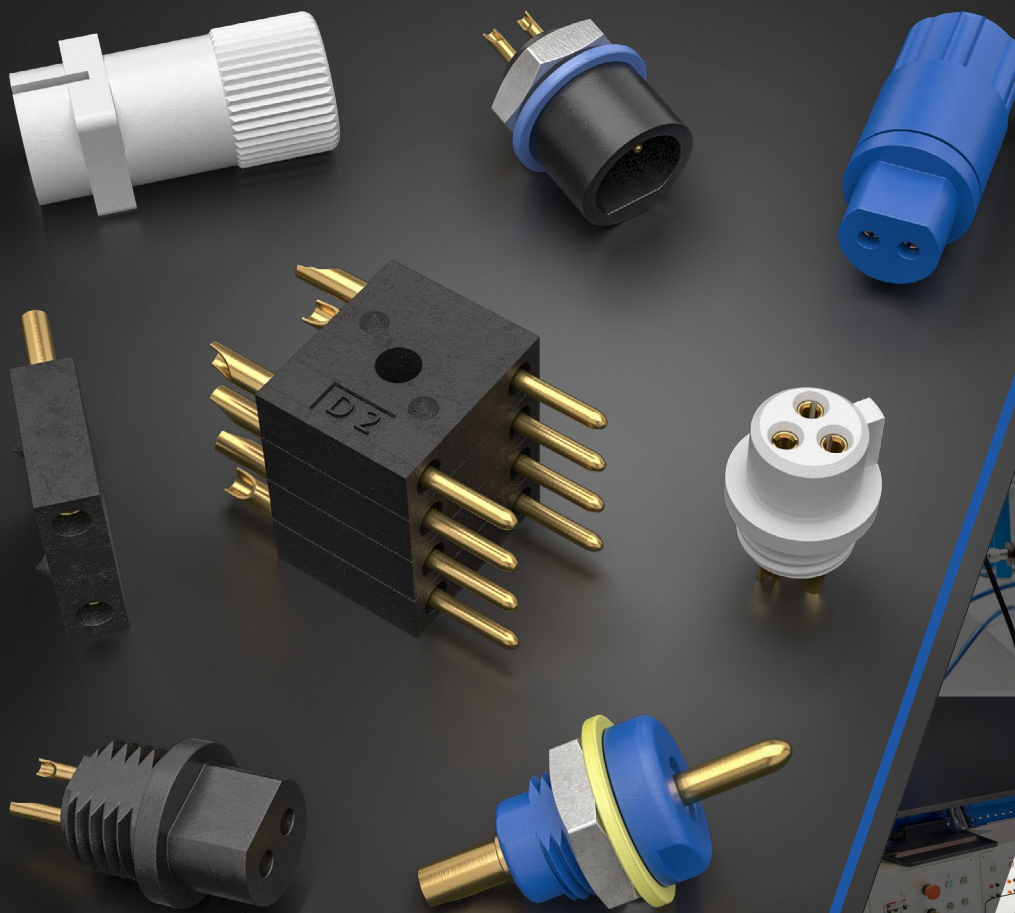
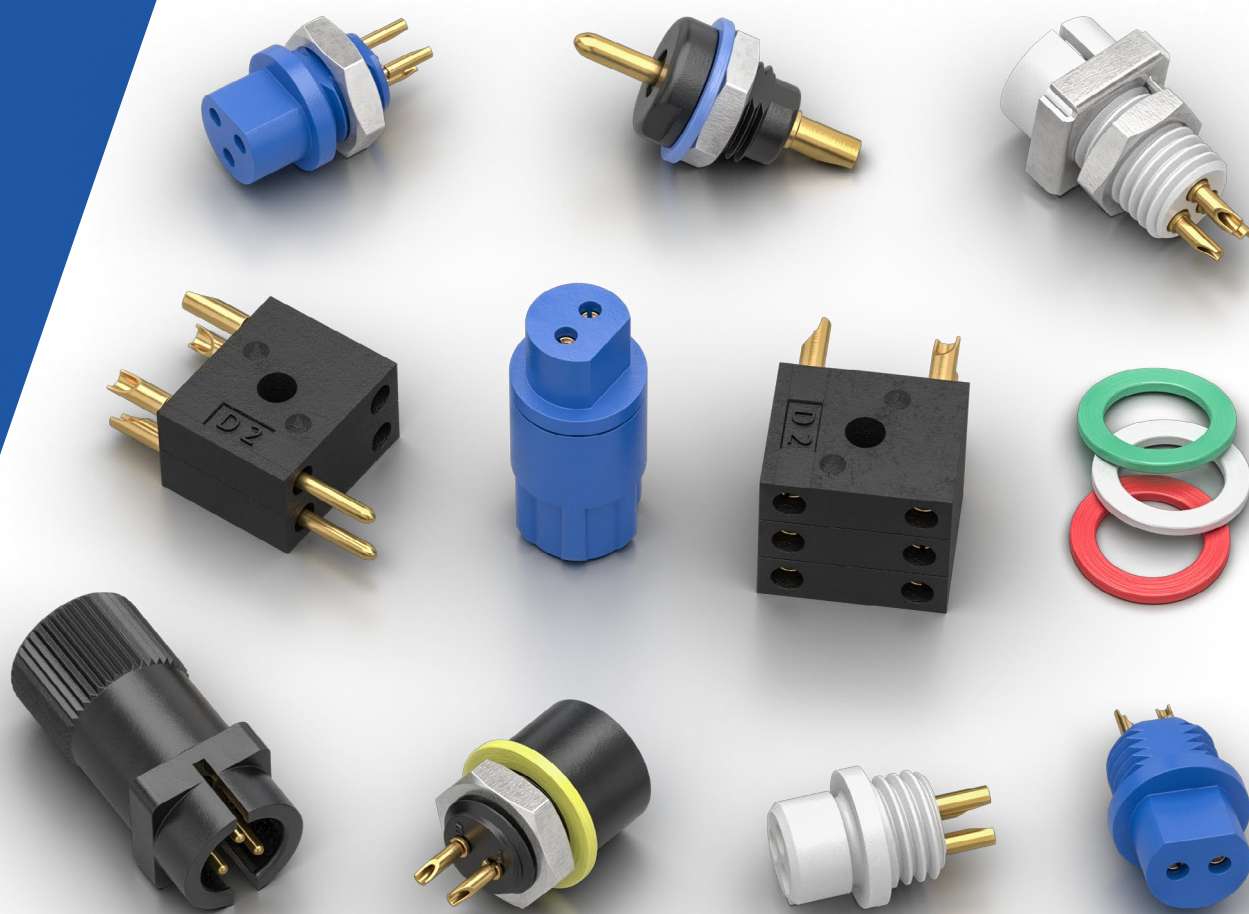


