



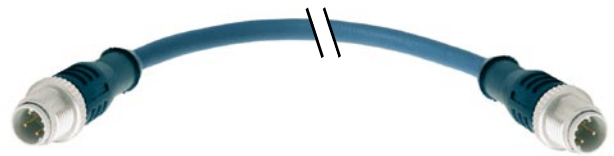
Technical Data: Circular Connectors shielded, D-coded

	M12 / AWG 22	M12 / AWG 26
Working voltage	max. 50 V AC/DC	max. 50 V AC/DC
Working current per contact	max. 4 A	max. 2 A
Locking	Screw locking M12 x 1mm (recom. tightening torque 0.6 Nm) self securing	
Temperature range	-20 °C / +60 °C	-5 °C / +60 °C
Degree of Protection	IP 67	IP 67

Technical Data: System Cabling

	M12 / AWG 22	M12 / AWG 26
Number of wires/ wire gauge	2 x 2 x AWG 22/7	2 x 2 x AWG 26/7
Conductor insulation	Polyethylene (yellow, orange, white, blue) acc. to PROFINet®	Polyethylene (white/orange, orange, white/green, green) according to EIA / TIA 568B
Arrangement of insulated strands	7 x 0.25 mm	7 x 0.16 mm
Jacket	Polyurethane (UL/CSA)	Polyurethane (UL/CSA)
Outer diameter	approx. 6.5 mm	approx. 5.6 mm
Bending radius	10 x outer diameter	10 x outer diameter
Temperature range	-20 °C / +60 °C	-5 °C / +60 °C

System Cabling with
Circular Connectors Han® M12
D-coded, Pre-assembled on both ends



Identification

Part-Number

Drawing

Dimensions in mm

Pre-assembled and tested system cabling

for structured cabling of industrial Ethernet-Networks based on circular connectors, M12 D-coded

Cable type: Shielded Twisted Pair
Stranded wire

Mating face: M12 D-coded
acc. to IEC 61 076-2-101

Transmission properties in accordance with ISO/IEC 11801:2002: Class D, 100% tested

Degree of protection IP 65 / 67 (when mated)

Pin arrangement

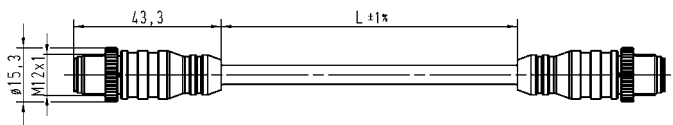
Signal	Function	Conductor Colour PROFInet®	Conductor Colour EIA/TIA 568B	Pin no.
TD+	Transmission Data+	Yellow	White/Orange	1
TD-	Transmission Data-	Orange	Orange	3
RD+	Receiver Data+	White	White/Green	2
RD-	Receiver Data-	Blue	Green	4

2 x circular connectors M12 D-coded straight version

length: 1 m
3 m
5 m
other lengths
on request

21 03 483 1401
21 03 483 1403
21 03 483 1405

Cable: AWG 26 / 0.14 mm²

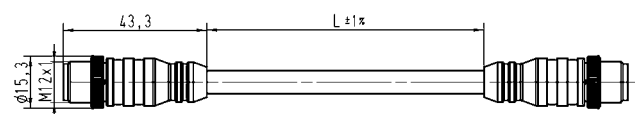


2 x circular connectors M12 D-coded straight version

length: 1 m
3 m
5 m
other lengths
on request

21 03 485 1401
21 03 485 1403
21 03 485 1405

Cable: AWG 22 / 0.34 mm²



System Cabling with
Circular Connectors Han® M12
D-coded, Pre-assembled on one end



Identification

Part-Number

Drawing

Dimensions in mm

Pre-assembled and tested system cabling

for structured cabling of industrial Ethernet-Networks based on circular connectors, M12 D-coded

Cable type: Shielded Twisted Pair
Stranded wire

Mating face: M12 D-coded
acc. to IEC 61 076-2-101

Transmission properties in accordance with ISO/IEC 11801:2002: Class D, 100% tested

Degree of protection IP 65 / 67 (when mated)

Pin arrangement

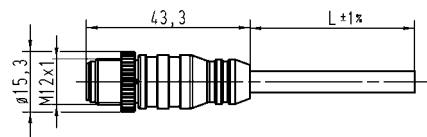
Signal	Function	Conductor Colour PROFInet®	Conductor Colour EIA/TIA 568B	Pin no
TD+	Transmission Data+	Yellow	White/Orange	1
TD-	Transmission Data-	Orange	Orange	3
RD+	Receiver Data+	White	White/Green	2
RD-	Receiver Data-	Blue	Green	4

