



# har-flexicon 2.54 PCB male connector, horizontal



### General information

|                               |  |   |
|-------------------------------|--|---|
| Design                        | PCB male connector, horizontal                           |   |
| No. of contacts               | 2-12 pole  |   |
| Contact pitch                 | 2,54 mm  |   |
| Test voltage                  | 2,5 kV   |   |
| Rated voltage                 | 160 V  | overvoltage category III / pollution degree 2 |
| Contact resistance            | max. 20mOhm  |   |
| Insulation resistance         | min. 10 <sup>9</sup> Ohm                                 |   |
| Working current               | 7.3 A at 70°C ( tested with AWG20, see derating diagram) |   |
| Temperature range             | -40°C ... +125°C   |   |
| Termination technology        | SMT  |   |
| Reflow processing temperature | 20s at 255°C   |   |
| Clearance & creepage distance | Clearance: 1,5 mm  | Creepage: 1,6 mm                              |
| Insertion force               | max. 5 N per contact                                     |   |
| Withdrawal force              | min. 1 N per contact                                     |   |
| Mating cycles                 | 10 cycles  |   |
| Hot plugging                  | No   |   |
| vibration                     | 5-150Hz, 0,35mm, 5g, 2h each axis                        |   |
| RoHS - compliant              | Yes  |   |
| UL file                       | E 102079   |   |

### Insulator material

|                                 |   |
|---------------------------------|---|
| Material                        | LCP (liquid crystalline polymer, glass fiber reinforcement 30%) |
| Color                           | black, white  |
| UL classification               | UL 94-V0  |
| Material group acc. IEC 60664-1 | IIIa (175 < CTI < 400)  |
| NFF classification              | -   |

### Contact material

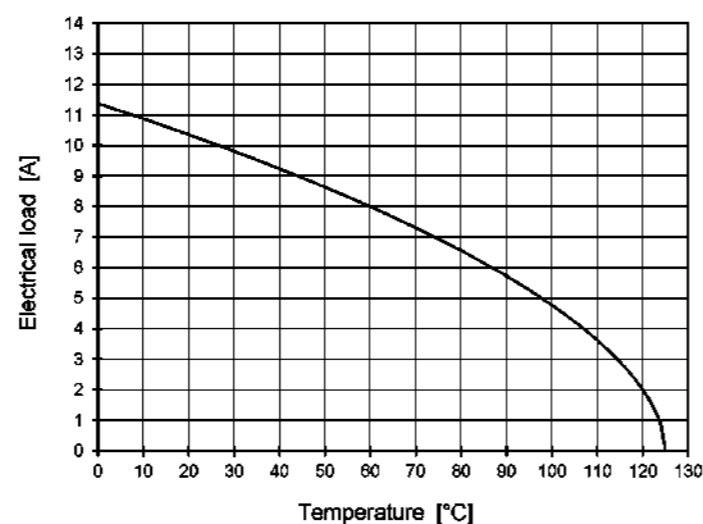
|                          |              |
|--------------------------|--------------|
| Contact material         | Copper alloy |
| Plating termination zone | Sn over Ni   |
| Plating contact zone     | Sn over Ni   |

### Derating diagram acc. to IEC 60512-5-2 (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, 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 60512-5-2

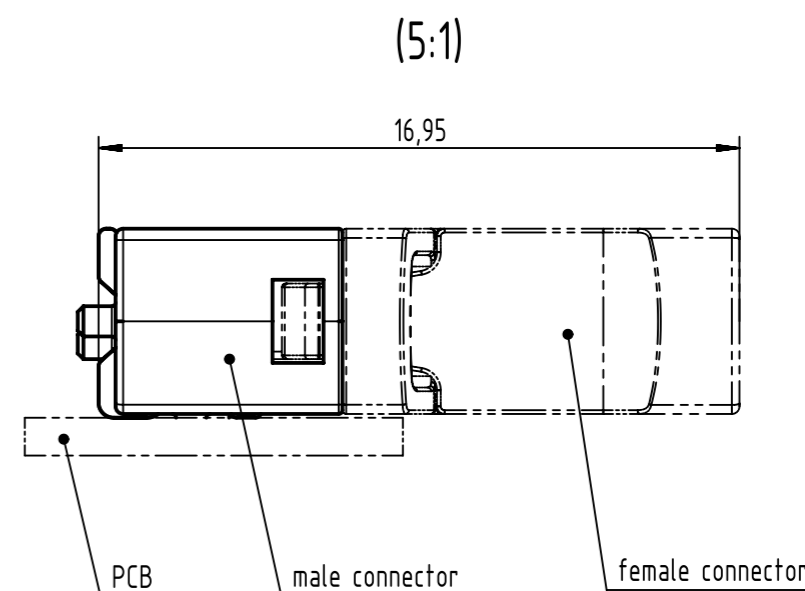


tested with AWG20

### Coplanarity of contacts

All connectors are tested for coplanarity of contacts and are in the range of 2-pole to 12-pole: 0,1mm max.

