

## Signal Connectors M 23



## Product Overview

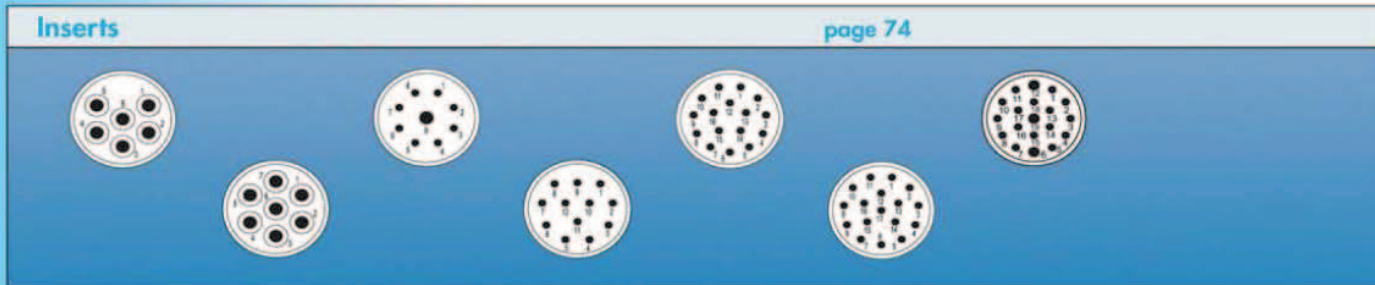
### Housings

page 66



### Inserts

page 74



### Accessories

page 82



## M 23 Signal Connectors

Mechanical Data	Materials and Technical Data
Housing	Copper-Zinc alloy Die Casting
Housing surface	Nickel plated other surface upon request
Inserts (for contacts)	Thermoplastic Polyamid PA 6 (Nylon 6/6), PBT      Fire protection class V-0
Contacts	Brass Alloy
Contact surface at point of contact	Nickel and gold plated (0,25µm Au)
Minimum mating cycles	> 1000
Seals / O-Rings	Buna-N standard optional Viton® (Viton is a registered trademark of DuPont)
Temperature range	-40°C – 125°C (-40°F – 257°F)
Type of contacts	Crimp, solder, dip-solder (PCB)
Protection	IP 67 / IP 69K per EN 60529 (connected), NEMA 4x
Cable diameter range	.12 - .67" (3 - 17 mm)

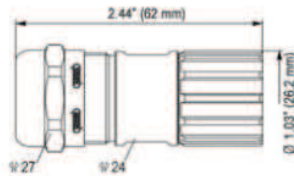
Electrical Data							
Number of positions	6	7	9 (8+1)	12	16	17	19 (16+3)
Number of contacts	6	7	8 1	12	16	17	16 3
Contact-Ø [mm]	2	2	1 2	1	1	1	1 1,5
Nominal current <sup>1)</sup> [A]	20	20	8 20	8	8	8	8 10
Nominal voltage <sup>2)</sup> [V~] Degree of Protection 2 <sup>3)</sup>	630	630	500	500	400	400	320
Nominal voltage <sup>2)</sup> [V~] Degree of Protection 3 <sup>3)</sup>	300	300	200	200	160	160	100
Test voltage (Breakdown voltage) <sup>4)</sup> [V~]	2500	2500	2500	2500	1500	1500	1500
Insulation resistance [mΩ]	> 10 <sup>10</sup>	> 10 <sup>10</sup>	> 10 <sup>10</sup>	> 10 <sup>10</sup>	> 10 <sup>9</sup>	> 10 <sup>9</sup>	> 10 <sup>9</sup>
Max. contact resistance [mΩ]	3	3	3	3	3	3	3

<sup>1), 2), 3), 4)</sup> See Technical Informations page 14



## Signal Connectors M 23 / Housing

### Straight Connector, Female Thread



#### Cable-Ø

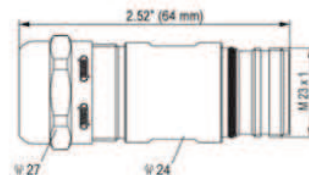
#### Part Number

3 – 7 mm (.12 – .28")	7.106.400.000
7 – 12 mm (.28 – .47")	7.106.500.000
11 – 17 mm (.44 – .67")	7.106.600.000

#### EMI Ready

Contacts and inserts page 74 • Assembly instructions page 87

### Straight Connector, Male Thread



#### Cable-Ø

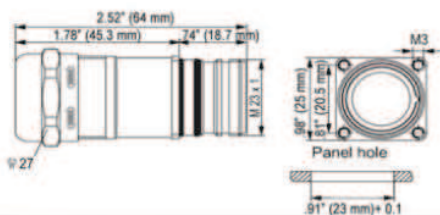
#### Part Number

3 – 7 mm (.12 – .28")	7.206.400.000
7 – 12 mm (.28 – .47")	7.206.500.000
11 – 17 mm (.44 – .67")	7.206.600.000

#### EMI Ready

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### Panel Connector, Male Thread, with Strain Relief



#### Cable-Ø

#### Part Number

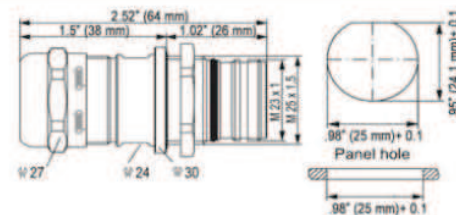
4 threads M3, rear mounting	
3 – 7 mm (.12 – .28")	7.476.400.000
7 – 12 mm (.28 – .47")	7.476.500.000
11 – 17 mm (.44 – .67")	7.476.600.000

#### EMI Ready

Optional: Flat gasket

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### Panel Connector, Male Thread, with Strain Relief



#### Cable-Ø

#### Part Number

Rear mounting, M25 x 1,5 single hole mounted	
3 – 7 mm (.12 – .28")	7.486.400.000
7 – 12 mm (.28 – .47")	7.486.500.000
11 – 17 mm (.44 – .67")	7.486.600.000

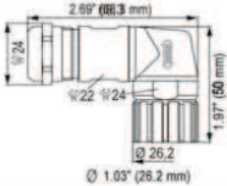
#### EMI Ready

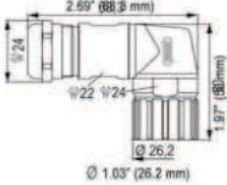
Including jam nut M25 x 1,5

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## Signal Connectors M 23 / Housing


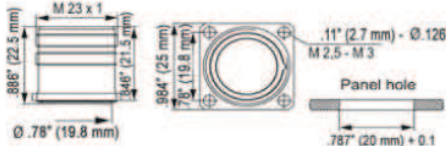
Cable-Ø	Part Number	Right Angle Connector, Female Thread
3 – 7 mm (.12 – .28").....	7.300.300.000	
5 – 10 mm (.20 – .39").....	7.300.400.000	
7 – 12 mm (.28 – .47").....	7.300.500.000	
10 – 14 mm (.39 – .55").....	7.300.600.000	
<b>EMI Ready</b>		
Contacts and inserts page 74 • Assembly instructions page 88		


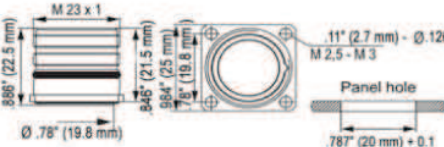
Cable-Ø	Part Number	Right Angle Connector, Female Thread, EMC
7 – 12 mm (.28 – .47").....	7.301.500.000	
10 – 14 mm (.39 – .55").....	7.301.600.000	
<b>EMI Ready</b>		
Contacts and inserts page 74 • Assembly instructions page 88		


Cable-Ø	Part Number	Right Angle Connector with positioning, EMC
7 – 12 mm (.28 – .47").....	7.306.500.000	
11 – 17 mm (.43 – .67").....	7.306.600.000	
<b>EMI Ready</b>		
Contacts and inserts page 74 • Assembly instructions page 89		


Cable-Ø	Part Number	Right Angle Connector, Male Thread
3 – 7 mm (.12 – .28").....	7.350.300.000	
5 – 10 mm (.20 – .39").....	7.350.400.000	
7 – 12 mm (.28 – .47").....	7.350.500.000	
10 – 14 mm (.39 – .55").....	7.350.600.000	
<b>EMI Ready</b>		
Contacts and inserts page 74 • Assembly instructions page 88		

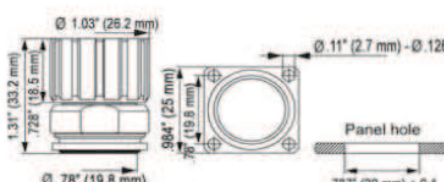
## Signal Connectors M 23 / Housing

Panel Connector, Male Thread, Front Mounting	Type	Part Number
 	4 holes Ø 3,2 mm (.13")	7.400.000.000
	4 threads M 3	7.402.000.000
	4 holes Ø 2,7 mm (.11")	7.404.000.000
	4 threads M 2,5	7.406.000.000
<b>Optional:</b> Flat gasket		
Contacts and inserts page 74 • Assembly instructions page 91 / 92		

Panel Connector, Male Thread, Front Mounting	Type	Part Number
	<b>With anti-vibration O-Ring</b>	
	4 holes Ø 3,2 mm (.13")	7.410.000.000
	4 threads M 3	7.412.000.000
	4 holes Ø 2,7 mm (.11")	7.414.000.000
	4 threads M 2,5	7.416.000.000
	<b>Optional:</b> Flat gasket	
	Contacts and inserts page 74 • Assembly instructions page 91 / 92	

Panel Connector, Female Thread, with knurled Nut	Type	Part Number
	<b>Without coding option</b>	
	4 holes Ø 3,2 mm (.13")	.....7.440.000.000
	4 holes Ø 2,7 mm (.11")	.....7.444.000.000
	<b>Optional:</b> Flat gasket	
	Contacts and inserts page 74 • Assembly instructions page 90	

Panel Connector, Female Thread, with knurled Nut	Type	Part Number
	<b>With coding option (8 x 45°)</b>	
	4 holes Ø 3,2 mm (.13")	.....7.448.000.000
	4 holes Ø 2,7 mm (.11")	.....7.449.000.000
	<b>Optional:</b> Flat gasket	
	Contacts and inserts page 74 • Assembly instructions page 90	





Technical drawing showing dimensions for the Panel Connector, Female Thread, with knurled Nut:

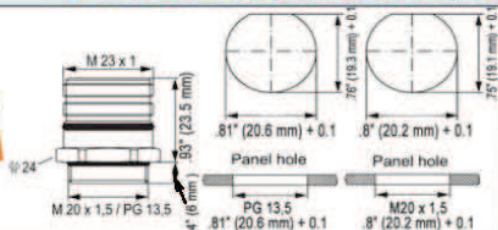
- Overall height: 1.31" (33.2 mm)
- Threaded section height: .728" (18.5 mm)
- Threaded section diameter: Ø 1.03" (26.2 mm)
- Base diameter: Ø .78" (19.8 mm)
- Base height: .984" (25 mm)
- Base diameter: Ø 1.1" (27 mm) - Ø 1.26" (32 mm)
- Panel hole diameter: .787" (20 mm) ± 0.1



## Signal Connectors M23/ Housing

Type	Part Number	Panel Connector, Male Thread, Single Hole Mounted	
<b>Front mounting for male inserts</b> Thread M20 x1,5 .....7.420.000.000 Thread PG 13,5 .....7.422.000.000			
<b>Optional:</b> Flat gasket, jam nut M20 x 1,5 / PG 13,5		 <p>Technical drawing showing side and front views of the panel connector. The side view shows a threaded section with dimensions: M 23 x 1, 63" (23.5 mm), 24" (6 mm), and M 20 x 1,5 / PG 13,5. The front view shows two circular panel holes with dimensions: .81" (20.6 mm) + 0.1 and .8" (20.2 mm) + 0.1. The panel hole diameters are also given as 1.8" (18.3 mm) + 0.1 and 1.8" (18.1 mm) + 0.1.</p>	
<div>FOR MALE INSERTS ONLY</div>		 <p>Photograph of the panel connector, showing the male thread and the single hole mounted.</p>	
Contacts and inserts page 74 • Assembly instructions page 91			

**FOR MALE  
INSERTS ONLY**



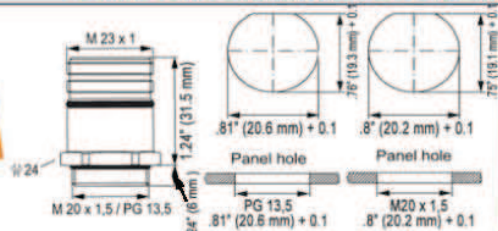
Type	Part Number	Panel Connector, Male Thread, Single Hole Mounted	
<b>Front mounting for female inserts</b>			
Thread M20 x1,5 .....	7.421.000.000		
Thread PG 13,5 .....	7.423.000.000		
<b>Optional:</b>			
Flat gasket, jam nut M20 x 1,5 / PG 13,5			
Contacts and inserts page 74 • Assembly instructions page 92			

**FOR FEMALE INSERTS ONLY**

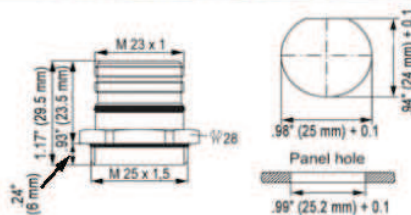
Technical drawing of a panel connector. The side view shows a threaded section with dimensions: M 23 x 1, a total height of 1.24" (31.5 mm), and a base diameter of 24. The front view shows two circular panel holes with diameters of .81" (20.6 mm) + 0.1 and .8" (20.2 mm) + 0.1. The mounting threads are specified as M20 x 1,5 / PG 13,5.

