

## Tools for contacts Han D® (09 15 . . .)











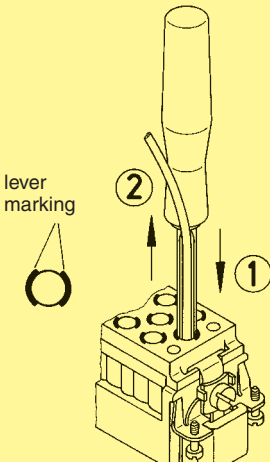
Identification	Part No.	Drawing	Dimensions in mm
HARTING crimping tool with locator for Han D®, Han E®, Han® C	<b>09 99 000 0110</b>	Wire gauge 0.14 - 1.5 mm <sup>2</sup>	
HARTING-Service crimping tool with locator for Han D®, Han E®	<b>09 99 000 0021</b>	Wire gauge 0.14 - 1.5 mm <sup>2</sup>	
BUCHANAN-crimping tool  Locator  Multiple crimping tool depth adjustment gauge	<b>09 99 000 0001</b> <b>09 99 000 0311</b> <b>09 99 000 0379</b>	Wire gauge 0.14 - 2.5 mm <sup>2</sup>  0.14 + 0.25 mm <sup>2</sup> ø 1.00 <sup>1)</sup> 0.37 mm <sup>2</sup> ø 1.30 0.5-1 + 2.5 mm <sup>2</sup> ø 1.55 1.5 mm <sup>2</sup> ø 1.80	 ↑  order separately
HARTING-pneumatic crimping tool  Locator  Multiple crimping tool depth adjustment gauge  Table fixing and foot switch for pneumatic crimping tool	<b>09 99 000 0314</b> <b>09 99 000 0311</b> <b>09 99 000 0379</b> <b>09 99 000 0309</b>	Wire gauge 0.37 mm <sup>2</sup> ø 1.30 0.5-1 + 2.5 mm <sup>2</sup> ø 1.55 1.5 mm <sup>2</sup> ø 1.80	 ↑  order separately  
Insertion tool for crimp contacts	<b>09 99 000 0059</b>		For crimp contacts with wires of less than 0.75 mm <sup>2</sup> it is recommended that an insertion tool is used. Contacts should be inserted from the wiring side and pushed down until a positive locking is achieved.
Removal tool for crimp contacts  Removal tool  Replacement-tip for removal tool  Removal tool	<b>09 99 000 0012</b> <b>09 99 000 0004</b> <b>09 99 000 0052</b>	  	. . 0012 . . 0004 . . 0052  A removal tool is necessary if contacts are to be replaced in the insert. It is inserted from the mating face and pushed over the contact until a stop is noticeable. Additional pressure unlocks the contact and pushes it out of the wiring side. In case of the removal tool (. . 0052) the unlocking process is achieved by pressure on the central rod.

<sup>1)</sup> For wire gauge 0.14 and 0.25 mm<sup>2</sup> use only male contact 09 15 000 6107 or female contact 09 15 000 6207.

