

M12 A-coding

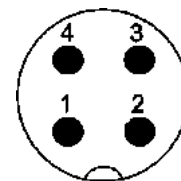


Specifications IEC 60 352-4

Approval 



Mating face



A-coding
Mating face
acc. to IEC 61 076-2-101

Technical characteristics M12 – A-coding

Type M12 A-coded	<i>HARAX</i> ® M12-S	<i>HARAX</i> ® M12 angled	<i>HARAX</i> ® M12 L 3 poles, 4 poles
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General data

Conductor cross section	0.14 - 0.34 mm ² AWG 26-22	0.25 - 0.5 mm ² AWG 24/7-20	0.34 - 0.75 mm ² AWG 22-18
Diameter of individual strands	≥ 0.1 mm	≥ 0.1 mm	≥ 0.1 mm
Conductor insulation material	PVC / PP / TPE	PVC	PVC
Conductor diameter	1.0 - 1.6 mm	1.2 - 1.6 mm	1.6 - 2.0 mm 2.0 - 2.6 mm
Cable diameter	2.9 - 4.0 mm 4.0 - 5.1 mm	4 - 5.1 mm	6 - 8 mm
Temperature range	-40 °C ... +85 °C	-40 °C ... +85 °C	-40 °C ... +85 °C
Temperature during connection	-5° C ... +50 °C	-5 °C ... +50 °C	-5 °C ... +50 °C
Degree of protection	IP67	IP67	IP65 / IP67
Mating cycles	100	100	100
Tightening torque connector / hexagonal wrench	0.6 Nm / SW 13	0.6 Nm / SW 13	0.6 Nm / SW 17

Electrical characteristics

Rated current	4 A	4 A	6 A
Rated voltage	32 V	32 V	50 V
Rated impulse voltage	1.5 kV	1.5 kV	1.5 kV
Contact resistance	10 mΩ	10 mΩ	10 mΩ
Insulation resistance	10 ⁸ Ω	10 ⁸ Ω	10 ⁸ Ω
Pollution degree	3	3	3
Overvoltage category	3	3	3
Isolation group	1	1	1

Materials

Contact material	Brass	Brass	Brass
Contact plating	Gold	Gold	Gold
Contact carrier material	PA reinforced	PA	PA unreinforced
Housing material	PA reinforced	PA	PA unreinforced

M12 A-coding

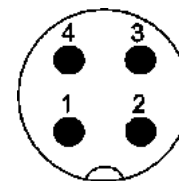


Specifications IEC 60 352-4

Approval 



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Mating face
acc. to IEC 61076-2-101

Technical characteristics M12 – A-coding

03

Type M12 A-coded	HARAX® M12-L 5 poles	HARAX® M12 L shielded	M12 Crimp
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General data

Conductor cross section	0.34 - 0.5 mm ² AWG 22-20	0.14 - 0.34 mm ² AWG 26-22	0.14 - 0.75 mm ² AWG 26-18
Diameter of individual strands	≥ 0.1 mm	≥ 0.1 mm	X
Conductor insulation material	PVC	PVC	X
Conductor diameter	1.2 - 2.0 mm	1.2 - 1.6 mm	2.0 - 2.3 mm
Cable diameter	6 - 8 mm	4.5 - 8.8 mm	4.5 - 8.8 mm
Temperature range	-40 °C ... +85 °C	-40 °C ... +85 °C	-40 °C ... +85 °C
Temperature during connection	-5 °C ... +50 °C	-5 °C ... +50 °C	-5 °C ... +50 °C
Degree of protection	IP65 / IP67	IP65 / IP67	IP67
Mating cycles	100	100	500
Tightening torque connector / hexagonal wrench	0.6 Nm / SW 17	0.6 Nm / SW 17	0.5 Nm / SW 17

Electrical characteristics

Rated current	4 A	4 A	4 A
Rated voltage	50 V	50 V	250 V
Rated impulse voltage	1.5 kV	1.5 kV	1.5 kV
Contact resistance	10 mΩ	10 mΩ	10 mΩ
Insulation resistance	10 ⁸ Ω	10 ⁸ Ω	10 ⁸ Ω
Pollution degree	3	3	3
Overvoltage category	3	3	3
Isolation group	1	1	1

Materials

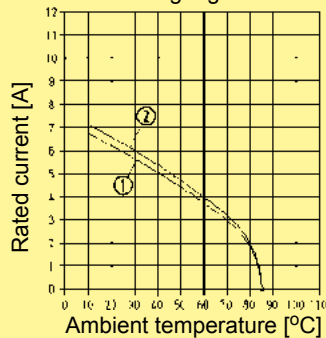
Contact material	Brass	Brass	Brass
Contact plating	Gold	Gold	Gold
Contact carrier material	PA unreinforced	PA unreinforced	PA
Housing material	PA unreinforced	PA unreinforced	PA

Technical characteristics M12 – A-coding

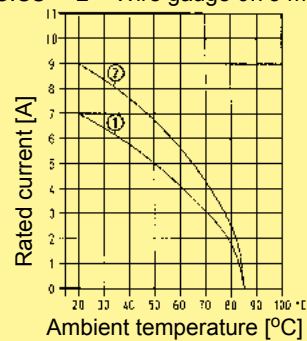
Current carrying capacity The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals. The current capacity-curve is valid for continuous, not interrupted current-loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.

Control and test procedures according to DIN IEC 60 512-5.

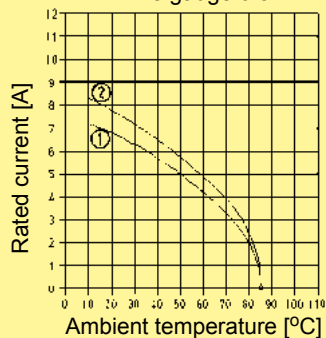
M12-S, 4 poles 1 = Wire gauge 0.25 mm²
2 = Wire gauge 0.34 mm²



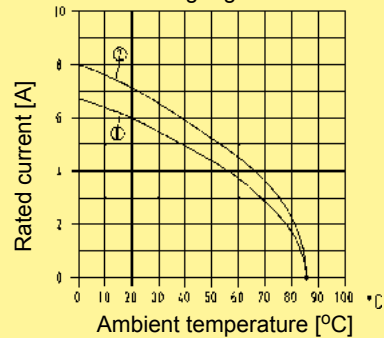
M12-L 3 poles, 4 poles 1 = Wire gauge 0.34 mm²
2 = Wire gauge 0.75 mm²



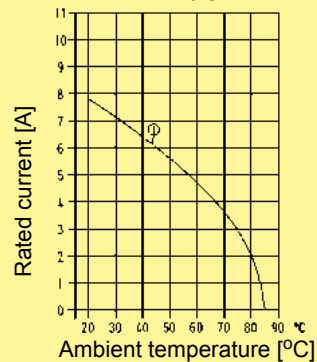
M12, 4 poles, angled 1 = Wire gauge 0.25 mm²
2 = Wire gauge 0.5 mm²



M12L, 5 poles 1 = Wire gauge 0.25 mm²
2 = Wire gauge 0.34 mm²

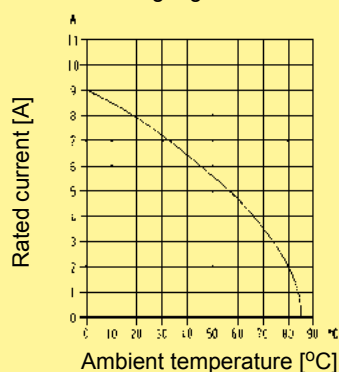


M12, Crimp 1 = Wire gauge 0.34 mm² /
0.5 mm²

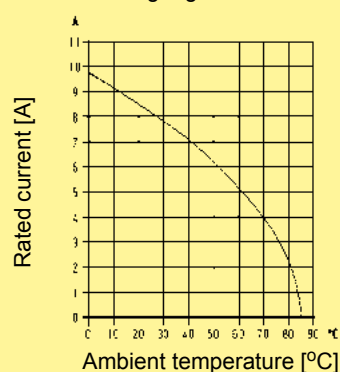


Technical characteristics M12 – A-coding, PCB adapter

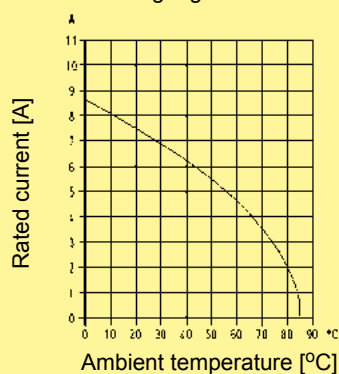
M12, A-coding, straight, male, 4 poles
Wire gauge 0.5 mm²



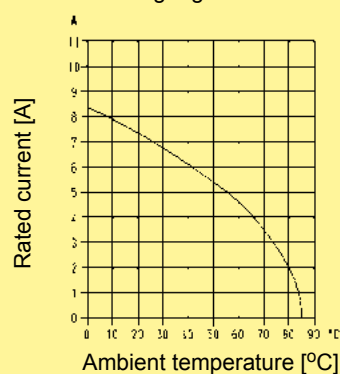
M12, A-coding, straight, female, 4 poles
Wire gauge 0.75 mm²



M12, A-coding, straight, female, 5 poles
Wire gauge 0.5 mm²

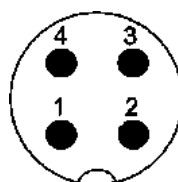


M12, A-coding, straight, male, 5 poles
Wire gauge 0.5 mm²





Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



Applications / Advantages

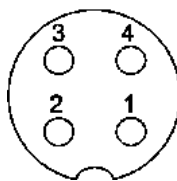
- Actor and sensor applications
- Shielded and unshielded versions
- Available with crimp resp. HARAX® rapid termination, or as overmoulded system cable in various lengths
- Robust design, quick assembly

Identification	Part No.	Drawing	Dimensions in mm
HARAX® M12-S Male straight version 4 poles, 0.14 - 0.34 mm ²	21 03 111 1405		Gesamtlänge im verschraubten Zustand ca. 46,75mm complete length when assembled app. 46,75mm
Male straight version 4 poles, 0.25 - 0.5 mm ²	21 03 112 1405		Gesamtlänge im verschraubten Zustand ca. 56,8mm complete length when assembled app. 56,8mm

M12 HARAX® A-coded



Mating face



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Identification

Part No.

Drawing

Dimensions in mm

HARAX® M12-S

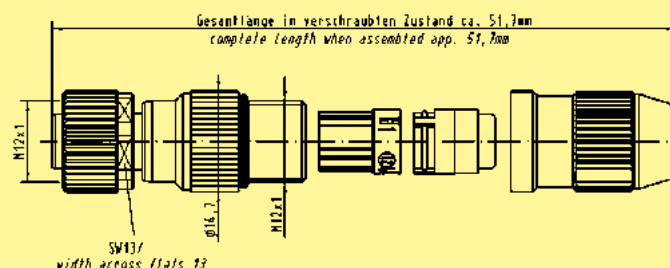
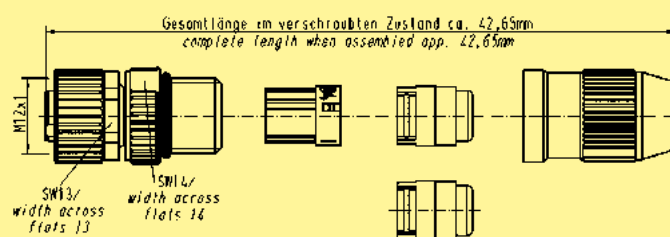


Female
straight version
4 poles, 0.14 - 0.34 mm²

Female
straight version
4 poles, 0.25 - 0.5 mm²

21 03 111 2405

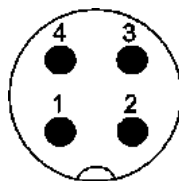
21 03 112 2405



03



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

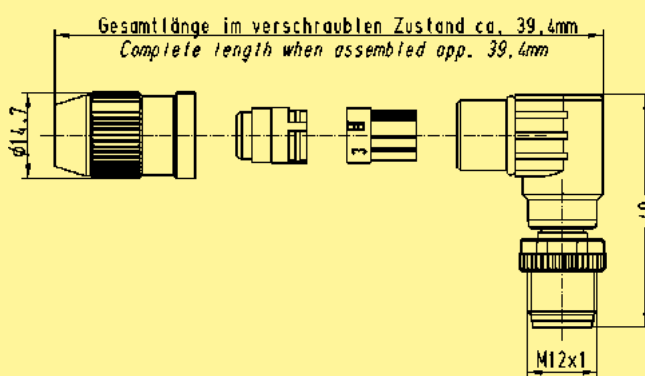
Dimensions in mm

HARAX® M12



Male
angled version
4 poles

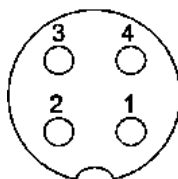
21 01 140 5081



M12 HARAX® A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

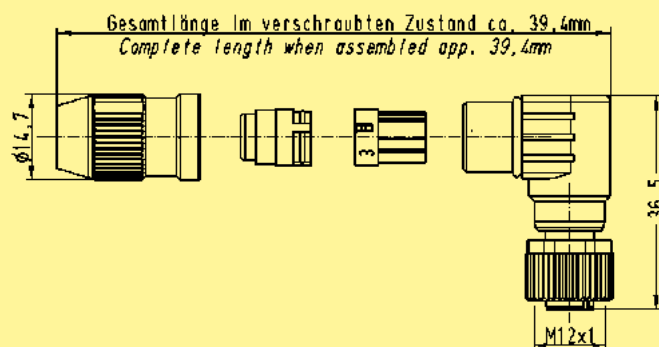
Dimensions in mm

HARAX® M12



Female
angled version
4 poles

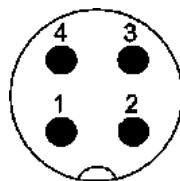
21 01 140 5091



03



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

Dimensions in mm

HARAX® M12-L, unshielded



Male
3 poles, A-coding,
with pre-leading contact
(assignment 3, 4, 5)

21 03 212 1400

3 poles, A-coding
(assignment 1, 3, 4)

21 03 212 1306

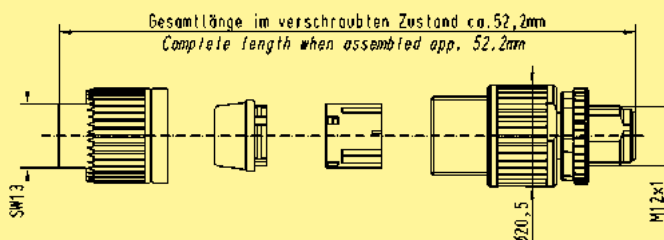
4 poles, A-coding
(assignment 1, 2, 3, 4)