A photograph of the physical panel connector, showing its cylindrical shape and the internal contact pins.

**FOR FEMALE  
INSERTS ONLY**


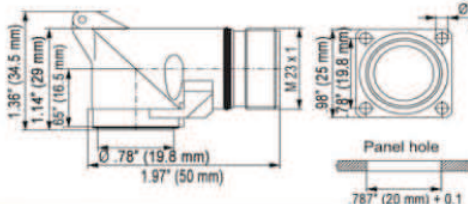



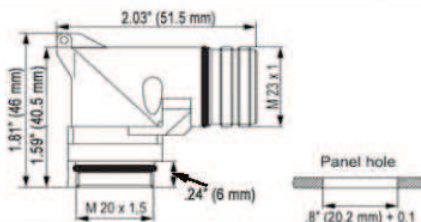
Type	Part Number	Panel Connector, Male Thread, Single Hole Mounted	
<b>For insert with pins / sockets</b> Thread M 25 x 1,5 .....7.425.000.000			
<b>Optional:</b> Flat gasket, jam nut M 25 x 1,5			
Contacts and inserts page 74 • Assembly instructions page 91 / 92			


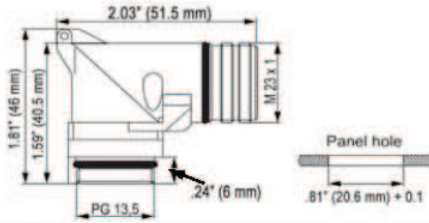



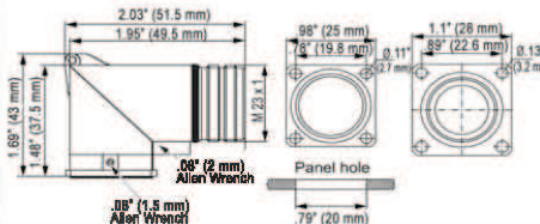


## Signal Connectors M 23 / Housing

Right Angle Panel Connector, Male Thread	Type	Part Number
 	4 holes 2,7 mm (.11").....7.435.000.000 <b>Optional:</b> Flat gasket Easy fixation with M2,5 screws	
Contacts and inserts page 74 • Assembly instructions page 93		

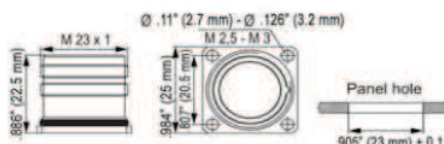
Right Angle Panel Connector, Male Thread, rotatable	Type	Part Number
 	335° rotating, hole mounted Thread M 20 x 1,5 .....7.431.000.000	
Contacts and inserts page 74 • Assembly instructions page 93		

Right Angle Panel Connector, Male Thread, rotatable	Type	Part Number
 	335° rotating, hole mounted Thread PG 13,5 .....7.432.000.000	
Contacts and inserts page 74 • Assembly instructions page 93		

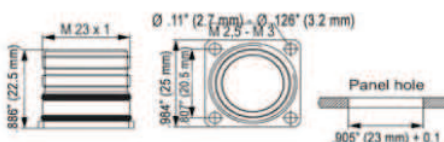
Right Angle Panel Connector, Male Thread, rotatable	Type	Part Number
 	300° rotating, 1,5 mm locking screw at flange 4 x holes Ø 2,7 mm (.11") ..7.433.000.000 Flange 25 x 25 mm 4 x holes Ø 3,2 mm.....7.433.100.000 Flange 28 x 28 mm <b>2 Allen Wrenches (1.5 &amp; 2 mm) Required</b>	
Contacts and inserts page 74 • Assembly instructions page 93		

## Signal Connectors M 23 / Housing

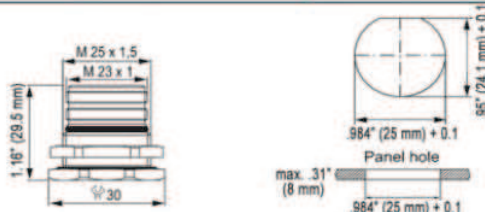
Type	Part Number	Panel Connector, Male Thread, Rear Mounting
4 holes Ø 3,2 mm (.13") .....7.450.000.000		
4 threads M3 .....7.452.000.000		
4 holes Ø 2,7 mm (.11") .....7.454.000.000		
4 threads M2,5 .....7.456.000.000		
<b>Optional:</b> Flat gasket		
Contacts and inserts page 74 • Assembly instructions page 91 / 92		



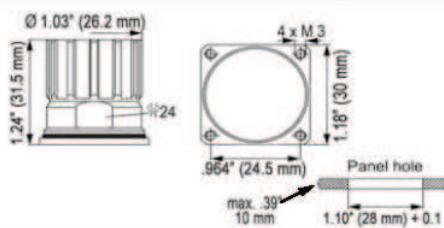
Type	Part Number	Panel Connector, Male Thread, Rear Mounting
<b>With anti-vibration O-Ring</b>		
4 holes Ø 3,2 mm (.13") .....7.460.000.000		
4 threads M3 .....7.462.000.000		
4 holes Ø 2,7 mm (.11") .....7.464.000.000		
4 threads M2,5 .....7.466.000.000		
<b>Optional:</b> Flat gasket		
Contacts and inserts page 74 • Assembly instructions page 91 / 92		



Type	Part Number	Panel Connector, Male Thread, Single Hole Mounted
<b>Rear mounting</b>		
Thread M25 x 1,5 .....7.458.000.000		
Including jam nut M25 x 1,5		
Contacts and inserts page 74 • Assembly instructions page 91 / 92		


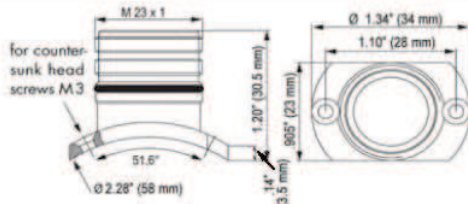



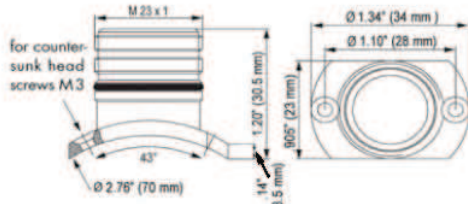
Type	Part Number	Panel Connector, Female Thread, Rear Mounting
<b>With knurled nut, rear mounting</b>		
4 threads M3 .....7.459.000.000		
Contacts and inserts page 74 • Assembly instructions page 90		


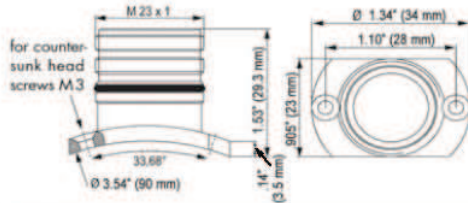




## Signal Connectors M 23


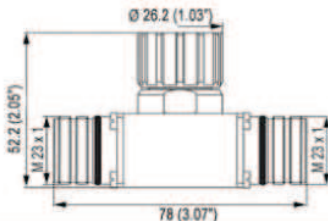
Panel Connector with Radius Flange		Type	Part Number
		<b>With anti-vibration O-Ring and flat body gasket</b> Ø 58 mm (2.28") .....7.490.000.000	
		Contacts and inserts page 74 • Assembly instructions page 91 / 92	

Panel Connector with Radius Flange		Type	Part Number
		<b>With anti-vibration O-Ring and flat body gasket</b> Ø 70 mm (2.76") .....7.491.000.000	
		Contacts and inserts page 74 • Assembly instructions page 91 / 92	


Panel Connector with Radius Flange		Type	Part Number
		<b>With anti-vibration O-Ring and flat body gasket</b> Ø 90 mm (3.54") .....7.492.000.000	
		Contacts and inserts page 74 • Assembly instructions page 91 / 92	



## Signal Connectors M 23 / Housing



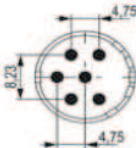
Type	Part Number	Signal Distribution
T 01 .....	7.T01	
<p>Contacts and inserts page 74</p> 		



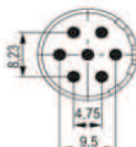
Type	Part Number	Signal Distribution
T 02 .....	7.T02	
<p>Contacts and inserts page 74</p> 		

		Signal Distribution
<p>In case of so called Flying Connections it is often required to distribute, cross or combine signals. Depending on the requirements of the application, the connections can be supplied either as male or female connector, or they can be configured with strain relief fittings. There are many possible combinations, including the internal wiring, independent of their style, as T-, Y-, H-, or other special configurations.</p>		



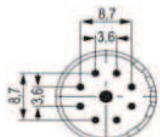
Type	Part Number	Bus End Connector
Closed type .....	7.105.000.000	
<p>Used to cap an open male connector in bus-systems</p> 		
<p>Contacts and inserts page 74</p>		



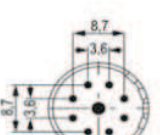
## Signal Connectors M 23 / Inserts / Pinouts

Inserts 6-pole	Type	Part Number	Part Number
 <p>Insert pin mating view (Part E)</p>	<b>Pinout clockwise</b>	<b>Pins</b>	<b>Sockets</b>
	Insert with solder contacts .....	7.001.906.103 .....	7.001.906.104
	Insert without contacts .....	7.003.906.101 .....	7.003.906.102
 <p>Insert socket mating view (Part P)</p>	Insert with dip solder contacts		
	Length 3,5 mm .....	7.001.906.107	
	Insert with dip solder contacts		
	Length 10 mm .....	7.001.906.127 .....	7.001.906.108
	Insert with dip solder contacts		
	Length 17 mm .....	7.001.906.137 .....	7.001.906.118
<p>The correct dimension of a connector with dip solder contacts depends on the particular type of housing.</p>			
<p>Contacts page 80 • Coding possibilities N, S, H, X and Y (see page 79)</p>			

Inserts 7-pole	Type	Part Number	Part Number
 <p>Insert pin mating view (Part E)</p>	<b>Pinout clockwise</b>	<b>Pins</b>	<b>Sockets</b>
	Insert with solder contacts .....	7.001.907.103 .....	7.001.907.104
	Insert without contacts .....	7.003.907.101 .....	7.003.907.102
 <p>Insert socket mating view (Part P)</p>	Insert with dip solder contacts		
	Length 3,5 mm .....	7.001.907.107	
	Insert with dip solder contacts		
	Length 10 mm .....	7.001.907.127 .....	7.001.907.108
	Insert with dip solder contacts		
	Length 17 mm .....	7.001.907.137 .....	7.001.907.118
<p>The correct dimension of a connector with dip solder contacts depends on the particular type of housing.</p>			
<p>Contacts page 80 • Coding possibilities N, S, H, X and Y (see page 79)</p>			


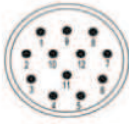
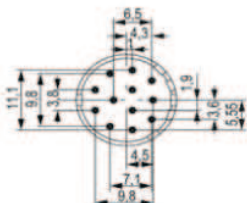
## Signal Connectors M 23 / Inserts / Pinouts



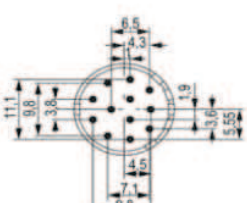
Type	Part Number	Part Number	Inserts 9-pole (8 + 1)
<b>Pinout clockwise</b>	<b>Pins</b>	<b>Sockets</b>	
Insert with solder contacts .....	7.001.981.103 .....	7.001.981.104 .....	 <p>Insert pin mating view (Part E)</p>
Insert without contacts .....	7.003.981.101 .....	7.003.981.102 .....	
Insert with dip solder contacts			 <p>Insert socket mating view (Part P)</p>
Length 3,5 mm .....	7.001.981.107 .....		
Insert with dip solder contacts			
Length 10 mm .....	7.001.981.127 .....	7.001.981.108 .....	
Insert with dip solder contacts			
Length 17 mm .....	7.001.981.137 .....	7.001.981.118 .....	
The correct dimension of a connector with dip solder contacts depends on the particular type of housing.			
Contacts page 80 • Coding possibilities N, S, H, X and Y [see page 79]			