## Tools for contacts Han E® (09 33 . . .)



Identification	Part No.	Drawing	Dimensions in mm
<b>HARTING crimping tool</b> with locator for Han D®, Han E®, Han® C	<b>09 99 000 0110</b>	Wire gauge 0.5 - 4 mm <sup>2</sup>	
<b>HARTING-Service crimping tool</b> with locator	<b>09 99 000 0021</b>	Wire gauge 0.5 - 2.5 mm <sup>2</sup>	
<b>BUCHANAN-crimping tool</b>  Locator	<b>09 99 000 0001</b> <b>09 99 000 0310</b>	Wire gauge 0.14 - 4 mm <sup>2</sup>	
Multiple crimping tool depth adjustment gauge	<b>09 99 000 0379</b>	Wire gauge 0.14 - 0.37 mm <sup>2</sup> ø 1.00 0.5 - 1 mm <sup>2</sup> ø 1.55 1.5 - 2.5 mm <sup>2</sup> ø 1.80 3 - 4 mm <sup>2</sup> ø 2.00	 ↑ order separately
<b>HARTING-pneumatic crimping tool</b>  Locator	<b>09 99 000 0314</b> <b>09 99 000 0310</b>		
Multiple crimping tool depth adjustment gauge	<b>09 99 000 0379</b>	Wire gauge 0.14 - 0.37 mm <sup>2</sup> ø 1.00 0.5 - 1 mm <sup>2</sup> ø 1.55 1.5 - 2.5 mm <sup>2</sup> ø 1.80 3 - 4 mm <sup>2</sup> ø 2.00	 ↑ order separately
Table fixing and foot switch for pneumatic crimping tool	<b>09 99 000 0309</b>		
<b>Insertion tool</b> for crimp contacts	<b>09 99 000 0059</b>		For crimp contacts wires of less than 0.75 mm <sup>2</sup> it is recommended that an insertion tool is used. Contacts should be inserted from the wiring side and pushed down until a positive locking is achieved.
<b>Removal tool</b> for Han® ES inserts	<b>09 99 000 0367</b>		
<b>Crimp contact removal</b> for Han® EE, Han® Q 5/0, Han® Q 8/0 Han E® and Han A®	<b>09 99 000 0319</b>		A removal tool is necessary if contacts are to be replaced in the insert. The tool is inserted from the wiring side until a stop is noticeable. The wire with the crimp contact can then be pulled out from the same side of the insert.

## Tools for contacts Han® C (09 32 . . .)

Identification	Part No.	Drawing	Dimensions in mm
<b>HARTING crimping tool</b> with locator for Han D®, Han E®, Han® C	<b>09 99 000 0110</b>	Wire gauge 1.5 - 4 mm <sup>2</sup>	
<b>BUCHANAN-</b> <b>crimping tool</b>	<b>09 99 000 0001</b>	Wire gauge 1.5 - 4 mm <sup>2</sup>	
Locator	<b>09 99 000 0308</b>		
Multiple crimping tool depth adjustment gauge	<b>09 99 000 0379</b>	Wire gauge 1.5 + 2.5 mm <sup>2</sup> ø 1.80 4                      mm <sup>2</sup> ø 2.00	  order separately
<b>HARTING-</b> <b>crimping tool</b>	<b>09 99 000 0303</b>	Wire gauge 4 - 6 mm <sup>2</sup>	
Locator as spare part	<b>09 99 000 0304</b>	Locator is supplied with the tool	
<b>HARTING-</b> <b>pneumatic crimping tool</b>	<b>09 99 000 0314</b>		
Multiple crimping tool depth adjustment gauge	<b>09 99 000 0379</b>	Wire gauge 1.5 + 2.5 mm <sup>2</sup> ø 1.80 4                      mm <sup>2</sup> ø 2.00	  order separately
Locator	<b>09 99 000 0308</b>		
Table fixing and foot switch for pneumatic crimping tool	<b>09 99 000 0309</b>		 
<b>Removal tool</b> for crimp contacts	<b>09 99 000 0305</b>		
Removal tool			 <p>                             A removal tool is necessary to remove the contacts.                              For each „C“ contact cavity, the location of the internal locking levers are marked on the wiring side with two black arcs. The sides of the tool must be first properly aligned so that the edges of the tool engage both levers simultaneously and then inserted until a stop is noticeable ①.                              Once it has been inserted, the tool <b>must not</b> be turned. The wire together with the tool can then be pulled out from the wiring side of the insert ②.                         </p>

Tooling

## Crimping machines

Identification	Part No.	
<p><b>Crimping machine TK</b> stripping and crimping in one operation (without interchangeable unit)</p> <p>interchangeable units for Han D® Han E® Other</p>	<p>09 98 000 6000</p> <p>09 98 000 6001 09 98 000 6002 On request</p>	
<p><b>Crimping machine TC-C01</b> for pre-stripped wires</p> <p>for Han D® Han E® Han® C Other</p>	<p>09 98 000 9001 09 98 000 9002 09 98 000 9003 On request</p>	