SM/SMA, SMC AND D2 CONNECTORS

Robust, miniature, plastic bodied circular and rectangular connectors for variety of applications where space is at a premium.





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Lodge Group

Established in 1976, Weald Electronics is part of the privately-owned Lodge Group which includes the connector distributor FC Lane Electronics and its Autosport Division, Lane Motorsport.

Weald Electronics is predominantly known for its comprehensive selection of circular bayonet and screw coupling power and filtered circular connectors, PCB Edge Card, two-part PCB and sub-miniature plastic-bodied circular connectors.

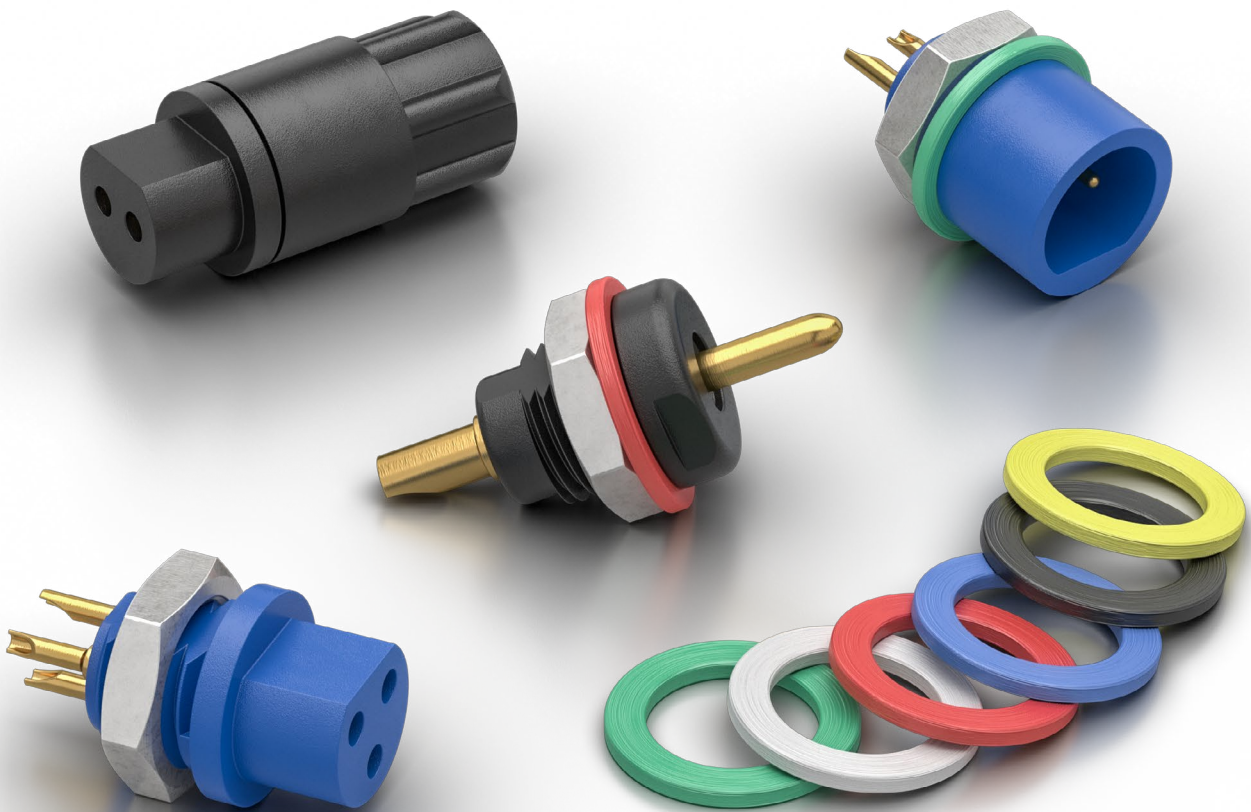
To complete your interconnection solution, Weald manufactures protective caps and backshells for MIL-DTL-38999 and 26482 applications as well as protective caps, nut plates and gaskets for use right across motorsport.