Type	Part Number	Part Number	Inserts 9-pole (8 + 1)
<b>Pinout counter-clockwise</b>	<b>Pins</b>	<b>Sockets</b>	
Insert with solder contacts .....	7.002.981.103 .....	7.002.981.104 .....	 <p>Insert pin mating view (Part P)</p>
Insert without contacts .....	7.004.981.101 .....	7.004.981.102 .....	
Insert with dip solder contacts			 <p>Insert socket mating view (Part E)</p>
Length 3,5 mm .....	7.002.981.107 .....		
Insert with dip solder contacts			
Length 10 mm .....	7.002.981.127 .....	7.002.981.108 .....	
Insert with dip solder contacts			
Length 17 mm .....	7.002.981.137 .....	7.002.981.118 .....	
The correct dimension of a connector with dip solder contacts depends on the particular type of housing.			
Contacts page 80 • Coding possibilities N, S, H, X and Y [see page 79]			



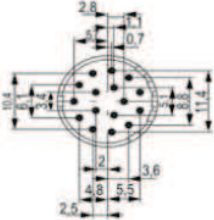




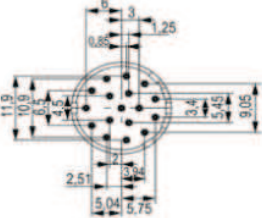
## Signal Connectors M 23 / Inserts / Pinouts

Inserts 12-pole	Type	Part Number	Part Number
 <p>Insert pin mating view (Part E)</p>  <p>Insert socket mating view (Part P)</p> 	<b>Pinout clockwise</b>	<b>Pins</b>	<b>Sockets</b>
	Insert with solder contacts	7.001.912.103	7.001.912.104
	Insert with solder contacts +PE (Pos.9)	7.001.912.113	7.001.912.114
	Insert without contacts	7.003.912.101	7.003.912.102
	Insert without contacts +PE (Pos.9)	7.003.912.111	7.003.912.112
	Insert with dip solder contacts Length 3,5 mm	7.001.912.107	
	Insert with dip solder contacts Length 10 mm	7.001.912.127	7.001.912.108
	Insert with dip solder contacts Length 17 mm	7.001.912.137	7.001.912.118
	The correct dimension of a connector with dip solder contacts depends on the particular type of housing.		
	Contacts page 80 • Coding possibilities N, S, H, X and Y (see page 79)		

Inserts 12-pole	Type	Part Number	Part Number
 <p>Insert pin mating view (Part P)</p>  <p>Insert socket mating view (Part E)</p> 	<b>Pinout counter-clockwise</b>	<b>Pins</b>	<b>Sockets</b>
	Insert with solder contacts	7.002.912.103	7.002.912.104
	Insert with solder contacts +PE (Pos.9)	7.002.912.113	7.002.912.114
	Insert without contacts	7.004.912.101	7.004.912.102
	Insert without contacts +PE (Pos.9)	7.004.912.111	7.004.912.112
	Insert with dip solder contacts Length 3,5 mm	7.002.912.107	
	Insert with dip solder contacts Length 10 mm	7.002.912.127	7.002.912.108
	Insert with dip solder contacts Length 17 mm	7.002.912.137	7.002.912.118
	The correct dimension of a connector with dip solder contacts depends on the particular type of housing.		
	Contacts page 80 • Coding possibilities N, S, H, X and Y (see page 79)		



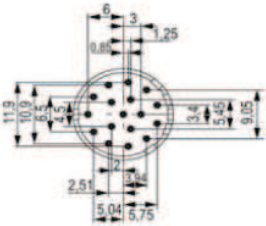
## Signal Connectors M 23 / Inserts / Pinouts



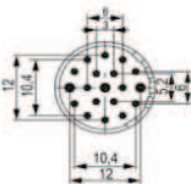
Type	Part Number	Part Number	Inserts 16-pole
<b>Pinout clockwise</b>	<b>Pins</b>	<b>Sockets</b>	
Insert with solder contacts .....	7.001.916.103 .....	7.001.916.104 .....	
Insert without contacts .....	7.003.916.101 .....	7.003.916.102 .....	
Insert with dip solder contacts			Insert pin mating view (Part E)
Length 3,5 mm .....	7.001.916.107 .....		
Insert with dip solder contacts			
Length 10 mm .....	7.001.916.127 .....	7.001.916.108 .....	Insert socket mating view (Part P)
Insert with dip solder contacts			
Length 17 mm .....	7.001.916.137 .....	7.001.916.118 .....	
The correct dimension of a connector with dip solder contacts depends on the particular type of housing.			
Contacts page 80 • Coding possibilities N, S, H, X and Y (see page 79)			

Type	Part Number	Part Number	Inserts 17-pole
<b>Pinout clockwise</b>	<b>Pins</b>	<b>Sockets</b>	
Insert with solder contacts .....	7.001.917.103 .....	7.001.917.104 .....	
Insert without contacts .....	7.003.917.101 .....	7.003.917.102 .....	
Insert with dip solder contacts			Insert pin mating view (Part E)
Length 3,5 mm .....	7.001.917.107 .....		
Insert with dip solder contacts			
Length 10 mm .....	7.001.917.127 .....	7.001.917.108 .....	Insert socket mating view (Part P)
Insert with dip solder contacts			
Length 17 mm .....	7.001.917.137 .....	7.001.917.118 .....	
The correct dimension of a connector with dip solder contacts depends on the particular type of housing.			
Contacts page 80 • Coding possibilities N, S, H, X and Y (see page 79)			










## Signal Connectors M 23 / Inserts / Pinouts

Inserts 17-pole	Type	Part Number	Part Number
 Insert pin mating view (Part P)	<b>Pinout counter-clockwise</b>	<b>Pins</b>	<b>Sockets</b>
	Insert with solder contacts .....	7.002.917.103 .....	7.002.917.104
 Insert socket mating view (Part E)	Insert without contacts .....	7.004.917.101 .....	7.004.917.102
	Insert with dip solder contacts Length 3,5 mm .....	7.002.917.107	
	Insert with dip solder contacts Length 10 mm .....	7.002.917.127 .....	7.002.917.108
	Insert with dip solder contacts Length 17 mm .....	7.002.917.137 .....	7.002.917.118
The correct dimension of a connector with dip solder contacts depends on the particular type of housing.			
Contacts page 80 • Coding possibilities N, S, H, X and Y (see page 79)			



Inserts 19-pole	Type	Part Number	Part Number
 Insert pin mating view (Part E)	<b>Pinout clockwise</b>	<b>Pins</b>	<b>Sockets</b>
	Insert with solder contacts .....	7.001.919.103 .....	7.001.919.104
 Insert socket mating view (Part P)	Insert with solder contacts +PE (Pos. 12) .....	7.001.919.113 .....	7.001.919.114
	Insert with solder contacts + PE (Pos. 12) 1,5 mm elongated .....	7.001.919.123	
	Insert without contacts .....	7.003.919.101 .....	7.003.919.102
	Insert without contacts +PE (Pos. 12) .....	7.003.919.111 .....	7.003.919.112
	Insert with dip solder contacts Length 3,5 mm .....	7.001.919.107	
	Insert with dip solder contacts Length 10 mm .....	7.001.919.127 .....	7.001.919.108
	Insert with dip solder contacts Length 17 mm .....	7.001.919.137 .....	7.001.919.118
	<b>The correct dimension of a connector with dip solder contacts depends on the particular type of housing.</b>		
Contacts page 80 • Coding possibilities N, S, H, X and Y (see page 79)			



## Signal Connectors M 23 / Required Contacts










Number of Poles	Required Contacts	Contact Arrangement
6 .....	6 x 2 mm	
7 .....	7 x 2 mm	
9 (8 + 1) .....	8 x 1 mm 1 x 2 mm	
12 .....	12 x 1 mm	
16 .....	16 x 1 mm	
17 .....	17 x 1 mm	
19 .....	16 x 1 mm 3 x 1,5 mm	

Crimp contacts page 80





Number of Poles	Coding Possibilities	Coding
6-pole .....	N, S, H, X, Y and Z	 Female Inserts mating view
7-pole .....	N, S, H, X and Y	
9-pole .....	N, S, H, X and Y	 Male Inserts mating view
12-pole .....	N, S, H, X, Y and Z	
16-pole .....	N, S, H, X, Y and Z	
17-pole .....	N, S, H, X, Y and Z	
19-pole .....	N, S, H, X and Y	

As standard, coding groove N is opened. To use other codings, please remove the coding barrier.

## Signal Connectors M 23 / Contacts

Contacts	Type	Crimp Range	Part Number
	Crimp pin 1 mm, machined	.....0,08 – 0,56 mm <sup>2</sup> (AWG 28 – 20)	..7.010.901.031
	Crimp pin 1 mm, machined	.....0,14 – 1 mm <sup>2</sup> (AWG 26 – 17)	.....7.010.901.001
	Crimppin 1 mm, machined	.....1 – 1,5 mm <sup>2</sup> (AWG 17 – 16)	.....7.010.901.021
	Crimp socket 1 mm, machined	...0,08 – 0,56 mm <sup>2</sup> (AWG 28 – 20)	..7.010.901.012
	Crimp socket 1 mm, machined	...0,34 – 1 mm <sup>2</sup> (AWG 22 – 17)	.....7.010.901.002
	Crimp socket 1 mm, machined	...0,75 – 1,5 mm <sup>2</sup> (AWG 18 – 16)	...7.010.901.022
	Crimp pin 1 mm, stamped	.....0,14 – 0,56 mm <sup>2</sup> (AWG 26 – 20)	..upon request
	Crimp socket 1 mm, stamped	.....0,14 – 0,56 mm <sup>2</sup> (AWG 26 – 20)	..upon request
	Crimp pin 1,5 mm, machined	....0,14 – 1 mm <sup>2</sup> (AWG 26 – 17)	.....7.010.901.501



Type	Crimp Range	Part Number	Contacts
Crimp socket 1,5 mm, machined...0,14 – 0,56 mm <sup>2</sup> (AWG 26 – 20)...		7.010.901.512	
Crimp socket 1,5 mm, machined...0,34 – 1 mm <sup>2</sup> (AWG 22 – 17) .....		7.010.901.502	
Crimp pin 2 mm, machined .....0,75 – 2,5 mm <sup>2</sup> (AWG 18 – 14) ..		7.010.902.001	
Crimp socket 2 mm, machined ...0,75 – 2,5 mm <sup>2</sup> (AWG 18 – 14) ..		7.010.902.002	


Crimp Tool Settings see page 86

## Signal Connector / Accessories


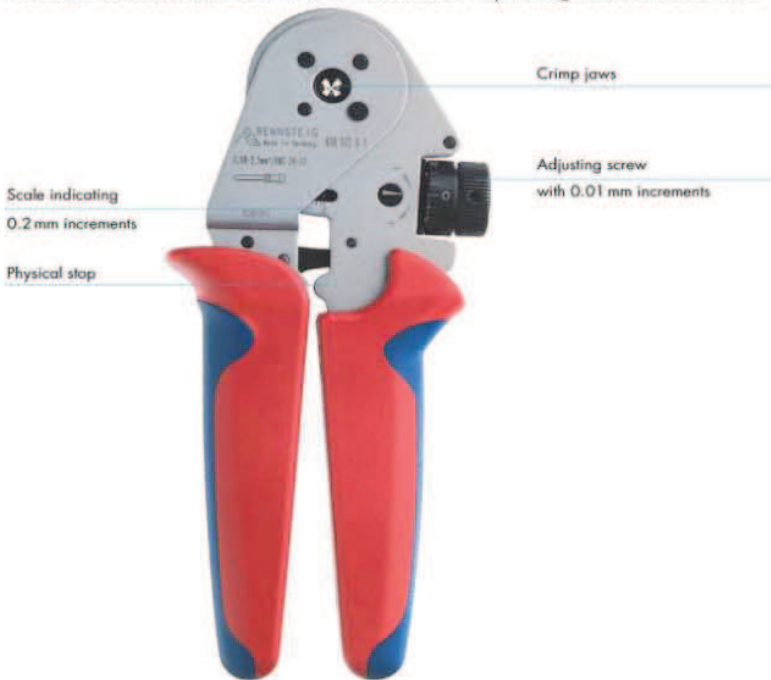
Accessories	Type	Part Number
	Plastic protective cap for connectors with male thread ..... for connectors with female thread.....	7.000.900.101 7.000.900.102
	Brass protective cap for connectors with female thread.....	7.010.900.103
	Brass protective cap for connectors with male thread .....	7.010.900.102
	Brass protective cap with chain for connectors with female thread .....	Length 70 mm .....7.010.9S0.703 Length 100 mm .....7.010.9S1.003
	Brass protective cap with chain for connectors with male thread .....	Length 70 mm .....7.010.9S0.702 Length 100 mm .....7.010.9S1.002
	Assembly tool .....	7.010.900.101



