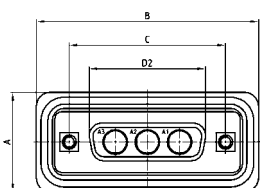


RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

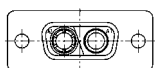
- Designs: 2W2C; 3W3; 3W3C; 5W5; 8W8
- Contacts: high power or coaxial contacts
- Mounting styles: with 4-40 UNC or M3 front spacer
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated
- Nickel plated die-cast frame (Black plastic frame on request)

## SOCKET CONNECTOR

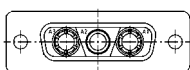


Dimensions in mm				
Shell size	A <sup>+0.2</sup> / <sub>0</sub>	B <sup>+0</sup> / <sub>-0.25</sub>	C <sup>+0.13</sup> / <sub>-0.12</sub>	D <sup>+0</sup> / <sub>-0.25</sub>
1	39.40	16.46	24.99	16.79
2	47.70	24.79	33.32	25.12
3	61.40	38.50	47.04	38.84
4	77.90	54.96	63.50	55.30

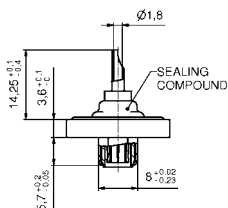
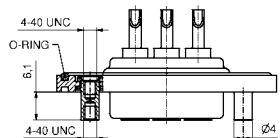
### Coded socket connectors



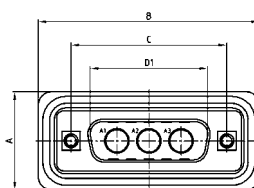
2W2C = 1 Socket – 1 Plug



3W3C = 2 Sockets – 1 Plug

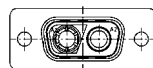


## PLUG CONNECTOR

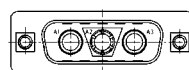


Dimensions in mm					
Shell size	A <sup>+0.2</sup> / <sub>0</sub>	B <sup>+0</sup> / <sub>-0.25</sub>	C <sup>+0.13</sup> / <sub>-0.12</sub>	D1 <sup>+0</sup> / <sub>-0.25</sub>	D <sup>+0</sup> / <sub>-0.30</sub>
1	39.40	16.46	24.99	16.46	5.82
2	47.70	24.79	33.32	24.79	5.82
3	61.40	38.50	47.04	38.50	5.59
4	77.90	54.96	63.50	54.96	5.69

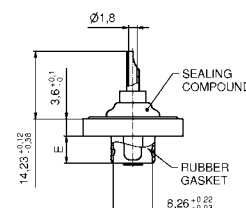
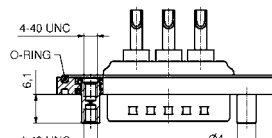
### Coded plug connectors



2W2C = 1 Plug – 1 Socket



3W3C = 2 Plugs – 1 Socket



## ORDER DATA

SOCKET CONNECTOR		High power contact		Part Number
Design	Mounting style 4-40 UNC			
2W2C	Front spacer	10 A		6 02W2CSXX 61 B50 X
3W3	Front spacer	10 A		6 003W3SXX 61 B50 X
3W3C	Front spacer	10 A		6 03W3CSXX 61 B50 X
5W5	Front spacer	10 A		6 005W5SXX 61 B50 X
8W8	Front spacer	10 A		6 008W8SXX 61 B50 X

PLUG CONNECTOR		High power contact		Part Number
Design	Mounting style 4-40 UNC			
2W2C	Front spacer	10 A		6 02W2CPXX 61 B50 X
3W3	Front spacer	10 A		6 003W3PXX 61 B50 X
3W3C	Front spacer	10 A		6 03W3CPXX 61 B50 X
5W5	Front spacer	10 A		6 005W5PXX 61 B50 X
8W8	Front spacer	10 A		6 008W8PXX 61 B50 X

For other contacts refer to page 7 | 24 up to 7 | 29.

Contact	Code
High power 10 A	= 61
High power 20 A	= 62

# COMBINATION D-SUB CONTACTS

## High power contacts – Solder cup – Screw/Crimp version



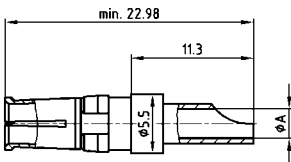
RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

### DESCRIPTION

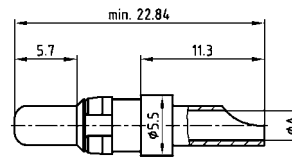
- Precision machined contacts
- Quality class 3: 50 mating cycles (gold plated)
- Quality class 1: 500 mating cycles (gold plated)
- Premating make before break contacts available (Consult factory)
- Two-part contact, separate soldering of wire
- Selective gold-plated contacts available on request