21 03 212 1305

4 poles, A-coding,
to 2.6 mm core diameter
(assignment 1, 2, 3, 4)

21 03 212 1407

0.34 - 0.75 mm²
AWG 22 - 18
Cable diameter: 6 - 8 mm



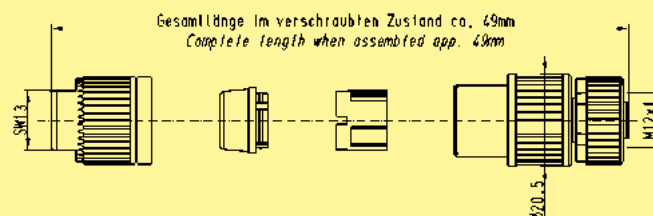
HARAX® M12-L, unshielded



Male
5 poles, A-coding

21 03 272 1505

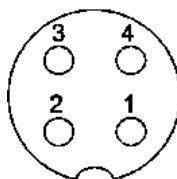
0.34 - 0.5 mm²
AWG 22 - 20
Cable diameter: 6 - 8 mm



M12 HARAX® A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

Dimensions in mm

03

HARAX® M12-L, unshielded



Female
3 poles, A-coding
(assignment 3, 4, 5)

3 poles, A-coding
(assignment 1, 3, 4)

4 poles, A-coding
(assignment 1, 2, 3, 4)

4 poles, A-coding,
to 2.6 mm core diameter
(assignment 1, 2, 3, 4)

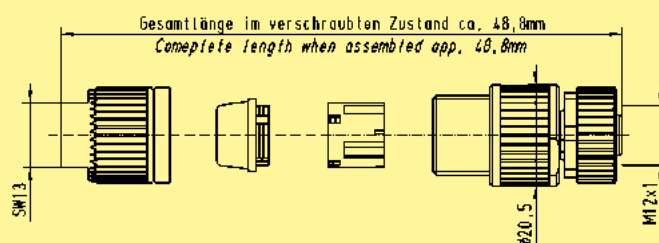
0.34 - 0.75 mm²
AWG 22 - 18
Cable diameter: 6 - 8 mm

21 03 212 2400

21 03 212 2306

21 03 212 2305

21 03 212 2407



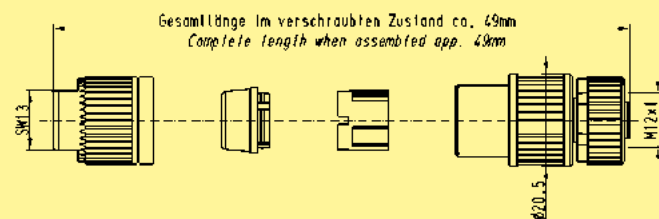
HARAX® M12-L, unshielded



Female
5 poles, A-coding

0.34 - 0.5 mm²
AWG 22 - 20
Cable diameter: 6 - 8 mm

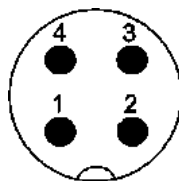
21 03 272 2505



M12 HARAX® A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

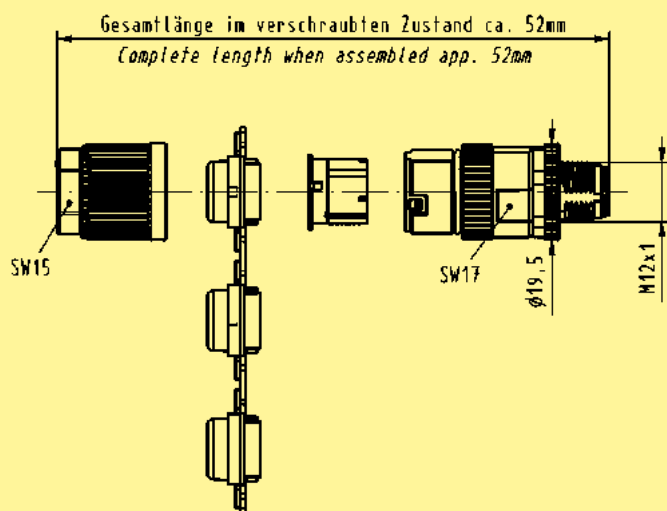
Dimensions in mm

HARAX® M12-L, shielded



Male
4 poles, A-coding
0.14 - 0.34 mm² / AWG 26 - 22

21 03 221 1405

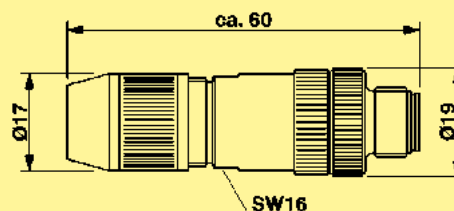


M12 Circular connector



Male
with IDC termination,
8 poles
0.14 - 0.34 mm² / AWG 26 - 22

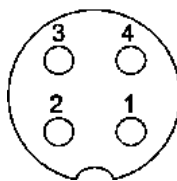
21 03 121 1801



M12 HARAX® A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

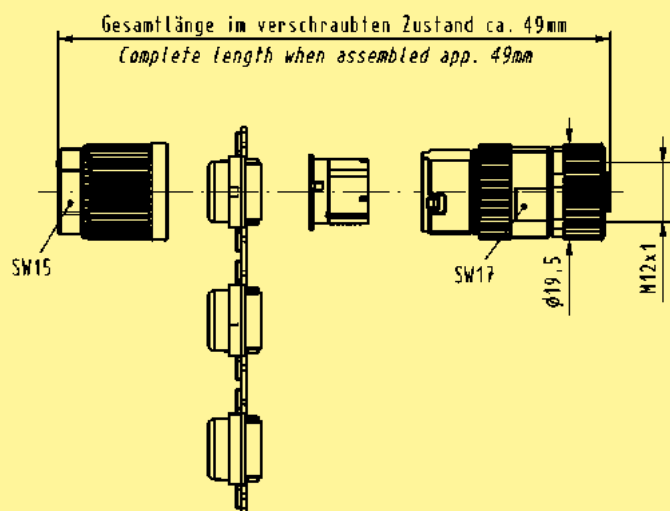
Dimensions in mm

HARAX® M12-L, shielded



Female
4 poles, A-coding
0.14 - 0.34 mm² / AWG 26 - 22

21 03 221 2405

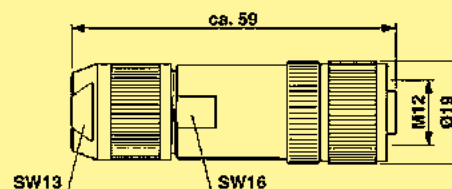


M12 Circular connectors



Female
with IDC termination technology,
8 poles
0.14 - 0.34 mm² / AWG 26 - 22

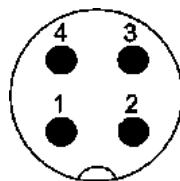
21 03 121 2801



M12 Crimp A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

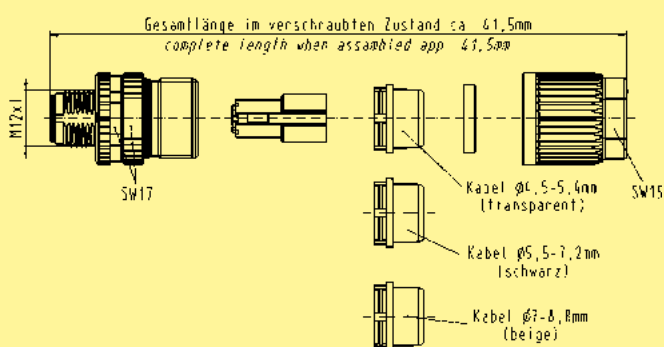
Dimensions in mm

M12 Crimp



Male
4 poles, A-coding

21 03 812 1405

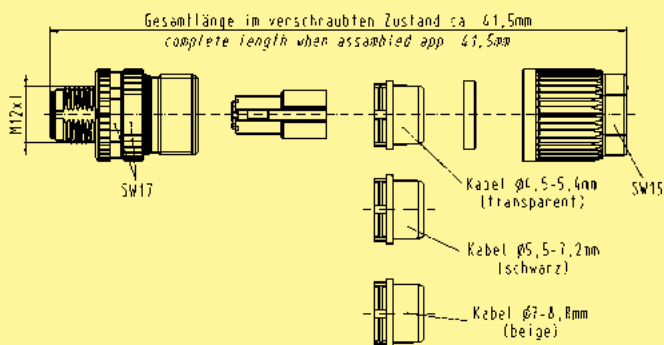


M12 Crimp



Male
5 poles, A-coding

21 03 812 1505*

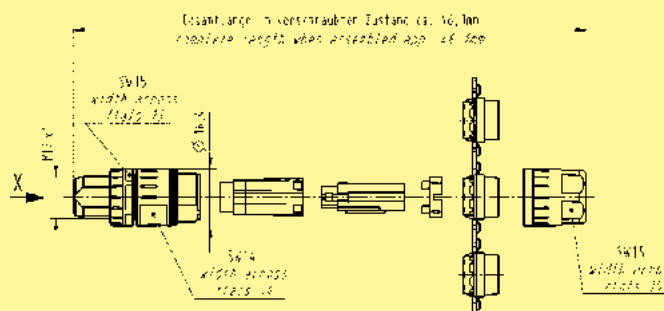


M12 Crimp Slim design



Male
5 poles, A-coding
Cable diameter: 4.5 - 8.8 mm

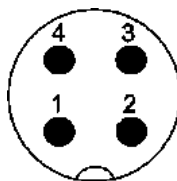
21 03 821 1505*



M12 Crimp A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

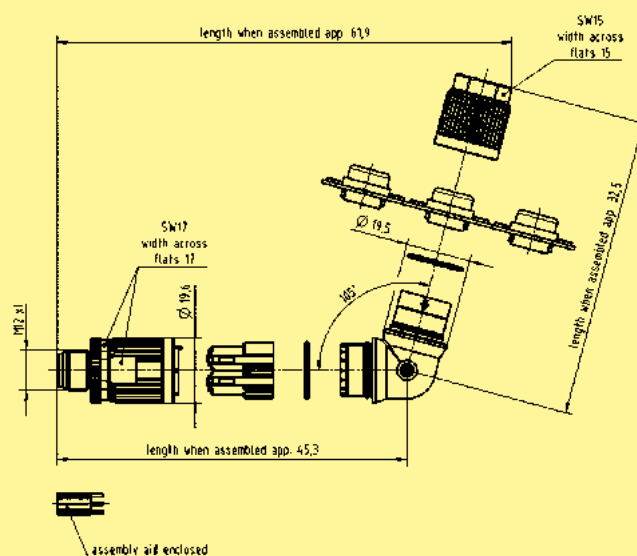
Dimensions in mm

M12 Crimp, angled



Male
5 poles, A-coding

21 03 822 3505*

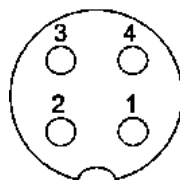


03

M12 Crimp A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

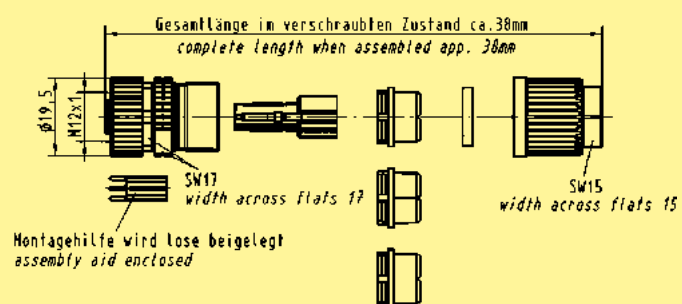
Dimensions in mm

M12 Crimp



Female
4 poles, A-coding

21 03 812 2405

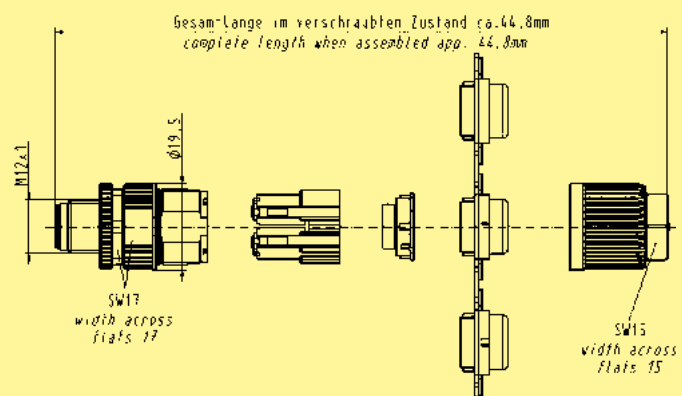


M12 Crimp



Female
5 poles, A-coding

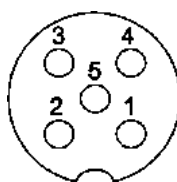
21 03 812 2505*



M12 Crimp A-coded



Mating face



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Identification

Part No.