Type	Part Number	Accessories
Crimp tool for manual crimping of machined crimp contacts for signal connectors .....	7.000.900.904	
Operating instructions on page 84 - 86, 94		
Adaptor flange for Straight Connectors .....	7.010.900.128	
Adapter for Conduit Fittings	Snapflex 16.....7.010.900.204 DN 12 .....7.010.900.205 Snapflex 20.....7.010.900.206 DN 14 .....7.010.900.207 Snapflex 25.....7.010.900.208 DN 17 .....7.010.900.209	

Type	Part Number	for HUMMEL Contact	Locator
Locator for Crimp Tool DMC M22520 with positioner ....	7.000.9DM.C03 .....	7.010.901.001, 7.010.901.501, 7.010.902.001	
Locator for Crimp Tool DMC M22520 with positioner ....	7.000.9DM.C04 .....	7.010.901.012, 7.010.901.002, 7.010.901.512, 7.010.901.502, 7.010.902.002	

## Crimp Tool for Signal Connectors M 23 / M 16

Crimp Tool	Type	Part Number
	Crimp tool.....	7.000.900.904 / 7.000.900.907
	<p><b>Application</b></p> <p>The four indent crimp tool 7.000.900.904 / 7.000.900.907 has been developed for optimal crimping of machined contacts with diameters from 0.08 to 2.5 mm<sup>2</sup> (28 through 14 AWG).</p> <p><b>How to Crimp</b></p> <p>The reference table indicates the correct locator position to be selected and the crimp depth to be adjusted for the contact to be crimped. The contact is then inserted through the access hole of the tool on the opposite side of the locator. The contact is held in place by closing the handles to the first lock-in position thus preventing the contact from falling out of the tool and facilitating insertion of the wire into the contact.</p> <p>The precision ratchet assures consistently accurate crimping every time by forcing the tool to be closed all the way completing the crimping cycle before the tool can be opened again.</p> <p><b>Exchange of the Locator</b></p> <p>The locator can be exchanged by removing the socket head cap screw with a socket wrench. It can then be disassembled from the hex head screw by turning it counter-clockwise.</p>	



## Crimp Tool for Signal Connectors M 23 / M 16

### Crimp Tool

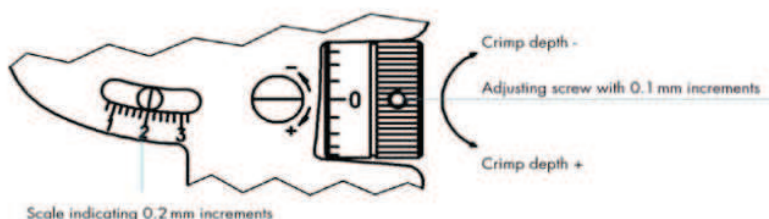
#### Adjustment of Crimp Depth

Crimp depth can be adjusted as follows:

Turn the adjusting screw clockwise for reducing the crimp depth and counter-clockwise for increasing the crimp depth.

#### Adjustment Increments:

- 1 space on the adjusting screw  $\Delta$  adjustment by 0.01 mm
- 1 full rotation of adjusting screw  $\Delta$  adjustment by 0.2 mm (indication on the screw as well as on the rough scale)
- 5 rotations of the adjusting screw  $\Delta$  adjustment by 1 mm (indication on the scale)



#### Control of Crimp Depth

Crimp tool adjustment is done at the factory, but with frequent use, periodic calibration is recommended to insure accuracy. This is easily accomplished with a 1.0 mm  $\varnothing$  wire gauge as follows.

A crimp depth of 1.0 mm is set by means of the adjusting screw (scale mark at „1“, screw mark at „0“ as shown in the fig. above) and the tool in the closed position. After insertion of the gauge, there must be just enough space for moving the gauge inside the entry hole. If the opening is too small or too large to exactly match the gauge, the deviation (+/-) can be checked by the precision setting of the screw. Please contact the factory in case the deviation exceeds the tolerances specified by the contract manufacturer.

#### Maintenance and Repair

Keep the tool clean and properly stored when not in service. All pivot points need to be oiled regularly and the spring clips securing the bolts have to always be in place. For repair please send the tool back to the factory.

## Crimp Tool for Signal Connectors M 23

### Crimp Tool Setting for HUMMEL Crimp Contacts (Crimp Tool 7.000.900.904)

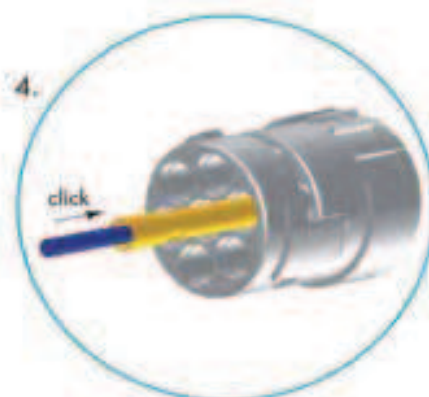
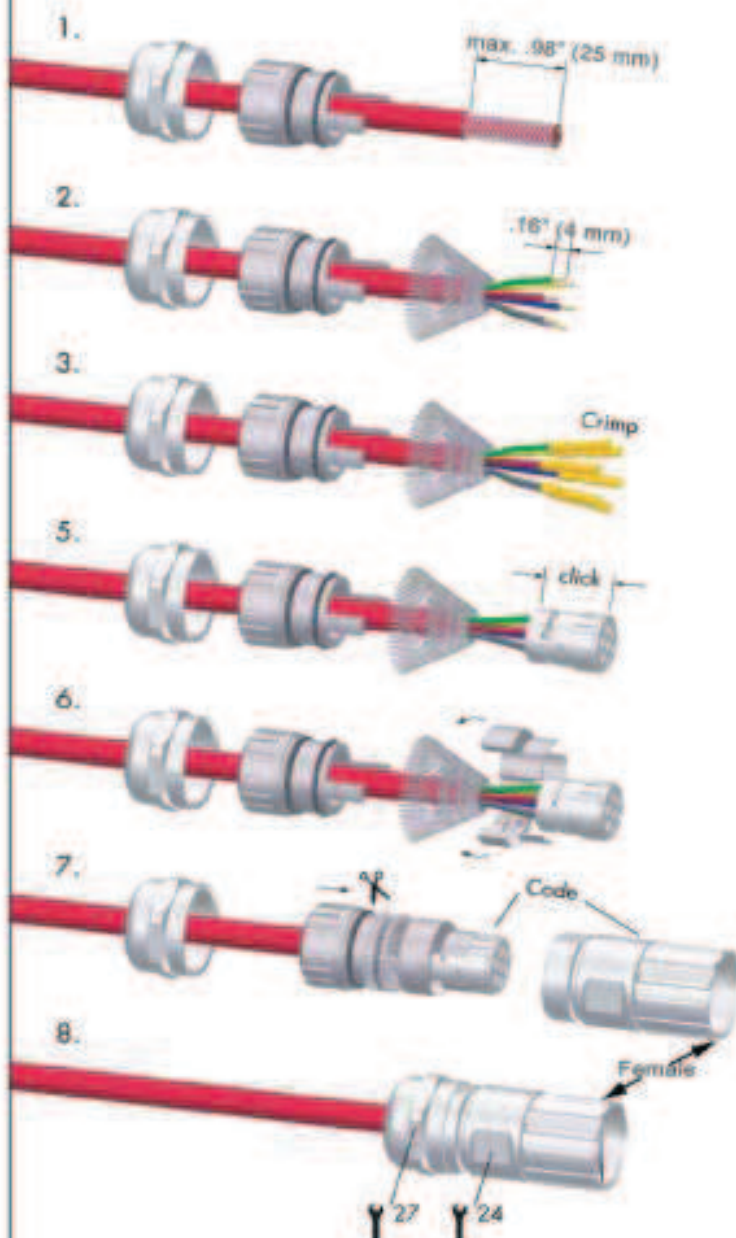
Part Number	Crimp Contact	Cross Section (mm <sup>2</sup> )	AWG	Crimp Tool Setting mm	Locator Setting
7.010.901.001	Crimp pin 1 mm	0,14	AWG 26	0,70	1
		0,25	AWG 24	0,76	
		0,34	AWG 22	0,82	
		0,50	AWG 20	0,90	
		0,75	AWG 18	1,00	
		1,00	AWG 17	1,10	
7.010.901.012	Crimp socket 1 mm (0,08 – 0,56 mm <sup>2</sup> )	0,08	AWG 28	0,75	2
		0,14	AWG 26	0,78	
		0,25	AWG 24	0,82	
		0,34	AWG 22	0,86	
		0,56	AWG 20	0,90	
7.010.901.002	Crimp socket 1 mm (0,34 – 1 mm <sup>2</sup> )	0,34	AWG 22	0,77	2
		0,56	AWG 20	0,82	
		0,75	AWG 18	0,88	
		1,00	AWG 17	0,95	
7.010.901.501	Crimp pin 1,5 mm	0,14	AWG 26	0,65	3
		0,25	AWG 24	0,68	
		0,34	AWG 22	0,72	
		0,56	AWG 20	0,81	
		0,75	AWG 18	0,95	
		1,00	AWG 17	1,07	
7.010.901.512	Crimp socket 1,5 mm (0,14 – 0,75 mm <sup>2</sup> )	0,14	AWG 26	0,70	2
		0,25	AWG 24	0,73	
		0,34	AWG 22	0,77	
		0,56	AWG 20	0,85	
7.010.901.502	Crimp socket 1,5 mm (0,34 – 1 mm <sup>2</sup> )	0,34	AWG 22	0,88	2
		0,56	AWG 20	0,95	
		0,75	AWG 18	1,05	
		1,0	AWG 17	1,13	
7.010.902.001	Crimp pin 2 mm	0,75	AWG 18	1,20	4
		1,0	AWG 17	1,35	
		1,5	AWG 16	1,45	
		2,5	AWG 14	1,60	
7.010.902.002	Crimp socket 2 mm	0,75	AWG 18	1,25	5
		1,0	AWG 17	1,35	
		1,5	AWG 16	1,45	
		2,5	AWG 14	1,60	

Assembly information see page 94



## Signal Connectors M23 / Assembly Instructions

### Straight Connector, EMI, Male & Female Threads

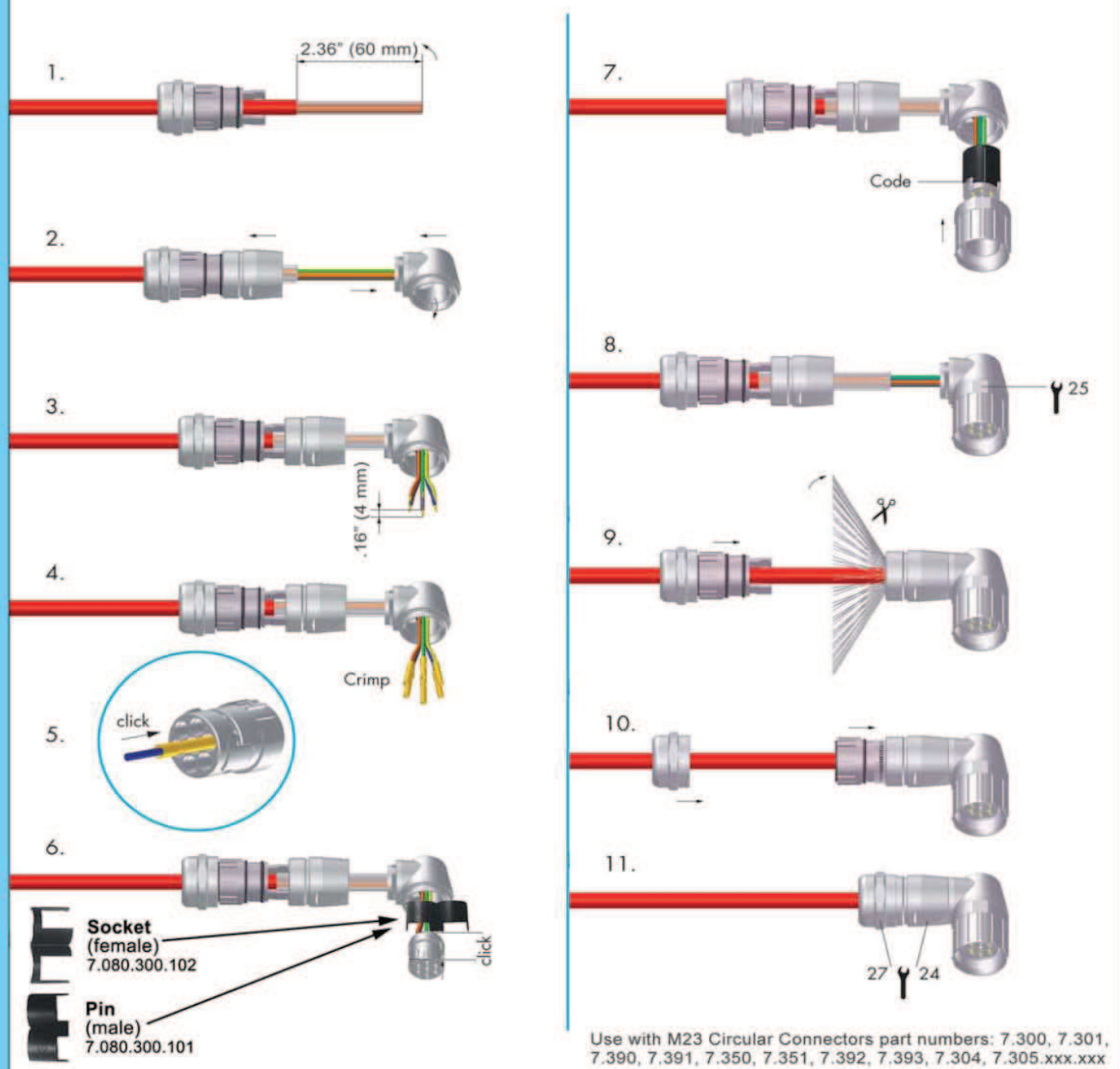


Use with M23 Circular Connectors part numbers:  
7.106, 7.196, 7.206, 7.296, 7.476, 7.477, 7.486,  
7.487, 7.156.xxx.xxx



