

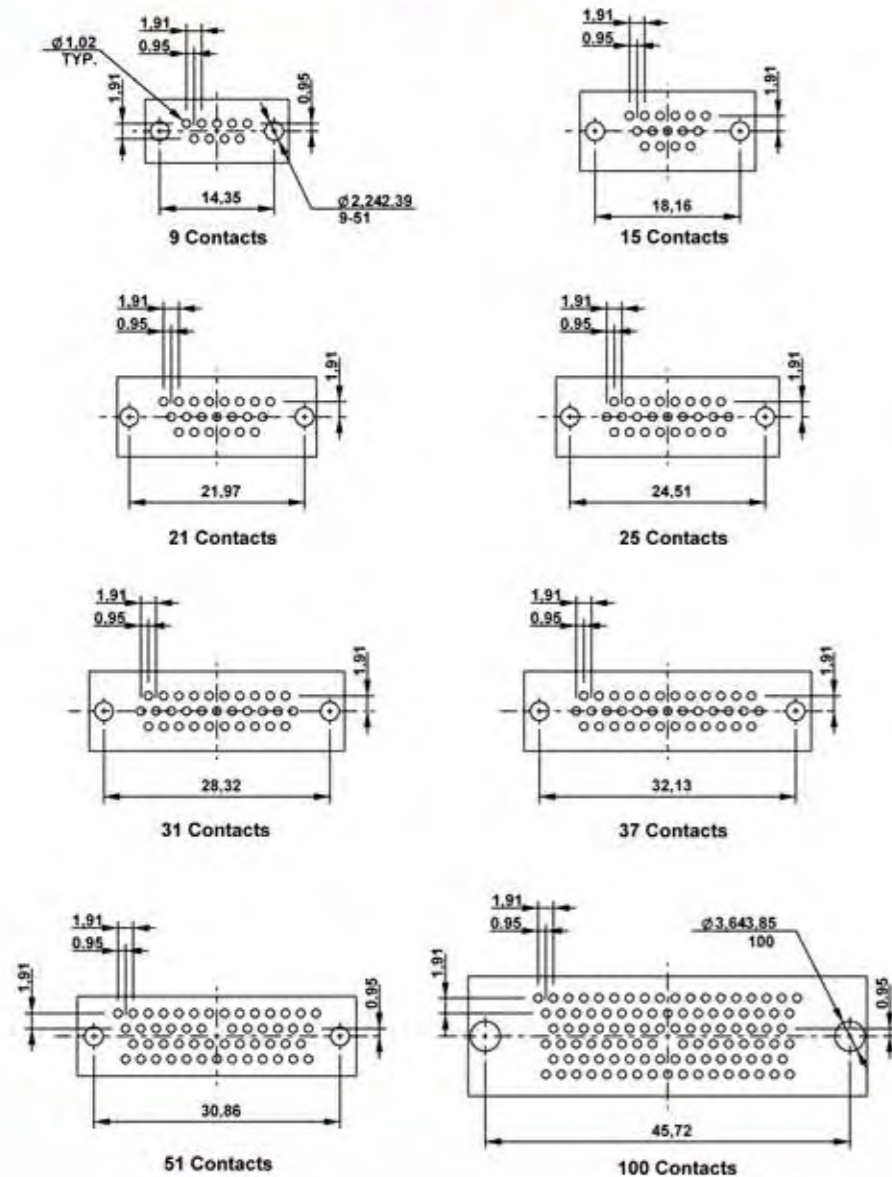
DURA-CON™ PCB MOUNT
TERMINAL BLOCK CONNECTOR
0.075" PITCH



Connector PCB Layouts - Socket Connectors

Connector mounting side of PCB. Use reverse order for plug side.

Recommended Board Layout as viewed from bottom of Terminal Block



PCB MOUNT 0.075" PITCH 90° & 180° TERMINATION



Components for a connected planet

At Cinch our philosophy is that anything is possible.

With over 90 years' experience as a global supplier we offer simple, effective solutions to our customers' interconnect and integration needs. From basic interconnect to complex integration requiring bespoke design, we focus primarily on quality, ingenuity and reliability, meeting the high performance demands of industries such as Defence, Aerospace, Space, Telecom, High Speed Data Servers and Industrial Transportation.