**1 x circular connector
M12 D-coded
straight version**

length: 1 m
3 m
5 m
other lengths
on request

21 03 583 1401
21 03 583 1403
21 03 583 1405

Cable: AWG 26 / 0.14 mm²

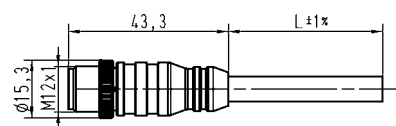


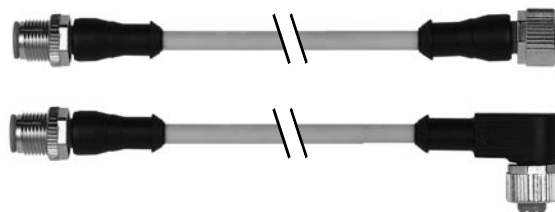
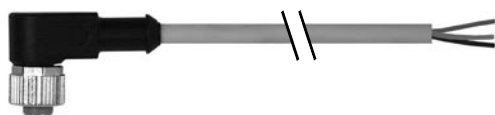
**1 x circular connector
M12 D-coded
straight version**

length: 1 m
3 m
5 m
other lengths
on request

21 03 585 1401
21 03 585 1403
21 03 585 1405

Cable: AWG 22 / 0.34 mm²





System Cabling with
Circular Connectors Han® M12
A-coded, Pre-assembled on one or both ends

Technical Data: Circular Connectors M12, A-coded

M12	3/4 poles, without PE	3/4 poles, without PE, with LED
Working voltage	max. 250 V AC/DC	max. 30 V DC
Working current per contact	max. 4 A	max. 4 A
Locking	Screw locking M12 x 1mm (recommended tightening torque 0.6 Nm) self securing	
Temperature range	-25 °C / +85 °C (depending on the connected conductor)	
Degree of Protection	IP 67	IP 67

Conductors M12

Number of wires/ wire gauge	4 x 0.34 mm ²
Wire insulation	Polypropylene (br, ws, bl, sw)
Arrangement of insulated strands	42 x 0.1 mm
Jacket	Polyurethane (UL/CSA)
Outer diameter	approx. 4.7 mm
Bending radius	10 x outer diameter
Working/ storage temperature after installation	-25 °C / +80 °C

Technical Data: Circular Connectors M8

M8	3/4 poles, without PE	3/4 poles, without PE, with LED
Working voltage	max. 60 V AC/DC	max. 30 V DC
Working current per contact	max. 4 A	max. 4 A
Locking	Screw locking M8 x 1mm (recommended tightening torque 0.6 Nm) self securing	
Temperature range	-25 °C / +85 °C (depending on the connected conductor)	
Degree of protection	IP 67	IP 67

Conductors M8

Number of wires/ wire gauge	3 x 0.25 mm ²
Wire insulation	Polypropylene (br, bl, sw)
Arrangement of insulated strands	32 x 0.1 mm
Jacket	Polyurethane (UL/CSA)
Outer diameter	approx. 4.1 mm
Bending radius	10 x outer diameter
Working/ storage temperature after installation	-25 °C / +80 °C

Han® M12 Circular Connectors



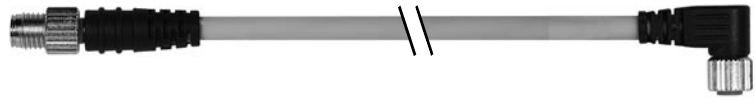
System Cabling with Circular Connector Han® M12

Identification	Part-Number	Drawing	Dimensions in mm
<p>Circular connector M12 female straight; male straight</p> <p>Halogen-free outer jacket: Polyurethane 4 x 0.34 mm²; black UL / CSA approved</p> <p>Length: 0.3 m 0.6 m 1.0 m 1.5 m 2.0 m</p>	<p>21 03 415 2401 21 03 415 2402 21 03 415 2403 21 03 415 2404 21 03 415 2405</p>	<p>View mating side</p> <p>Schematic diagram</p>	
<p>Circular connector M12 female angled; male straight</p> <p>Halogen-free outer jacket: Polyurethane 4 x 0.34 mm²; black UL / CSA approved</p> <p>Length: 0.3 m 0.6 m 1.0 m 1.5 m 2.0 m</p>	<p>21 03 415 5401 21 03 415 5402 21 03 415 5403 21 03 415 5404 21 03 415 5405</p>	<p>View mating side</p> <p>Schematic diagram</p>	
<p>Circular connector M12 female angled with LED male straight</p> <p>Halogen-free outlet jacket: Polyurethane 4 x 0.34 mm²; black UL / CSA approved</p> <p>Length: 0.3 m 0.6 m 1.0 m 1.5 m 2.0 m</p>	<p>21 03 415 7401 21 03 415 7402 21 03 415 7403 21 03 415 7404 21 03 415 7405</p>	<p>View mating side</p> <p>Schematic diagram</p>	