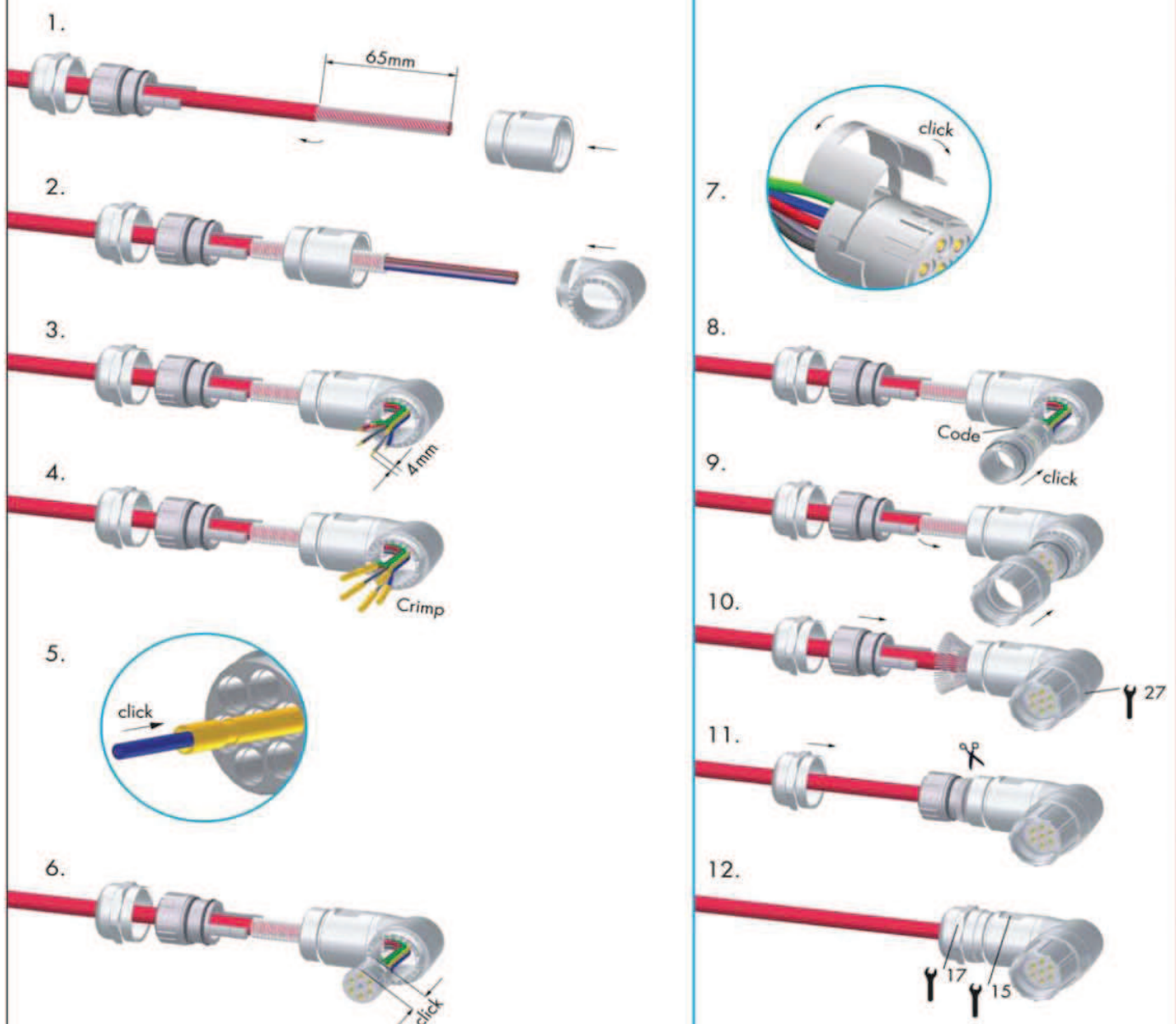
## Signal Connectors M23 / Assembly Instructions

### Right Angle Connectors, EMC



## Signal Connectors M23 / Assembly Instructions

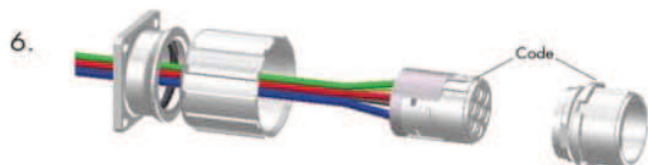
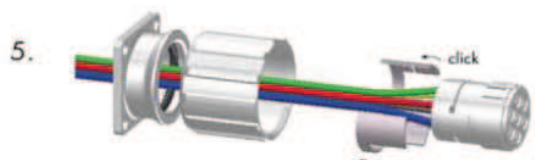
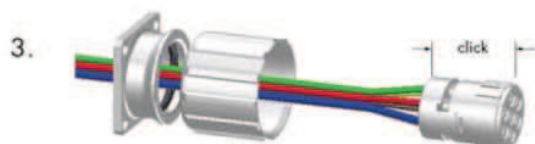
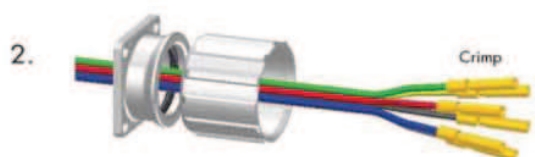
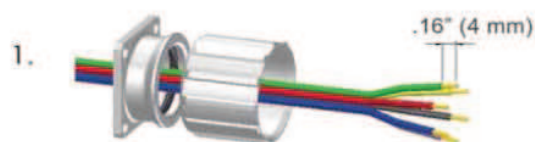
### Right Angle Connector with positioning, EMC



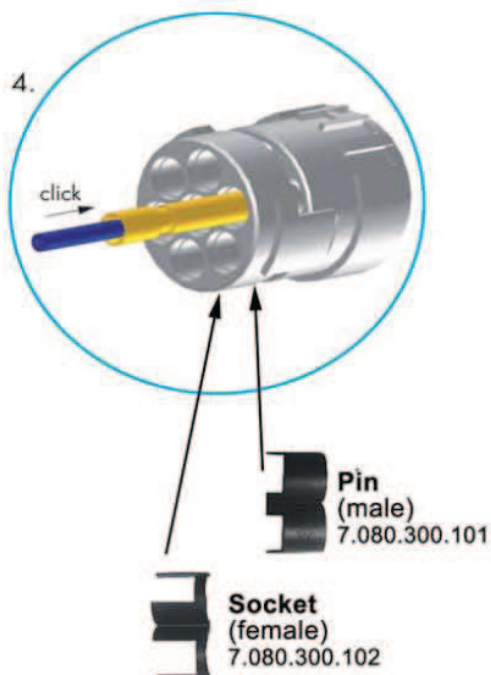


## Signal Connectors M23 / Assembly Instructions

### Panel Connector with knurled Nut



7.010.900.101  
Assembly Tool



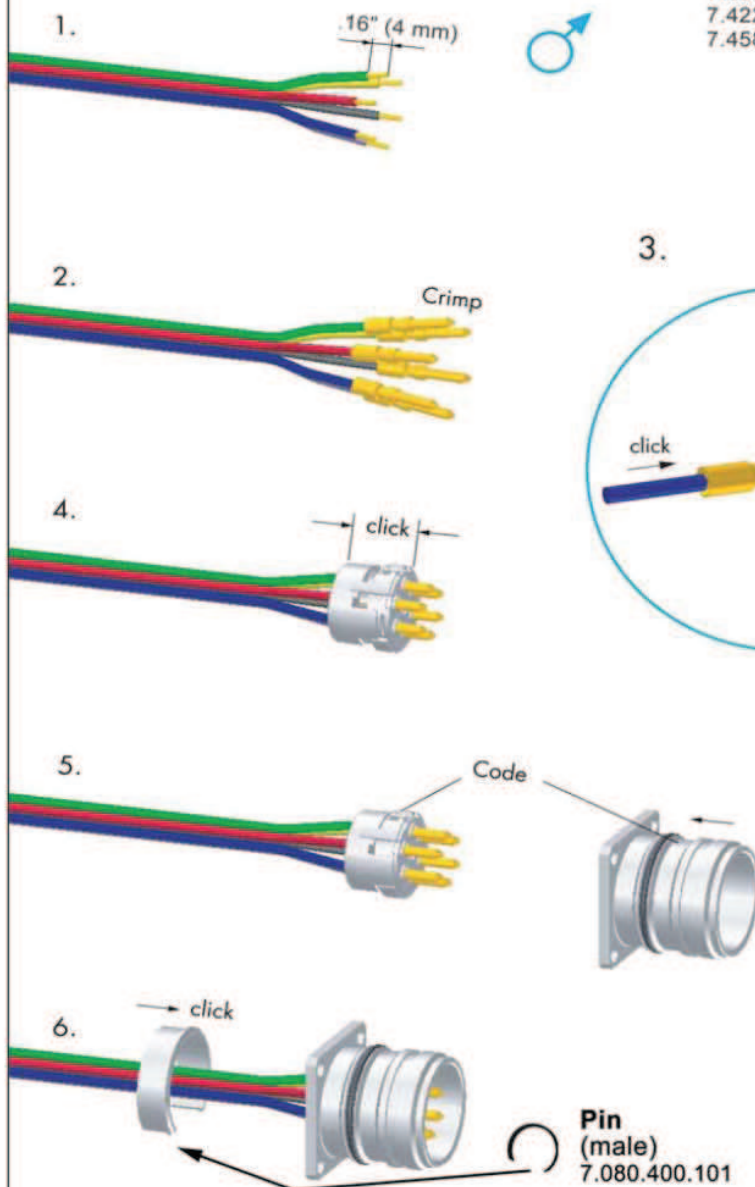
Use with M23 Circular Connectors part numbers:  
7.440, 7.444, 7.448, 7.449, 7.459.xxx.xxx

## Signal Connectors M23 / Assembly Instructions

### Panel Connectors, Male Inserts

Use with M23 Circular Connectors part numbers:

7.400, 7.402, 7.404, 7.406, 7.410, 7.412, 7.414, 7.416, 7.420,  
7.422, 7.450, 7.452, 7.454, 7.456, 7.460, 7.462, 7.464, 7.466,  
7.458, 7.490, 7.491 & 7.492.xxx.xxx