**TOGETHER
WE STIMULATE,
WE INNOVATE,
WE CREATE.**

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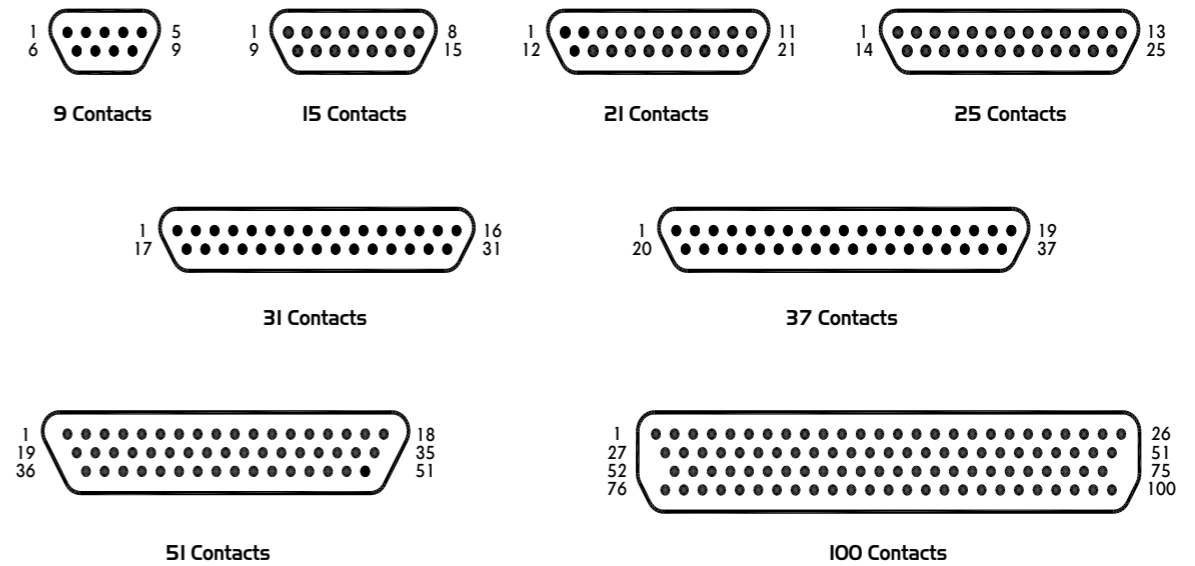
DURA-CON™ PCB MOUNT
TERMINAL BLOCK CONNECTOR
0.075" PITCH



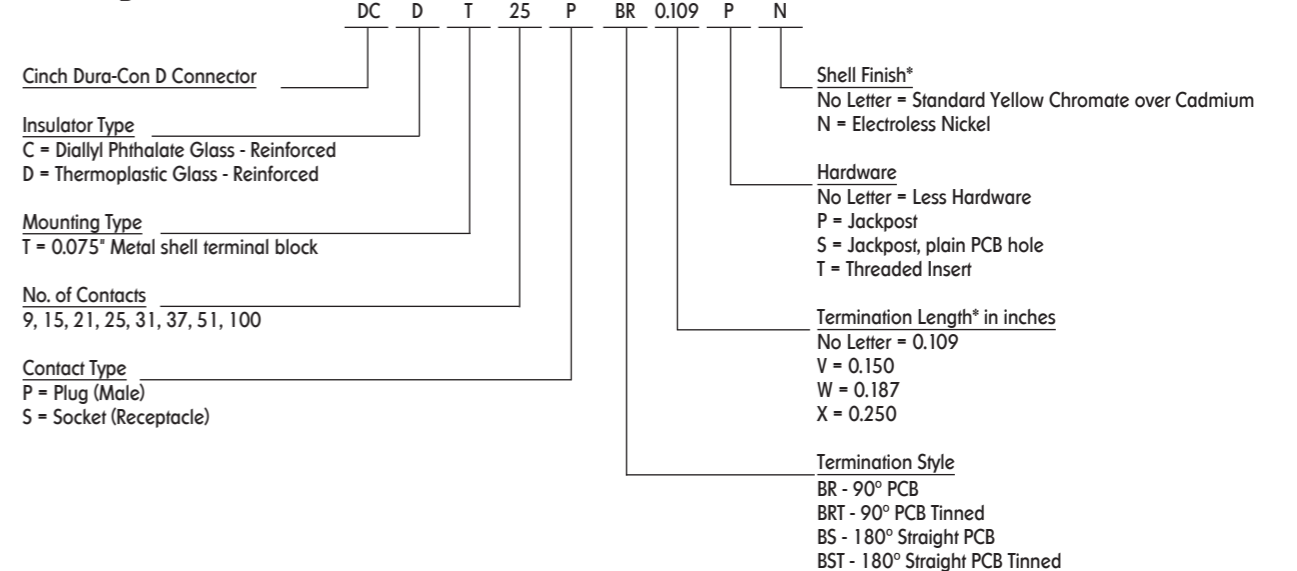
Dura-Con™ PCB Mount Terminal Block Connector 0.075" Pitch

Contact Arrangements

Face view of pin insert. Use reverse order for socket side.