### PRODUCT DRAWING

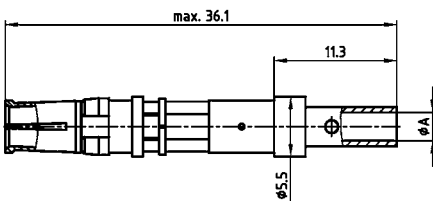
Socket contact/Solder cup



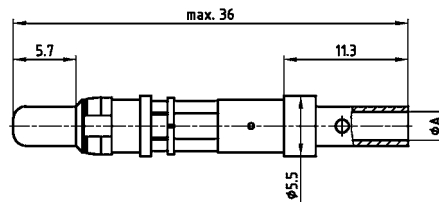
Plug contact/Solder cup



Socket contact/Screw crimp

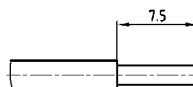


Plug contact/Screw crimp



AWG	Current rating	ØA+0.15
16...20	10 A	1.80
12...14	20 A	2.70
10...12	30 A	3.50
8...10	40 A	4.80

Wire stripping



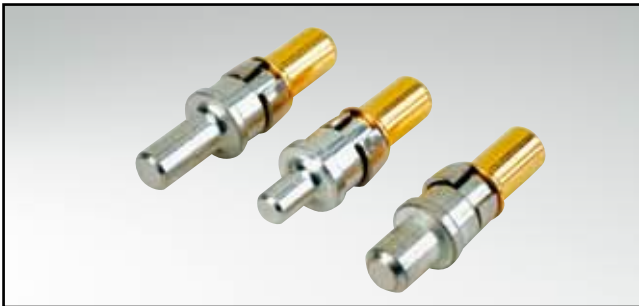
### ORDER DATA

HIGH POWER CONTACT SOLDER CUP		Quality class 3		Quality class 1	
Wire size	Current rating	Code		Code	
AWG16...20	10 A	61		41	
AWG12...14	20 A	62		42	
AWG10...12	30 A	63		43	
AWG 8...10	40 A	64		44	

HIGH POWER CONTACT SCREW CRIMP		Quality class 3		Quality class 1	
Wire size	Current rating	Code		Code	
AWG16...20	10 A	On request		R1	
AWG12...14	20 A	On request		R2	
AWG10...12	30 A	On request		R3	
AWG 8...10	40 A	On request		R4	

# COMBINATION D-SUB CONTACTS

## High power contacts – Solder pin – Straight



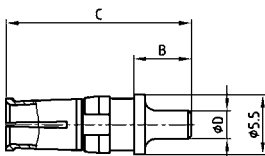
RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

### DESCRIPTION

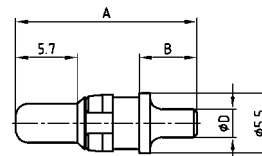
- Precision machined contacts
- Quality class 3: 50 mating cycles (gold plated)
- Quality class 1: 500 mating cycles (gold plated)
- Premating make before break contacts available (Consult factory)

### PRODUCT DRAWING

Socket contact



Plug contact



Current rating	Termination	A	B	C	Ø D
20 A	48	15.84	4.60	15.98	1.95
20 A	49	16.84	5.30	16.98	2.60
20 A	50/70	16.24	4.70	16.38	2.85
30 A	51/71	19.04	7.50	19.18	3.18
40 A	52/72	17.29	5.75	17.43	3.75

### ORDER DATA

HIGH POWER CONTACT		Quality class 3	Quality class 1
Solder tail diameter D	Current rating	Code	Code
.077" / 1.95 mm	20 A	68	48
.102" / 2.60 mm	20 A	69	49
.112" / 2.85 mm	20 A	70	50
.125" / 3.18 mm	30 A	71	51
.148" / 3.75 mm	40 A	72	52

For other contact configurations refer to part number creator.

# COMBINATION D-SUB CONTACTS

High power contacts – Solder pin – angled



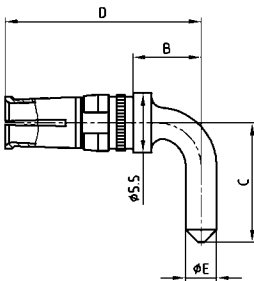
RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

## DESCRIPTION

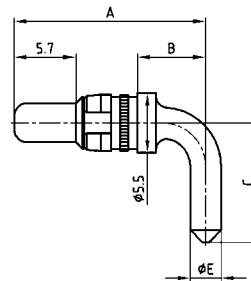
- Precision machined contacts
- Quality class 3: .008 μ" / 0.2 μm Au in contact area
- Quality class 1: .032 μ" / 0.8 μm Au in contact area
- Premating make before break contacts available (Consult factory).