## Tools for crimp termination – D-Sub-S, D-Sub-HD, DIN 41 612

Identification	Part No.	
<b>Service crimp tool</b> for single D-Sub <b>standard</b> contacts  for single D-Sub <b>high density</b> contacts	09 99 000 0175  09 99 000 0596	
<b>HARTING-Crimp tool</b>  for 500 bandoliered D-Sub <b>standard</b> contacts  for 500 bandoliered D-Sub <b>high density</b> contacts	09 99 000 0169  09 99 000 0597	
<b>HARTING-Semi-automatic crimping device</b>  Main drive foot-operated 220 V / 50 Hz  Crimping head for bandoliered D-Sub <b>standard</b> contacts  for <b>DIN 41 612</b> contacts, types BC FC 1 FC 2 FC 3  BC solid wire  Reel holder for 10 000 contacts	09 99 000 0246  09 99 000 0253  09 99 000 0252 09 99 000 0249 09 99 000 0250 09 99 000 0251  09 99 000 0628  09 99 000 0158	Wire gauge 0.09-0.56 mm <sup>2</sup> (AWG 28-20)  0.09 - 0.5 mm <sup>2</sup> 0.09 - 0.25 mm <sup>2</sup> 0.14 - 0.56 mm <sup>2</sup> 0.5 - 1.5 mm <sup>2</sup>  0.13 mm <sup>2</sup> (solid wire)  
<b>Insertion and removal tool</b>  for single D-Sub <b>standard</b> contacts  for single D-Sub <b>high density</b> contacts	09 99 000 0171  09 99 000 0513	   <p><b>Assembly of crimp contacts</b>                      After crimping the stranded wire to the contact using a hand tool or automatic crimping device, insert the contact into the chamber with the tool, working from the wiring side. You will hear the contacts snap home and to check that they are securely in place, give the wire a gentle pull.</p> <p><b>Removing crimp contacts</b>                      Position the tool from the wiring side as shown in the diagram below and insert into the contact chamber. The contact can then easily be removed from the wiring side together with the wire itself and reinserted in a different chamber. The tool is designed for a maximum insulation diameter of Ø 1.7 mm.</p> <p>X                      Tool</p>

Tooling

Stripping length: 2.5 + 0.5 mm

## Tools for crimp termination – D-Sub-S, D-Sub-HD, DIN 41 612

### Automated crimping machine type BK



#### Main characteristics

- Smooth run through electronic brakes
- Hand wheel for manual adjustments
- Maintenance friendly through needle bearing rail
- Simple handling by quick change tool and stripper

**Part No. 09 98 000 5000**

#### Technical characteristics

Dimensions	
Height	690 mm (1400 mm with a contact reel)
Width	350 mm
Depth	370 mm
Total weight	72 kg
Power supply	230 V, 50/60 Hz, 2.5 A
Consumption	0.75 kW
Motor speed	440 - 2000 rpm
Cable length	2 m incl. plug
Control	SPS
Work cycle trigger	Sensor
Work cycle	0.35 s for stripping and crimping
Illumination	Integrated tool light
Stroke counter	Daywise and fixed
Crimp force monitor	BB07i
Crimping tool	Quick change tool
Adjustable process parameters	Crimping height on wire Crimping height on insulation Depth of insulation stripping Length of insulation stripping Wire retainer position Wire position in the crimp contact Band thrust

Tooling

Identification	for use with	Part No.	Wire gauge [mm <sup>2</sup> ]	AWG	Insulation [Ø mm]
Crimping tool  for D-Sub connectors <sup>1)</sup>	standard contacts	09 98 000 3008	0.09 - 0.25	28 - 24	0.7 - 1.4
		09 98 000 3009	0.25 - 0.56	24 - 20	0.9 - 1.7
	high density contacts	09 98 000 3012		26 - 24	0.8 - 1.4

Further details you will find in our product flyer.

