



# DIN signal female connector angled SMC



### General information

Design	IEC 60603-2		types: Q, 2Q, 3Q, R, 2R, 3R female
No. of contacts	max. 96		
Contact spacing	2,54 mm		
Test voltage	1000V		
Contact resistance	max. 20mOhm		
Insulation resistance	min. 10 <sup>9</sup> Ohm		
Working current	2A at 20°C (see derating diagram)		
Temperature range	-55°C ... +125°C		
Termination technology	SMC (Surface Mount Compatible) with solder pins		
Clearance & creepage distance	min. 1.2mm each		
Insertion and withdrawal force	20-pole max.	30N	48-pole max. 45N
	30-pole max.	30N	64-pole max. 60N
	32-pole max.	30N	96-pole max. 90N
Mating cycles	PL 1 acc. to IEC 60603-2	500 mating cycles	
	PL 2 acc. to IEC 60603-2	400 mating cycles	
	PL 3 acc. to IEC 60603-2	50 mating cycles	
UL file	E102079		
RoHS - compliant	Yes		
Leadfree	Yes		
Hot plugging	No		

### Insulator material

Material	PCT (thermoplastics, glass fiber reinforcement 30%)
Color	natural-colored, color deviations and speckles permitted
UL classification	UL 94-V0
Material group acc. IEC 60664-1	II (400 ≤ CTI < 600)
NFF classification	I3, F3

### Contact material

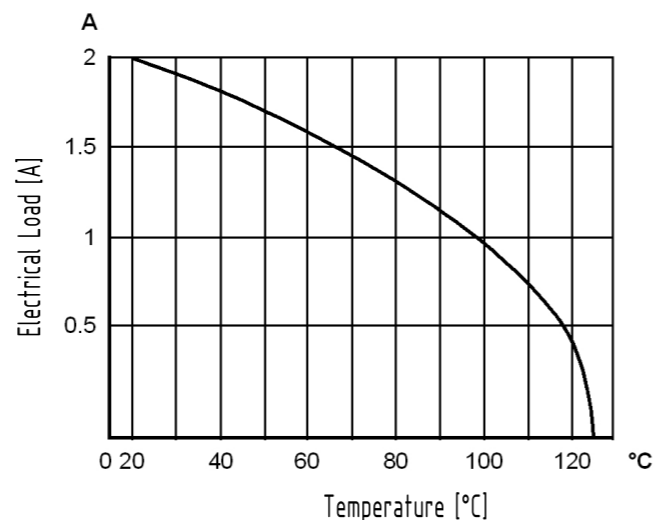
Contact material	Copper alloy
Plating termination zone	Sn over Ni
Plating contact zone	Au over PdNi over Ni

### Derating diagram acc. to IEC 60512-5 (Current carrying capacity)

The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals.

The current capacity curve is valid for continuous, non interrupted current loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.

Control and test procedures according to DIN IEC 60512-5



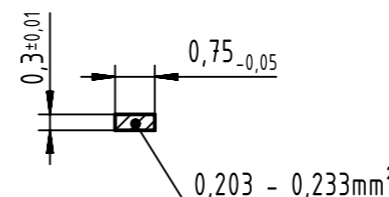
### Assembly and soldering instructions

The connectors should be protected when being soldered in a dip, flow or film soldering baths. Otherwise, they might become contaminated as a result of soldering operations or deformed as a result of overheating.

(1) For prototypes and short runs protect the connectors with an industrial adhesive tape, e.g. Tesaband 4331 (www.tesa.de). Cover the underside of the connector moulding and the adjacent parts of the pcb as well as the open sides of the connector. This will prevent heat and gases of the soldering apparatus from damaging the connector. About 140 + 5 mm of the tape should suffice.

(2) For large series a jig is recommended. Its protective cover with a fast action mechanical locking device shields the connectors from gas and heat generated by the soldering apparatus. As an additional protection a foil can be used for covering the parts that should not be soldered.

### Cross section of solder terminations



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