



har-flexicon male connector, vertical



General information

Design					
Type	male connector				
Type	har-flexicon 3.50/3.81 MTV	har-flexicon 5.00 MTV	har-flexicon 5.08 MTV	har-flexicon 3.50 MWV	har-flexicon 5.00/5.08 MWV
Part numbers	1412xx14001xxx & 1412xx14005xxx 1412xx15001xxx & 1412xx15005xxx	1412xx16001xxx	1412xx17001xxx 1412xx17005xxx	1413xx14001xxx	1413xx16001xxx 1413xx17001xxx
Contact pitch	3.50/3.81 mm	5 mm	5.08 mm	3.50 mm	5.00/5.08 mm
No. of contacts	2-25 poles	2-20 poles	2-22 poles	2 - 12 poles	2 - 12 poles
Rated surge voltage (II/2) ¹⁾	2.5 kV	4 kV	4 kV	2.5 kV	4 kV
Rated surge voltage (III/2) ²⁾	2.5 kV	4 kV	4 kV	2.5 kV	4 kV
Rated surge voltage (III/3) ³⁾	2.5 kV	4 kV	4 kV	2.5 kV	4 kV
Rated Voltage	300 V	300 V	300 V	300 V	300 V
Rated voltage (II/2) ⁴⁾	300 V	600 V	600 V	300 V	600 V
Rated voltage (III/2) ⁵⁾	150 V	300 V	300 V	150 V	300 V
Rated voltage (III/3) ⁶⁾	150 V	250 V	250 V	150 V	250 V
Working current	11 A	15 A	15 A	11 A	15 A
Usegroup B, rated voltage / current	300 V / 11 A	300 V / 15 A	300 V / 15 A	300 V / 11 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	300 V / 11 A	300 V / 15 A
Contact resistance	max. 15 mOhm				
Insulation resistance	min. 10 ⁹ Ohm (500 V DC)				
Temperature range	-40°C ... +110°C				
Termination technology	THR/SMC Reflow	THR/SMC Reflow	THR/SMC Reflow	wave soldering	wave soldering
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 ...5xxx		
Random Vibration IEC 61373 (05/10)	Cat 1 class B 5.72 m/s ² no contact disturbance >= 1 µs		for p/n ...5xxx		
Vibration	10-150 Hz, 0.35mm, 5 g, 2 h each axes -> No contact disturbance >= 1 µs		for p/n ...1xxx		
RoHS - compliant	Yes				
UL file	E314677				

Insulator material

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

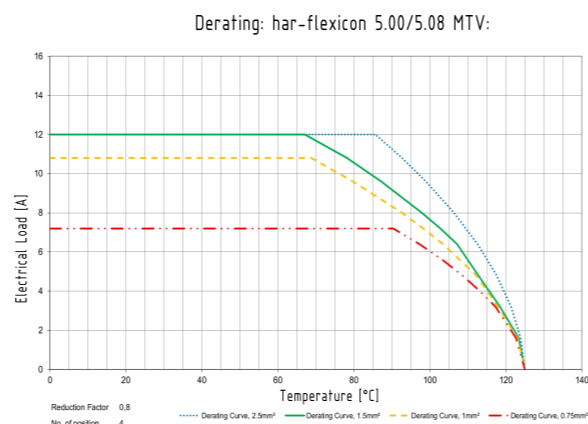
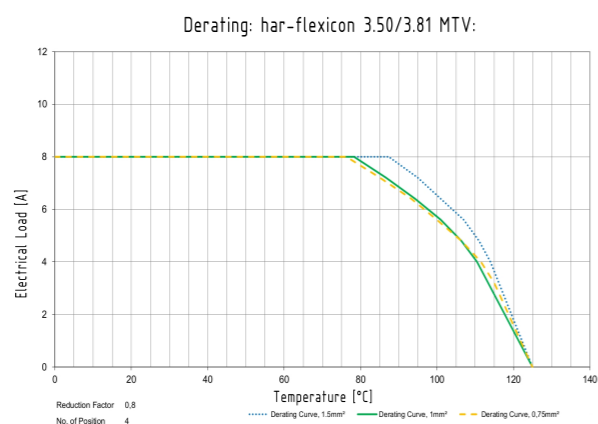
Contact material

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

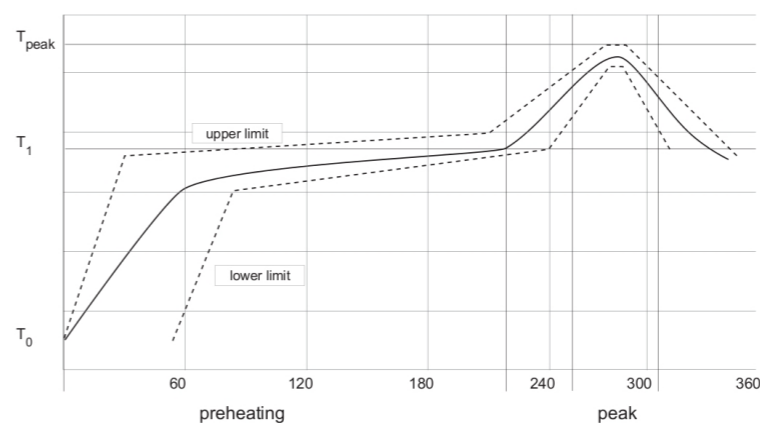
Derating

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
 T_{peak} 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 units

types 3.50/3.81 MTV

Type of packaging	No. of poles (xx)	Quantity	MOQ	Index (xxx)	Remark
tropical bag	2 - 3	100	100	000	
tropical bag	4 - 5	75	75	000	
tropical bag	6 - 20	50	50	000	
tropical bag	21 - 25	25	25	000	
box	2 - 25	1	1	333	samples

types 5.00/5.08 MTV

Type of packaging	No. of poles (xx)	Quantity	MOQ	Index (xxx)	Remark
tropical bag	2 - 3	100	100	-	
tropical bag	4 - 5	75	75	-	
tropical bag	6 - 20	50	50	-	
tropical bag	21 - 25	25	25	-	
box	2 - 25	1	1	333	samples

types 3.50/5.00/5.08 MWV

Type of packaging	No. of poles (xx)	Quantity	MOQ	Index (xxx)	Remark
box	2	300	1	-	
box	3	200	1	-	
box	4 - 5	150	1	-	
box	6 - 12	100	1	-	

1412xx14001xxx

- ¹⁾ (overvoltage cat. II / pollution degree 2)
- ²⁾ (overvoltage cat. III / pollution degree 2)
- ³⁾ (overvoltage cat. III / pollution degree 3)
- ⁴⁾ (overvoltage cat. II / pollution degree 2)
- ⁵⁾ (overvoltage cat. III / pollution degree 2)
- ⁶⁾ (overvoltage cat. III / pollution degree 3)

	All Dimensions in mm Original Size DIN A3	Scale 1:1	Free size tol.	Ref. Sub.
	All rights reserved Department EC PD - DE	Created by TADJE	Inspected by ELLERMANN	Standardisation HOFFMANN
HARTING Electronics GmbH D-32339 Espelkamp		Title har-flexicon male connector, vertical		Date 2016-06-02
Type DS		Number 14121400201		State Final Release
				Doc-Key / ECM-Nr. 100579746/UGD/000/D 500000105082
				Rev. D Page 1/1