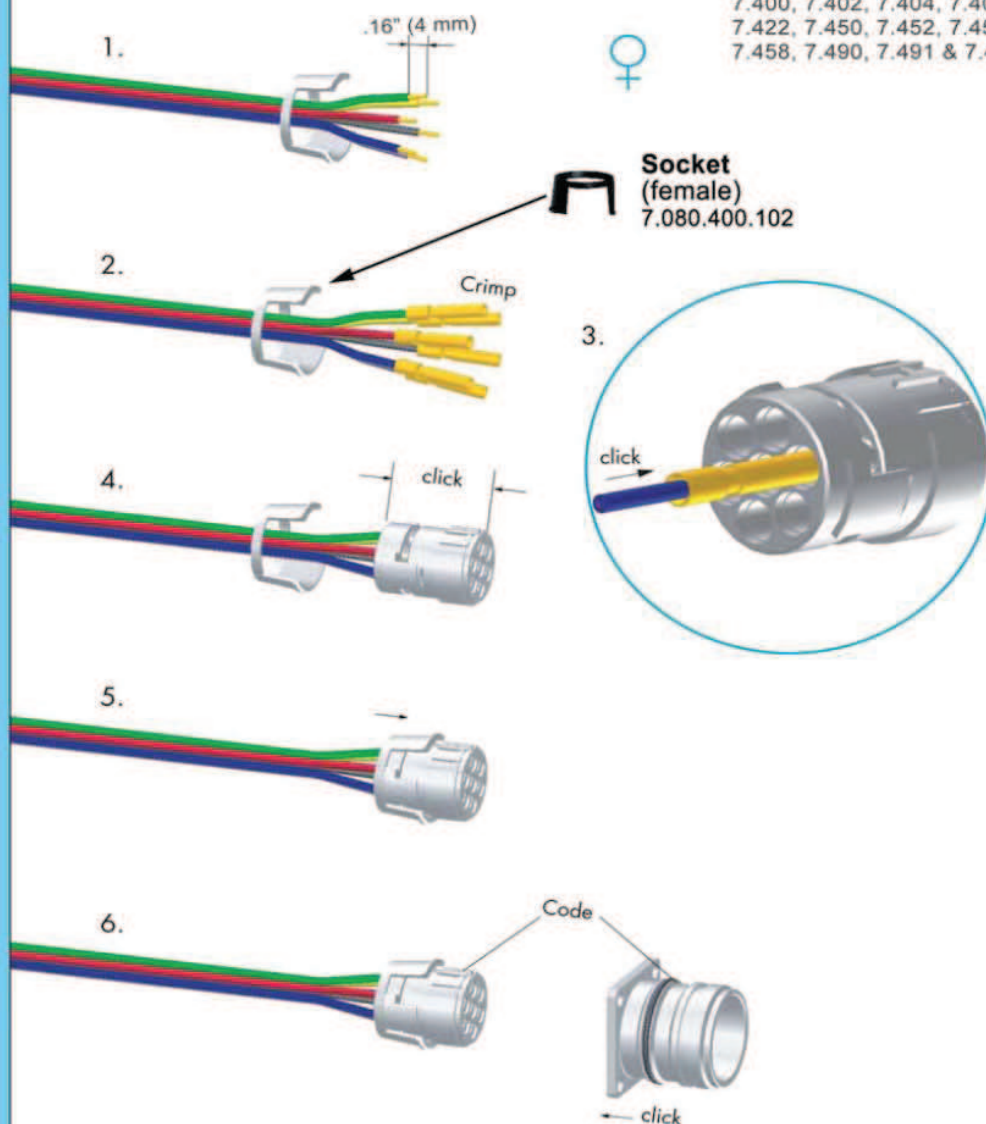


## Signal Connectors M23 / Assembly Instructions

### Panel Connectors, Female Inserts

Use with M23 Circular Connectors part numbers:

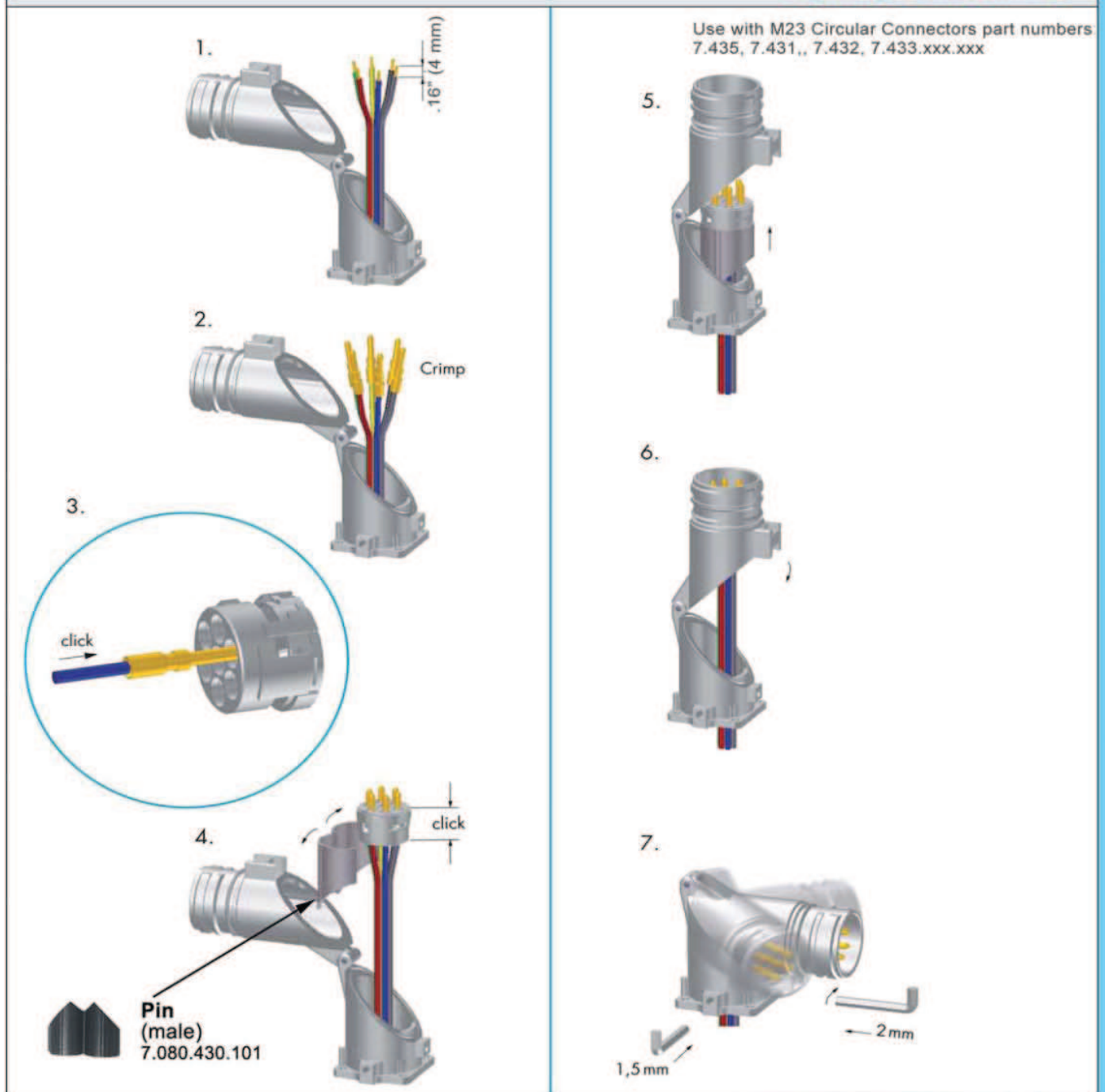
7.400, 7.402, 7.404, 7.406, 7.410, 7.412, 7.414, 7.416, 7.420,  
7.422, 7.450, 7.452, 7.454, 7.456, 7.460, 7.462, 7.464, 7.466,  
7.458, 7.490, 7.491 & 7.492.xxx.xxx





## Signal Connectors M 23 / Assembly Instructions

### Right Angle Panel Connector



## Crimping, Assembly and Disassembly of Contacts

### Crimping, Assembly and Disassembly of Contacts



#### Crimping

- Remove conductor insulation 4 mm (.16") max.
- Select appropriate Crimp tool setting (see page 86)
- Insert Crimp contact into the positioner of the tool
- Insert stripped end of conductor into the crimp opening of the contact
- Squeeze handles of crimp tool together

#### Assembly

- Open crimping jaws and remove contact
- Pry open upper and lower insert approx. 3 mm (1/8") apart as shown
- Insert the contact and conductor assembly into the desired location
- Press upper and lower insert parts together

#### Disassembly

No special tools are needed to remove the crimp contacts from the insert.

- Remove upper part of insert
- With a pair of needle nose pliers, wiggle the contact and push it back through the lower part of insert
- Insert contacts into new location and push until it snaps in position
- Align the nose and groove of the upper and lower part of insert and press together

#### Shielding

- Assemble strain relief insert with insert
- Fold stranding of the shield back over the first O-Ring of the strain relief insert
- Cut back the overextending braid



The stranding of the shield is not allowed to touch the second O-Ring. Otherwise the assembly may not be proof.

## Connectors M 27





## Product Overview

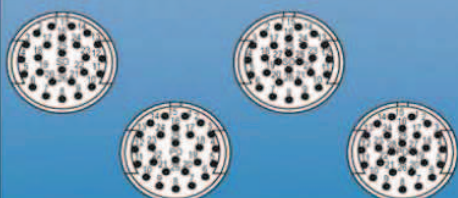
### Housings

page 98



### Inserts

page 99



### Accessories

page 101




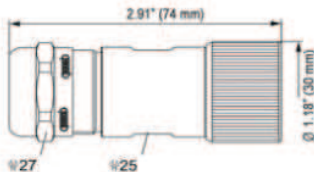

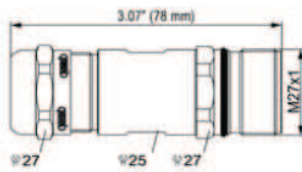

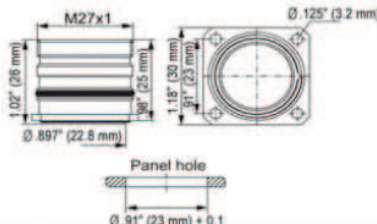
## M 27 Signal Connectors

Mechanical Data	Materials and Technical Data
Housing	Copper-Zinc alloy Die Casting
Housing surface	Nickel plated other surface upon request
Inserts (for contacts)	Thermoplastic Polyamid PA 6 (Nylon 6/6), PBT      Fire protection class V-0
Contacts	Brass Alloy
Contact surface at point of contact	Nickel and gold plated (0,25µm Au)
Minimum mating cycles	> 1000
Seals / O-Rings	Buna-N standard optional Viton® (Viton is a registered trademark of DuPont)
Temperature range	-40° C – 125° C (-40 °F – 257 °F)
Type of contacts	Crimp, solder, dip-solder (PCB)
Protection	IP 67 / IP 69 K per EN 60 529 (connected), NEMA 4x
Cable diameter range	7 – 17 mm (.28 – .67")

Electrical Data			
Number of positions		26	28
Number of contacts		26	28
Contact-Ø [mm]		1	1
Nominal current <sup>1)</sup> [A]		8	8
Nominal voltage <sup>2)</sup> [V~]		150	150
Test voltage (Breakdown voltage) <sup>3)</sup> [V~]		1500	1500
Insulation resistance [MΩ]		> 10 <sup>12</sup>	> 10 <sup>12</sup>
Max. contact resistance [mΩ]		3	3
Degree of Protection <sup>4)</sup>		3	3



<sup>1), 2), 3), 4)</sup> See Technical Informations page 14

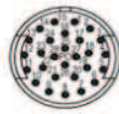
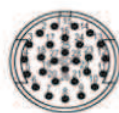
## Signal Connectors M 27 / Housing

Straight Connector, Female Thread		Cable-Ø	Part Number
		7 – 12 mm (.28 - .47")	7.110.500.000
		11 – 17 mm (.43 - .67")	7.110.600.000
<b>EMI Ready</b>			
Contacts and inserts page 99 • Assembly instructions page 103			
Straight Connector, Male Thread		Cable-Ø	Part Number
		7 – 12 mm (.28 - .47")	7.210.500.000
		11 – 17 mm (.43 - .67")	7.210.600.000
<b>EMI Ready</b>			
Contacts and inserts page 99 • Assembly instructions page 103			
Panel Connector, Male Thread, front mounting		Type	Part Number
		4 x holes 3,2 mm	7.410.700.000
		<b>EMI Ready</b>	
Contacts and inserts page 99 • Assembly instructions page 104			


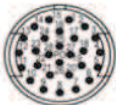




## Signal Connectors M 27 / Inserts / Pinouts

Type	Part Number	Part Number	Inserts 26-pole
<b>Pinout clockwise</b>	<b>Pins</b>	<b>Sockets</b>	
Insert with solder contacts .....	7.001.926.103 .....	7.001.926.104 .....	
Insert without contacts.....	7.003.926.101 .....	7.003.926.102 .....	
Insert with dip solder contacts Length 3,5 mm .....	7.001.926.107 .....		Insert pin mating view
Insert with dip solder contacts Length 10 mm .....	7.001.926.127 .....		
The correct dimension of a connector with dip solder contacts depends on the particular type of housing.			
			Insert socket mating view
Contacts page 100			

Type	Part Number	Part Number	Inserts 28-pole
<b>Pinout clockwise</b>	<b>Pins</b>	<b>Sockets</b>	
Insert with solder contacts .....	7.001.928.103 .....	7.001.928.104 .....	
Insert with dip solder contacts Length 3,5 mm .....	7.001.928.107 .....		
Insert with dip solder contacts Length 10 mm .....	7.001.928.127 .....		Insert pin mating view
The correct dimension of a connector with dip solder contacts depends on the particular type of housing.			
Contacts page 100			