## PRODUCT DRAWING

Socket contact



Plug contact



Shell size	Current rating	Termination	A	B	C	D	Ø E
1-4	15A	55/59	14.54	3.00	10.50	14.68	1.90
1-4	20A	56/73	17.84	6.30	11.00	17.98	2.85
1-4	30A	57/74	26.54	15.00	9.50	26.68	3.20
1-4	40A	58/75	17.84	6.30	11.00	17.98	3.75
5	20A	66/81	20.39	8.85	14.00	20.53	2.85
5	30A	67/82	20.39	8.85	14.00	20.53	3.20
5	30A	65/85	26.54	15.00	13.50	26.68	3.20
5	40A	60/77	20.39	8.85	14.00	20.53	3.75

## ORDER DATA

HIGH POWER CONTACT		Quality class 3	Quality class 1
Shell size	Current rating	Code	Code
1-4	15 A	59	55
1-4	20 A	73	56
1-4	30 A	74	57
1-4	40 A	75	58
5	20 A	81	66
5	30 A	82	67
5	30 A	85	65
5	40 A	77	60

For other contact configurations refer to part number creator.

# COMBINATION D-SUB CONTACTS

Coaxial contacts – Straight – Inner and outer conductor for solder connection



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

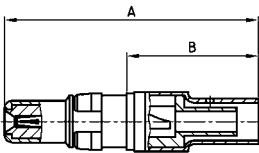
## DESCRIPTION

- 50 and 75 Ω design
- Contact plating:
  - .008 μ"/0.2 μm Au plating mating side inner- and outer conductor (Quality class 3)
  - other quality classes on request
- IP67 protection only in mated condition in conjunction with water resistant housing from CONEC

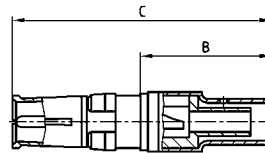
## PRODUCT DRAWING

### 50 Ω version

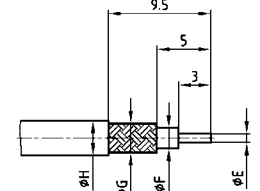
Plug contact



Socket contact



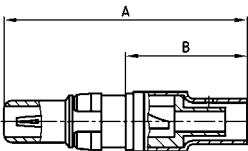
Wire stripping



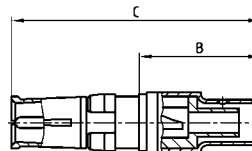
Usable cables RG	A	B	C	Ø E max.	Ø F max.	Ø G max.	Ø H max.
178BU, 196AU, 404U	22.50	11.20	23.00	0.85	1.20	1.40	2.30
174U, 188AU, 316U	22.50	11.20	23.00	0.85	1.90	2.30	3.20
180BU	22.50	11.20	23.00	0.85	2.80	3.10	4.50
58CU, 141AU	26.30	14.80	26.80	1.00	3.00	3.60	5.20
316U double braided	23.50	12.20	24.00	0.85	1.90	2.70	3.20

### 75 Ω version

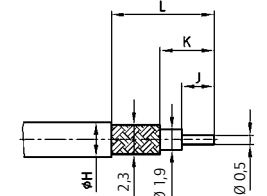
Plug contact



Socket contact



Wire stripping



Usable cables RG	A	B	C	Ø H max.	J	K	L
178BU, 187AU	18.55	7.30	19.05	2.30	2.00	3.10	6.00
178BU, 187AU	22.50	11.20	23.00	3.20	3.20	5.00	9.50

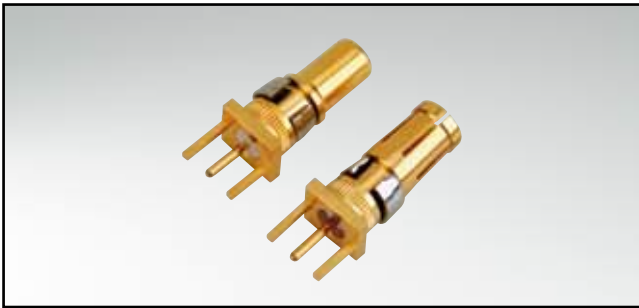
## ORDER DATA

COAXIAL CONTACT		Quality class J	Quality class 3
Usable cable	Contact	Code	Code
178BU, 196AU, 404U	50 Ω	H6	G2
174U, 188AU, 316U	50 Ω	H7	G3
180BU	50 Ω	H8	G4
58CU, 141AU	50 Ω	H9	G5
316U double braided	50 Ω	K1	G6
179BU, 187AU (B= .290"/7.3 mm)	75 Ω	H4	F9
179BU, 187AU (B= .441"/11.2 mm)	75 Ω	H5	G1

For other contact configurations refer to part number creator.

