



# SEK 18 male standard solder and wire-wrap



### General information

Design	IEC 60603-13		
No. of contacts	6, 10, 14, 16, 20, 24 (only for solder), 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 <sup>9</sup> 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-pole max. 12N for PL1-2 / 18N for PL3	30-pole max. 60N for PL1-2 / 90N for PL3	
	10-pole max. 20N for PL1-2 / 30N for PL3	34-pole max. 68N for PL1-2 / 102N for PL3	
	14-pole max. 28N for PL1-2 / 42 for PL3	40-pole max. 80N for PL1-2 / 120N for PL3	
	16-pole max. 32N for PL1-2 / 48N for PL3	50-pole max. 100N for PL1-2 / 150N for PL3	
	20-pole max. 40N for PL1-2 / 60N for PL3	60-pole max. 120N for PL1-2 / 180N for PL3	
	24-pole max. 48N for PL1-2 / 72N for PL3 (only for solder)	64-pole max. 128N for PL1-2 / 192N for PL3	
	26-pole max. 52N for PL1-2 / 78N for PL3		
Mating cycles	S4 surface treatment	Au over PdNi (min. 0,76 µm)	
	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		
Plating contact zone	PL 1, 3: Au / PL 2, S4: Au over PdNi		

### 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



### Packaging material (only for plastic tray)

Material	Polystyrol
Color	Yellow
Standardization	acc. to DIN EN / IEC 61340-5-1 and ANSI / ESD S541-2003

- Safe protection for electronic components against electrostatic charges

	All rights reserved	Created by	Inspected by	Standardisation	Date	State	Doc-Key / ECM-Nr. 100554638/UGD/001/F 500000130127
	Department EC PD - DE	STORCK	TADJE	HOFFMANN	2018-01-18	Final Release	
HARTING Electronics GmbH		Title			SEK 18 male standard solder and wire-wrap		Rev. F
D-32339 Espelkamp		Type	Number		DS 09181200001		
							Page
							1/1

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## HARTING:

[09185065004](#) [09185065014](#) [09185065024](#) [09185066004](#) [09185066014](#) [09185066024](#) [09185067004](#)  
[09185067014](#) [09185067024](#) [09185105004](#) [09185105024](#) [09185106004](#) [09185106014](#) [09185106024](#) [09185107004](#)  
[09185107014](#) [09185107024](#) [09185145004](#) [09185145014](#) [09185145024](#) [09185146004](#) [09185146014](#)  
[09185146024](#) [09185147014](#) [09185147024](#) [09185165014](#) [09185165024](#) [09185166004](#) [09185166014](#) [09185166024](#)  
[09185167004](#) [09185167014](#) [09185167024](#) [09185205004](#) [09185205014](#) [09185205024](#) [09185205909](#)  
[09185205919](#) [09185205929](#) [09185206004](#) [09185206014](#) [09185206024](#) [09185207014](#) [09185207024](#) [09185265004](#)  
[09185265014](#) [09185265024](#) [09185265909](#) [09185265919](#) [09185265929](#) [09185266004](#) [09185266014](#)  
[09185266024](#) [09185267004](#) [09185267014](#) [09185267024](#) [09185345004](#) [09185345014](#) [09185345024](#) [09185346004](#)  
[09185346014](#) [09185346024](#) [09185347004](#) [09185347014](#) [09185347024](#) [09185405004](#) [09185405014](#)  
[09185405024](#) [09185406004](#) [09185406014](#) [09185406024](#) [09185407004](#) [09185407014](#) [09185407024](#) [09185505004](#)  
[09185505014](#) [09185505024](#) [09185506004](#) [09185506014](#) [09185506024](#) [09185507004](#) [09185507014](#)  
[09185507024](#) [09185605004](#) [09185605014](#) [09185605024](#) [09185606004](#) [09185606014](#) [09185606024](#) [09185607004](#)  
[09185607014](#) [09185607024](#) [09185645004](#) [09185645014](#) [09185645024](#) [09185646004](#) [09185646014](#)  
[09185646024](#) [09185647004](#) [09185647014](#)