With design, manufacturing and test facilities at its Slinfold Lodge HQ, Weald Electronics is able to tailor a connector solution to exactly meet a customer's specific requirement on surprisingly short lead times. Standard products are normally available by next day.

Products from Weald Electronics Ltd are available from FC Lane Electronics Ltd.
t: +44 (0) 1403 790 661 e: sales@fclane.com w: fclane.com

SM/SMA Range General Information

A range of robust sub-miniature connectors for limited space use in test and measurement, prototyping, educational laboratory, portable equipment and instrumentation applications. The mouldings are of PBT which gives the range high arc resistance and high dielectric and mechanical strength. The spring-tempered, brass contacts are gold plated for low contact resistance, easy soldering and proof against corrosion. Either plug or socket can be mounted to chassis or bulkhead and there is a choice of six coloured discs for identification purposes. The connector hoods, illustrated, are equally suitable for plugs or sockets. The connectors can be supplied in black or blue.



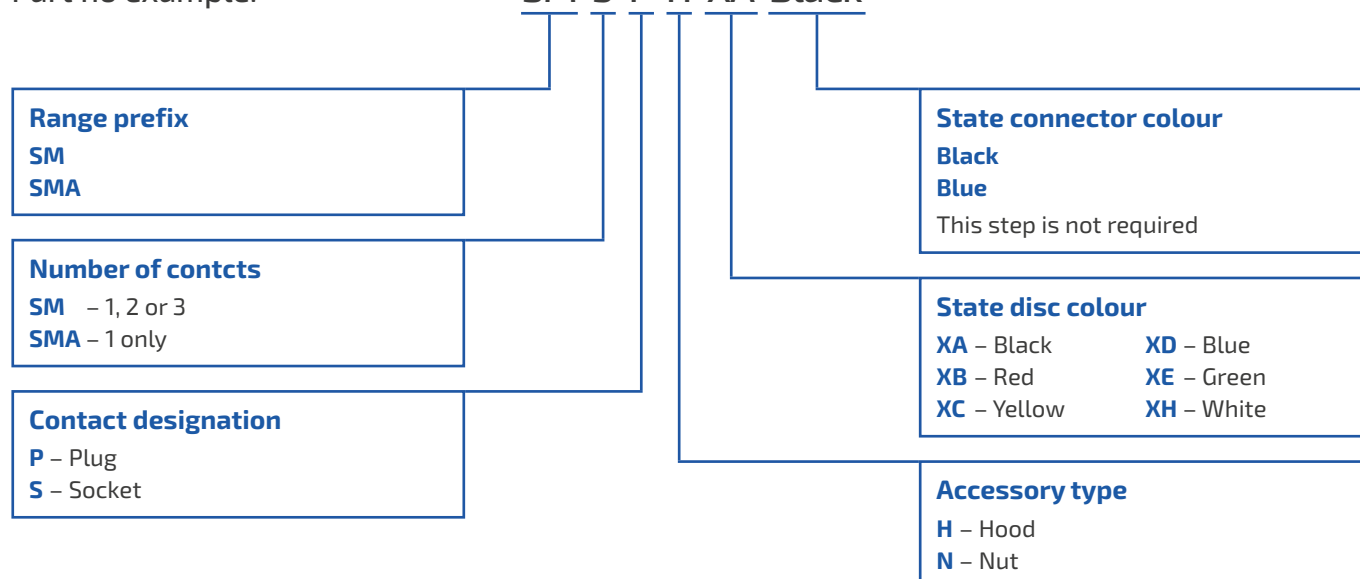
SM/SMA Range Characteristics

Number of contacts	1	1	2	3
Plug code number	SMA1P	SM1P	SM2P	SM3P
Socket code number	SMA1S	SM1S	SM2S	SM3S
Solder cup hole diameter	1.60 mm	1.10 mm	0.56 mm	0.56 mm
Current rating per contact	12 amps	7 amps	3 amps	3 amps
DC breakdown voltage between contacts (connector engaged)	-	-	1600	1500
DC breakdown voltage contacts to ground (connector engaged)	5000	5400	2600	2600
Temperature range	-55° to +125°C			
Body and hood material	PBT (polybutylene terephthalate)			
Contact material	Gold plated brass			
Identity disc material	Rigid PVC			
Identity disc colours	red, white, black, blue, green, yellow			

