



Pushing Performance



People | Power | Partnership

HARTING M8 - Circular Connectors

Digital Selection Guide

M8 Circular Connector D/P-coded

Reliable connector solution for all application environment

HARTING's M8 D-coded provides a solution for the challenges presented by miniaturization. The vision of an Ethernet connection from the cloud all the way down to the smallest sensor technology is becoming a reality with this new IEC 61076-2-114 standard. In comparison to the classic M12 connectors the M8 D-coded features 30% reduced dimensions. It also enables high performance Fast Ethernet connections of up to 100 Mbit/s Cat. 5 according to IEEE 802.3.

In addition to this we also offer the M8 P-coded products which can be used for EtherCAT P only. EtherCAT P (**EtherCAT + Power**) is an addition to the EtherCAT technology on the cabling level. "P" stands for "Power" and enables one to use the standard 4-wire Ethernet cable not only for data, but also for two electrically isolated, individually switchable power supplies. This technology facilitates the cascading of several EtherCAT devices and therefore only requires one cable to connect and power I/O and field devices. EtherCAT P is 100% EtherCAT – and adds the power transmission on the very same cable. With EtherCAT P voltages are directly coupled into the 100 Mbit/s EtherCAT communication line, which leads to reduced cabling, compact, cost-effective wiring, lower system costs and smaller footprint for devices, equipment and machines.

Potential error sources while connecting devices are reduced too. M8 connectors specially designed for EtherCAT P to prevent false connections via mechanical coding and provide reliable connectivity. The M8 D/P-coded are shielded and protected to IP67, so that it can guarantee excellent reliability and Data/Power integrity under raw field level industrial conditions. The field attachable connectors D/P-coding are available with screw- or PushPull-locking mechanism.

Features and benefit of the M8 D/P-coding connector family

- Designed acc. IEC 61076-2-114
- Space saving, 30% smaller than a conventional M12 connector
- Available with screw and PushPull locking mechanism
- Supported by PNO and already implemented in the PROFINET-Guideline as a new connector standard
- 4 pins, 50V a.c or 60V d.c, 4A
- IDC termination for AWG 22, cable entry 6.2 – 6.8mm, standard PROFINET cables can be used
- Cat. 5 up to 100 Mbit for the 4-pole D/P-coded version, PoE enabled
- Small and robust design for IP 67 environment
- Temperature range from -40°C up to +85°C
- THR or THT termination for an easy assembly on a PCB
- Shock- and vibration proofed acc. Railway standards Cat. 1B
- Shielded solution

Products for device integration

M8 PCB Adapter D/P-coding for THR (trough in hole reflow) soldering

P/N	Description	Picture	Packaging
PCB-Adapter straight* THR soldering			
21 02 381 2431	M8-PCB-THR-2PC-4P-DCOD-F-STR-SHLD 12.5MM height		1 pc./ per package
21 02 341 2431	M8-PCB-THR-2PC-4P-PCOD-F-STR-SHLD 12.5MM height		1 pc./ per package
21 02 381 2418	M8-PCB-THR-2PC-4P-DCOD-F-STR-SHLD		50 pcs. per tray
21 02 381 2419	M8-PCB-THR-2PC-4P-DCOD-F-STR-SHLD		25 pcs./ per package
21 02 341 2418	M8-PCB-THR-2PC-4P-PCOD-F-STR-SHLD		50 pcs. per tray
21 02 341 2419	M8-PCB-THR-2PC-4P-PCOD-F-STR-SHLD		25 pcs./ per package
Accessories			
21 01 000 0051	M8-ACC-LOCK NUT M10X1		25 pcs./ per package
21 02 301 2001	M8-ACC-HOUSING FRONTMOUNTING WITH NUT, 12.5MM height		25 pcs./ per package
21 02 301 2002	M8-ACC-HOUSING FRONTMOUNTING WITHOUT NUT, 12.5MM height		25 pcs./ per package
21 41 000 0004	M8-ACC-PLASTICCAP FOR M8 FEMALE		10 pcs. in Polybag

* Those products offer the same height as the HARTING M12 PCB adapter for front mounting.