Drawing

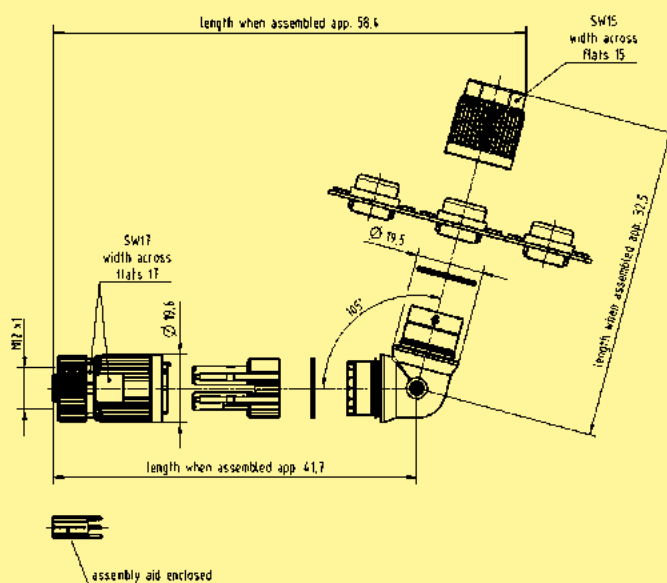
Dimensions in mm

M12 Crimp, angled



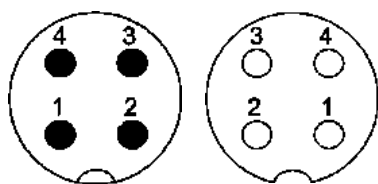
Female
5 poles, A-coding

21 03 822 4505*

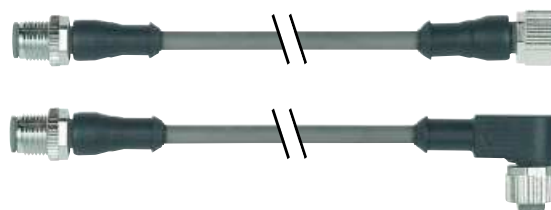


03

Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



Technical characteristics

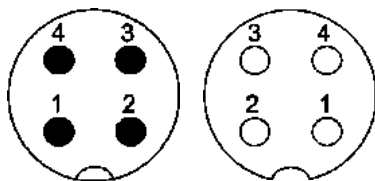
M12 Circular connectors, without PE

Rated voltage	max. 250 V AC/DC, max. 30 V DC (with LED)
Rated current / contact	max. 4 A
Locking	Screw locking M12x1, self securing
Recommended torque	0.6 Nm
Temperature range	-25 °C ... +85 °C (dependant on connected conductor)
Degree of protection	IP67
Number of wires / wire gauge	4 x 0.34 mm ²
Conductor insulation	PP (bn, wh, bu, bk)
Arrangement of insulated strands	42 x 0.1 mm
Sheath	PUR (UL, CSA)
Outer diameter	appr. 4.7 mm
Bending radius	10 x outer diameter
Temperature range (working and storage)	-25 °C ... + 80 °C

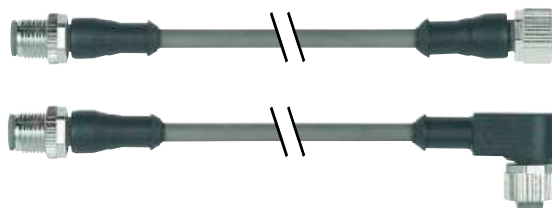
M12 System cables, A-coded



Mating face

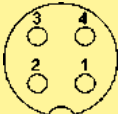
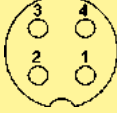
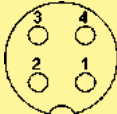


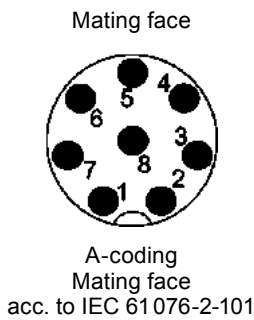
A-coding
Mating face
acc. to IEC 61076-2-101



Overview system cables M12

03

			Male M12 A-coding, straight		Female M12 A-coding, angled	
Number of contacts						
			Cable material: PUR		Cable material: PUR	
Female M12	straight		0.3 m	21 03 415 2401	xxx	
			0.6 m	21 03 415 2402	xxx	
			1.0 m	21 03 415 2403	xxx	
			1.5 m	21 03 415 2404	xxx	
			2.0 m	21 03 415 2405	xxx	
	angled		0.3 m	21 03 415 5401	xxx	
			0.6 m	21 03 415 5402	xxx	
			1.0 m	21 03 415 5403	xxx	
			1.5 m	21 03 415 5404	xxx	
			2.0 m	21 03 415 5405	xxx	
			0.3 m	21 03 415 7401 with LED	xxx	
			0.6 m	21 03 415 7402 with LED	xxx	
			1.0 m	21 03 415 7403 with LED	xxx	
			1.5 m	21 03 415 7404 with LED	xxx	
			2.0 m	21 03 415 7405 with LED	xxx	
Open end			xxx		1.5 m	21 03 515 4401
			xxx		3.0 m	21 03 515 4402
			xxx		5.0 m	21 03 515 4403
			xxx		7.5 m	21 03 515 4404
			xxx		10.0 m	21 03 515 4405
			xxx		1.5 m	21 03 515 7401 with LED
			xxx		3.0 m	21 03 515 7402 with LED
			xxx		5.0 m	21 03 515 7403 with LED
			xxx		7.5 m	21 03 515 7404 with LED
			xxx		10.0 m	21 03 515 7405 with LED
M12 cable set for individual assembly incl. HARAX® M12 Male			xxx		1.5 m	21 83 515 4401
			xxx		3.0 m	21 83 515 4402
			xxx		5.0 m	21 83 515 4403
			xxx		7.5 m	21 83 515 4404
			xxx		10.0 m	21 83 515 4405
			xxx		1.5 m	21 83 515 7401 with LED
			xxx		3.0 m	21 83 515 7402 with LED
			xxx		5.0 m	21 83 515 7403 with LED
			xxx		7.5 m	21 83 515 7404 with LED
			xxx		10.0 m	21 83 515 7405 with LED



03

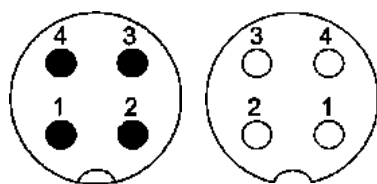
Overview system cables M12

Number of contacts		Male M12 A-coding, straight	
		 Cable material: PUR	
Open end		1.0 m	21 03 514 1801
		2.0 m	21 03 514 1803
		5.0 m	21 03 514 1805

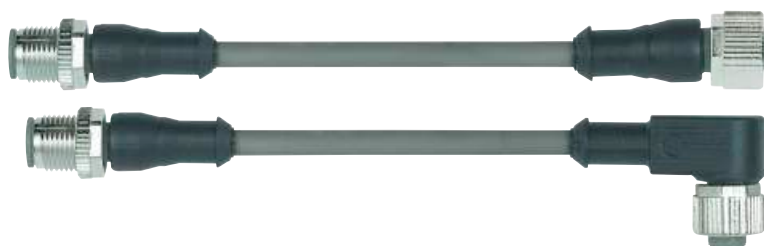
M12 System cables, A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

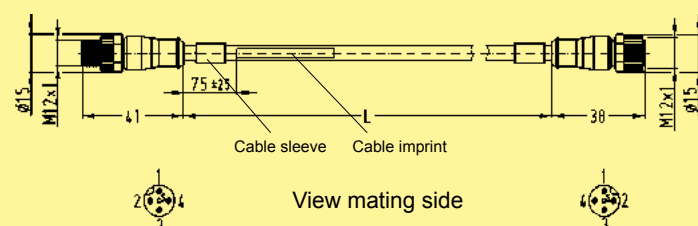
Drawing

Dimensions in mm

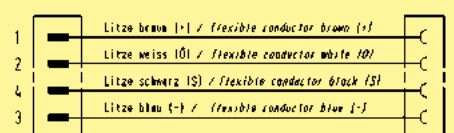
M12 Circular connectors
Female straight, male straight

Length: 0.3 m
0.6 m
1.0 m
1.5 m
2.0 m

21 03 415 2401
21 03 415 2402
21 03 415 2403
21 03 415 2404
21 03 415 2405



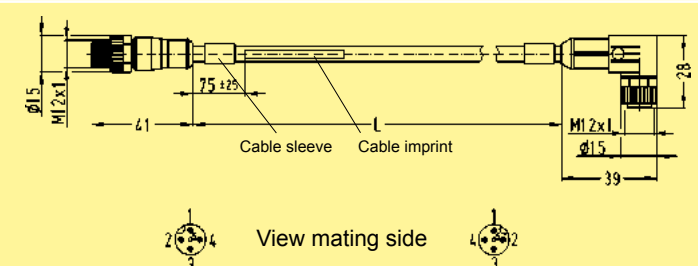
Schematic diagram



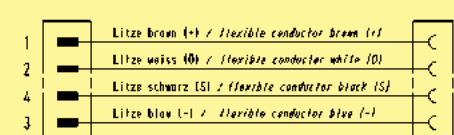
M12 Circular connectors
Female angled, male straight

Length: 0.3 m
0.6 m
1.0 m
1.5 m
2.0 m

21 03 415 5401
21 03 415 5402
21 03 415 5403
21 03 415 5404
21 03 415 5405



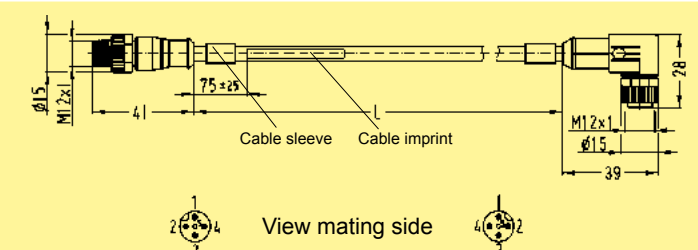
Schematic diagram



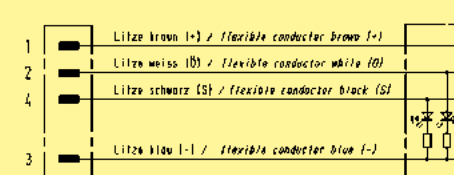
M12 Circular connectors
Female angled, with LED,
Male straight

Length: 0.3 m
0.6 m
1.0 m
1.5 m
2.0 m

21 03 415 7401
21 03 415 7402
21 03 415 7403
21 03 415 7404
21 03 415 7405



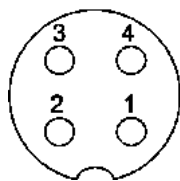
Schematic diagram



M12 System cables, A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

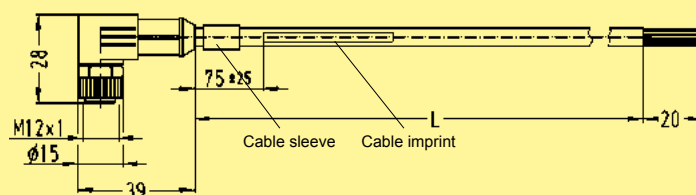
Dimensions in mm

M12 Circular connectors

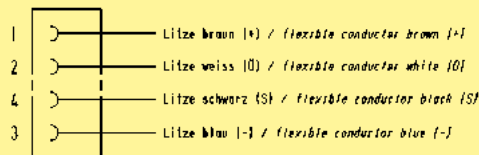
Female angled
pre-assembled on one end

Length: 1.5 m
3.0 m
5.0 m
7.5 m
10.0 m

21 03 515 4401
21 03 515 4402
21 03 515 4403
21 03 515 4404
21 03 515 4405



Schematic diagram



View mating
side

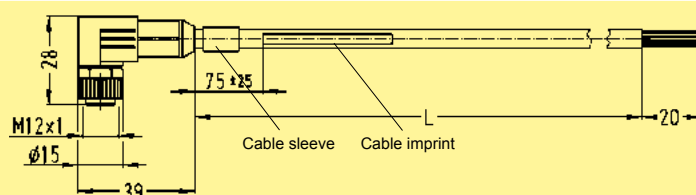


M12 Circular connectors

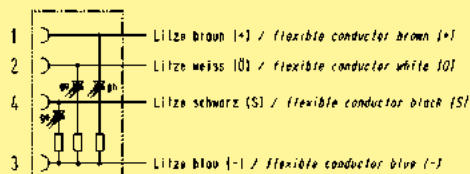
Female angled, with LED
pre-assembled on one end

Length: 1.5 m
3.0 m
5.0 m
7.5 m
10.0 m

21 03 515 7401
21 03 515 7402
21 03 515 7403
21 03 515 7404
21 03 515 7405



Schematic diagram



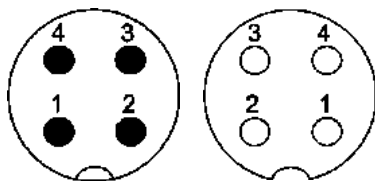
View mating
side



M12 System cables, A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

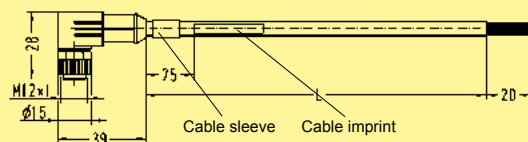
Dimensions in mm

HARAX® M12 Cable set without LED

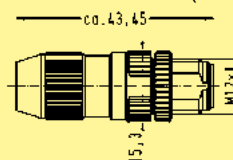
Delivery range: M12 connector with individually adaptable cable and HARAX® M12-S

Length: 1.5 m
3.0 m
5.0 m
7.5 m
10.0 m

21 83 515 4401
21 83 515 4402
21 83 515 4403
21 83 515 4404
21 83 515 4405



HARAX® M12-S (21 03 111 1405)

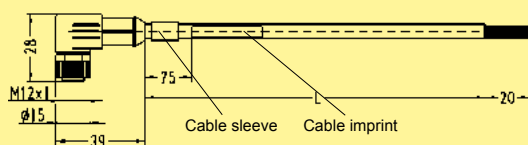


HARAX® M12 Cable set with LED

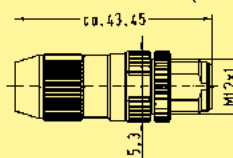
Delivery range: M12 connector with individually adaptable cable and HARAX® M12-S

Length: 1.5 m
3.0 m
5.0 m
7.5 m
10.0 m

21 83 515 7401
21 83 515 7402
21 83 515 7403
21 83 515 7404
21 83 515 7405



HARAX® M12-S (21 03 111 1405)

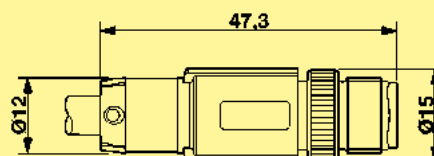


1 x M12 Circular connectors, straight

pre-assembled on one end,
8 poles

Length: 1.0 m
3.0 m
5.0 m

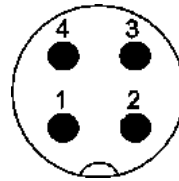
21 03 514 1801
21 03 514 1803
21 03 514 1805



M12 Panel feed-through HARAX® A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



Applications / Advantages

- Actor and sensor applications
- For panel feed-through or PCB, straight version in IP20 or IP67, with or without assembled pigtail
- Available with crimp resp. HARAX® rapid termination
- Quick and easy assembly

Identification

Part No.

