



# har-flexicon male connector, horizontal, SMC



## General information

Design	male connector		
Type	har-flexicon 3.50/3.81 MTH	har-flexicon 5.00 MTH	har-flexicon 5.08 MTH
Part numbers	1412xx14002xxx 1412xx15002xxx & 1412xx15006xxx	1412xx16002xxx	1412xx17002xxx & 1412xx17006xxx & 1712xx17018xxx
Contact pitch	3.5 mm & 3.81 mm	5mm	5.08 mm
No. of contacts	2-25 poles	2-19 poles	2-20 poles
Rated surge voltage (II/2)	2,5 kV	4 kV	4 kV (overvoltage cat. II / pollution degree 2)
Rated surge voltage (III/2)	2,5 kV	4 kV	4 kV (overvoltage cat. III / pollution degree 2)
Rated surge voltage (III/3)	2,5 kV	4 kV	4 kV (overvoltage cat. III / pollution degree 3)
Rated Voltage	300 V	300 V	300 V
Rated voltage (II/2)	300 V	600 V	600 V (overvoltage cat. II / pollution degree 2)
Rated voltage (III/2)	150 V	300 V	300 V (overvoltage cat. III / pollution degree 2)
Rated voltage (III/3)	150 V	250 V	250 V (overvoltage cat. III / pollution degree 3)
Working current	11 A	15 A	15 A
Usegroup B, rated voltage / current	300 V / 11 A	300 V / 15 A	300 V / 15 A
Usegroup C, rated voltage / current	- / -	- / -	- / -
Usegroup D, rated voltage / current	300 V / 11 A	300 V / 15 A	300 V / 15 A
Contact resistance	max. 15 mOhm		
Insulation resistance	min. 10 <sup>9</sup> Ohm (500 V DC)		
Temperature range	-40°C ... +110°C		
Termination technology	THR Reflow		
Insertion force	max. 3 N		
Withdrawal force	min. 1.5 N		
Hot plugging	No		
Mechanical Shock IEC 61373 (05/10)	5 g, 30 ms, 5 shocks/axis and each direction no contact disturbance >= 1 µs	for p/n ...06xxx & ...18xxx	
Random Vibration IEC 61373 (05/10)	Cat 1 class B 5.72 m/s <sup>2</sup> no contact disturbance >= 1 µs	for p/n ...06xxx & ...18xxx	
Vibration	10-150 Hz, 0.35 mm, 5 g, 2 h each axes -> No contact disturbance >= 1 µs	for p/n ...02xxx	
RoHS - compliant	Yes		
UL file	E314677		

## Insulator material

Material	PA/PPA
Color	black
UL classification	UL 94-V0
Material group acc. to IEC 60664-1	I (CTI > 600)

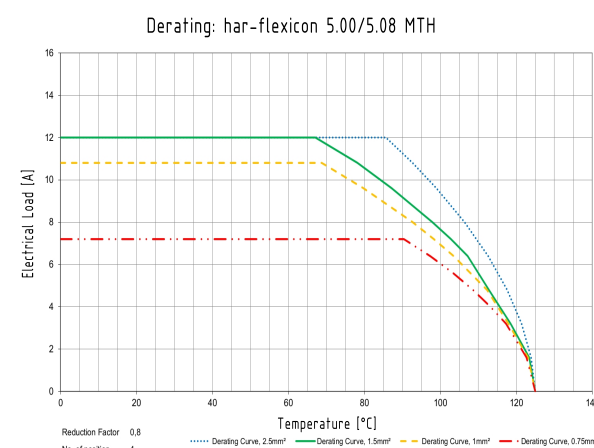
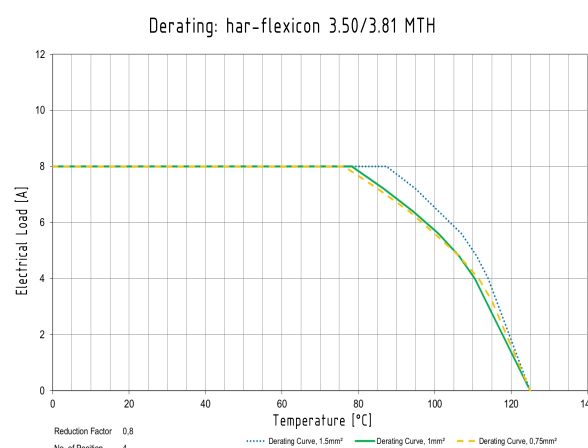
## Contact material

Contact material	Copper alloy
Plating termination zone	Sn
Plating contact zone	Sn

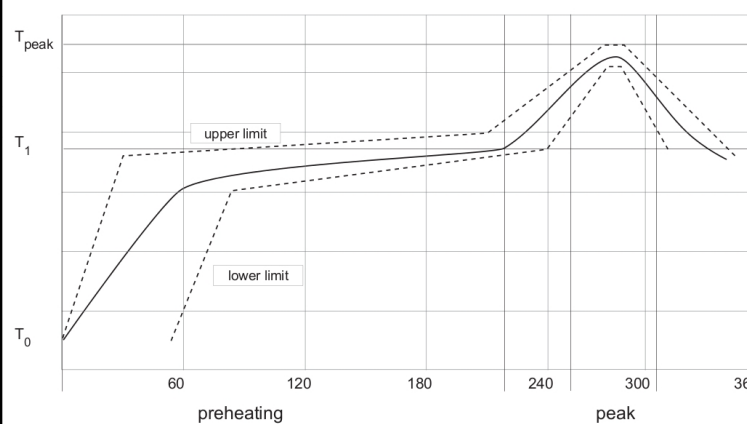
## Derating

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



## Soldering instructions for lead-free tin soldering



preheating	T0	25°C (77°F)
	T1	from 150°C (302°F) to 190°C (374°F)
	time	from 150s to 180s
	gradient	1,5°C/s (34°F/s)
peak	Tpeak	from 260°C (500°F) to 275°C (527°F)
	time	from 10s to 30s

har-flexicon SMC products with pure tin plated pins without lead, can be soldered by a lead-free reflow process, with a peak temperature till 275°C/527°F according to the related profile.

## Packaging unit

### types 5.08 MTH ...18xxx

Type of packaging	No. of poles (xx)	Quantity	MOQ	Index (xxx)	Remark
box	2	300	300	000	
box	3	200	200	000	
box	4 - 5	150	150	000	
box	6 - 12	100	100	000	
box	13 - 20	50	50	000	

### types 5.00/5.08 MTH ...02xxx & ...06xxx

Type of packaging	No. of poles (xx)	Quantity	MOQ	Index (xxx)	Remark
box	2 - 3	100	100	000	
box	4 - 5	75	75	000	
box	6 - 20	50	50	000	

### types 3.50/3.81 MTH ...02xxx & ...06xxx

Type of packaging	No. of poles (xx)	Quantity	MOQ	Index (xxx)	Remark
box	2 - 3	100	100	000	
box	4 - 5	75	75	000	
box	6 - 20	50	50	000	
box	21 - 25	25	25	000	

1412xx14002xxx

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HARTING Electronics GmbH		Type DS	Number 14121300201		Rev. E	Page 1/1
D-32339 Espelkamp		Scale 1:1		Free size tol.		Ref. Sub.

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