M8 PCB Adapter D-coding for THT (trough in hole) soldering

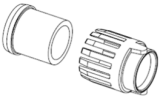
P/N	Description	Picture	Packaging
PCB-Adapter straight, THT soldering			
21 42 000 0005	M8-PCB-THT-2PC-4P-DCOD-F-STR 13MM height		1 pc./ per package
21 42 000 0014	M8-PCB-THT-2PC-4P-DCOD-F-STR 9MM height		1 pc./ per package
21 42 000 0006	M8-PCB-THT-2PC-4P-DCOD-F-STR-SHLD		25 pcs./ per package
Accessories			
21 41 000 0017	M8-ACC-FRONTMOUNTING HOUSING 13MM height		25 pcs./ per package
21 41 000 0016	M8-ACC-FRONTMOUNTING HOUSING 9MM height		25 pcs./ per package
21 41 000 0018	M8-ACC-NUT M10x1		25 pcs./ per package
21 41 000 0004	M8-ACC-PLASTICCAP FOR M8 FEMALE		10 pcs. in Polybag

P/N	Description	Picture	Packaging
PCB-Adapter angled, THT soldering			
21 42 000 0020	M8-PCB-THT-2PC-4P-DCOD-F-ANG-SHLD 14MM installation depth		1 pc./ per package*
21 42 000 0019	M8-PCB-THT-2PC-4P-DCOD-F-ANG-SHLD 9.8MM installation depth		1 pc./ per package*
21 42 010 000 3401	M8-PCB-THT-2PC-4P-DCOD-F-ANG-SHLD		25 pcs./ per package
Accessories			
21 42 010 000 1401	M12-ACC-NUT M12x1		25 pcs./ per package
21 42 010 000 2401	M8-ACC-HOUSING M12x1 9.8MM installation depth		25 pcs./ per package
21 42 010 000 4401	M8-ACC-HOUSING M12x1 14MM installation depth		25 pcs./ per package
21 41 000 0004	M8-ACC-PLASTICCAP FOR M8 FEMALE		10 pcs. in Polybag

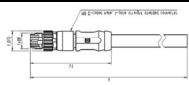
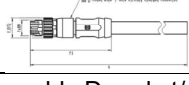
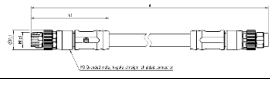
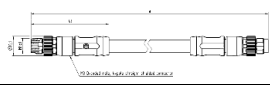
Products for field installation

M8 cable connector D/P-coding with IDC termination

P/N	Description	Picture	Packaging
Cable connector			
21 02 185 1405	M8-CC-IDC-4P-DCOD-M-STR-SHLD		1 pc. in Blister
21 02 185 1430	M8-PP-CC-IDC-4P-DCOD-M-STR-SHLD		1 pc. in Blister
21 02 185 2405	M8-CC-IDC-4P-DCOD-F-STR-SHLD		1 pc. in Blister
21 02 145 1405	M8-CC-IDC-4P-PCOD-M-STR-SHLD		1 pc. in Blister
21 02 145 1430	M8-PP-CC-IDC-4P-PCOD-M-STR-SHLD		1 pc. in Blister
21 02 145 2405	M8-CC-IDC-4P-PCOD-F-STR-SHLD		1 pc. in Blister
Raw cable			
09 45 600 0131	HAR PROFINET Typ C 4xAWG22/7 trail. 20m		20 m Ring
09 45 600 0141	HAR PROFINET Typ C 4xAWG22/7 trail. 50m		50 m Ring
09 45 600 0101	HAR PROFINET Typ C 4xAWG22/7 trail. 100m		100 m Ring
09 45 600 0111	HAR PROFINET Typ C 4xAWG22/7 trail. 500m		500 m Reel

Accessories Cable Connector			
21 01 010 2046	M8-ACC-SEALING INSERT 6.8MM		10 pcs. in Polybag
09 99 000 0660	M8-ACC-TORQUE WRENCH SW13		1 pc. Tube
21 41 000 0003	M8-ACC-PLASTICCAP FOR M8 MALE		10 pcs. in Polybag
21 41 000 0004	M8-ACC-PLASTICCAP FOR M8 FEMALE		10 pcs. in Polybag