# COMBINATION D-SUB CONTACTS

Coaxial contacts – Straight – PCB termination – 3 solder pins



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

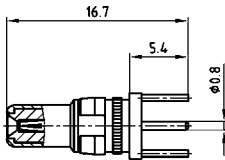
## DESCRIPTION

- 50 and 75 Ω design
- Contact plating:
  - .051 μ" / 1.3 μm Au plating mating side inner conductor / .032 μ" / 0.8 μm Au outer conductor (Quality class J)
  - .008 μ" / 0.2 μm Au plating mating side inner- and outer conductor (Quality class 3)
- IP67 protection only in mated condition in conjunction with water resistant housing from CONEC

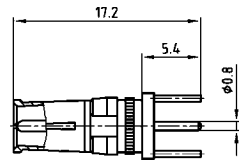
## PRODUCT DRAWING

### 50 Ω version

Plug contact

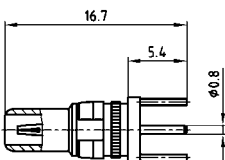


Socket contact

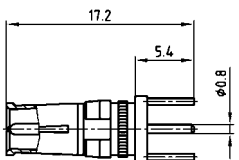
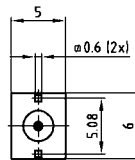


### 75 Ω version

Plug contact



Socket contact



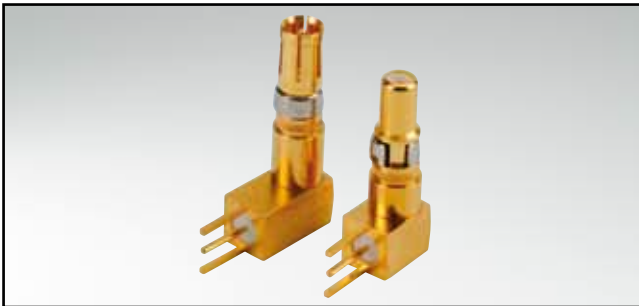
## ORDER DATA

COAXIAL CONTACT		Quality class J		Quality class 3	
Shell size	Contact	Code		Code	
1-5	50 Ω	76		G7	
1-5	75 Ω	78		G8	

For other contact configurations refer to part number creator.

# COMBINATION D-SUB CONTACTS

Coaxial contacts – Angled – PCB termination – 3 solder pins



RoHS compliant – CSA listed, File No.: LR 115000-1 – UL listed, File No.: E202784

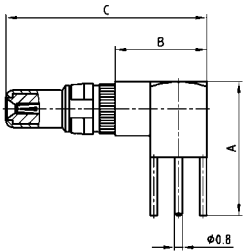
## DESCRIPTION

- 50 Ω and 75 Ω design
- Contact plating:
  - .051 μ" / 1.3 μm Au plating mating side inner conductor / .032 μ" / 0.8 μm Au outer conductor (Quality class J)
  - .008 μ" / 0.2 μm Au plating mating side inner- and outer conductor (Quality class 3)
- IP67 protection only in mated condition in conjunction with water resistant shells from CONEC

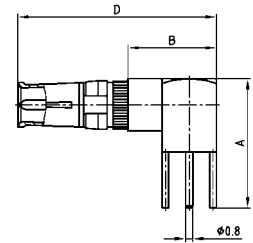
## PRODUCT DRAWING

### 50 Ω version

Plug contact

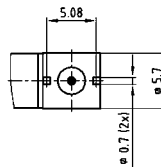
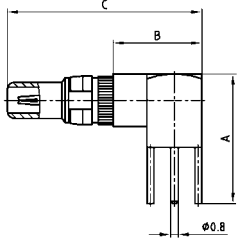


Socket contact

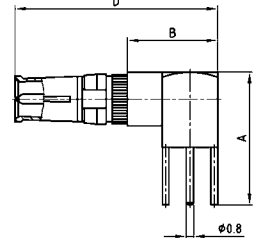


### 75 Ω version

Plug contact



Socket contact



Shell size	A	B	C	D	E	F
1-4	13.80	9.30	20.70	21.20	11.00	9.30
5	16.80	11.80	23.20	23.70	14.00	11.80

## ORDER DATA

COAXIAL CONTACT		Quality class J		Quality class 3	
Shell size	Contact	Code		Code	
1-4	50 Ω	78		G9	
5	50 Ω	79		H1	
1-4	75 Ω	88		H2	
5	75 Ω	89		H3	

For other contact configurations refer to part number creator.