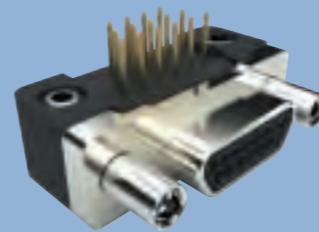
Ordering Information



*For other options please consult the factory.

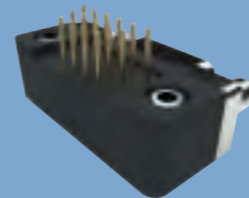
Features

Plug and socket versions available in 9,15,21,25,31,37, 51 and 100 positions
0.075" Board spacing
180° straight mount and 90° right angle mount available
Meets requirements of MIL-DTL-83513
Rugged twist-pin contacts offer resistance to shock and vibration
Aluminium shell provides extra strength and EMI / RFI shielding
Metal shell Dura-Con is an excellent choice for harsh environments



Materials

Insulator: UL94V-0 glass filled polyester, diallyl phthalate, or polyphenylene sulphide
Socket Contact: Copper alloy (machined), gold plated 1.25 microns (50 µin) min
Plug Contact: Copper alloy, gold plated 1.25 microns (50 µin) min
Shell: Aluminium alloy
Shell Plating: Yellow chromate over cadmium or electroless nickel
T-Block Body: Polyphenylene sulphide
PCB Terminals: Copper alloy, gold plated or solder dipped
Consult Cinch for other options



Environmental

Operating Temperature: -55°C to +125°C
Shock: 50G's in accordance with MIL-DTL-83513
Vibration: 20G's in accordance with MIL-DTL-83513
Salt Spray: 48 hours in accordance with MIL-DTL-1344, method 2004, Condition E
Magnetic Permeability: 2µ maximum



Electrical

Current Rating: 3 Amps max in Isolation
Withstanding Voltage: 600VAC @ Sea level (MIL-DTL-83513)
Insulation Resistance: 500V and 5000 Megohms (MIL-DTL-83513)
Contact Resistance: 8 milliohms maximum
Low-signal level contact resistance: 32 milliohms maximum



Mechanical

Mating Force: (10 ounces max.) x (# of contacts)
Unmating Force: (0.5 ounces max.) x (# of contacts)
Durability: 500 mating cycles minimum

