

M 23 Fast Ethernet PoE



Product Overview

Housings

page 44



Inserts

page 46



Accessories

page 51




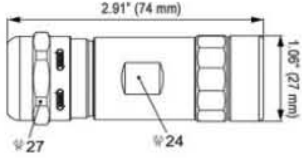

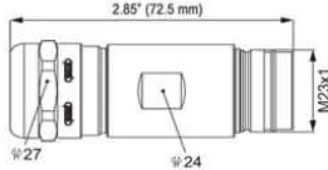

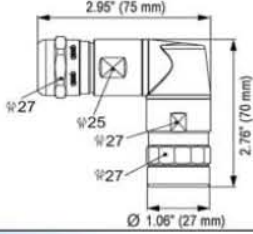

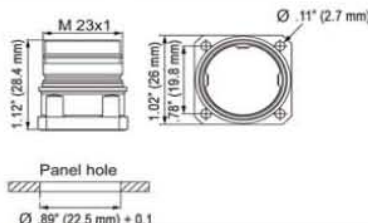
M 23 Fast Ethernet PoE Connectors

Mechanical Data	Materials and Technical Data
Housing	Copper-Zinc alloy Die Casting
Housing surface	Nickel plated
Inserts (for contacts)	PBT UL-94 V0, PA6
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 (NBR) (Standard)
Temperature range	-40°C – 125°C (-40°F – 257°F)
Type of contacts	Crimp, dip-solder (PCB)
Protection	IP 67 per EN 60529 (connected), NEMA 4x
Cable diameter range	11 – 17 mm (.43" – .67")

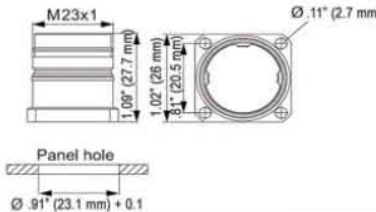

Electrical Data		
Number of positions	20 (4x2 + 12)	
Number of contacts	4x2	12
Contact-Ø [mm]	0,6	1
AWG [mm ²]	0,08 – 0,34	0,14 – 1 / 1,5
Nominal current ¹⁾ [A]	2	8 ⁷⁾
Nominal voltage ²⁾ [V~] degree of protection 2 ⁴⁾	160	320
Nominal voltage ²⁾ [V~] degree of protection 3 ⁴⁾	60	160
Test voltage (Breakdown voltage) ³⁾ [V~]	500	1500
Insulation resistance [MΩ]	> 10 ⁶	> 10 ⁶
Max. contact resistance [mΩ]	3	3
Impedance [Ω] (at 100MHz)	100	-

^{1) 2) 3) 4)} See Technical Information page 14 ⁷⁾ for single contacts even 10A possible

M 23 Fast Ethernet PoE Connectors / Housing



Straight Female Connector		Cable-Ø	Part Number
		11-17 mm (.43 – .67")7.108.600.000
		Inserts page 46 • Assembly instructions page 48	
Straight Connector, Male Thread		Cable-Ø	Part Number
		11-17 mm (.43 – .67")7.208.600.000
		Inserts page 46 • Assembly instructions page 48	
Right Angle Connector, Female Thread		Cable-Ø	Part Number
		11-17 mm (.43 – .67")7.308.600.000
		Inserts page 46 • Assembly instructions page 50	
Panel Connector, Male Thread, Front Mounting		Type	Part Number
		4 x holes Ø 2,7 mm (.11")	..7.408.000.000
		Flange 26 x 26 mm	
Inserts page 46 • Assembly instructions page 49			

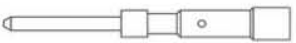
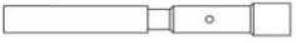
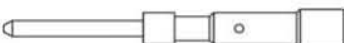
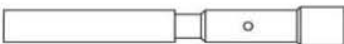
M 23 Fast Ethernet PoE Connectors / Housing

Type	Part Number	Panel Connector, Male Thread, Rear Mounting
4 x holes \varnothing 2,7 mm (.11") ..7.468.000.000 Flange 26 x 26 mm		 

Inserts page 46 • Assembly instructions page 49

M 23 Fast Ethernet PoE Connectors / Inserts / Pinouts / Contacts

Inserts (4 x 2) + 12	Type	Part Number	Part Number
 <p>Insert pin mating view</p>	Insert	Pins	Sockets
		without contacts	7.003.920.101
 <p>Insert socket mating view</p>	Insert with dip solder contacts	7.001.920.107	7.001.920.108
		Required Contacts	
	8 x 0,6	7.010.980.641	7.010.980.602
	12 x 1	7.010.901.045	7.010.901.002
		7.010.901.049	7.010.901.012
			7.010.901.022
			7.010.901.046

Contacts	Type	Part Number	Part Number
	Crimp pin 0,6 mm, machined....	0,08 – 0,34 mm ²	7.010.980.641
	Crimp socket 0,6 mm, machined....	0,08 – 0,34 mm ²	7.010.980.602
	Crimp pin 1 mm, machined.....	0,14 – 1 mm ²	7.010.901.049
	0,75 – 1,5 mm ²	7.010.901.045
	Crimp socket 1 mm, machined...	0,08 – 0,56 mm ²	7.010.901.012
		0,34 – 1 mm ²	7.010.901.002
		0,75 – 1,5 mm ²	7.010.901.022
		1 – 1,75 mm ²	7.010.901.046