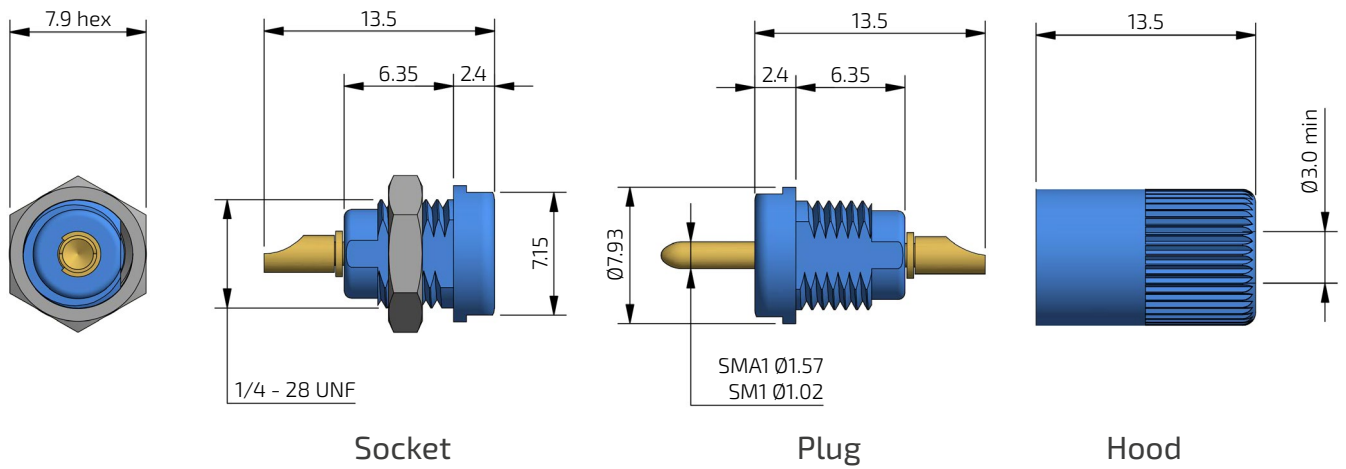
SM/SMA Range Ordering Information

Part no example:

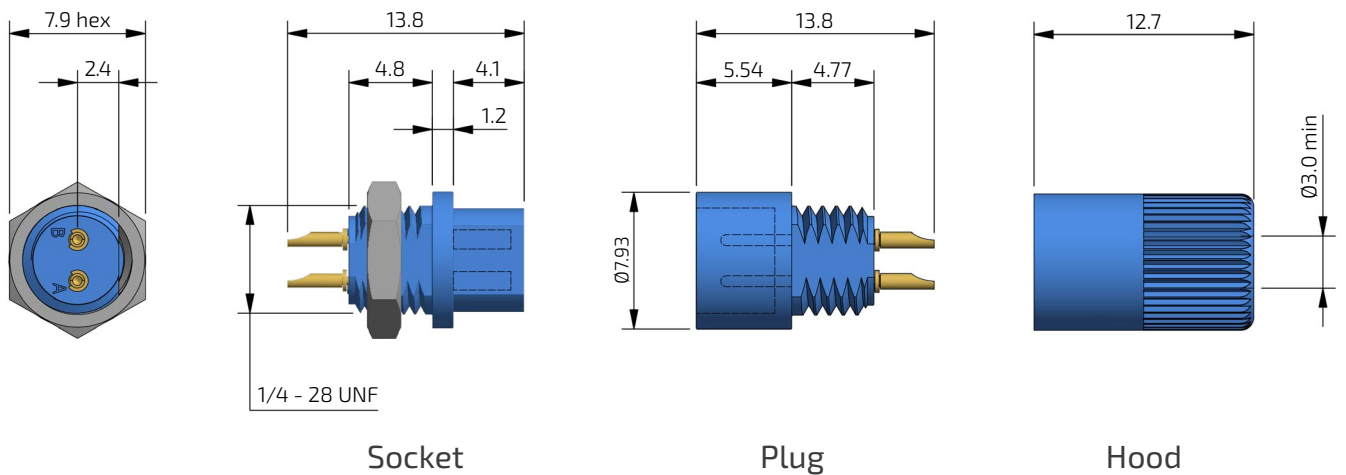
SM 3 P H XA Black



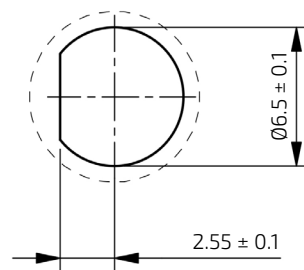
SM1 and SMA1 Connector Dimensions



SM2 and SM3 Connector Dimensions (SM2 shown)