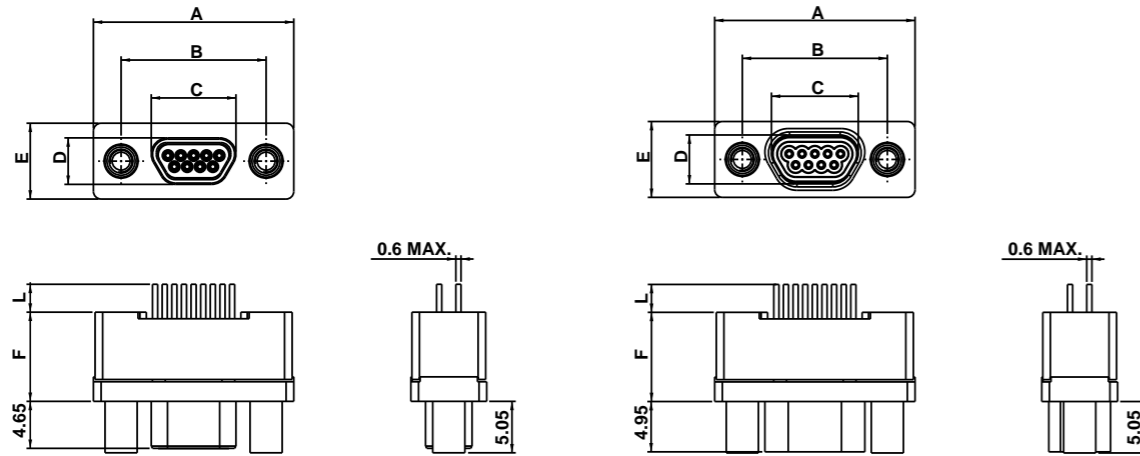


Connector Dimensions 180° Mounting

Connector Dimensions 90° Mounting

Plug Arrangement

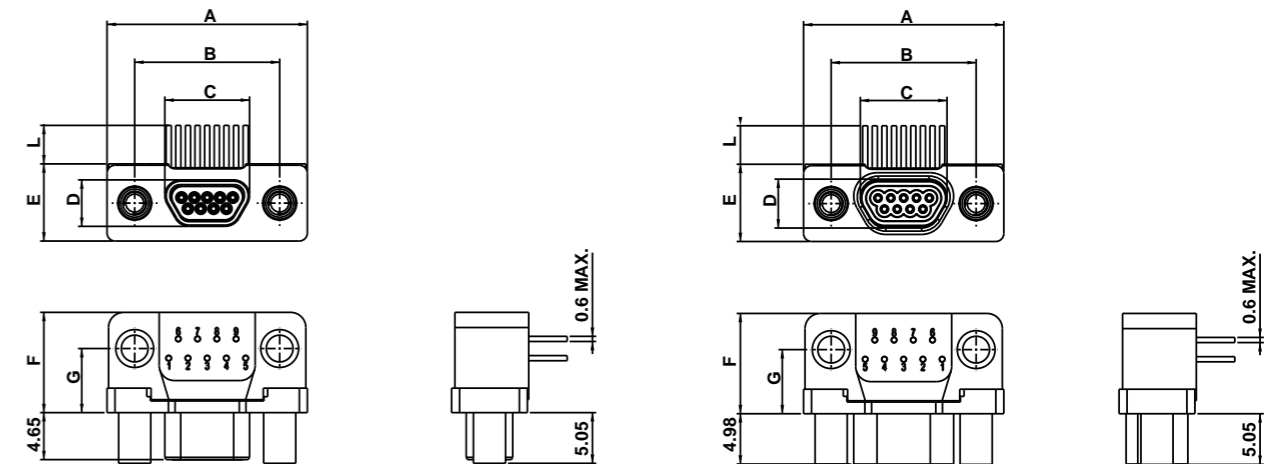
Socket Arrangement



L=See ordering information for termination length.

Plug Arrangement

Socket Arrangement



L=See ordering information for termination length.

Shell Size / Gender	A MAX		B ±0.13 (0.005")		C MAX (Plug)		D MAX (Plug)		E MAX		F MAX	
	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches
					C MIN (Socket)		D MIN (Socket)					
9 Plug	19.89	0.783	14.35	0.565	8.43	0.3338	4.65	0.183	7.57	0.298	9.02	0.355
9 Socket	19.89	0.783	14.35	0.565	8.53	0.3342	4.8	0.189	7.57	0.298	9.02	0.355
15 Plug	23.55	0.927	18.16	0.715	12.24	0.4838	4.65	0.183	7.57	0.298	9.02	0.355
15 Socket	23.55	0.927	18.16	0.715	12.34	0.4842	4.8	0.189	7.57	0.298	9.02	0.355
21 Plug	27.51	1.083	21.97	0.865	16.05	0.6338	4.65	0.183	7.57	0.298	9.02	0.355
21 Socket	27.51	1.083	21.97	0.865	16.15	0.6342	4.8	0.189	7.57	0.298	9.02	0.355
25 Plug	30.05	1.183	24.51	0.965	18.59	0.7338	4.65	0.183	7.57	0.298	9.02	0.355
25 Socket	30.05	1.183	24.51	0.965	18.69	0.7342	4.8	0.189	7.57	0.298	9.02	0.355
31 Plug	33.86	1.333	28.32	1.115	22.40	0.8838	4.65	0.183	7.57	0.298	9.02	0.355
31 Socket	33.86	1.333	28.32	1.115	22.50	0.8842	4.8	0.189	7.57	0.298	9.02	0.355
37 Plug	37.67	1.483	32.13	1.265	26.21	1.0338	4.65	0.183	7.57	0.298	9.02	0.355
37 Socket	37.67	1.483	32.13	1.265	26.31	1.0342	4.8	0.189	7.57	0.298	9.02	0.355
51 Plug	36.40	1.433	30.86	1.215	24.94	0.9838	5.74	0.226	8.69	0.342	9.02	0.355
51 Socket	36.40	1.433	30.86	1.215	25.04	0.9842	5.92	0.233	8.69	0.342	9.02	0.355
100 Plug	55.07	2.168	45.72	1.800	35.10	1.3838	6.83	0.269	9.81	0.386	10.92	0.430
100 Socket	55.07	2.168	45.72	1.800	35.21	1.3842	6.96	0.274	9.81	0.386	10.92	0.430

Size 9 - 51 Mounting Hole 2.65/2.7. Thread Size M2.
Size 100 Mounting Hole 4.0/4.1. Thread Size M3.

