



SEK 18 male standard solder and wire-wrap



General information

Design	IEC 60603-13
No. of contacts	6,10,14,16,20,24,26,30,34,40,50,60,64
Contact spacing	2,54 mm x 2,54 mm
Test voltage Ur.m.s	1 kV
Working voltage	500 V for pollution degree 1
Contact resistance	max. 20mOhm
Insulation resistance	min. 10 ⁹ Ohm
Working current acc. to IEC 60512-2	See derating diagram
Temperature range	-55°C ... +125°C
Termination technology	solder, wire wrap
Clearance & creepage distance	min. 0,5 mm clearance min. 0,56 creepage

Insertion and withdrawal forces	6-poles max. 12N for PL1-2 / 18N for PL3	; 26-poles max. 52N for PL1-2 / 78N for PL3
	10-poles max. 20N for PL1-2 / 30N for PL3	; 34-poles max. 68N for PL1-2 / 102N for PL3
	14-poles max. 28N for PL1-2 / 42 for PL3	; 40-poles max. 80N for PL1-2 / 120N for PL3
	16-poles max. 32N for PL1-2 / 48N for PL3	; 50-poles max. 100N for PL1-2 / 150N for PL3
	20-poles max. 40N for PL1-2 / 60N for PL3	; 60-poles max. 120N for PL1-2 / 180N for PL3
	24-poles max. 48N for PL1-2 / 72N for PL3	; 64-poles max. 128N for PL1-2 / 192N for PL3

Mating cycles	S4 surface treatment	0,76 µm Au or PdNi equivalent
	PL 1 acc. to IEC 60603-13	500 mating cycles 10 days gas test
	PL 2 acc. to IEC 60603-13	250 mating cycles 4 days gas test
	PL 3 acc. to IEC 60603-13	50 mating cycles No gas test

UL file	E 102079
RoHS - compliant	Yes
Leadfree	Yes
Hot plugging	No

Insulator material

Material	PBT (thermoplastics, glass fiber reinforcement 30%)
Color	Black (RAL 7001) or grey (RAL 7032)
UL classification	UL94-V0
Material group acc. IEC 60664-1	IIIa (175 ≤ CTI < 400)
NF F 16-101 classification	I3,F3

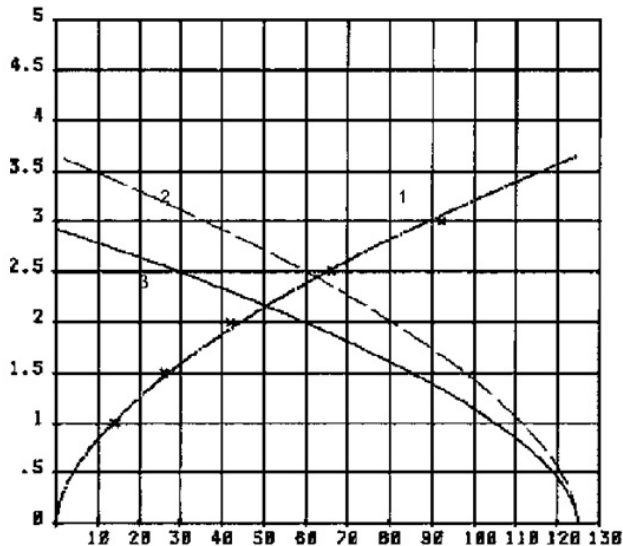
Contact material

Contact material	Copper alloy
Plating termination zone	Sn over Ni for solder, Ni for wire wrap
Plating contact sliding side	Au or PdNi according to Performance level

Derating diagram acc to IEC 60512-2 (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, not 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.

- 1) Temperature rise
2) Derating
3) Derating curve at I max x 0.8(IEC 60512-2)



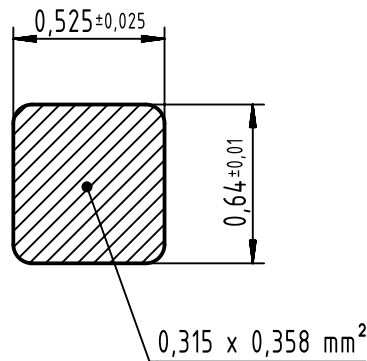
Soldering instructions

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.

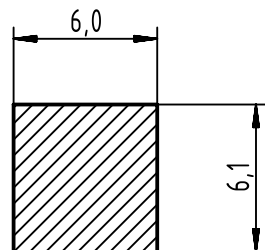
(1) For prototypes and short runs protect the connectors with an industrial adhesive tape, e.g. Tesaband 4331 (www.tesa.de).
Cover the underside of the connector moulding and the adjacent parts of the pcb as well as the open sides of the connector. This will prevent heat and gases of the soldering apparatus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



Cross section of wire wrap terminations



		All Dimensions in mm Original Size DIN A3		Scale 1:1		Free size tol.		Ref. Sub. DS 09181200001 / 500000067787 / 2014-09-19	
		All rights reserved Department EC PD - DE		Created by STORCK		Inspected by ELLERMANN		Standardisation HOFFMANN	
HARTING Electronics GmbH D-32339 Espelkamp		Title SEK 18 male standard solder and wire-wrap		Date 2016-01-20		State Final Release		Doc-Key / ECM-Nr. 100554638/UGD/001/C 500000098027	
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