SM/SMA Range Panel Cut-Out Dimensions

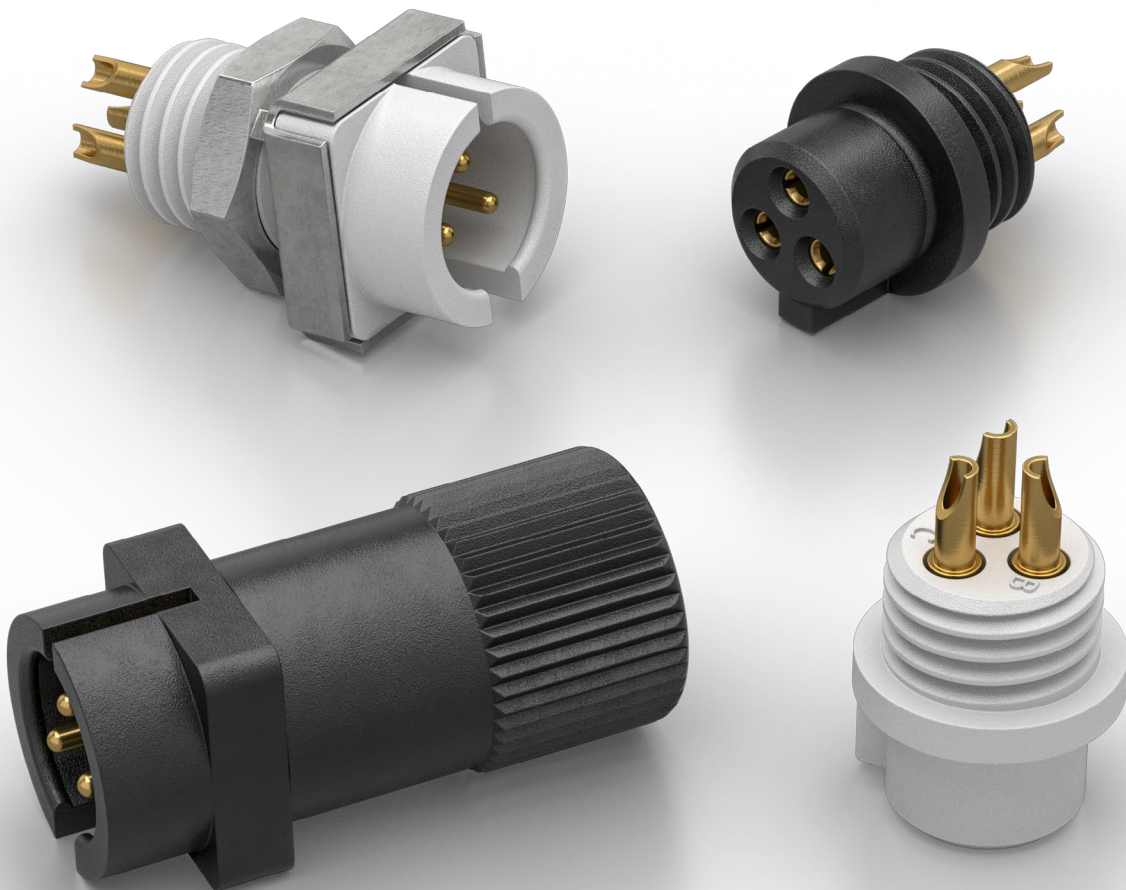


Note: All dimensions are in millimeters (mm). All outline dimensions are nominal.

SMC Range General Information

An extremely compact sub-miniature 3-way connector available in black or white, suitable for panel mounting or as a free link. Plug and socket mouldings are of low density polyethylene. These connectors snap together firmly and are fully polarised. When used as a free link, hoods should be fitted to both plug and socket.

Contacts are supplied loose and should be inserted after soldering.