### Application information



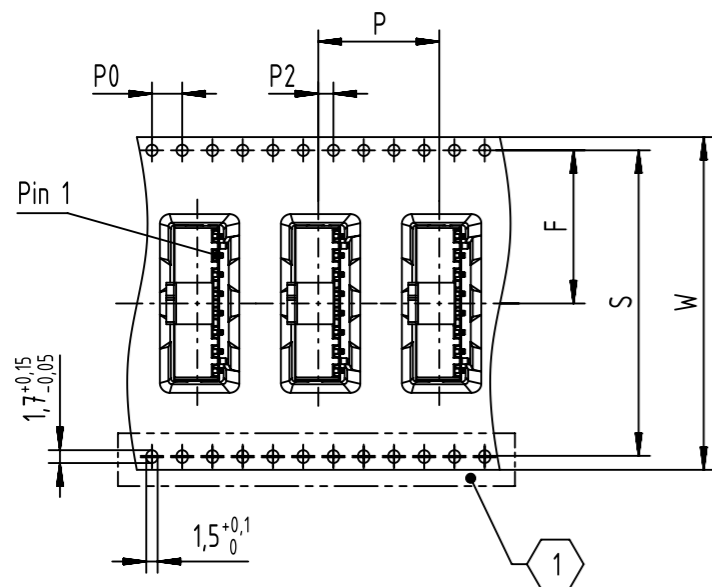
|                          |                       |   |              |                 |            |                                     |
|--------------------------|-----------------------|---|--------------|-----------------|------------|-------------------------------------|
|                          | All rights reserved   | Created by                                  | Inspected by | Standardisation | Date       | State                               |
|                          | Department EC PD - CN | ZHUANGJ                                     | LUOK         | HOFFMANN        | 2018-05-17 | Final Release                       |
| HARTING Electronics GmbH |                       | Title                                       |              |                 |            | Doc-Key / ECM-Nr.                   |
| D-32339 Espelkamp        |                       | har-flexicon 2.54 male connector horizontal |              |                 |            | 100549863/UGD/001/F<br>500000135281 |
|                          |                       | Type  | Number       | Rev.            | Page       |                                     |
|                          |                       | DS  | 14111300301  | F               | 1/2        |                                     |