<sup>1)</sup> 2.5 + 0.5 mm of insulation is stripped from the wire to be crimped

## Tools for crimp termination – D-Sub-S, D-Sub-HD

Identification

Part No.

Drawing

### Crimp tool

for turned male  
and female contacts  
AWG 28-18

8 indent crimp  
in acc. to MIL 22 520/2-01

09 99 000 0501







Part No. contact	Part No. locator	Crimp tool selection no.
61 03 000 0112	61 03 600 0024	7
61 03 000 0113	61 03 600 0024	7
61 03 000 0073	61 03 600 0023	7
61 03 000 0074	61 03 600 0023	7
61 03 000 0094	61 03 600 0023	7
61 03 000 0096	61 03 600 0023	7
61 03 000 0078	61 03 600 0023	7
61 03 000 0080	61 03 600 0023	7

Locator for crimp tool  
Details see table

61 03 600 0023  
61 03 600 0024









## Tools for crimp termination

Identification	Part No.																																														
Hand crimp tool for <b>signal</b> contacts	09 99 000 0501	 <p>Wire gauge AWG 18 – 28</p>																																													
Die (To be ordered separately.)	09 99 000 0502																																														
Hand crimp tool with fixed die for <b>signal</b> contacts	09 99 000 0505	 <p>Wire gauge AWG 20 – 26</p>																																													
Hand crimp tool for <b>power</b> contacts	09 99 000 0509	 <table border="1"> <thead> <tr> <th>Contact Part No.</th> <th>Gauge</th> <th>Tool setting</th> </tr> </thead> <tbody> <tr> <td>09 69 182 x420</td> <td>AWG 16, 18, 20</td> <td>3 for AWG 16, 2 for AWG 18 and AWG 20</td> </tr> <tr> <td>09 69 282 x420</td> <td>AWG 16, 18, 20</td> <td>3 for AWG 16, 2 for AWG 18 and AWG 20</td> </tr> <tr> <td>09 69 182 x421</td> <td>AWG 12, 14</td> <td>5 for AWG 12 and 4 for AWG 14</td> </tr> <tr> <td>09 69 282 x421</td> <td>AWG 12, 14</td> <td>5 for AWG 12 and 4 for AWG 14</td> </tr> <tr> <td>09 69 182 x422</td> <td>AWG 10, 12</td> <td>7 for AWG 10 and 6 for AWG 12</td> </tr> <tr> <td>09 69 282 x422</td> <td>AWG 10, 12</td> <td>7 for AWG 10 and 6 for AWG 12</td> </tr> <tr> <td>09 69 182 x423</td> <td>AWG 8, 10</td> <td>7 for AWG 8 and 6 for AWG 10</td> </tr> <tr> <td>09 69 282 x423</td> <td>AWG 8, 10</td> <td>7 for AWG 8 and 6 for AWG 10</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Contact Part No.</th> <th>Gauge</th> <th>Tool setting</th> </tr> </thead> <tbody> <tr> <td>09 69 282 x821</td> <td>AWG 12, 14</td> <td>5 for AWG 12 and 4 for AWG 14</td> </tr> <tr> <td>09 69 282 x823</td> <td>AWG 8, 10</td> <td>7 for AWG 8 and 6 for AWG 10</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Contact Part No.</th> <th>Gauge</th> <th>Tool setting</th> </tr> </thead> <tbody> <tr> <td>09 69 182 x821</td> <td>AWG 12, 14</td> <td>5 for AWG 12 and 4 for AWG 14</td> </tr> <tr> <td>09 69 182 x823</td> <td>AWG 8, 10</td> <td>7 for AWG 8 and 6 for AWG 10</td> </tr> </tbody> </table>	Contact Part No.	