Drawing

Dimensions in mm

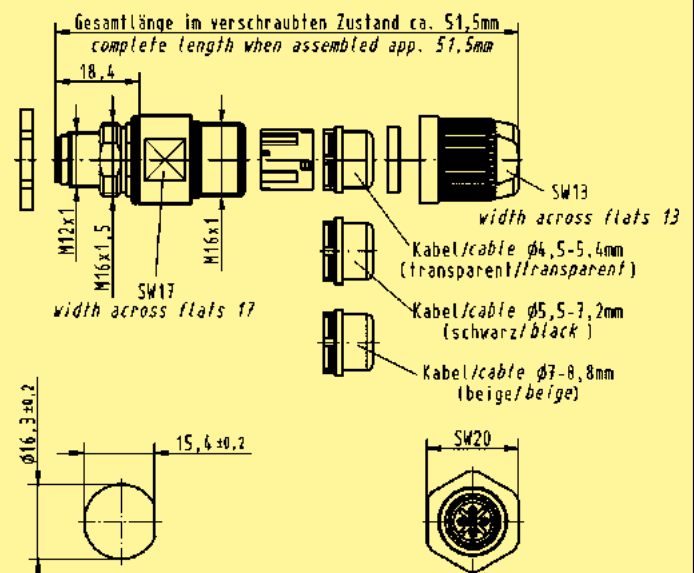
HARAX® Panel feed-through



Male
4 poles, A-coding
0.14 - 0.34 mm² / AWG 26 - 22

Panel thickness
min. 2.5 mm
max. 4.5 mm

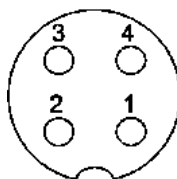
21 03 321 1425



M12 Panel feed-through HARAX® A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

Dimensions in mm

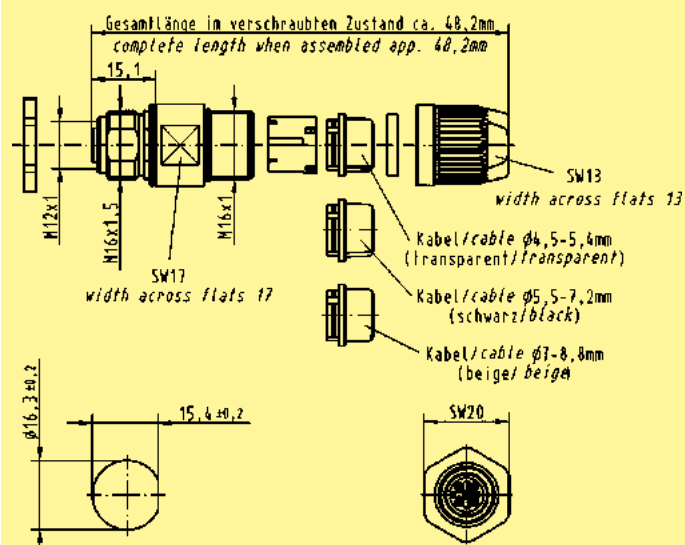
HARAX® Panel feed-through



Female
4 poles, A-coding
0.14 - 0.34 mm² / AWG 26 - 22

Panel thickness
min. 2.5 mm
max. 4.5 mm

21 03 321 2425

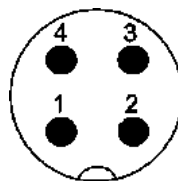


03

M12 Panel feed-through Crimp A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

Dimensions in mm

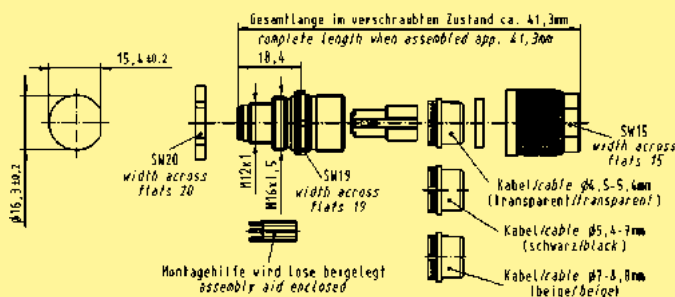
M12 Panel feed-through Crimp



Male
4 poles, A-coding

Panel thickness
min. 2.5 mm
max. 4.5 mm

21 03 822 1425



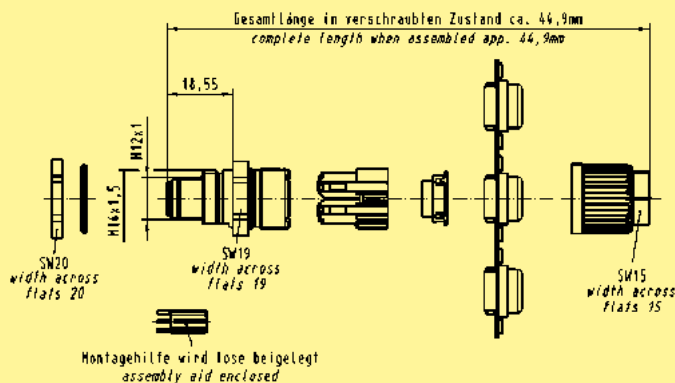
M12 Panel feed-through Crimp

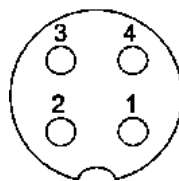
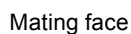


Male
5 poles, A-coding

Panel thickness
min. 2.5 mm
max. 4.5 mm

21 03 822 1525*





A-coding
Mating face
acc. to IEC 61076-2-101

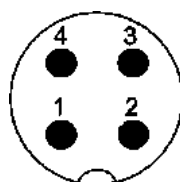


03

M12 Panel feed-through A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

Dimensions in mm

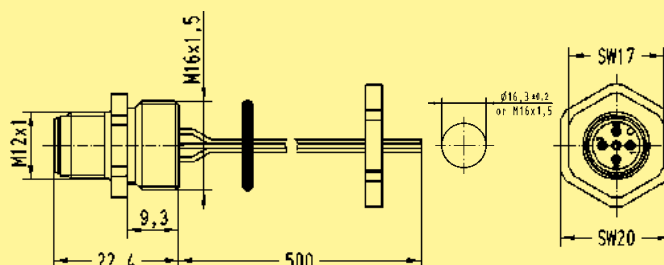
M12 Panel feed-through



Male
A-coding,
50 cm conductors, 0.5 mm², 4 poles

Panel thickness
min. 2.0 mm
max. 5.0 mm

21 03 311 1402



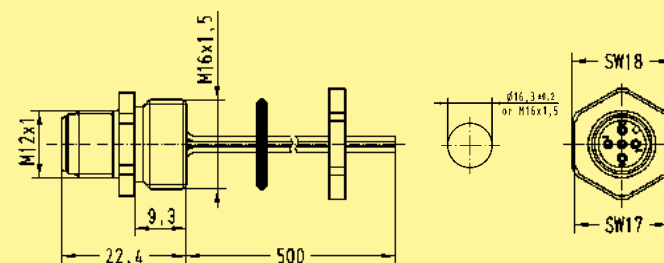
M12 Panel feed-through



Male
A-coding,
50 cm conductors, 0.5 mm², 5 poles

Panel thickness
min. 2.0 mm
max. 5.0 mm

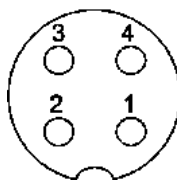
21 03 311 1501



M12 Panel feed-through A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

Dimensions in mm

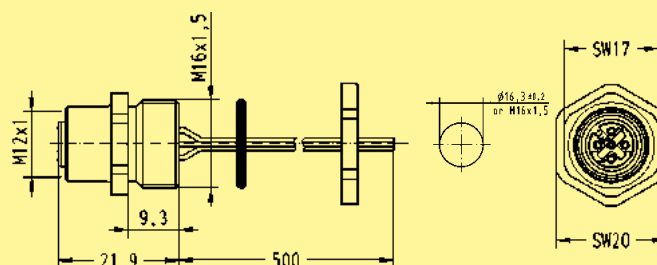
M12 Panel feed-through



Female
A-coding,
50 cm conductors, 0.5 mm², 4 poles

Panel thickness
min. 2.0 mm
max. 5.0 mm

21 03 311 2400



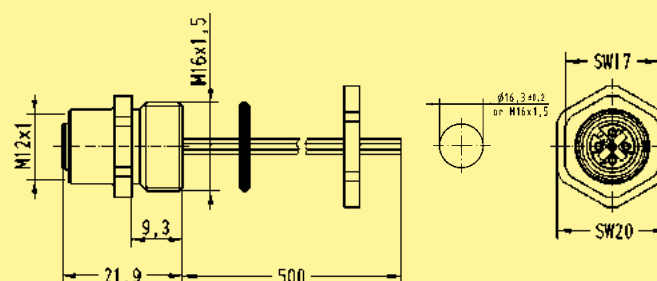
M12 Panel feed-through



Female
A-coding,
50 cm conductors, 0.5 mm², 5 poles

Panel thickness
min. 2.0 mm
max. 5.0 mm

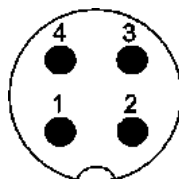
21 03 311 2501



M12 PCB adapter A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



Technical characteristics: M12 PCB adapter

Degree of protection	IP20, IP67 (mated and locked)	Temperature during connection	-5 °C ... +50 °C
Rated current	max. 4 A (dependant on PCB layout)	Termination	PIH
Rated voltage	50 V	Contact material	Copper alloy
Mating cycles	max. 100	Contact plating (mating side)	Au over Ni
Limiting temperature	-40 °C ... +85 °C	Insulator material	PA

Identification	Part No.	Drawing	Dimensions in mm
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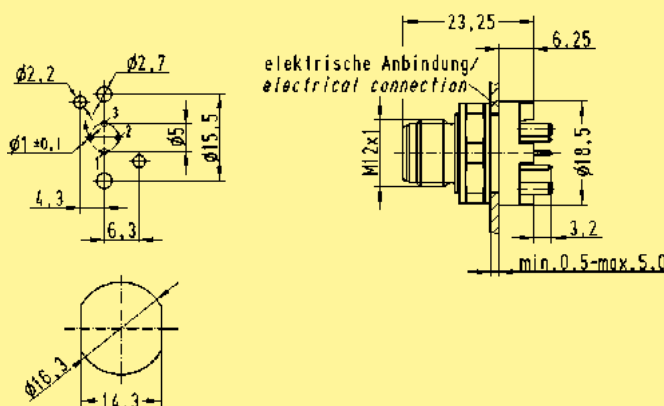
M12 PCB adapter

Male, A-coding, straight



4 poles, IP20
4 poles, IP67

21 03 321 1410
21 03 321 1420



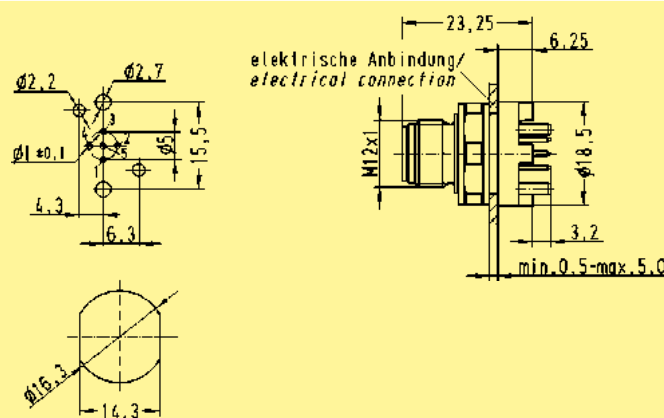
M12 PCB adapter

Male, A-coding, straight



5 poles, IP20
5 poles, IP67

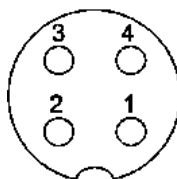
21 03 321 1510
21 03 321 1520



M12 PCB adapter A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



Identification	Part No.	Drawing	Dimensions in mm
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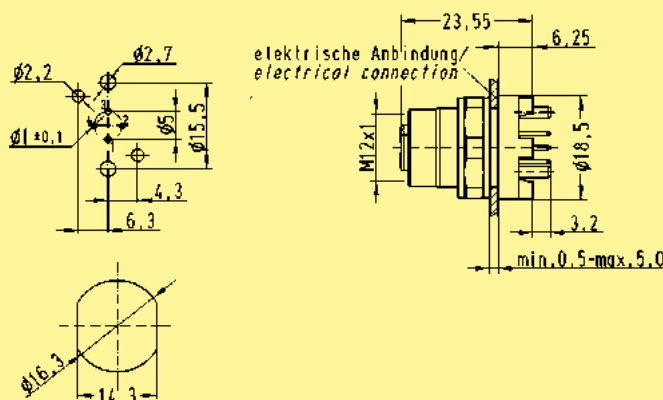
M12 PCB adapter

Female, A-coding,
straight



4 poles, IP20
4 poles, IP67

21 03 321 6410
21 03 321 6420*



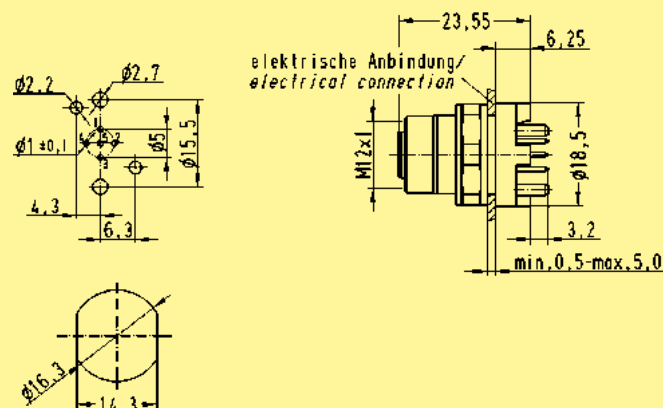
M12 PCB adapter

Female, A-coding,
straight



5 poles, IP20
5 poles, IP67

21 03 321 6510
21 03 321 6520



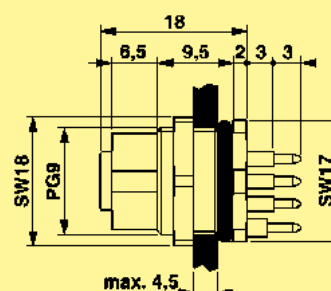
M12 PCB adapter

Female, A-coding,
straight



8 poles, IP67

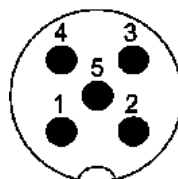
21 03 311 2801



M12 PCB adapter shielded A-coded



Mating face



A-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

Dimensions in mm

M12 PCB adapter, shielded

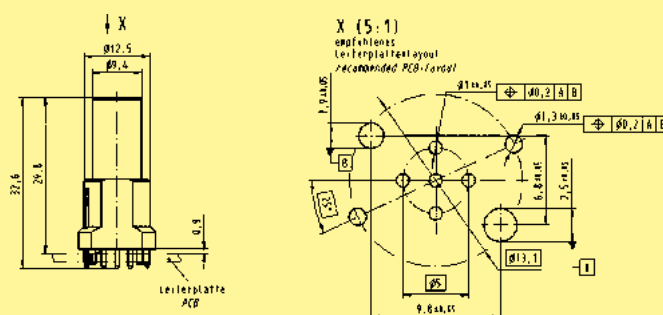


Male
5 poles, A-coding

8 poles, A-coding

21 03 321 1518*

21 03 321 1818*



Housing

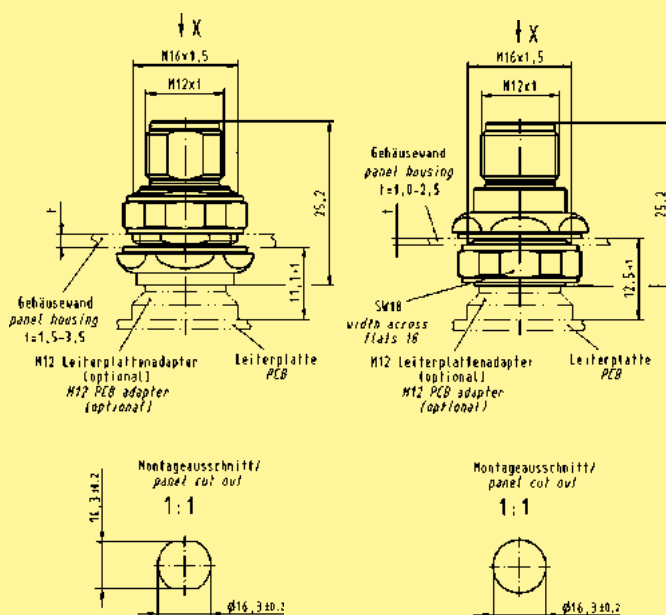


for rear mounting

for front mounting

21 03 301 1000

21 03 301 1001





A-coding
Mating face
acc. to IEC 61076-2-101



03

03

Identification

Part No.