# har-flexicon 2.54 PCB male connector, horizontal



Packaging & tape layout

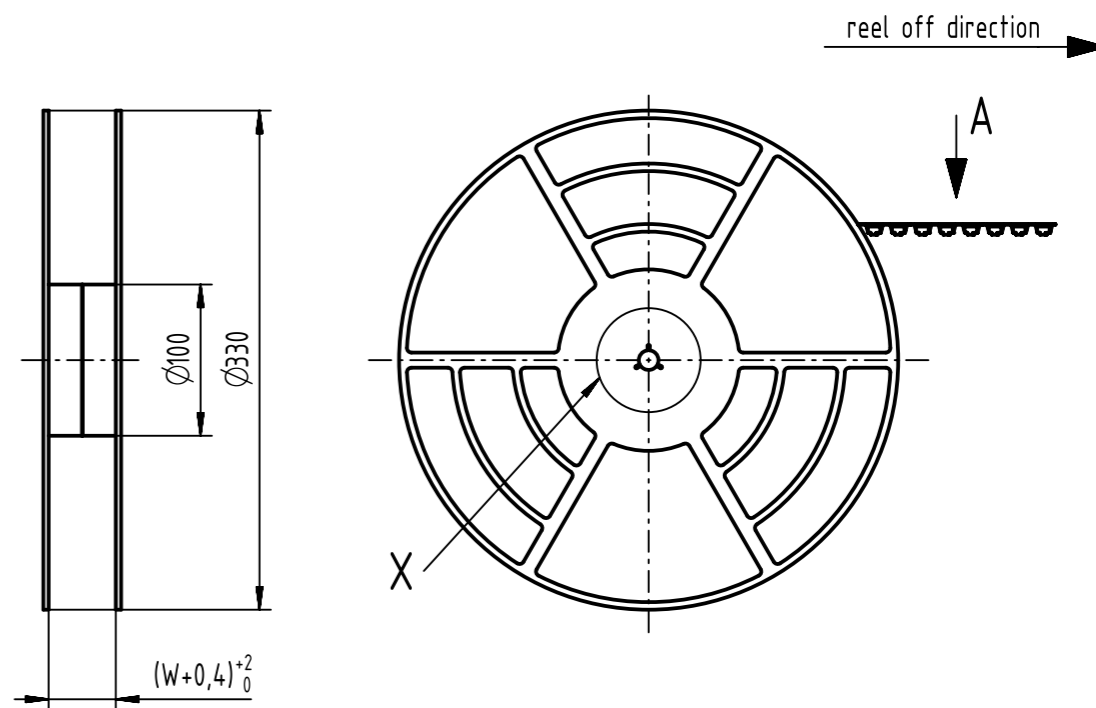


| pole | W [mm]                               | F [mm]     | S [mm]     | P2 [mm]    | P [mm]     | P0 [mm]   |
|------|--------------------------------------|------------|------------|------------|------------|-----------|
| 2    | 24,0 <sup>+0,3</sup> <sub>-0,1</sub> | 11,5 ± 0,1 |            | 2,0 ± 0,1  | 16,0 ± 0,1 | 4,0 ± 0,1 |
| 3    |                                      |            |            |            |            |           |
| 4    | 32,0 ± 0,3                           | 14,2 ± 0,1 | 28,4 ± 0,1 | 2,0 ± 0,1  | 16,0 ± 0,1 | 4,0 ± 0,1 |
| 5    |                                      |            |            |            |            |           |
| 6    |                                      |            |            |            |            |           |
| 7    |                                      |            |            |            |            |           |
| 8    | 44,0 ± 0,3                           | 20,2 ± 0,1 | 40,4 ± 0,1 | 2,0 ± 0,15 | 16,0 ± 0,1 | 4,0 ± 0,1 |
| 9    |                                      |            |            |            |            |           |
| 10   |                                      |            |            |            |            |           |
| 11   | 56,0 ± 0,3                           | 26,2 ± 0,1 | 52,4 ± 0,1 | 2,0 ± 0,15 | 16,0 ± 0,1 | 4,0 ± 0,1 |
| 12   |                                      |            |            |            |            |           |

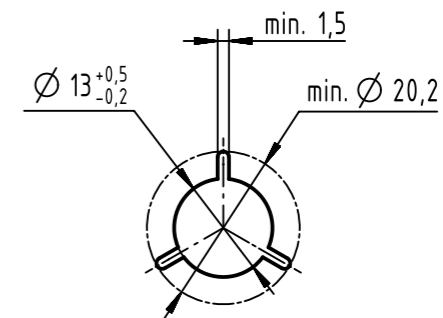
① no double sprocket holes for 2- and 3-pole numbers

Packaging & tape layout

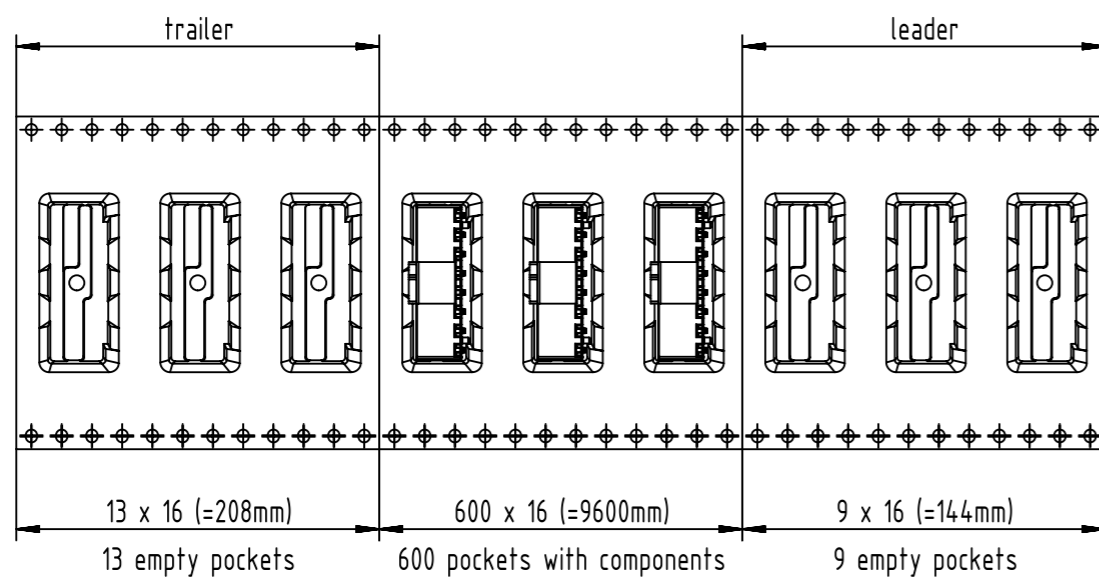
(1:5)



X (1:1)



A



| Packaging                           | Index |       |
|-------------------------------------|-------|-------|
|                                     | black | white |
| tape and reel with 600 pcs per reel | 000   | 160   |
| tape with 1 pcs                     | 333   | 334   |

part-number 1411 XX 130 YY XXX

102 with guiding pins  
10 w/o guiding pins

|   |                       |   |                    |                          |                 |  |
|---|-----------------------|---|--------------------|--------------------------|-----------------|--|
|   | All rights reserved   | Created by ZHUANGJ                                | Inspected by LUOK  | Standardisation HOFFMANN | Date 2018-05-17 | State Final Release                                |
|   | Department EC PD - CN | Title har-flexicon 2.54 male connector horizontal |                    |                          |                 | Doc-Key / ECM-Nr. 100549863/UGD/001/F 500000135281 |
| HARTING Electronics GmbH<br>D-32339 Espelkamp |                       | Type DS   | Number 14111300301 |                          | Rev. F          | Page 2/2   |