Gauge	Tool setting	09 69 182 x420	AWG 16, 18, 20	3 for AWG 16, 2 for AWG 18 and AWG 20	09 69 282 x420	AWG 16, 18, 20	3 for AWG 16, 2 for AWG 18 and AWG 20	09 69 182 x421	AWG 12, 14	5 for AWG 12 and 4 for AWG 14	09 69 282 x421	AWG 12, 14	5 for AWG 12 and 4 for AWG 14	09 69 182 x422	AWG 10, 12	7 for AWG 10 and 6 for AWG 12	09 69 282 x422	AWG 10, 12	7 for AWG 10 and 6 for AWG 12	09 69 182 x423	AWG 8, 10	7 for AWG 8 and 6 for AWG 10	09 69 282 x423	AWG 8, 10	7 for AWG 8 and 6 for AWG 10	Contact Part No.	Gauge	Tool setting	09 69 282 x821	AWG 12, 14	5 for AWG 12 and 4 for AWG 14	09 69 282 x823	AWG 8, 10	7 for AWG 8 and 6 for AWG 10	Contact Part No.	Gauge	Tool setting	09 69 182 x821	AWG 12, 14	5 for AWG 12 and 4 for AWG 14	09 69 182 x823	AWG 8, 10	7 for AWG 8 and 6 for AWG 10
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Positioner for male and female contacts (To be ordered separately.)	09 99 000 0504																																														
Positioner for male contacts (To be ordered separately.)	09 99 000 0522																																														
Positioner for female contacts (To be ordered separately.)	09 99 000 0521																																														
Hand crimp tool for <b>coaxial</b> contacts, solder/crimp version <sup>1)</sup>	09 99 000 0503	 <table border="1"> <thead> <tr> <th>Contact Part No.</th> <th>Cavity</th> </tr> </thead> <tbody> <tr> <td>09 69 181 x230 09 69 281 x230</td> <td>B</td> </tr> <tr> <td>09 69 181 x141 09 69 281 x141</td> <td>C</td> </tr> <tr> <td>09 69 181 x140 09 69 281 x140</td> <td>B</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Contact Part No.</th> <th>Cavity</th> </tr> </thead> <tbody> <tr> <td>09 69 181 x143 09 69 281 x143</td> <td>A</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Contact Part No.</th> <th>Cavity</th> </tr> </thead> <tbody> <tr> <td>09 69 181 x233 09 69 281 x233</td> <td>B</td> </tr> </tbody> </table>	Contact Part No.	Cavity	09 69 181 x230 09 69 281 x230	B	09 69 181 x141 09 69 281 x141	C	09 69 181 x140 09 69 281 x140	B	Contact Part No.	Cavity	09 69 181 x143 09 69 281 x143	A	Contact Part No.	Cavity	09 69 181 x233 09 69 281 x233	B																													
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Die (To be ordered separately.)	09 99 000 0508																																														
Die (To be ordered separately.)	09 99 000 0515																																														
Die (To be ordered separately.)	09 99 000 0519																																														