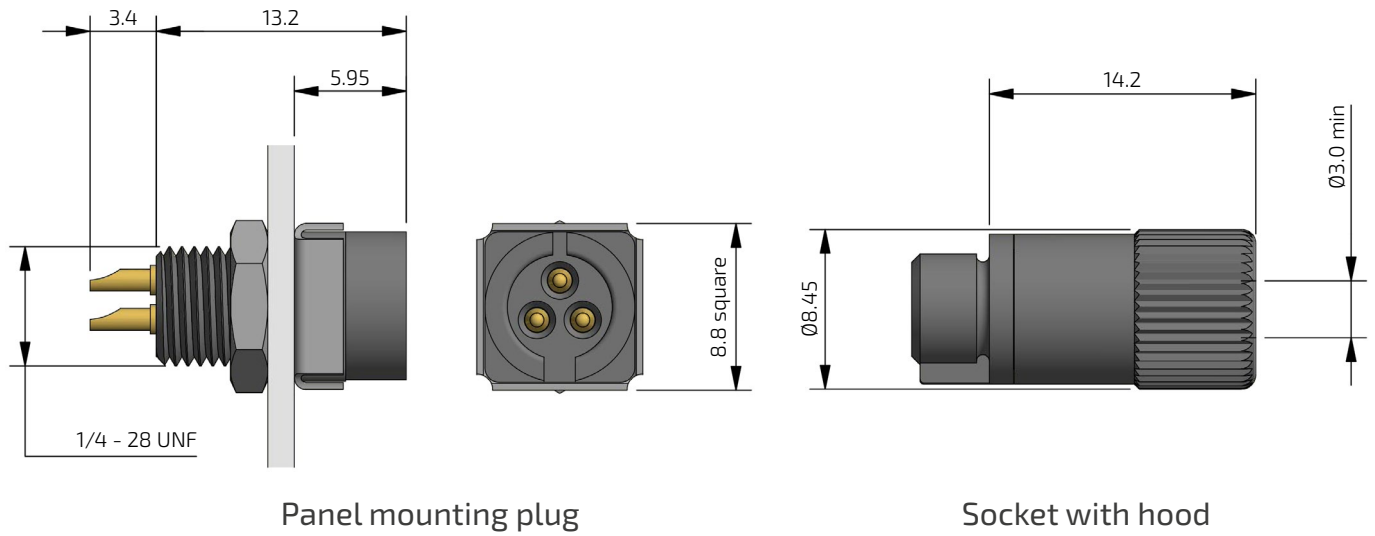
SMC Range Characteristics

Solder cup hole diameter	0.79 mm
Current rating per contact	3 amps
DC breakdown voltage (connector engaged) - between contacts	1700 volts at sea level 900 volts at 60 000 ft
DC breakdown voltage (connector engaged) - contacts to ground	3800 volts at sea level 900 volts at 60 000 ft
Contact resistance per contact	5 mΩ
Temperature range	-50°C to 70°C
Body and hood material	LDPE (low density polyethylene)
Colour	Black or white
Contact material	Plug - gold plated brass Socket - gold plated phosphor bronze

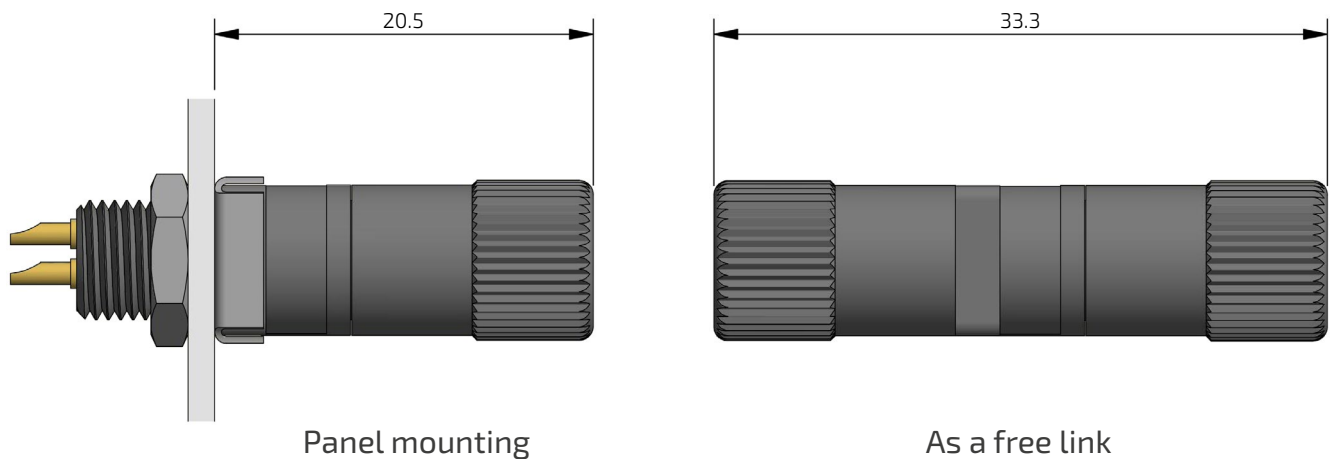
SMC Range Ordering Information

Set part number	Colour	Plug moulding	Socket moulding	Hood	Pin contact	Socket contact	Retaining washer	Hexagon nut	
SMC310	White	1	1	1	3	3	1	1	Contents of set assemblies
SMC340	Black	1	1	1	3	3	1	1	
SMC31A	White	1	1	2	3	3	1	1	
SMC34A	Black	1	1	2	3	3	1	1	
SMC31B	White	1	-	1	3	-	-	-	
SMC34B	Black	1	-	1	3	-	-	-	
SMC31C	White	-	1	1	-	3	-	-	
SMC34C	Black	-	1	1	-	3	-	-	
SMC31D	White	1	1	1	3	3	-	-	
SMC34D	Black	1	1	1	3	3	-	-	
SMC31E	White	1	-	-	3	-	1	1	
SMC34E	Black	1	-	-	3	-	1	1	
SMC31F	White	-	1	-	-	3	1	1	
SMC34F	Black	-	1	-	-	3	1	1	