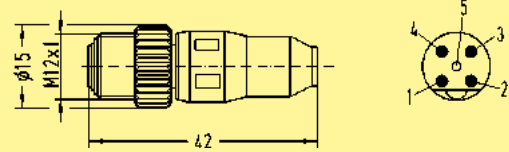
Drawing

M12-male
moving load

A-coding



21 03 030 1400



HARTING M12 T-Coupler

21 03 321 9400



Crimping tool
for M12 Crimp

09 99 000 0501



Accessories M12 Crimp

Locator

09 99 000 0531



D-Sub contacts

Part number	AWG	Tool settings
09 67 000 3x76	18	6
	20	6
	22	5
09 67 000 8x76	20, 22, 24	6
09 67 000 5x76	22, 24, 26	6

D-Sub single contacts
(500 mating cycles)

turned male contacts

AWG 22 - 18 / 0.33 - 0.82 mm²

AWG 24 - 20 / 0.25 - 0.52 mm²

AWG 26 - 22 / 0.13 - 0.33 mm²

09 67 000 3576

09 67 000 8576

09 67 000 5576



turned female contacts

AWG 22 - 18 / 0.33 - 0.82 mm²

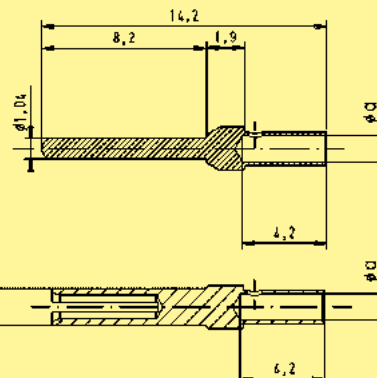
AWG 24 - 20 / 0.25 - 0.52 mm²

AWG 26 - 22 / 0.13 - 0.33 mm²

09 67 000 3476

09 67 000 8476

09 67 000 5476



	a
AWG 22 - 18	1.34
AWG 24 - 20	1.13
AWG 26 - 22	0.88

M12
dynamometric screwdriver

Tightening torque 0.6 Nm

for M12-S SW 13

09 99 000 0382

for M12 Slim design SW 15

09 99 000 0646

for M12-L SW 17

09 99 000 0384



Identification	Part No.	Drawing	Dimensions in mm
Seal M12-S for 2.9 - 4.0 mm cable Ø for 4 - 5.1 mm cable Ø	21 01 010 2011 21 01 010 2001		
Seal M12-L unshielded for 4.7 - 6 mm cable Ø for 6 - 8 mm cable Ø	21 01 010 2015 21 01 010 2007		
Set of seals M12-L shielded for 4.5 - 5.4 mm cable Ø for 5.4 - 7.2 mm cable Ø for 7.2 - 8.8 mm cable Ø	21 01 010 2017		
Cap M12 for IP65 / IP67 Seals material Viton Plastic cap for female	21 01 000 0003		
Accessories M12 Lock nut	21 01 000 0018		

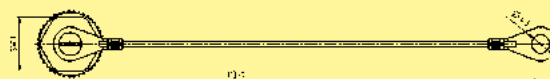
for IP65 / IP67
M12 metal cap for male side
with cord

21 01 000 0033



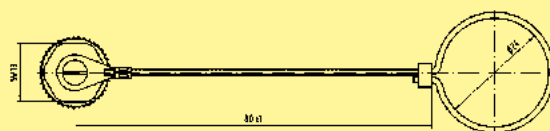
for IP65 / IP67
M12 metal cap for male side
with cable clip

21 01 000 0038



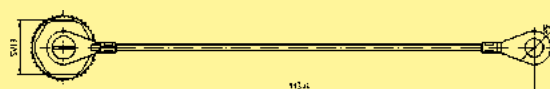
for IP65 / IP67
M12 metal cap for female side
with cord

21 01 000 0030



for IP65 / IP67
M12 metal cap for female side
with cable clip

21 01 000 0031



M12 B-coding

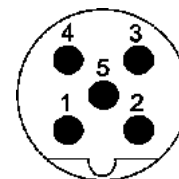


Specifications IEC 60 352-4

Approval 



Mating face



B-coding
Mating face
acc. to IEC 61076-2-101

Technical characteristics M12 – B-coding

Type M12 B-coded	<i>HARAX</i> ® M12 L shielded	M12 Crimp
------------------	-------------------------------	-----------

General data

Conductor cross section	0.25 - 0.34 mm ² AWG 24-22	0.13 - 0.75 mm ² AWG 26-18
Diameter of individual strands	≥ 0.1 mm	X
Conductor insulation material	PVC, Zell-PE	X
Conductor diameter	2 - 2.6 mm	2.0 - 2.3 mm
Cable diameter	7.0 - 8.8 mm	4 poles: 4.5 - 8.8 mm 5 poles: 4.5 - 8.8 mm
Temperature range	-40 °C ... +85 °C	-40 °C ... +85 °C
Temperature during connection	-5 °C ... +50 °C	-5 °C ... +50 °C
Degree of protection	IP65 / IP67	IP67
Mating cycles	100	500
Tightening torque connector / hexagonal wrench	0.6 Nm / SW 17	0.5 Nm / SW 17

Electrical characteristics

Rated current	4 A	4 A
Rated voltage	32 V	250 V
Rated impulse voltage	1.5 kV	1.5 kV
Contact resistance	10 mΩ	10 mΩ
Insulation resistance	10 ⁸ Ω	10 ⁸ Ω
Pollution degree	3	3
Overvoltage category	3	3
Isolation group	1	1

Materials

Contact material	Brass	Brass
Contact plating	Gold	Gold
Contact carrier material	PA unreinforced	PA
Housing material	PA unreinforced	PA

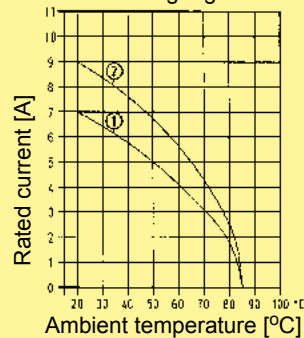
Technical characteristics M12 – B-coding

Current carrying capacity The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals. The current capacity-curve is valid for continuous, not interrupted current-loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.

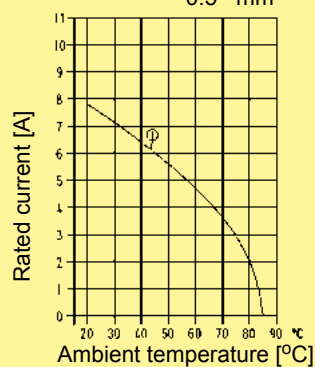
Control and test procedures according to DIN IEC 60 512-5.

M12-L
3 poles, 4 poles

1 = Wire gauge 0.34 mm²
2 = Wire gauge 0.75 mm²

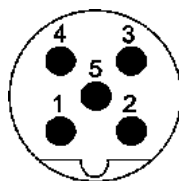


M12, Crimp 1 = Wire gauge 0.34 mm² / 0.5 mm²





Mating face

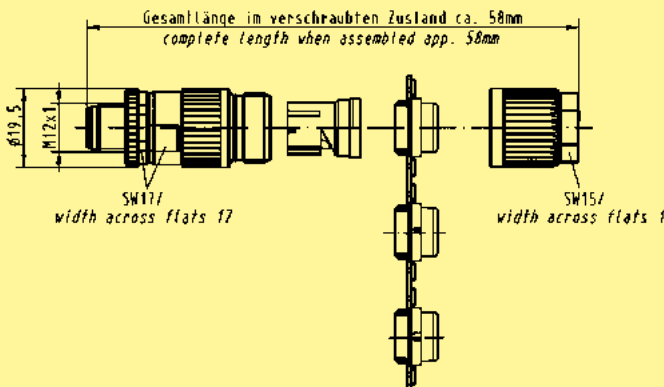


B-coding
Mating face
acc. to IEC 61076-2-101



Applications / Advantages

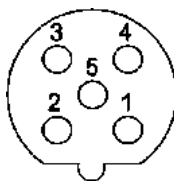
- B-coding for field bus systems e.g. Profibus, DeviceNet or CANopen
- Available with crimp resp. HARAX® rapid termination, or as overmoulded system cable in various lengths
- Shielding by the hood
- Easy handling, quick assembly

Identification	Part No.	Drawing	Dimensions in mm
HARAX® M12-L, shielded  Male 2 poles, B-coding 0.25 - 0.34 mm² / AWG 24 - 22	21 03 241 1301		

M12 HARAX® B-coded



Mating face



B-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

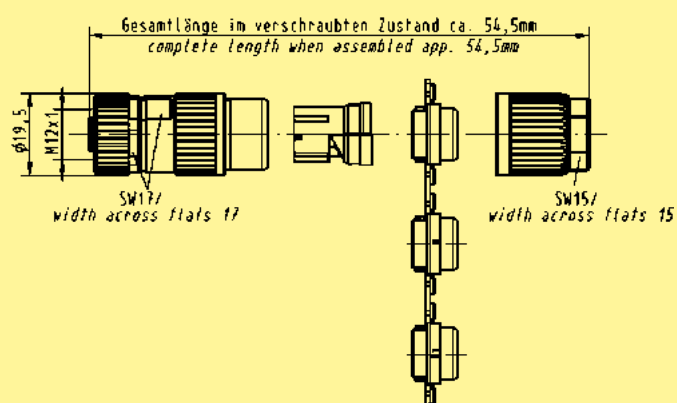
Dimensions in mm

HARAX® M12-L, shielded



21 03 241 2301

Female
2 poles, B-coding
0.25 - 0.34 mm² / AWG 24 - 22

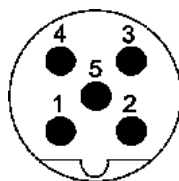


03

M12 Crimp B-coded



Mating face



B-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

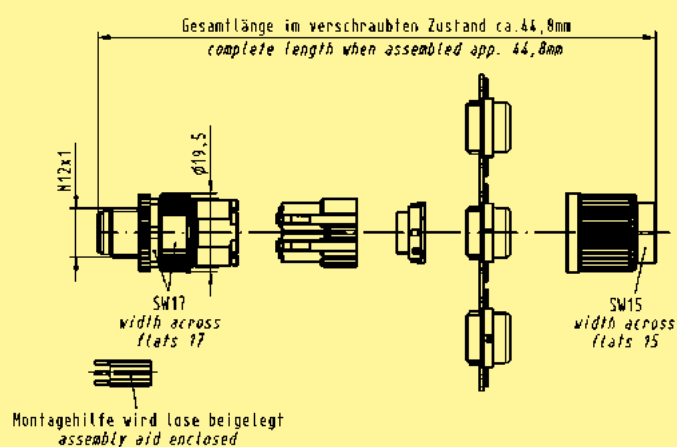
Dimensions in mm

M12 Crimp



Male
5 poles, B-coding

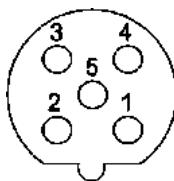
21 03 841 1505



M12 Crimp B-coded



Mating face



B-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

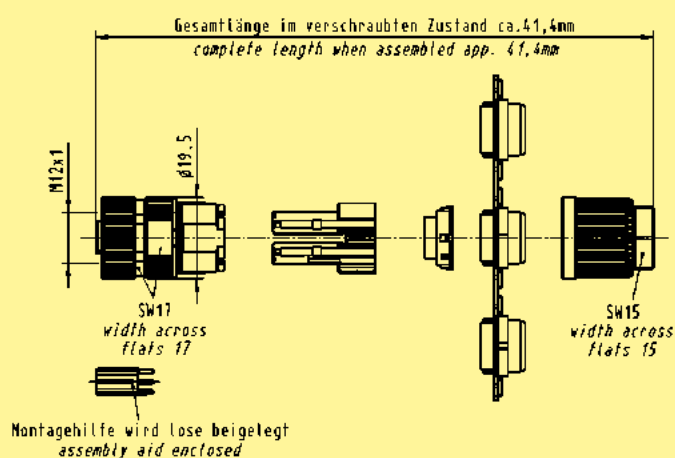
Dimensions in mm

M12 Crimp



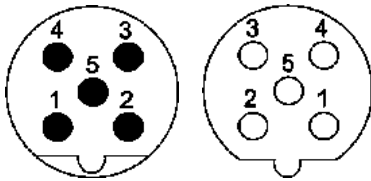
Female
5 poles, B-coding

21 03 841 2505

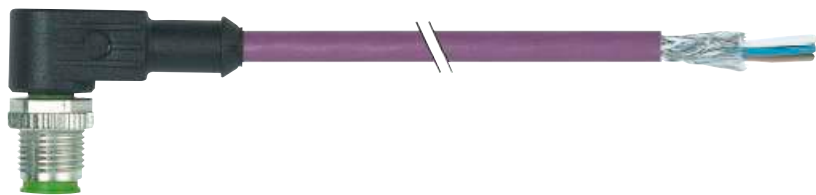


03

Mating face



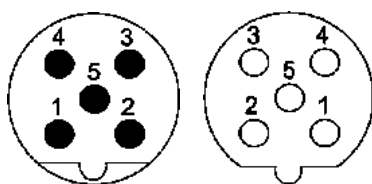
B-coding
Mating face
acc. to IEC 61076-2-101