Please see assembly instructions on page 47

Crimp Tool Settings for crimp contacts M 23 Fast Ethernet PoE

Crimp Tool Settings for HUMMEL Crimp Contacts (Crimp Tool 7.000.900.907)

Part Number	Crimp Contact	Cross Section (mm ²)	AWG	Crimp Tool Setting mm	Locator Setting
7.010.980.641	Crimp pin 0,6 mm (0,08 – 0,34 mm ²)	0,08	AWG 28	0,57	B 1
		0,14	AWG 26	0,60	
		0,25	AWG 24	0,64	
		0,34	AWG 22	0,73	
7.010.980.602	Crimp socket 0,6 mm (0,08 – 0,34 mm ²)	0,08	AWG 28	0,57	B 2
		0,14	AWG 26	0,60	
		0,25	AWG 24	0,64	
		0,34	AWG 22	0,73	
7.010.901.049	Crimp pin 1 mm (0,14 – 1,0 mm ²)	0,14	AWG 26	0,70	B 3
		0,25	AWG 24	0,76	
		0,34	AWG 22	0,82	
		0,56	AWG 20	0,90	
		0,75	AWG 18	1,00	
		1,00	AWG 17	1,10	
7.010.901.045	Crimp pin 1 mm (0,75 – 1,5 mm ²)	0,75	AWG 18	0,80	B 3
		1,00	AWG 17	0,85	
		1,50	AWG 16	0,95	
7.010.901.012	Crimp socket 1 mm (0,08 – 0,56 mm ²)	0,08	AWG 28	0,75	B 4
		0,14	AWG 26	0,78	
		0,25	AWG 24	0,82	
		0,34	AWG 22	0,88	
		0,56	AWG 20	0,90	
7.010.901.002	Crimp socket 1 >mm (0,34– 1,0 mm ²)	0,34	AWG 22	0,77	B 4
		0,56	AWG 20	0,82	
		0,75	AWG 18	0,88	
		1,00	AWG 17	0,95	
7.010.901.022	Crimp socket 1 mm (0,75 – 1,5 mm ²)	0,75	AWG 18	0,80	B 4
		1,00	AWG 17	0,86	
		1,50	AWG 16	0,95	
7.010.901.046	Crimp socket 1 mm (1 – 1,75 mm ²)	1,00	AWG 17	0,85	B 4
		1,50	AWG 16	0,95	
		1,75	AWG 15	1,00	

These values are only guidelines and actual conductor cross sections depend on manufacturer tolerances.

M 23 Fast Ethernet PoE Connectors / Assembly Instructions

Straight Connector Male / Female Thread

1. x Pins = 1.61" (41 mm)
Sockets = 1.46" (37mm)

2. y Pins = .28" (7 mm)
Sockets = 0 mm

3. z Pins = .39" (10 mm)
Sockets = .28" (7 mm)

4. max. .18" (4.5 mm)