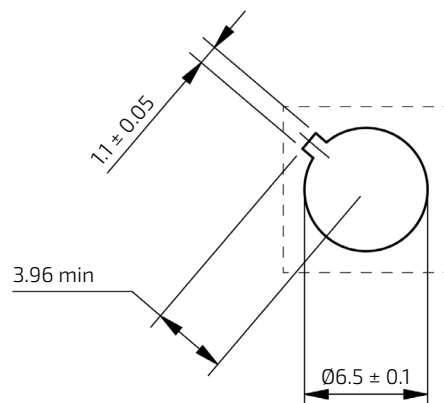
SMC Range Dimensions



SMC Range Dimensions - Mated Connectors



SMC Range Panel Cut-Out Dimensions

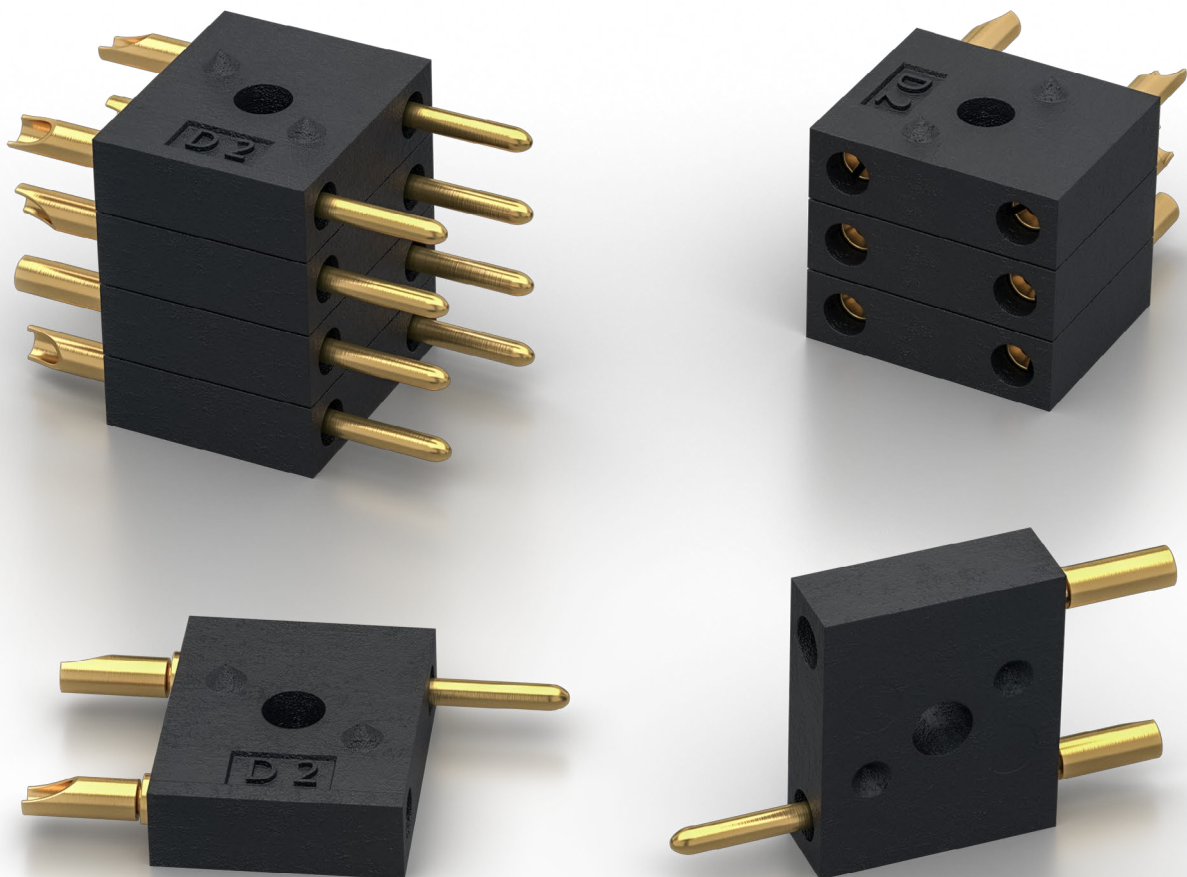


Note: All dimensions are in millimeters (mm). All outline dimensions are nominal.

D2 Range General Information

The basic unit can be supplied as a double-contact plug, a double-contact socket, or as a connector unit with one pin and one socket. Units can be stacked together and secured by a single M2 bolt or stud through the central hole to form a polarised multi contact connector of a size to suit local requirements. Locating pips on the mouldings prevent the stacked units from twisting.

D2 Range connectors are sold in packets of 10 connectors per packet.