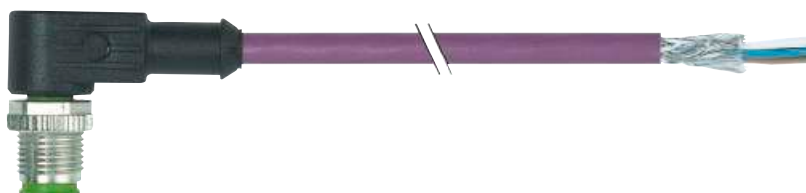
Technical characteristics

Rated voltage	max. 125 V AC/ DC
Rated current / contact	max. 4 A
Locking	Screw locking M12 x 1 mm, self securing
Recommended tightening torque	0.6 Nm
Temperature range (male) °C	-25 °C ... +85 °C, dependant on connected conductor
Degree of protection	IP67
Number of wires / wire gauge	1 x 2 x diameter 0.64 mm
Conductor insulation	PUR (rd, gn)
Arrangement of insulated strands	19 x 0.13 mm
Sheath	PUR (UL/CSA)
Outer diameter	appr. 7.8 mm
Bending radius bewegt	15 x outer diameter
Temperature range °C (applicate with fixed cable)	-30 °C ... + 80 °C

Mating face

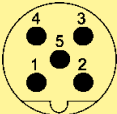
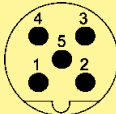
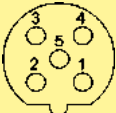
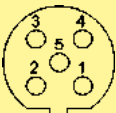


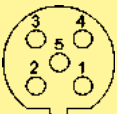
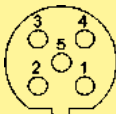
B-coding
Mating face
acc. to IEC 61076-2-101



Overview system cables M12

03

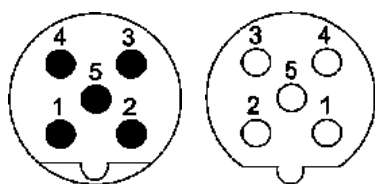
Number of contacts			Male M12 B-coding			
			straight		angled	
						
			Cable material: PUR		Cable material: PUR	
Female M12	straight		0.3 m	21 03 449 4301	xxx	
			0.6 m	21 03 449 4302	xxx	
			1.0 m	21 03 449 4303	xxx	
			1.5 m	21 03 449 4304	xxx	
			2.0 m	21 03 449 4305	xxx	
	angled		xxx		0.3 m	21 03 449 6301
			xxx		0.6 m	21 03 449 6302
			xxx		1.0 m	21 03 449 6303
			xxx		1.5 m	21 03 449 6304
			xxx		2.0 m	21 03 449 6305
Open end		1.5 m	21 03 549 1301	1.5 m	21 03 549 3301	
		3.0 m	21 03 549 1302	3.0 m	21 03 549 3302	
		5.0 m	21 03 549 1303	5.0 m	21 03 549 3303	
		7.5 m	21 03 549 1304	7.5 m	21 03 549 3304	
		10.0 m	21 03 549 1305	10.0 m	21 03 549 3305	

Number of contacts			Female M12 B-coding			
			straight		angled	
						
			Cable material: PUR		Cable material: PUR	
Open end			1.5 m	21 03 549 2301	1.5 m	21 03 549 4301
			3.0 m	21 03 549 2302	3.0 m	21 03 549 4302
			5.0 m	21 03 549 2303	5.0 m	21 03 549 4303
			7.5 m	21 03 549 2304	7.5 m	21 03 549 4304
			10.0 m	21 03 549 2305	10.0 m	21 03 549 4305
					1.5 m	21 03 549 4301
					3.0 m	21 03 549 4302
					5.0 m	21 03 549 4303
					7.5 m	21 03 549 4304
					10.0 m	21 03 549 4305

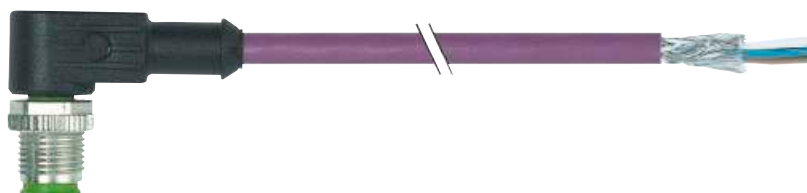
M12 System cables, B-coding



Mating face



B-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Darstellung

M12 Circular connectors, Male, straight

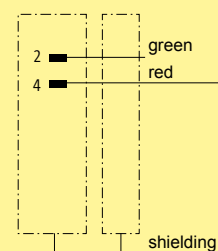
pre-assembled on one end,
useable as trailing cable

Length: 1.5 m
3.0 m
5.0 m
7.5 m
10.0 m

21 03 549 1301
21 03 549 1302
21 03 549 1303
21 03 549 1304
21 03 549 1305



Schematic diagram



M12 Circular connectors, Male, angled

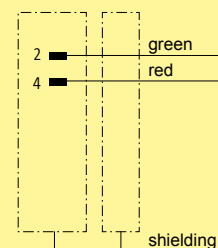
pre-assembled on one end,
useable as trailing cable

Length: 1.5 m
3.0 m
5.0 m
7.5 m
10.0 m

21 03 549 3301
21 03 549 3302
21 03 549 3303
21 03 549 3304
21 03 549 3305



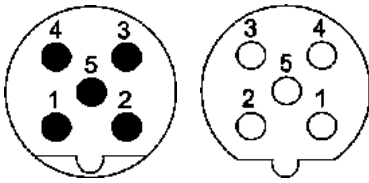
Schematic diagram



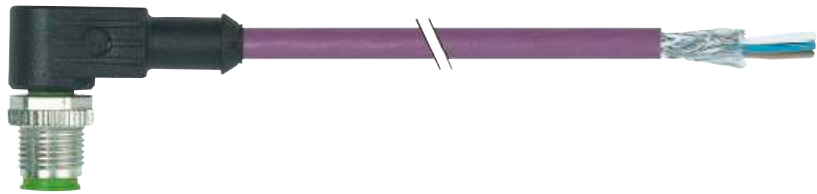
M12 System cables, B-coding



Mating face



B-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Darstellung

M12 Circular connectors, Female, straight

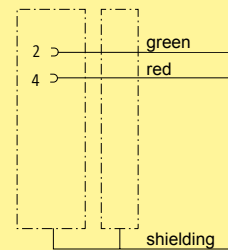
pre-assembled on one end,
useable as trailing cable

Length: 1.5 m
3.0 m
5.0 m
7.5 m
10.0 m

21 03 549 2301
21 03 549 2302
21 03 549 2303
21 03 549 2304
21 03 549 2305



Schematic diagram



M12 Circular connectors, Female, angled

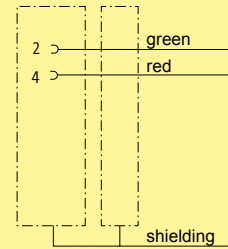
pre-assembled on one end,
useable as trailing cable

Length: 1.5 m
3.0 m
5.0 m
7.5 m
10.0 m

21 03 549 4301
21 03 549 4302
21 03 549 4303
21 03 549 4304
21 03 549 4305



Schematic diagram



M12 Circular connectors, Male, straight Female, straight

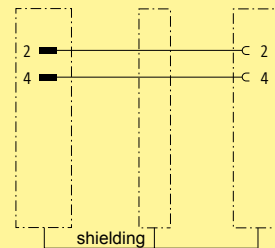
pre-assembled on one end,
useable as trailing cable

Length: 0.3 m
0.6 m
1.0 m
1.5 m
2.0 m

21 03 449 4301
21 03 449 4302
21 03 449 4303
21 03 449 4304
21 03 449 4305



Schematic diagram



M12 Circular connectors, Male, angled Female, angled

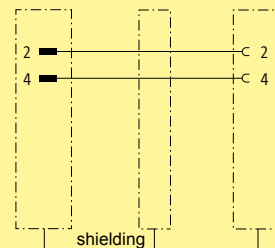
pre-assembled on one end,
useable as trailing cable

Length: 0.3 m
0.6 m
1.0 m
1.5 m
2.0 m

21 03 449 6301
21 03 449 6302
21 03 449 6303
21 03 449 6304
21 03 449 6305



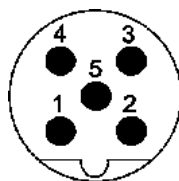
Schematic diagram



03



Mating face

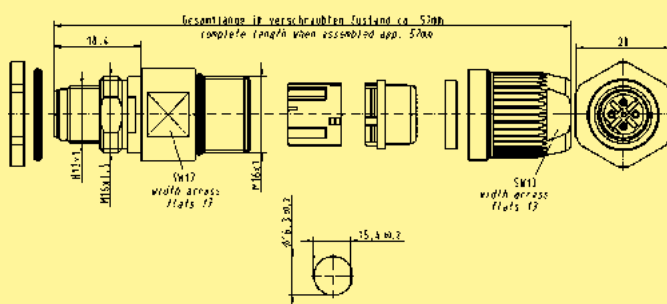


B-coding
Mating face
acc. to IEC 61076-2-101



Applications / Advantages

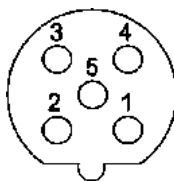
- B-coding for field bus systems e.g. Profibus, DeviceNet or CANopen
- For panel feed-through or PCB, straight version in IP20 or IP67, with or without assembled pigtail
- Available with crimp resp. HARAX® rapid termination
- Quick and easy assembly

Identification	Part No.	Drawing	Dimensions in mm
HARAX® Panel feed-through  Male 2 poles and shielding, B-coding 0.25 - 0.34 mm² / AWG 24 - 22 Cable diameter: 7 - 8.8 mm Panel thickness min. 2.5 mm max. 4.5 mm	21 03 341 1425	 Technical drawing showing dimensions and assembly instructions. Key dimensions include: 18.6 mm (total length), 15.4 mm (flange width), and 21 mm (hexagonal base width). Assembly instructions: 'Gesamtlänge in verschraubten Zustand ca. 50mm' and 'complete length when assembled approx. 50mm'.	