## Signal Connectors M 27 / required contacts

Contact Arrangement	Number of Poles	Required Contacts
	26 .....	26 x 1 mm
	28 .....	28 x 1 mm

Contacts	Type	Crimp Range	Part Number
	Crimp pin 1 mm, machined .....	0,14 – 1 mm <sup>2</sup> (AWG 26 – 17) .....	7.010.971.001
	Crimp socket 1 mm, machined ...	0,14 – 1 mm <sup>2</sup> (AWG 26 – 17) .....	7.010.971.002

Crimp Tool Settings see page 102

Type	Part Number	Accessories
Plastic protective cap for connectors with male thread .....7.000.980.167 for connectors with female thread .....7.000.980.168		
Brass protective cap for connectors with female thread .....7.010.900.169		
Brass protective cap with chain for connectors with female thread .....Length 70 mm .....7.010.950.707		
Brass protective cap for connectors with male thread .....7.010.900.170		
Brass protective cap with chain for connectors with male thread .....Length 70 mm .....7.010.950.708		
Crimp tool for manual crimping of machined crimp contacts. Works with contacts for power or signal M27. ....7.000.900.901		
See page 118/119 for crimp tool instructions and page 102 proper setting		
Assembly tool .....7.010.900.110		



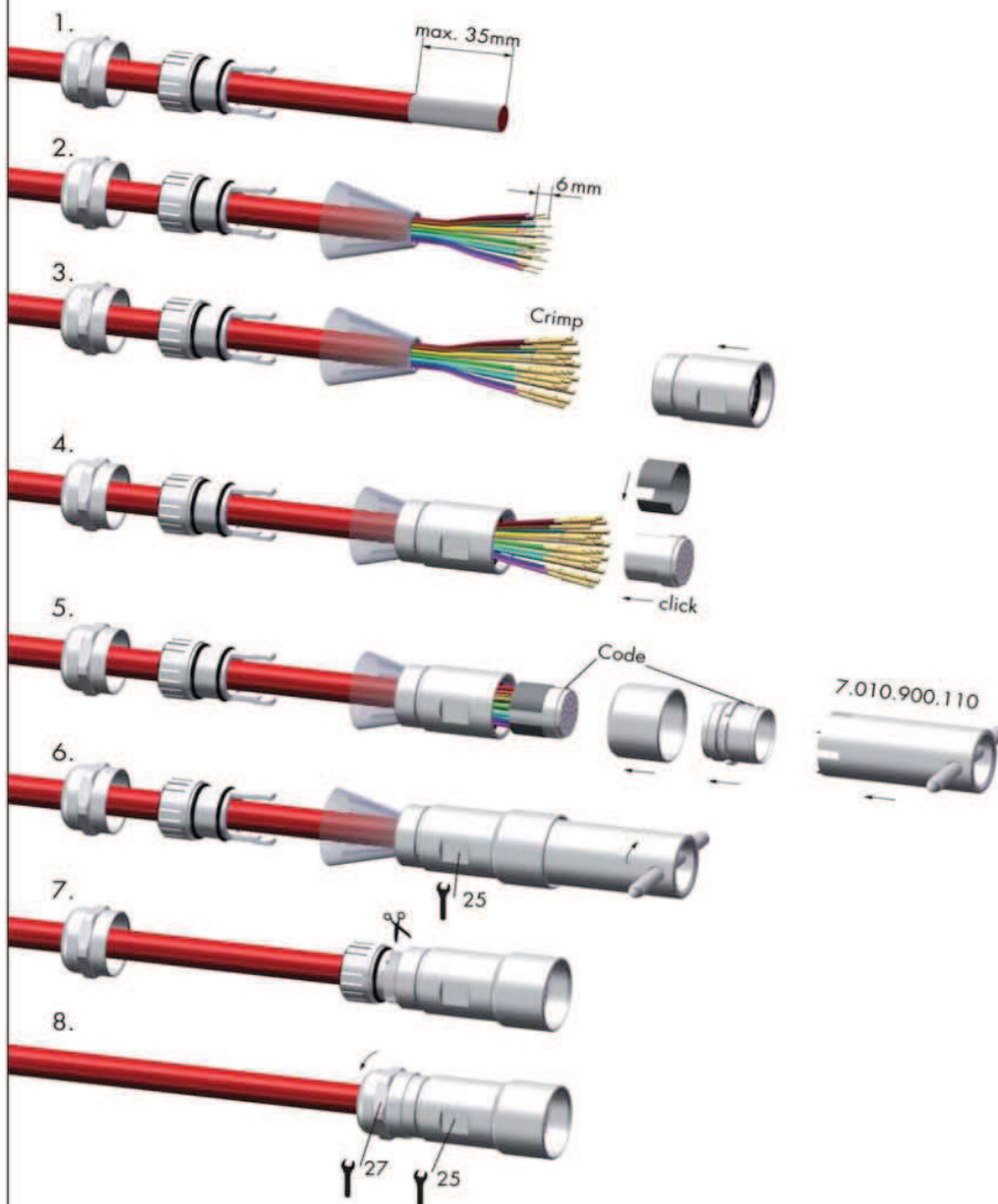
## Crimp Tool for Signal Connectors M 27

### Crimp Tool Setting for HUMMEL Crimp Contacts (Crimp Tool 7.000.900.901)

Part Number	Crimp Contact	Cross Section mm <sup>2</sup>	AWG	Crimp Tool Setting mm	Locator Setting
7.010.971.001	Crimp pin (signal) 1 mm	0,14	26	0,70	1
		0,25	24	0,80	1
		0,34	22	0,88	1
		0,50	20	0,95	1
		0,75	18	1	1
		1	17	1,03	1
7.010.971.002	Crimp socket (signal) 1 mm	0,14	26	0,70	4
		0,25	24	0,80	4
		0,34	22	0,88	4
		0,50	20	0,95	4
		0,75	18	1	4
		1	17	1,03	4

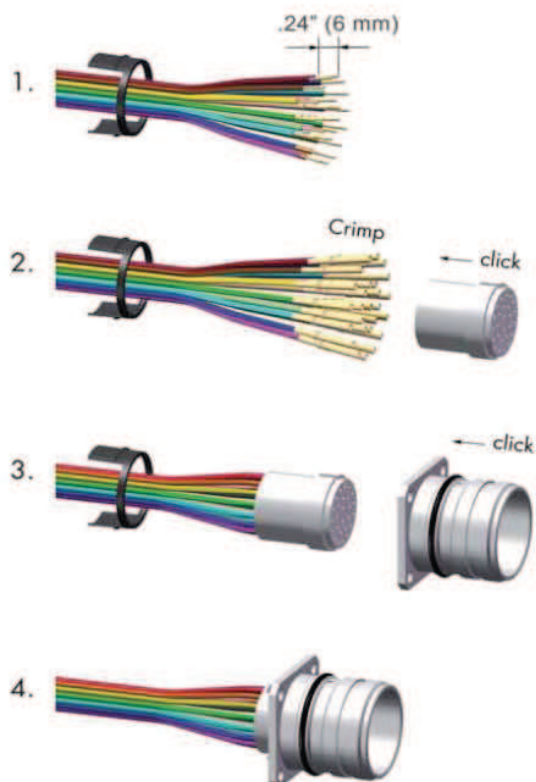
## Signal Connectors M 27 / Assembly Instructions

### Straight Connector, Female Thread



## Signal Connectors M 27 / Assembly Instructions

### Panel Connector





## Power Connectors M 23



## Product Overview

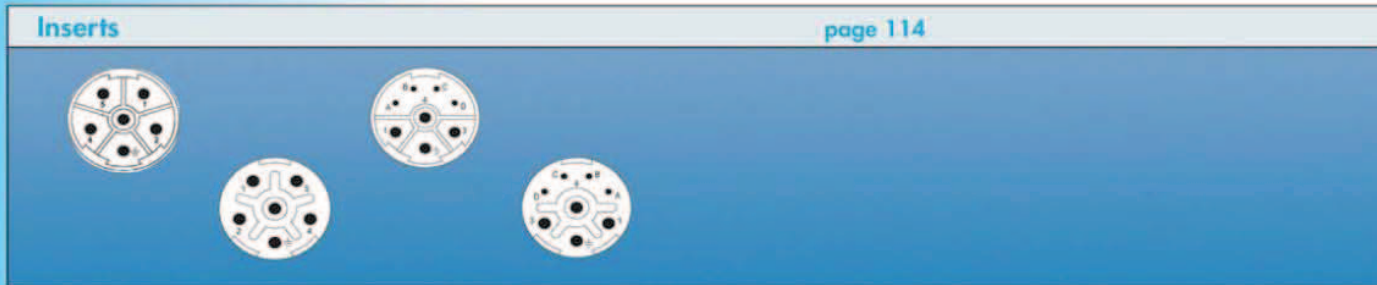
### Housings

page 108



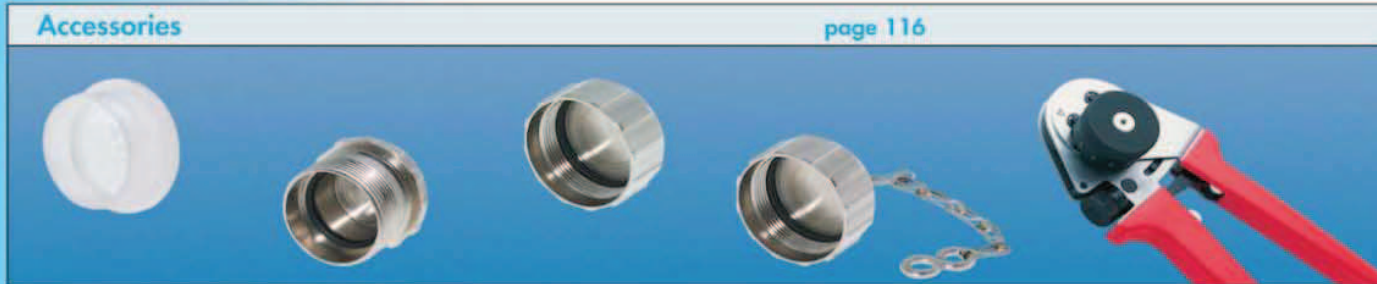
### Inserts

page 114



### Accessories

page 116



## Power Connectors M23

Mechanical Data	Materials and Technical Data
Housing	Copper-Zinc alloy Die Casting
Housing surface	Nickel plated other surface upon request
Inserts (for contacts)	Thermoplastic Polyamid PA 6 (Nylon 6/6), PBT      Fire protection class V-0
Contacts	Brass Alloy
Contact surface at point of contact	Nickel and gold plated (0,25 µm Au)
Minimum mating cycles	> 1000
Seals / O-Rings	Buna-N standard optional Viton® (Viton is a registered trademark of DuPont)
Temperature range	-40° C – 125° C (-40 °F – 257 °F)
Type of contacts	Crimp
Protection	IP 67 / IP 69 K per EN 60 529 (connected), NEMA 4x
Cable diameter range	7 – 17 mm (.28 – .67")

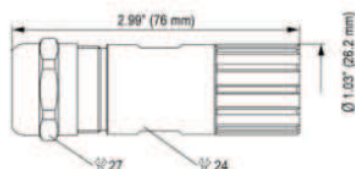
Electrical Data	5 + PE	4 + 3 + PE
Number of positions	6	4
Number of contacts	6	4
Contact-Ø [mm]	2	1
Nominal current <sup>1)</sup> [A]	28	8
Nominal voltage <sup>2)</sup> [V~] Degree of Protection 2 <sup>3)</sup>	800	300
Nominal voltage <sup>2)</sup> [V~] Degree of Protection 3 <sup>3)</sup>	600	300
Test voltage (Breakdown voltage) <sup>4)</sup> [V~]	4000	2500
Insulation resistance [mΩ]	> 10 <sup>13</sup>	> 10 <sup>13</sup>
Max. contact resistance [mΩ]	3	3

<sup>1), 2), 3), 4)</sup> See Technical Informations page 14



## Power Connectors M 23 / Housing

### Straight Connector, Female Thread



#### Cable-Ø

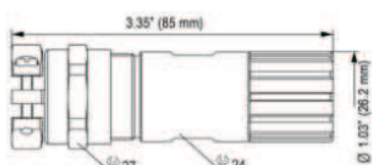
#### Part number

7 – 12 mm (.24 – .47").....7.550.500.000  
11 – 17 mm (.43 – .67").....7.550.600.000