<sup>1)</sup> Only the outer ferrule is crimped (inner conductor is soldered)




## Tools for crimp termination – D-Sub-M

Identification	Part No.										
<p>Hand crimp tool for <b>coaxial</b> contacts, crimp/crimp version<sup>1)</sup>, suitable for <b>inner</b> contact</p>	09 99 000 0501										
<p>Inner contact die (To be ordered separately.)</p>	09 99 000 0507	 <table border="1" data-bbox="1018 562 1359 913"> <thead> <tr> <th>Contact Part No.</th> </tr> </thead> <tbody> <tr><td>09 69 182 x140</td></tr> <tr><td>09 69 282 x140</td></tr> <tr><td>09 69 182 x230</td></tr> <tr><td>09 69 282 x230</td></tr> <tr><td>09 69 182 x232</td></tr> <tr><td>09 69 282 x232</td></tr> <tr><td>09 69 182 x233</td></tr> <tr><td>09 69 282 x233</td></tr> </tbody> </table>	Contact Part No.	09 69 182 x140	09 69 282 x140	09 69 182 x230	09 69 282 x230	09 69 182 x232	09 69 282 x232	09 69 182 x233	09 69 282 x233
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<p>Hand crimp tool for <b>coaxial</b> contacts, crimp/crimp version<sup>1)</sup>, suitable for <b>outer</b> ferrule</p>	09 99 000 0503										
<p>Outer contact die (To be ordered separately.)</p>	09 99 000 0508	 <table border="1" data-bbox="1018 1256 1359 1406"> <thead> <tr> <th>Contact Part No.</th> <th>Cavity</th> </tr> </thead> <tbody> <tr><td>09 69 182 x140</td> <td rowspan="2">B</td> </tr> <tr><td>09 69 282 x140</td> </tr> <tr><td>09 69 182 x230</td> <td rowspan="2">B</td> </tr> <tr><td>09 69 282 x230</td> </tr> </tbody> </table>	Contact Part No.	Cavity	09 69 182 x140	B	09 69 282 x140	09 69 182 x230	B	09 69 282 x230	
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<p>Outer contact die (To be ordered separately.)</p>	09 99 000 0518	<table border="1" data-bbox="1018 1469 1359 1559"> <thead> <tr> <th>Contact Part No.</th> <th>Cavity</th> </tr> </thead> <tbody> <tr><td>09 69 182 x232</td> <td rowspan="2">A</td> </tr> <tr><td>09 69 282 x232</td> </tr> </tbody> </table>	Contact Part No.	Cavity	09 69 182 x232	A	09 69 282 x232				
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09 69 182 x232	A										
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<p>Outer contact die (To be ordered separately.)</p>	09 99 000 0519	<table border="1" data-bbox="1018 1630 1359 1720"> <thead> <tr> <th>Contact Part No.</th> <th>Cavity</th> </tr> </thead> <tbody> <tr><td>09 69 182 x233</td> <td rowspan="2">B</td> </tr> <tr><td>09 69 282 x233</td> </tr> </tbody> </table>	Contact Part No.	Cavity	09 69 182 x233	B	09 69 282 x233				
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09 69 282 x233											
<p>Insertion and extraction tool for <b>signal</b> contacts</p>	09 99 000 0511										
<p>Extraction tool for <b>coaxial, power</b> and <b>high voltage</b> contacts</p>	09 99 000 0512										

Tooling

<sup>1)</sup> Both inner and outer conductor are crimped

## Tools for crimp termination – InduCom

Identification	Part No.	Drawing																				
Hexagonal head screwdriver for hoods with hexagonal screws	61 03 600 0021																					
Crimp tool for flange and ferrule	61 03 600 0020	 <table border="1" data-bbox="775 792 903 1440"> <thead> <tr> <th>Width of hexagonal nut [mm]</th> </tr> </thead> <tbody> <tr><td>5.0</td></tr> <tr><td>5.5</td></tr> <tr><td>6.0</td></tr> <tr><td>6.5</td></tr> <tr><td>7.0</td></tr> <tr><td>7.5</td></tr> <tr><td>8.0</td></tr> <tr><td>8.5</td></tr> <tr><td>9.0</td></tr> <tr><td>9.5</td></tr> <tr><td>10.0</td></tr> <tr><td>10.5</td></tr> <tr><td>11.0</td></tr> <tr><td>11.5</td></tr> <tr><td>12.0</td></tr> <tr><td>12.5</td></tr> <tr><td>13.0</td></tr> <tr><td>13.5</td></tr> <tr><td>14.0</td></tr> </tbody> </table>	Width of hexagonal nut [mm]	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0
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Inserts for crimp tool	61 03 000 0179 61 03 000 0180 61 03 000 0098 61 03 000 0099 61 03 000 0100 61 03 000 0101 61 03 000 0102 61 03 000 0103 61 03 000 0104 61 03 000 0105 61 03 000 0174 61 03 000 0172 61 03 000 0168 61 03 000 0169 61 03 000 0175 61 03 000 0176 61 03 000 0177 61 03 000 0178 61 03 000 0173																					
Mounting tool for flange  for D-Sub hoods (9-37 contacts) for D-Sub hoods (50 contacts)	61 03 600 0017 61 03 600 0018																					
Insertion and removal tool for contacts	09 99 000 0171	