Shell Size / Gender	A MAX		B ±0.13 (0.005")		C MAX (Plug)		D MAX (Plug)		E MAX		F MAX		G G ±0.25 (0.01")	
	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches
					C MIN (Socket)		D MIN (Socket)							
9 Plug	19.89	0.783	14.35	0.565	8.43	0.3338	4.65	0.183	7.85	0.309	10.16	0.400	6.35	0.250
9 Socket	19.89	0.783	14.35	0.565	8.53	0.3342	4.8	0.189	7.85	0.309	10.16	0.400	6.35	0.250
15 Plug	23.55	0.927	18.16	0.715	12.24	0.4838	4.65	0.183	7.85	0.309	10.16	0.400	6.35	0.250
15 Socket	23.55	0.927	18.16	0.715	12.34	0.4842	4.8	0.189	7.85	0.309	10.16	0.400	6.35	0.250
21 Plug	27.51	1.083	21.97	0.865	16.05	0.6338	4.65	0.183	7.85	0.309	10.16	0.400	6.35	0.250
21 Socket	27.51	1.083	21.97	0.865	16.15	0.6342	4.8	0.189	7.85	0.309	10.16	0.400	6.35	0.250
25 Plug	30.05	1.183	24.51	0.965	18.59	0.7338	4.65	0.183	7.85	0.309	10.16	0.400	6.35	0.250
25 Socket	30.05	1.183	24.51	0.965	18.69	0.7342	4.8	0.189	7.85	0.309	10.16	0.400	6.35	0.250
31 Plug	33.86	1.333	28.32	1.115	22.40	0.8838	4.65	0.183	7.85	0.309	10.16	0.400	6.35	0.250
31 Socket	33.86	1.333	28.32	1.115	22.50	0.8842	4.8	0.189	7.85	0.309	10.16	0.400	6.35	0.250
37 Plug	37.67	1.483	32.13	1.265	26.21	1.0338	4.65	0.183	7.85	0.309	10.16	0.400	6.35	0.250
37 Socket	37.67	1.483	32.13	1.265	26.31	1.0342	4.8	0.189	7.85	0.309	10.16	0.400	6.35	0.250
51 Plug	36.40	1.433	30.86	1.215	24.94	0.9838	5.74	0.226	8.90	0.350	12.45	0.490	7.62	0.300
51 Socket	36.40	1.433	30.86	1.215	25.04	0.9842	5.92	0.233	8.90	0.350	12.45	0.490	7.62	0.300
100 Plug	55.07	2.168	45.72	1.800	35.10	1.3838	6.83	0.269	10.00	0.394	16.76	0.660	10.16	0.400
100 Socket	55.07	2.168	45.72	1.800	35.21	1.3842	6.96	0.274	10.00	0.394	16.76	0.660	10.16	0.400

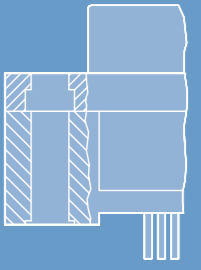
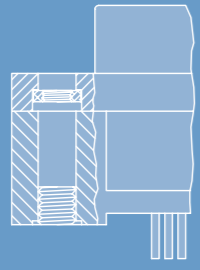
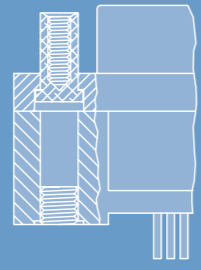
Size 9 - 51 Mounting Hole 2.65/2.7. Thread Size M2.
Size 100 Mounting Hole 4.0/4.1. Thread Size M3.