M12 Panel feed-through HARAX® B-coded



Mating face



B-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

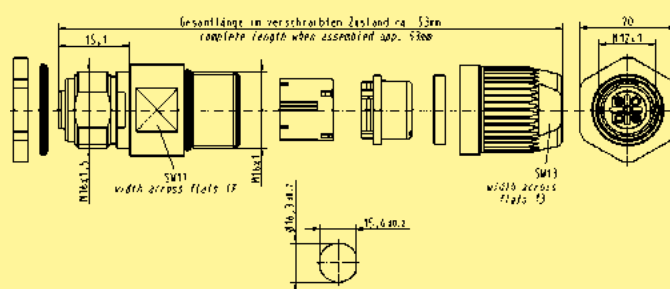
Drawing

Dimensions in mm

HARAX® Panel feed-through



21 03 341 2425



Female
2 poles and shielding, B-coding
0.25 - 0.34 mm² / AWG 24 - 22

Cable diameter: 7 - 8.8 mm

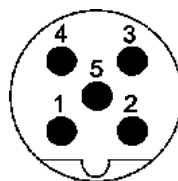
Panel thickness
min. 2.5 mm
max. 4.5 mm

03

M12 Panel feed-through Crimp B-coded



Mating face



B-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

Dimensions in mm

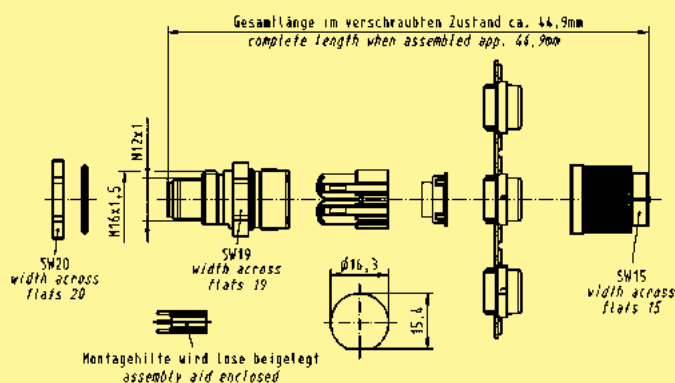
M12 Panel feed-through
Crimp



Male
5 poles, B-coding

Panel thickness
min. 2.5 mm
max. 4.5 mm

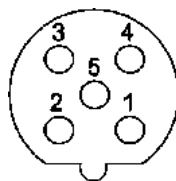
21 03 841 1525



M12 Panel feed-through Crimp B-coded



Mating face



B-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

Dimensions in mm

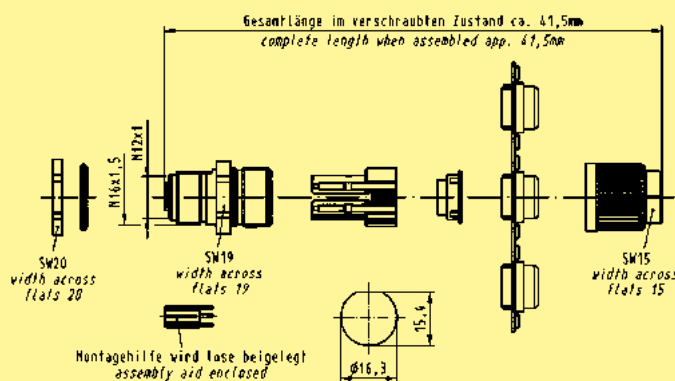
M12 Panel feed-through Crimp



Female
5 poles, B-coding

Panel thickness
min. 2.5 mm
max. 4.5 mm

21 03 841 2525

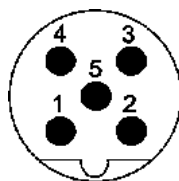


03

M12 Panel feed-through B-coded



Mating face



B-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

Dimensions in mm

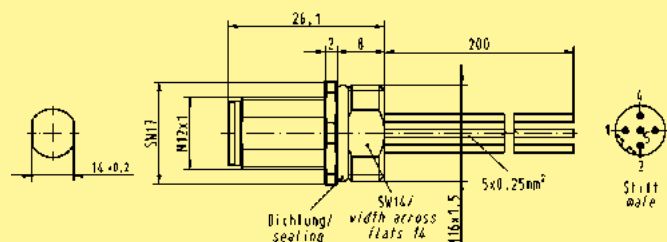
M12 Panel feed-through



Male
B-coding, 20 cm conductors,
0.25 mm²

Panel thickness
min. 2.0 mm
max. 5.0 mm

21 03 339 1301



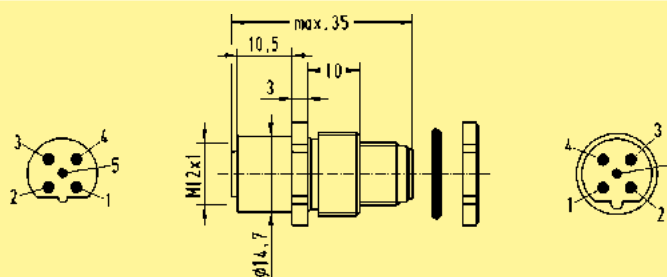
M12-male/female
panel feed-through

B-coding



Panel thickness
min. 2.0 mm
max. 5.0 mm

21 03 330 1300

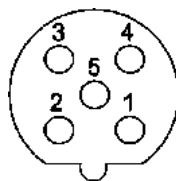


Rated voltage 24 V AC/DC
Thread M16 x 1.5

M12 Panel feed-through B-coded



Mating face



B-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

Dimensions in mm

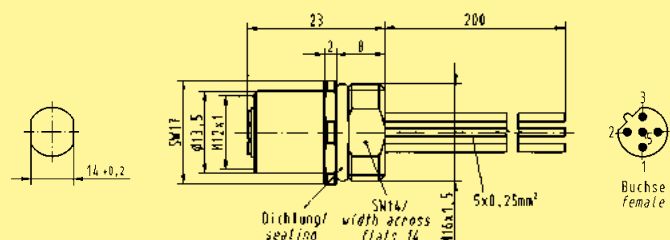
M12 Panel feed-through



Female
B-coding, 20 cm conductors,
0.25 mm²

Panel thickness
min. 2.0 mm
max. 5.0 mm

21 03 339 2301

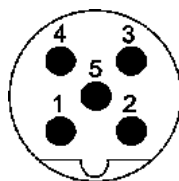


03

M12 PCB adapter B-coded



Mating face



B-coding
Mating face
acc. to IEC 61076-2-101



Technical characteristics: M12 PCB adapter

Degree of protection	IP20, IP67 (mated and locked)	Temperature during connection	-5 °C ... +50 °C
Rated current	max. 4 A (dependant on PCB layout)	Termination	PIH
Rated voltage	50 V	Contact material	Copper alloy
Mating cycles	max. 100	Contact plating (mating side)	Au over Ni
Limiting temperature	-40 °C ... +85 °C	Insulator material	PA

Identification	Part No.	Drawing	Dimensions in mm
----------------	----------	---------	------------------

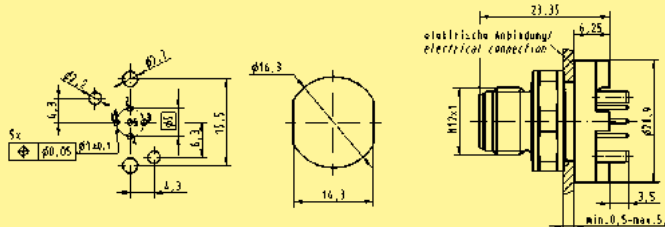
M12 PCB adapter

Male, B-coding,
straight



5 poles, IP20

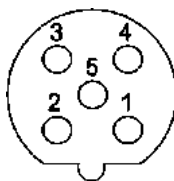
21 03 341 1505



M12 PCB adapter B-coded



Mating face



B-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

Dimensions in mm

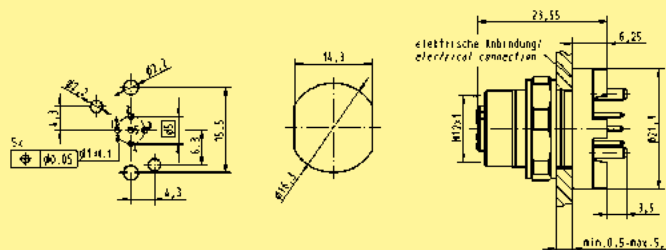
M12 PCB adapter

Female, B-coding,
straight



5 poles, IP20

21 03 341 2505

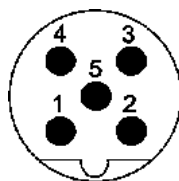


03

M12 PCB adapter shielded B-coded



Mating face



B-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

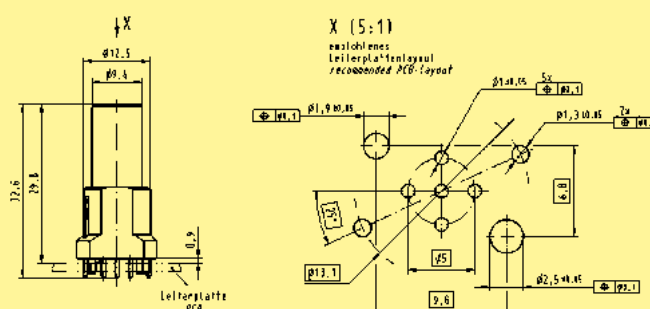
Dimensions in mm

M12 PCB adapter,
shielded



Male
5 poles, B-coding

21 03 341 1518*



Housing

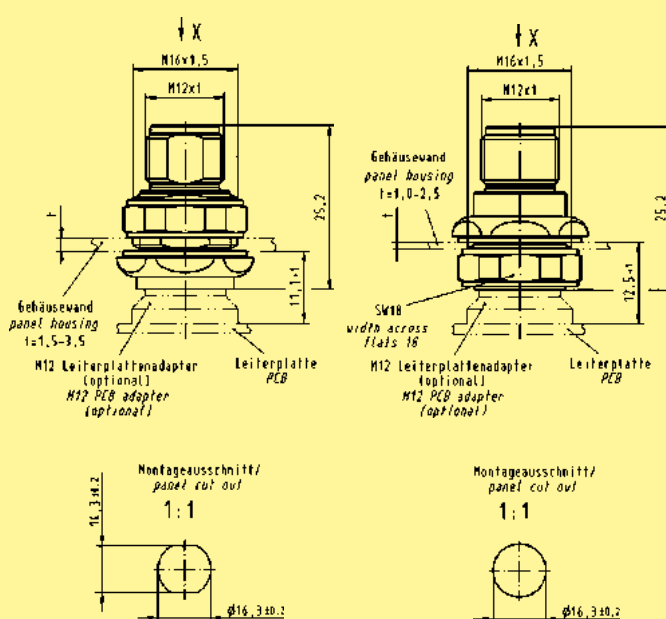


for rear mounting

21 03 301 1000

for front mounting

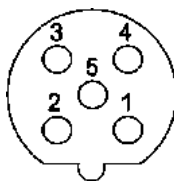
21 03 301 1001



M12 PCB adapter shielded B-coded

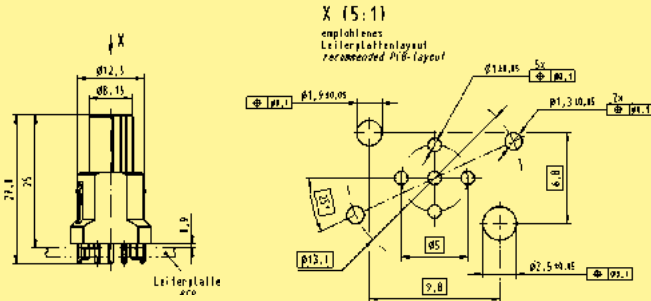
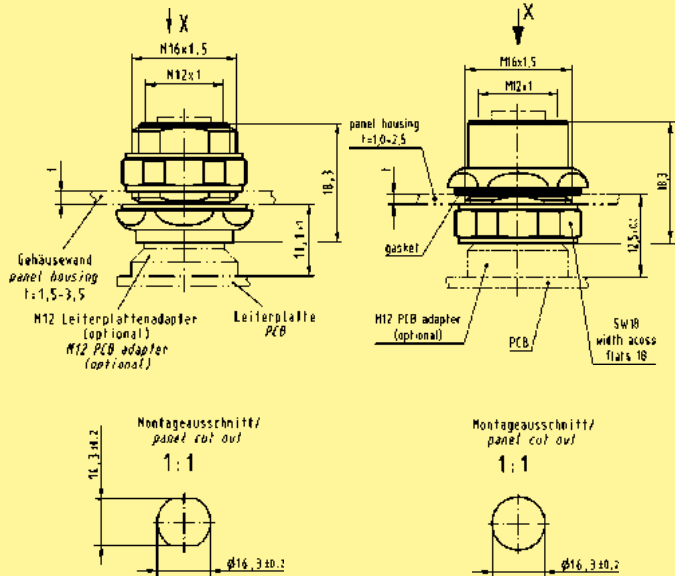


Mating face



B-coding
Mating face
acc. to IEC 61 076-2-101



Identification	Part No.	Drawing	Dimensions in mm
M12 PCB adapter, shielded  Female 5 poles, B-coding	21 03 341 2518*		
Housing  for rear mounting for front mounting	21 03 301 2000 21 03 301 2001		

Identification

Part No.

Drawing

Crimping tool
for M12 Crimp

09 99 000 0501



Accessories M12 Crimp

Locator

09 99 000 0531



D-Sub contacts

Part number	AWG	Tool settings
09 67 000 3x76	18	6
	20	6
	22	5
09 67 000 8x76	20, 22, 24	6
09 67 000 5x76	22, 24, 26	6

D-Sub single contacts
(500 mating cycles)

turned male contacts

AWG 22-18 / 0.33-0.82 mm²

AWG 24-20 / 0.25-0.52 mm²

AWG 26-22 / 0.13-0.33 mm²

09 67 000 3576

09 67 000 8576

09 67 000 5576



turned female contacts

AWG 22-18 / 0.33-0.82 mm²

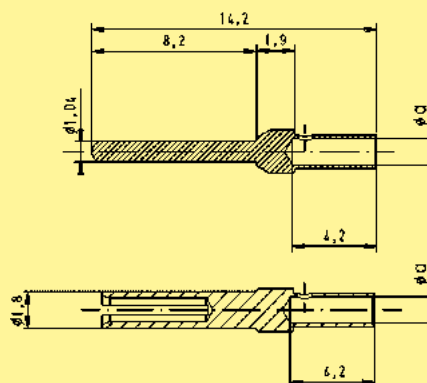
AWG 24-20 / 0.25-0.52 mm²

AWG 26-22 / 0.13-0.33 mm²

09 67 000 3476

09 67 000 8476

09 67 000 5476



	a
AWG 22-18	1.34
AWG 24-20	1.13
AWG 26-22	0.88

M12
dynamometric screwdriver

Tightening torque 0.6 Nm

for M12-S SW 13

09 99 000 0382

for M12-L SW 17

09 99 000 0384



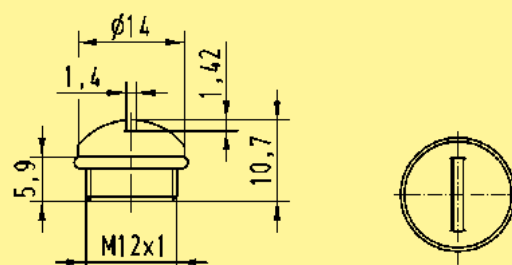
Cap M12

for IP65 / IP67

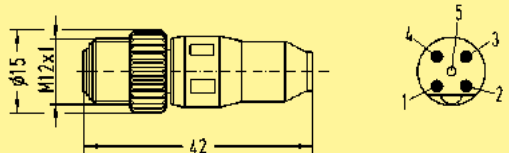
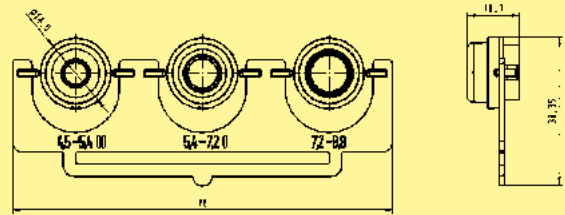
Seals material Viton

Plastic cap for female

21 01 000 0003



Identification	Part No.	Drawing	Dimensions in mm
Cap metal M12 for IP65 / IP67 M12 metal cap for male side with cord	21 01 000 0033		03
Cap metal M12 for IP65 / IP67 M12 metal cap for male side with cable clip	21 01 000 0038		
Cap metal M12 for IP65 / IP67 M12 metal cap for female side with cord	21 01 000 0030		
Cap metal M12 for IP65 / IP67 M12 metal cap for female side with cable clip	21 01 000 0031		

Identification	Part No.	Drawing	Dimensions in mm
M12-male moving load B-coding 	21 03 030 1300		
HARTING M12 T-Coupler 	21 03 341 6401		
Seal M12-L unshielded for 4.7 - 6 mm cable Ø for 6 - 8 mm cable Ø 	21 01 010 2015 21 01 010 2007		
Set of seals M12-L shielded for 4.5 - 5.4 mm cable Ø for 5.4 - 7.2 mm cable Ø for 7.2 - 8.8 mm cable Ø 	21 01 010 2017		
Accessories M12 Lock nut 	21 01 000 0018		

M12 D-coding

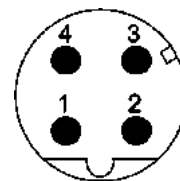


Specifications IEC 60 352-4

Approval 



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101

Technical characteristics M12 – D-coding

Type M12 D-coded	<i>HARAX</i> ® M12 L shielded	M12 Crimp	M12 preLink®
------------------	-------------------------------	-----------	--------------

General data

Conductor cross section	0.14 - 0.34 mm ² AWG 26-22 0.34 - 0.5 mm ² AWG 22-20	0.13 - 0.75 mm ² AWG 26-18	0.10 - 0.34 mm ² AWG 27-22
Diameter of individual strands	≥ 0.1 mm	X	≥ 0.1 mm
Conductor insulation material	PVC/PE	X	PVC/PE
Conductor diameter	1.2 - 2.0 mm	2.0 - 2.3 mm	0.8 - 1.6 mm
Cable diameter	4.5 - 8.8 mm	4 poles: 4.5 - 8.8 mm 5 poles: 4.5 - 8.8 mm	6.3 - 6.7 mm
Temperature range	-40 °C ... +85 °C	-40 °C ... +85 °C	-40 °C ... +85 °C
Temperature during connection	-5 °C ... +50 °C	-5 °C ... +50 °C	–
Degree of protection	IP65 / IP67	IP67	IP65
Mating cycles	100	500	250
Tightening torque connector / Hexagonal wrench	0.6 Nm / SW 17	0.6 Nm / SW 17	0.6 Nm / SW 17

Electrical characteristics

Rated current	4 A	4 A	1 A
Rated voltage	50 V	250 V	48 V
Rated impulse voltage	1.5 kV	1.5 kV	1.5 kV
Contact resistance	10 mΩ	10 mΩ	10 mΩ
Insulation resistance	10 ⁸ Ω	10 ⁸ Ω	10 ⁸ Ω
Pollution degree	3	3	3
Overvoltage category	3	3	3
Isolation group	1	1	–
Transmission performance (Category)	Cat. 5	Cat. 5	Cat. 5

Materials

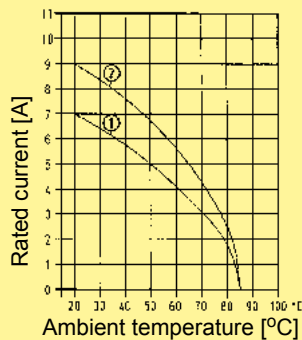
Contact material	Brass	Brass	Brass
Contact plating	Gold	Gold	Gold
Contact carrier material	PA unreinforced	PA	–
Housing material	PA unreinforced	PA	Zinc die-cast

Technical characteristics M12 – D-coding

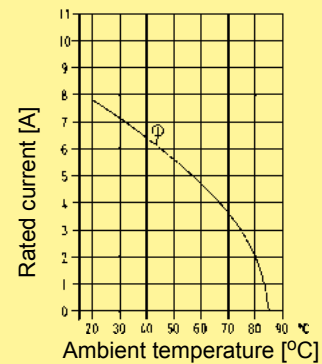
Current carrying capacity The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals. The current capacity-curve is valid for continuous, not interrupted current-loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.