**EMI Ready**

Contacts and inserts page 114 • Assembly instructions page 122

### Straight Connector, Female Thread, MZ



#### Cable-Ø

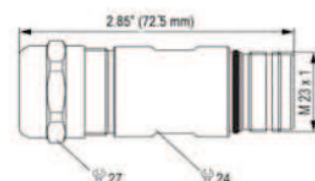
#### Part Number

10 – 12 mm (.39 – .47").....7.559.500.000  
11 – 17 mm (.43 – .67").....7.559.600.000

**EMI Ready**

Contacts and inserts page 114 • Assembly instructions page 122

### Straight Connector, Male Thread



#### Cable-Ø

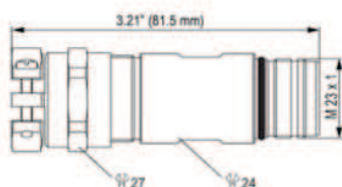
#### Part Number

7 – 12 mm (.24 – .47").....7.560.500.000  
11 – 17 mm (.43 – .67").....7.560.600.000

**EMI Ready**

Contacts and inserts page 114 • Assembly instructions page 122

### Straight Connector, Male Thread, MZ



#### Cable-Ø

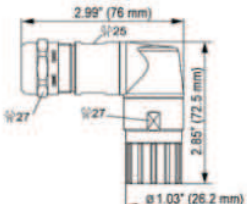

#### Part Number

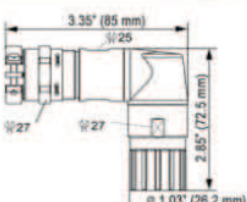

10 – 12 mm (.39 – .47").....7.569.500.000  
11 – 17 mm (.43 – .67").....7.569.600.000

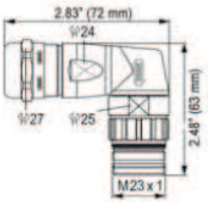

**EMI Ready**

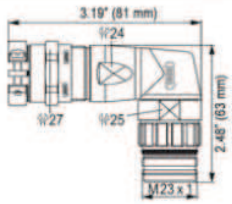

Contacts and inserts page 114 • Assembly instructions page 122

## Power Connectors M 23 / Housing


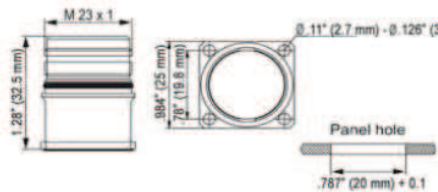
Cable-Ø	Part Number	Right Angle Connector with positioning, Female Thread
7 – 12 mm (.24 – .47").....	7.576.500.000	 
11 – 17 mm (.43 – .67").....	7.576.600.000	
<b>EMI Ready</b>		
Contacts and inserts page 114 • Assembly instructions page 124		


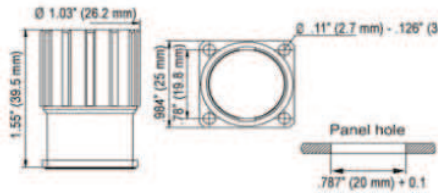
Cable-Ø	Part Number	Right Angle Connector with positioning, Female Thread, MZ
9 – 12 mm (.35 – .47").....	7.579.500.000	 
10 – 14 mm (.39 – .55").....	7.579.600.000	
<b>EMI Ready</b>		
Contacts and inserts page 114 • Assembly instructions page 124		

Cable-Ø	Part Number	Right Angle Connector, Male Thread
7 – 12 mm (.24 – .47").....	7.580.500.000	 
10 – 14 mm (.39 – .55").....	7.580.600.000	
<b>EMI Ready</b>		
Contacts and inserts page 114 • Assembly instructions page 124		

Cable-Ø	Part Number	Right Angle Connector, Male Thread, MZ
9 – 12 mm (.35 – .47").....	7.589.500.000	 
10 – 14 mm (.39 – .55").....	7.589.600.000	
<b>EMI Ready</b>		
Contacts and inserts page 114 • Assembly instructions page 124		

## Power Connectors M 23 / Housing

Panel Connectors, Male Thread, Front Mounting		Type	Part Number
		4 holes Ø 3,2 mm [.13"].....	7.601.000.000
		4 holes Ø 2,7 mm [.11"].....	7.605.000.000
		<b>Optional:</b> Flat gasket	
		Contacts and inserts page 114 • Assembly instructions page 125	

Panel Connector with knurled Nut, Front Mounting		Type	Part Number
		4 holes Ø 3,2 mm (.13").....	7.641.000.000
		4 holes Ø 2,7 mm (.11").....	7.645.000.000
		<b>Optional:</b> Flat gasket	
		Contacts and inserts page 114 • Assembly instructions page 125	



## Power Connectors M 23 / Housing


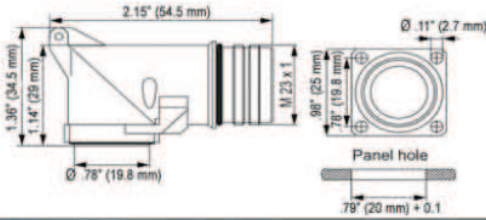

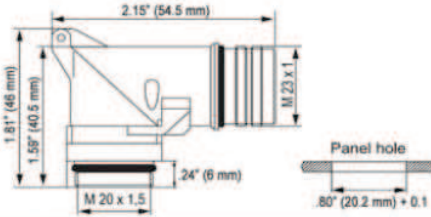

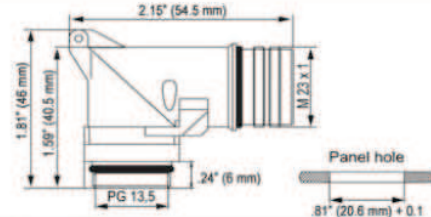

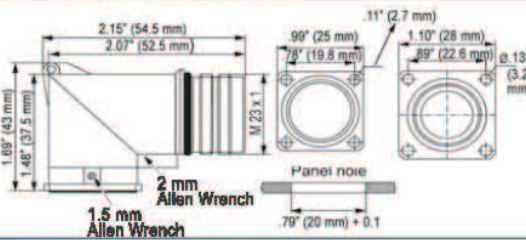
Type	Part Number	Panel Connector, Male Thread, Single Hole Mounted	
<b>Front mounting</b> Thread M20 x1,5 .....7.621.000.000  <b>Options:</b> Flat gasket, jam nut M20 x 1,5			
Contacts and inserts page 114 • Assembly instructions page 126			

Type	Part Number	Panel Connector, Male Thread, Single Hole Mounted	
<b>Front mounting</b> Thread PG 13,5 .....7.623.000.000  <b>Options:</b> Flat gasket, jam nut PG 13,5			
Contacts and inserts page 114 • Assembly instructions page 126			

Type	Part Number	Panel Connector, Male Thread, Single Hole Mounted	
<b>Front mounting</b> Thread M25x1,5 .....7.626.000.000  <b>Options:</b> Flat gasket, jam nut M25 x 1,5			
Contacts and inserts page 114 • Assembly instructions page 126			

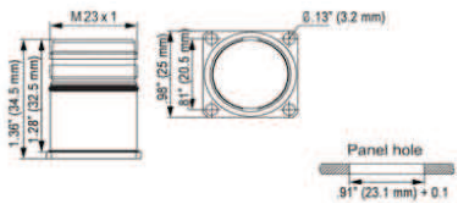

Type	Part Number	Panel Connector, Male Thread, Single Hole Mounted	
<b>Rear mounting</b> Thread M25 x 1,5 .....7.651.000.000  Including jam nut M25 x 1,5			
Contacts and inserts page 114 • Assembly instructions page 126			

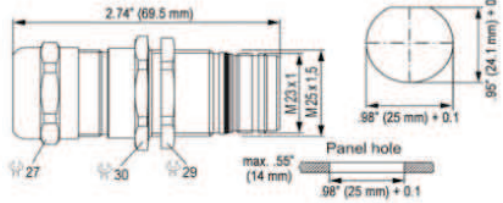

## Power Connectors M 23 / Housing

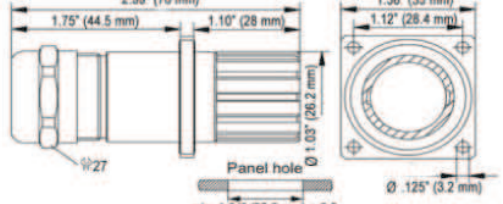

Right Angle Panel Connector, Male Thread		Type	Part Number
		4 holes $\varnothing$ 2,7 mm (.11") .....7.635.000.000  <b>Options:</b> Flat gasket  Easy fastening with M2,5 x 10 mm or #4 x .39" long screws  Contacts and inserts page 114 • Assembly instructions page 127	
Right Angle Panel Connector, Male Thread, rotatable		Type	Part Number
		335° rotatable, single hole mounted Thread M 20 x 1,5 .....7.636.000.000  Contacts and inserts page 114 • Assembly instructions page 127	
Right Angle Panel Connector, Male Thread, rotatable		Type	Part Number
		335° rotatable, single hole mounted Thread PG 13,5 .....7.637.000.000  Contacts and inserts page 114 • Assembly instructions page 127	
Rotating Panel Elbow Connector, rotatable		Type	Part Number
		300° rotating, locking screw at flange 4 x holes $\varnothing$ 2,7 mm (.11") ..7.638.000.000 Flange 25 x 25 mm  4 x holes $\varnothing$ 3,2 mm (.13") ..7.638.100.000 Flange 28 x 28 mm  <b>2 Allen Wrenches Included Upon Request (1.5 &amp; 2 mm)</b>  Contacts and inserts page 114 • Assembly instructions page 127	

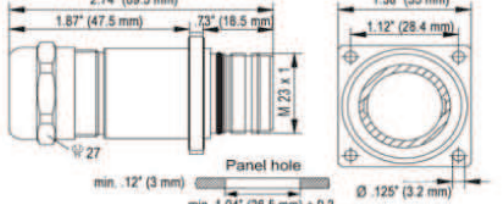



## Power Connectors M 23 / Housing

Type	Part Number	Panel Connector, Male Thread, Rear Mounting
<b>With anti-vibration O-Ring</b> 4 holes $\varnothing$ 3,2 mm (.13") .....7.661.000.000  <b>EMI Ready</b>		 
Contacts and inserts page 114 • Assembly instructions page 123		

Cable-Ø	Part Number	Panel Connector, Male Thread, with Strain Relief
<b>Single hole mounted, rear mounting, thread M 25 x 1,5</b> 7 – 12 mm (.27 – .47") .....7.653.500.000 11 – 17 mm (.43 – .67") .....7.653.600.000  Including jam nut M 25 x 1,5  <b>EMI Ready</b>		 
Contacts and inserts page 114 • Assembly instructions page 122		





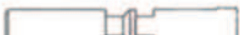

Cable-Ø	Part Number	Panel Connector, Female Thread, with Strain Relief
<b>4 holes <math>\varnothing</math> 3,2 mm (.13"), front or rear mounting</b> 7 – 12 mm (.27 – .47") .....7.681.500.000 11 – 17 mm (.43 – .67") .....7.681.600.000  <b>EMI Ready</b>		 
Contacts and inserts page 114 • Assembly instructions page 122		

Cable-Ø	Part Number	Panel Connector, Male Thread, with Strain Relief
<b>4 holes <math>\varnothing</math> 3,2 mm (.13"), front or rear mounting</b> 7 – 12 mm (.27 – .47") .....7.683.500.000 11 – 17 mm (.43 – .67") .....7.683.600.000  <b>EMI Ready</b>		 
Contacts and inserts page 114 • Assembly instructions page 122		



## Power Connectors M 23 / Inserts

Contact Arrangement, Mating View	Type of Contact	Part Number
	6 x crimp pins 2 mm	7.084.951.101
	6 x crimp sockets 2 mm	7.084.951.102
	4 x crimp pins 1 mm 4 x crimp pins 2 mm	7.084.943.101
	4 x crimp sockets 1 mm 4 x crimp sockets 2 mm	7.084.943.102

Type of Contact	Crimp Range	Part Number	Contacts
Crimp pin 1 mm, machined	0,25 – 1 mm <sup>2</sup> ..... (AWG 24 – 17)	7.010.941.001	
Crimp socket 1 mm, machined	0,25 – 1 mm <sup>2</sup> ..... (AWG 24 – 17)	7.010.941.002	
Crimp pin 2 mm, machined	0,75 – 2,5 mm <sup>2</sup> ..... (AWG 18 – 14)	7.010.942.001	
Crimp pin 2 mm, machined	2,5 – 4 mm <sup>2</sup> ..... (AWG 14 – 12)	7.010.942.011	
Crimp socket 2 mm, machined	0,75 – 2,5 mm <sup>2</sup> ..... (AWG 18 – 14)	7.010.942.002	
Crimp socket 2 mm, machined	2,5 – 4 mm <sup>2</sup> ..... (AWG 14 – 12)	7.010.942.012	

See page 128 for crimp tool instructions and proper setting