5. max. .157" (4 mm)
Crimp

6. Crimp

7. click

8. click
Code

9. Crimp
7.000.900.906

10. Code + Position

11. Code

12. click

13. click

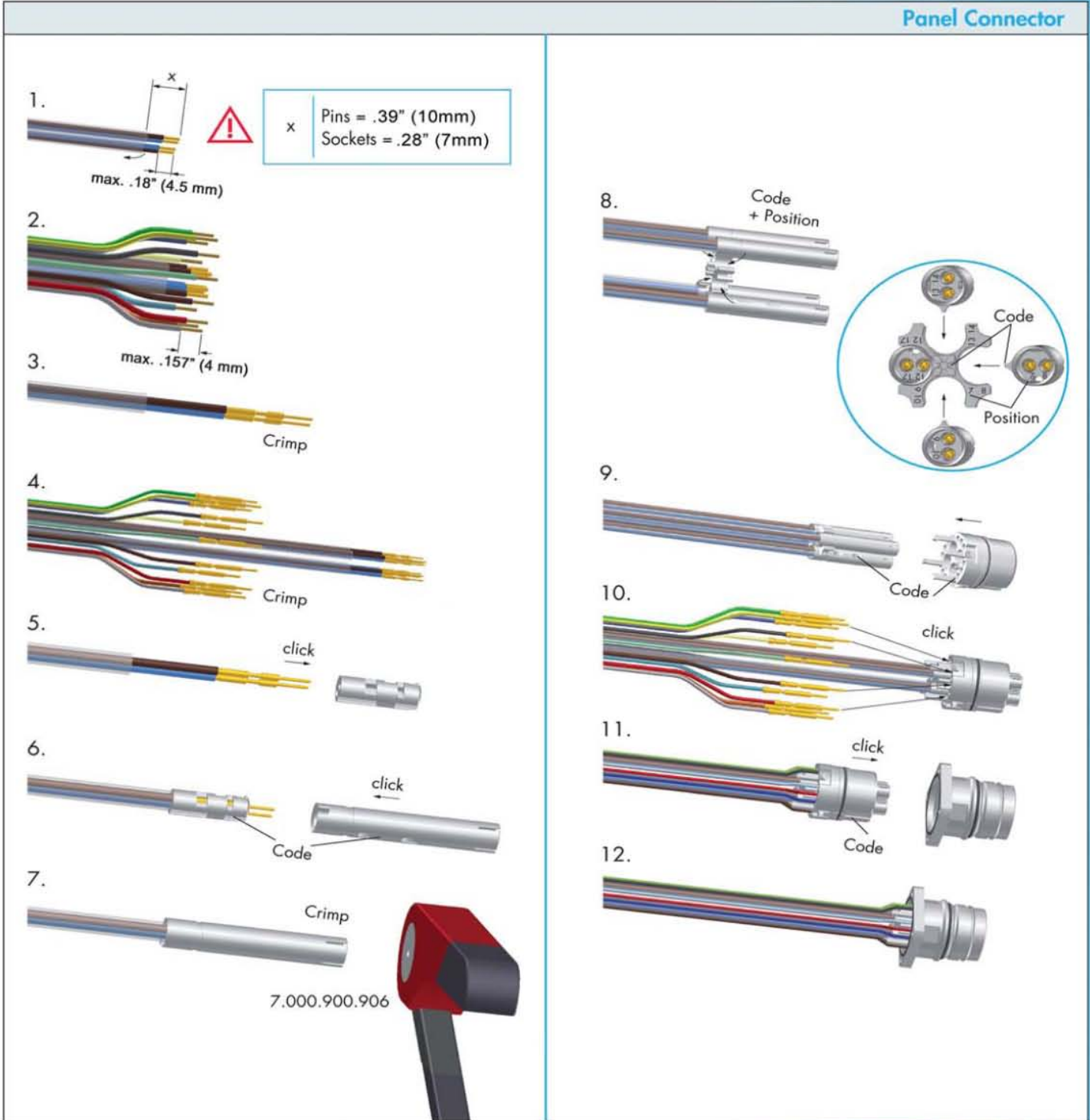
14. Code

15. Code

16. 27 24

M23 Fast Ethernet PoE Connectors /
Assembly Instructions

Panel Connector



M23 Fast Ethernet PoE Connectors / Assembly Instructions

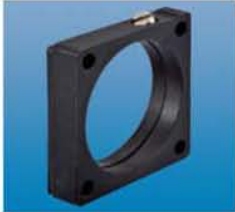





Right Angle Connector

1. Cable preparation with dimensions: 3.15" (80 mm) and 2.17" (55 mm).
2. Stripping the outer jacket and braided shield.
3. Stripping individual conductors. Dimensions: Pins = .28" (7 mm), Sockets = 0 mm. Max. length: .18" (4.5 mm).
4. Stripping the shield. Dimensions: Pins = .39" (10 mm), Sockets = .28" (7 mm). Max. length: .157" (4 mm).
5. Crimping the shield.
6. Crimping the conductors.
7. Inserting the shield into the connector housing (click).
8. Inserting the conductors into the connector housing (click).
9. Crimping the conductors with a crimping tool (7.000.900.906).
10. Inserting the cable into the connector housing (Code + Position).
11. Pushing the cable into the housing (Code).
12. Pushing the cable into the housing (Code).
13. Pushing the cable into the housing (click).
14. Pushing the cable into the housing (Code).
15. Pushing the cable into the housing (27).
16. Pushing the cable into the housing (scissors icon).
17. Pushing the cable into the housing (27 and 24).

M 23 Fast Ethernet PoE Connectors / Accessories

Type	Part Number	Accessories
Plastic protective cap for connectors with male thread	7.000.900.101	
for connectors with female thread	7.000.900.102	
Brass protective cap for connectors with female thread	7.010.900.183	
Brass protective cap with chain for connectors with female threadLength 70 mm	7.010.9S0.783	
.....Length 100 mm	7.010.9S1.083	
Brass protective cap for connectors with male thread	7.010.900.102	
Brass protective cap with chain for connectors with male threadLength 70 mm	7.010.9S0.702	
.....Length 100 mm	7.010.9S1.002	
Conduit adaptor	Snapflex 16.....7.010.900.204 DN 12	
	DN 12	
	Snapflex 20.....7.010.900.206	
	DN 14	
	Snapflex 25.....7.010.900.208	
	DN 17	7.010.900.209
Adaptor flange for Straight Connectors	7.010.900.128	

M 23 Fast Ethernet PoE Connectors / Accessories

Accessories	Type	Part Number
	Adapter flange	7.010.900.139
	Multi-Bus adapter wired through I:I (excentric)	7.010.900.143
	Control Cabinet adapter for Multibus II - AIDA	7.010.900.145
	I/O adapter module to scan or feed signals	7.010.900.146
	Manual Crimp tool for EMC sleeves M23 Fast Ethernet PoE	7.000.900.906
	Manual Crimp tool for turned contacts	7.000.900.907