System Cabling with Circular Connector Han® M12

Identification	Part-Number	Drawing	Dimensions in mm
<p>Circular connector M12 female angled; pre-assembled on one end</p> <p>Halogen-free outer jacket: Polyurethane 4 x 0.34 mm²; black UL / CSA approved</p> <p>Length: 1.5 m 3.0 m 5.0 m 7.5 m 10.0 m</p>	<p>21 03 515 4401 21 03 515 4402 21 03 515 4403 21 03 515 4404 21 03 515 4405</p>	<p>Schematic diagram</p> <p>1 — Stranded wire brown (+) 2 — Stranded wire white (O) 4 — Stranded wire black (S) 3 — Stranded wire blue (-)</p> <p>View mating side</p>	
<p>Cabling-set HARAX® M12 range of delivery: Han® M12 connector with individually adaptable cable and HARAX® M12-S</p> <p>Length: 1.5 m 3.0 m 5.0 m 7.5 m 10.0 m</p>	<p>21 83 515 4401 21 83 515 4402 21 83 515 4403 21 83 515 4404 21 83 515 4405</p>	<p>HARAX® M12-S (21 03 111 1405)</p> <p>ca. 43,5</p> <p>View mating side</p>	
<p>Circular connector M12 female angled with LED pre-assembled on one end</p> <p>Halogen-free outer jacket: Polyurethane 4 x 0.34 mm²; black UL / CSA approved</p> <p>Length: 1.5 m 3.0 m 5.0 m 7.5 m 10.0 m</p>	<p>21 03 515 7401 21 03 515 7402 21 03 515 7403 21 03 515 7404 21 03 515 7405</p>	<p>Schematic diagram</p> <p>1 — Stranded wire brown (+) 2 — Stranded wire white (O) 4 — Stranded wire black (S) 3 — Stranded wire blue (-)</p> <p>View mating side</p>	
<p>Cabling-set HARAX® M12 range of delivery: Han® M12 connector with individually adaptable cable and HARAX® M12-S</p> <p>Length: 1.5 m 3.0 m 5.0 m 7.5 m 10.0 m</p>	<p>21 83 515 7401 21 83 515 7402 21 83 515 7403 21 83 515 7404 21 83 515 7405</p>	<p>HARAX® M12-S (21 03 111 1405)</p> <p>ca. 43,5</p> <p>View mating side</p>	



System Cabling with Circular Connector Han® M8

Identification	Part-Number	Drawing	Dimensions in mm
<p>Circular connector M8 female angled; male straight</p> <p>Halogen-free outer jacket: Polyurethane 3 x 0.25 mm²; black UL / CSA approved</p> <p>Length: 0.3 m 0.6 m 1.0 m 1.5 m 2.0 m</p>	<p>21 02 454 5301 21 02 454 5302 21 02 454 5303 21 02 454 5304 21 02 454 5305</p>	<p style="text-align: center;">View mating side</p> <p>Schematic diagram</p>	
<p>Circular connector M8 female angled with LED; male straight</p> <p>Halogen-free outer jacket: Polyurethane 3 x 0.25 mm²; black UL / CSA approved</p> <p>Length: 0.3 m 0.6 m 1.0 m 1.5 m 2.0 m</p>	<p>21 02 454 7301 21 02 454 7302 21 02 454 7303 21 02 454 7304 21 02 454 7305</p>	<p style="text-align: center;">View mating side</p> <p>Schematic diagram</p>	

System Cabling with Circular Connector Han® M8



Identification	Part-Number	Drawing	Dimensions in mm
<p>Circular connector M8 female angled; pre-assembled on one end</p> <p>Halogen-free outer jacket: Polyurethane 3 x 0.25 mm²; black UL / CSA approved</p> <p>Length: 1.5 m 3.0 m 5.0 m 7.5 m 10.0 m</p>	<p>21 02 554 4301 21 02 554 4302 21 02 554 4303 21 02 554 4304 21 02 554 4305</p>	<p>Schematic diagram</p> <p>1 — Stranded wire brown (+) 4 — Stranded wire black (S) 3 — Stranded wire blue (-)</p> <p>View mating side</p>	
<p>Cabling-set HARAX® M8 range of delivery: Han® M8 connector with individually adap- table cable and HARAX® M8-S</p> <p>Length: 1.5 m 3.0 m 5.0 m 7.5 m 10.0 m</p>	<p>21 82 554 4301 21 82 554 4302 21 82 554 4303 21 82 554 4304 21 82 554 4305</p>	<p>HARAX® M8-S (21 02 151 1305)</p> <p>ca. 40,8</p> <p>View mating side</p>	
<p>Circular connector M8 female angled with LED; pre-assembled on one end</p> <p>Halogen-free outer jacket: Polyurethane 3 x 0.25 mm²; black UL / CSA approved</p> <p>Length: 1.5 m 3.0 m 5.0 m 7.5 m 10.0 m</p>	<p>21 02 554 7301 21 02 554 7302 21 02 554 7303 21 02 554 7304 21 02 554 7305</p>	<p>Schematic diagram</p> <p>1 — Stranded wire brown (+) 4 — Stranded wire black (S) 3 — Stranded wire blue (-)</p> <p>View mating side</p>	
<p>Cabling-set HARAX® M8 range of delivery: Han® M8 connector with individually adap- table cable and HARAX® M8-S</p> <p>Length: 1.5 m 3.0 m 5.0 m 7.5 m 10.0 m</p>	<p>21 82 554 7301 21 82 554 7302 21 82 554 7303 21 82 554 7304 21 82 554 7305</p>	<p>HARAX® M8-S (21 02 151 1305)</p> <p>ca. 40,8</p> <p>View mating side</p>	