DURA-CON™ PCB MOUNT
TERMINAL BLOCK CONNECTOR
0.075" PITCH

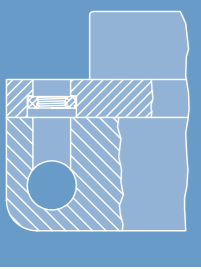
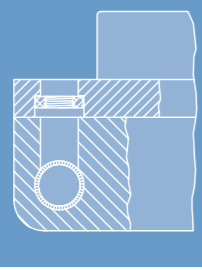
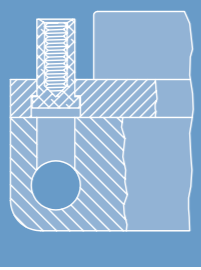
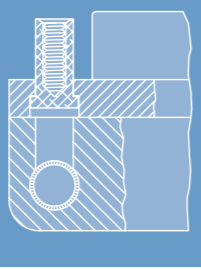


Mounting Hardware

180° Mounting

		
No Hardware No insert in shell No jackpost fitted Plain PCB mounting hole	Threaded Insert (T) 2-56 insert in shell No jackpost fitted M2 PCB mounting hole	Jackpost (P) 2-56 Jackpost fitted M2 PCB mounting hole

90° Mounting

			
No Hardware 2-56 insert in shell No jackpost fitted Plain PCB mounting hole	Threaded Insert (T) 2-56 insert in shell No jackpost fitted M2 PCB mounting hole	Jackpost (5) 2-56 Jackpost fitted Plain PCB	Jackpost (P) 2-56 Jackpost fitted M2 PCB mounting hole

Note: 100 way connectors fitted with 4-40 insert in shell or 4-40 jackpost, and M3 PCB mounting hole where fitted.

Jackpost – Rear Panel Mount (purchased separately).

Suitable for hardware options 'T', and the 90°, 'No Hardware' option.

Jackpost Part Number	Panel Thickness	
	inches	mm
DCJPRM094	0.094	2.4
DCJPRM063	0.063	1.6
DCJPRM047	0.047	1.2
DCJPRM031	0.031	0.8

Connector Performance Specifications

Property	Requirement	Test Method
Current Rating	3 Amp maximum	
Dielectric Withstanding Voltage Sea level	900 VAC	MIL-STD-1344, Method 3001
Contact Resistance	8 milliohms maximum	MIL-STD-202, Method 307
Low Level Contact resistance	32 milliohms maximum	MIL-STD-1344, Method 3002
Insulation Resistance	5000 megohms minimum	MIL-STD-1344, Method 3003
Magnetic Permeability	2.0 μ maximum	ASTM A342
Mating Force	(10 ounces max.) x (# of contacts)	MIL-DTL-83513
Unmating Force	(0.5 ounces min.) x (# of contacts)	MIL-DTL-83513
Contact Retention	5 pounds minimum	MIL-STD-1344, Method 2007
Operating Temperature	-55°C to 125°C	
Durability	500 mating cycles minimum	MIL-DTL-83515, Para 4.5.16
Salt Spray (corrosion)	48 hours	MIL-DTL-1344, Method 2004, Condition E
Crimp Tensile Strength		
Wire Type M22759/11	5 pounds minimum	MIL-DTL-83513, Para 4.5.20
Wire Type M22759/33	10 pounds minimum	
Shock	50 G's	MIL-STD-1344, Method 2004, Condition E
Vibration	20 G's	MIL-STD-1344, Method 2005, Condition IV

FEATURED DEVELOPMENTS

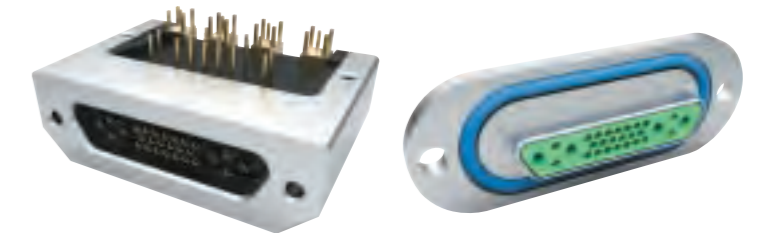
Dura-Con™ Surface Mount T-Block

Compression technology incorporated within a traditional connector frame to provide a solderless surface mount solution.

- 1.27 mm footprint
- 360° board mounting
- Eliminates soldering
- Compression technology
- Space saving



- Rear panel mount option
- 'O' Ring seal
- Ingress Protection to IP69



Nano Surface Mount T-Block

Miniaturised connector for high density applications employing surface mount technology, eliminating the need for solder.

- Compression mating
- 0.762 mm footprint
- 90° & 180° mounting
- Miniaturisation of board
- Weight saving