D2 Range Characteristics

Temperature range	-40° to +125°C
Number of contacts	2
Current rating per contact	5 amps
Working voltage DC or AC peak	450 volts at sea level
DC breakdown voltage - between contacts	3300 volts at sea level 800 volts at 60 000 ft
DC breakdown voltage - contacts to ground	1800 volts at sea level 360 volts at 60 000 ft
Contact solder bucket diameter	1.15 mm
Contact material	Plug - brass Socket - phosphor bronze
Contact spacing	7.62 mm
Contact plating	Gold over nickel
Moulding material	Nylon

D2 Range Ordering Information

Part no example:

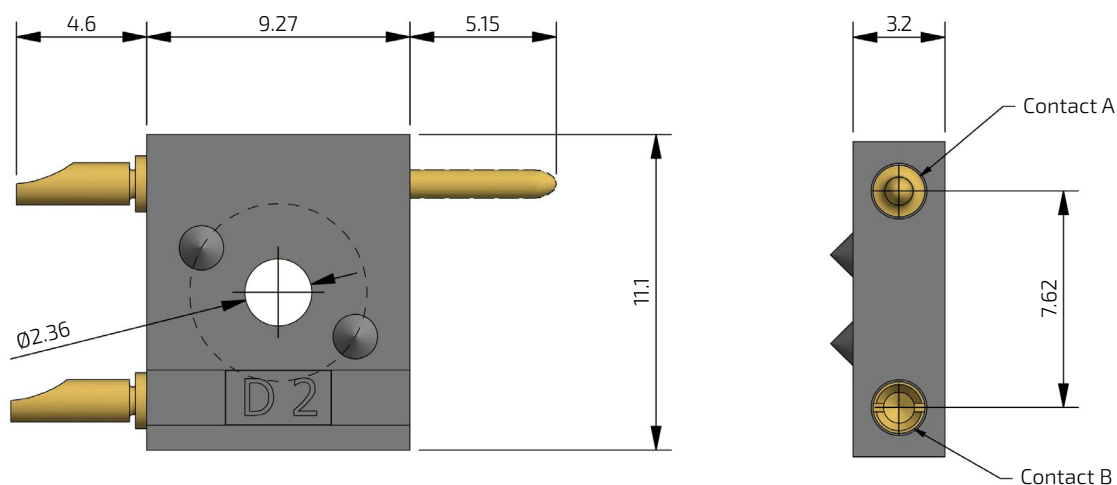
D2 P

Range prefix

Contacts type

- P** – Two plugs
- S** – Two sockets
- PS** – Plug in pos. A, socket in pos. B
- SP** – Socket in pos. A, plug in pos. B

D2 Range Dimensions



Note: All dimensions are in millimeters (mm). All outline dimensions are nominal.

Product Safety Information

These notes are intended to be used in conjunction with the Product Catalogue and Product Specification. Products may be safely used in the applications for which they have been designed and within the specified rating and environments. If products are exposed to conditions outside the performance ratings or specified environments they may constitute a hazard. In particular it should be noted that:

1. Material Content

Circular Connectors generally use metalwork parts made of brass, aluminium, phosphor-bronze or steel, which, dependant on the particular application, may be passivated and protected with cadmium or zinc plate – in conjunction with chromated or anodised surface finishes. The insulating materials can either be natural or synthetic rubber, together with plastic or glass-filled plastic moulded parts. Contact materials vary but are usually made of brass, phosphor-bronze, alumel or chromel.

2. Electric Shock, Burns and Fire

Hazard can occur if the product is used outside the specified parameters or if the product is damaged, wrongly wired, poorly assembled, poorly integrated into larger equipments, or contaminated with conductive fluids. Live circuit terminations must be protected and live circuits never broken by disconnecting products.

Hot spots may be created when resistance is increased due to damage or incorrect integration particularly soldering, or loose terminations. Overheating can cause breakdown of insulation, electric shock, burns or, ultimately, fire. In the event of fire noxious and/or toxic fumes may be released and, in these circumstances, any fire involving the product should be dealt with by personnel properly equipped. Connectors with exposed terminations or contacts should not be used on the current supply side of a circuit with exposed contacts on an unmated product. Before making a circuit live, the product and wiring should be checked to ensure there is no electrically conducting debris present. Circuit resistance checks should also be conducted before making the circuit live. Always ensure that connectors are assembled and wired by properly trained personnel.

3. Use, Transport and Storage of Products

Care must be exercised to avoid damage to any part of the products during transporting, storage or use. Abnormal transit or storage conditions and abuse during installation can give rise to damage. Products should not be used in a damaged condition.

Improper storage (particularly of damaged products) can give rise to additional hazards particularly corrosion. Attention is specifically drawn to the need for proper storage of products containing cadmium and you are advised to see the Guidance Note from the Health and safety Executive on Cadmium – Health and Safety Precautions.

4. Disposal of Products

Product should not be burnt.

Safety Rules

- Follow the guidelines given
- Always protect live circuits and never disconnect a live connector
- Never use a damaged connector
- Never burn discarded connectors

Lodge Group

FC Lane Electronics Ltd	Weald Electronics Ltd	Lane Motorsport
Franchised connector distributor	Manufacturers of high quality connectors and accessories	Division of FC Lane dedicated to motorsport industry
+44 (0) 1403 790 661 fclane.com	+44 (0) 1403 790 715 wealdelectronics.com	+44 (0) 1403 790 661 lanemotorsport.com
		