M8 cable assembly D-coded

P/N	Description	Picture	Packaging
Cable assemblies, single ended M8 D-coding, male straight, PVC cable 			
21 34 C70 0405 005	M8 Cable Assembly D-cod st/- m/- 0,5m		1 pc. in Polybag
21 34 C70 0405 010	M8 Cable Assembly D-cod st/- m/- 1,0m		1 pc. in Polybag
21 34 C70 0405 015	M8 Cable Assembly D-cod st/- m/- 1,5m		1 pc. in Polybag
21 34 C70 0405 020	M8 Cable Assembly D-cod st/- m/- 2,0m		1 pc. in Polybag
21 34 C70 0405 050	M8 Cable Assembly D-cod st/- m/- 5,0m		1 pc. in Polybag
21 34 C70 0405 075	M8 Cable Assembly D-cod st/- m/- 7,5m		1 pc. in Polybag
21 34 C70 0405 100	M8 Cable Assembly D-cod st/- m/- 10,0m		1 pc. in Polybag
Cable assemblies, single ended M8 D-coding, male straight, PUR cable 			
21 34 C70 0477 005	M8 Cable Assembly D-cod st/- m/- 0,5m		1 pc. in Polybag
21 34 C70 0477 010	M8 Cable Assembly D-cod st/- m/- 1,0m		1 pc. in Polybag
21 34 C70 0477 015	M8 Cable Assembly D-cod st/- m/- 1,5m		1 pc. in Polybag
21 34 C70 0477 020	M8 Cable Assembly D-cod st/- m/- 2,0m		1 pc. in Polybag
21 34 C70 0477 050	M8 Cable Assembly D-cod st/- m/- 5,0m		1 pc. in Polybag
21 34 C70 0477 075	M8 Cable Assembly D-cod st/- m/- 7,5m		1 pc. in Polybag
21 34 C70 0477 100	M8 Cable Assembly D-cod st/- m/- 10,0m		1 pc. in Polybag
Cable assemblies, double ended M8 D-coding, male straight, PVC cable 			
21 34 C7C 7405 005	M8 Cable Assembly D-cod st/st m/m 0,5m		1 pc. in Polybag
21 34 C7C 7405 010	M8 Cable Assembly D-cod st/st m/m 1,0m		1 pc. in Polybag
21 34 C7C 7405 015	M8 Cable Assembly D-cod st/st m/m 1,5m		1 pc. in Polybag
21 34 C7C 7405 020	M8 Cable Assembly D-cod st/st m/m 2,0m		1 pc. in Polybag
21 34 C7C 7405 050	M8 Cable Assembly D-cod st/st m/m 5,0m		1 pc. in Polybag
21 34 C7C 7405 075	M8 Cable Assembly D-cod st/st m/m 7,5m		1 pc. in Polybag
21 34 C7C 7405 100	M8 Cable Assembly D-cod st/st m/m 10,0m		1 pc. in Polybag
Cable assemblies, double ended M8 D-coding, male straight, PUR cable 			
21 34 C7C 7477 005	M8 Cable Assembly D-cod st/st m/m 0,5m		1 pc. in Polybag
21 34 C7C 7477 010	M8 Cable Assembly D-cod st/st m/m 1,0m		1 pc. in Polybag
21 34 C7C 7477 015	M8 Cable Assembly D-cod st/st m/m 1,5m		1 pc. in Polybag
21 34 C7C 7477 020	M8 Cable Assembly D-cod st/st m/m 2,0m		1 pc. in Polybag
21 34 C7C 7477 050	M8 Cable Assembly D-cod st/st m/m 5,0m		1 pc. in Polybag
21 34 C7C 7477 075	M8 Cable Assembly D-cod st/st m/m 7,5m		1 pc. in Polybag
21 34 C7C 7477 100	M8 Cable Assembly D-cod st/st m/m 10,0m		1 pc. in Polybag



Accessories Cable Assembly			
21 41 000 0003	M8-ACC-PLASTICCAP FOR M8 MALE		10 pcs. in Polybag
09 99 000 0380	M8-ACC-TORQUE WRENCH SW9		1 pc. Tube