Control and test procedures according to DIN IEC 60 512-5.

M12-L
3 poles, 4 poles
1 = Wire gauge 0.34 mm²
2 = Wire gauge 0.75 mm²



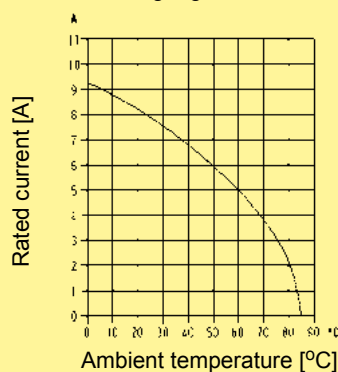
M12, Crimp 1 = Wire gauge 0.34 mm² / 0.5 mm²



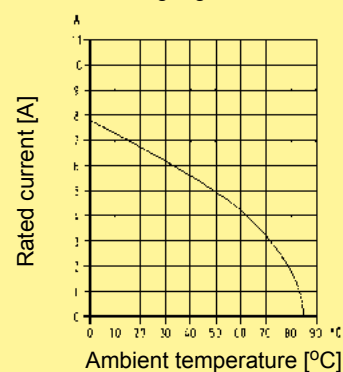
03

Technical characteristics M12 – D-coding, PCB adapter

M12, D-coding, straight, female, 4 poles
Wire gauge 0.5 mm²

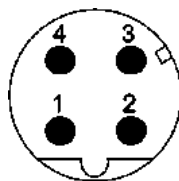


M12, D-coding, angled, female, 4 poles
Wire gauge AWG 22





Mating face

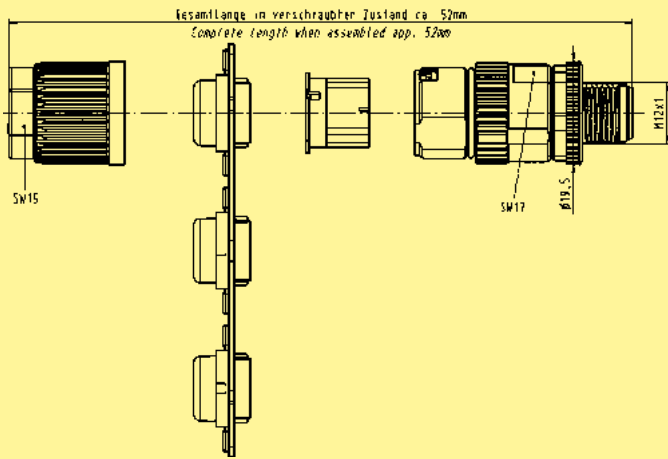


D-coding
Mating face
acc. to IEC 61076-2-101



Applications / Advantages

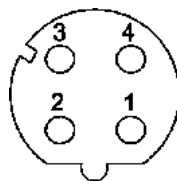
- D-coding for Ethernet/Profinet applications
- Robust design
- 360° shielding termination
- Transmission performance Cat. 5

Identification	Part No.	Drawing	Dimensions in mm
HARAX® M12-L, shielded  Male 4 poles, D-coding 0.14 - 0.34 mm², AWG 26 - 22	21 03 281 1405		
Male 4 poles, D-coding 0.34 - 0.5 mm², AWG 22 - 20	21 03 282 1405		

M12 HARAX® D-coded



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

Dimensions in mm

HARAX® M12-L, shielded

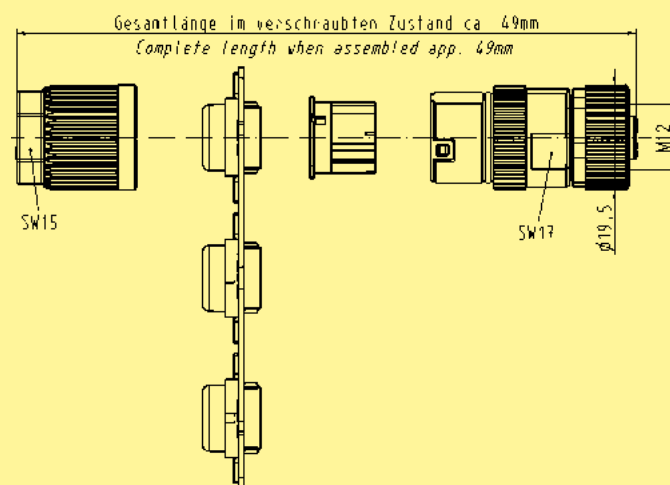


Female
4 poles, D-coding
0.14 - 0.34 mm², AWG 26 - 22

21 03 281 2405

Female
4 poles, D-coding
0.34 - 0.5 mm², AWG 22 - 20

21 03 282 2405

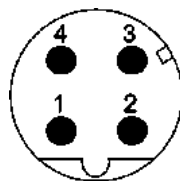


03

M12 Crimp D-coded



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

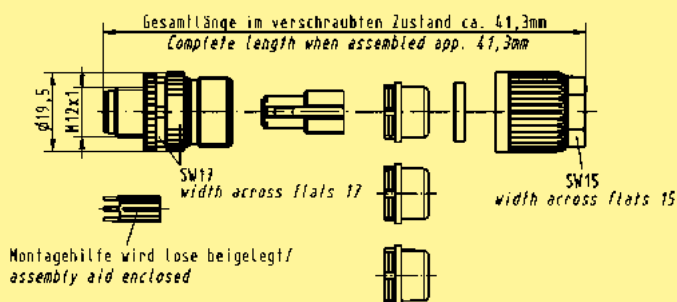
Dimensions in mm

M12 Crimp, shielded



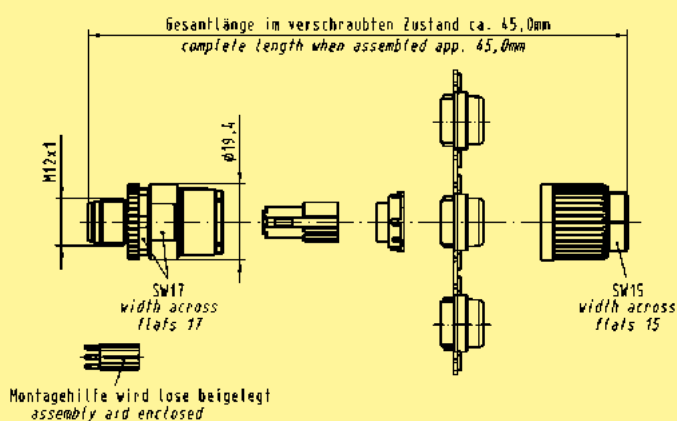
Male
4 poles, D-coding

21 03 882 1405



Male
4 poles, D-coding

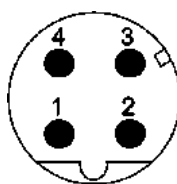
21 03 882 1415



M12 Crimp D-coded



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

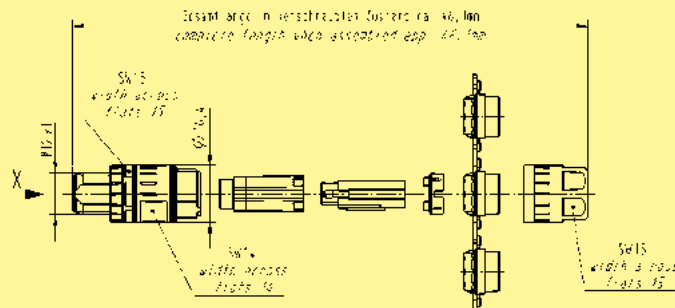
Dimensions in mm

M12 Crimp Slim design, shielded



Male
4 poles, D-coding
Cable: 4.4 - 8.8 mm
outer diameter

21 03 881 1405*

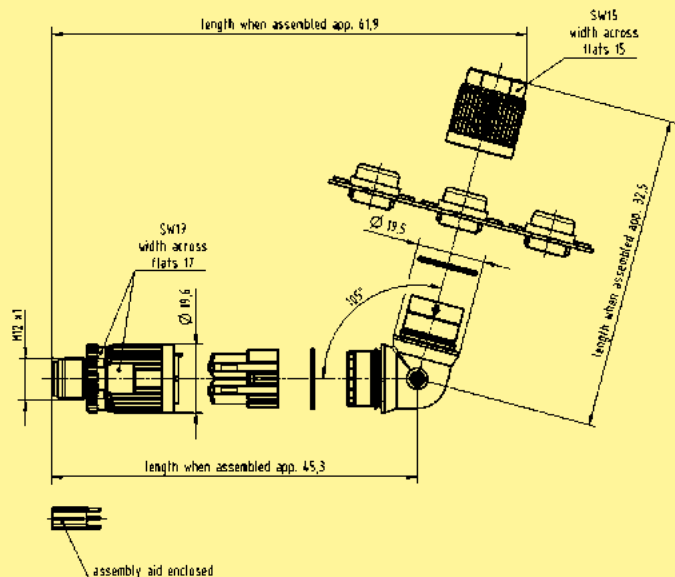


M12 Crimp, shielded



Male
4 poles, D-coding
angled

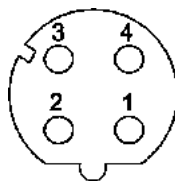
21 03 882 3405*



M12 Crimp D-coded



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

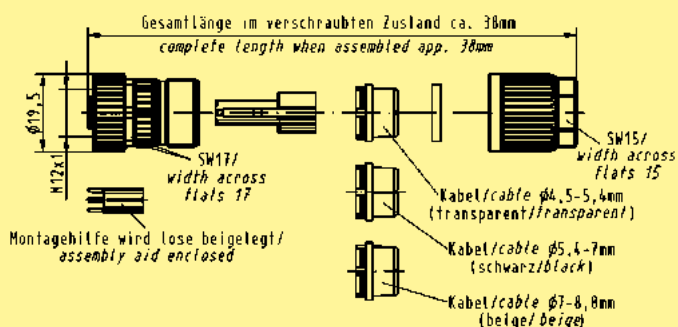
Dimensions in mm

M12 Crimp, shielded



Female
4 poles, D-coding

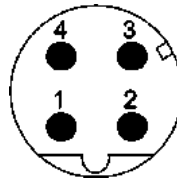
21 03 882 2405



M12 preLink® D-coded



Mating face



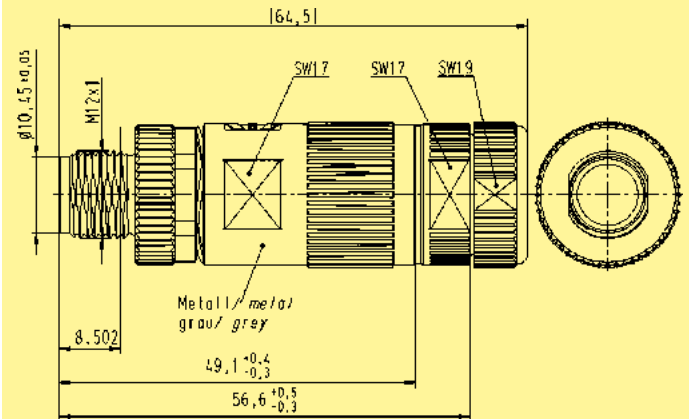
D-coding
Mating face
acc. to IEC 61076-2-101



Identification	Part No.	Drawing	Dimensions in mm
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preLink® M12 housing

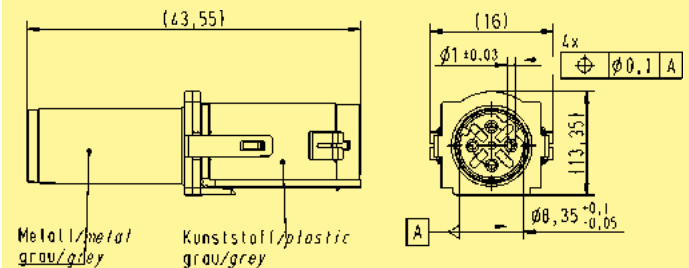
20 82 000 1210



preLink® M12 male module

20 82 005 1214

Male
4 poles, D-coding



preLink® terminal module (Pack with 10 pieces) terminal block with IDC termination

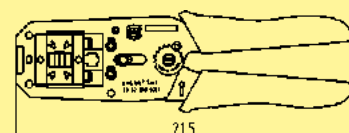
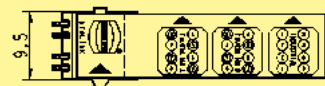
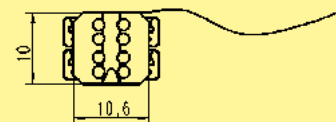
Number of contacts: 8

Conductor cross section: AWG 22/23 (24)
solid and
stranded
Conductor diameter: $\varnothing$ 1.3 - 1.6 mm
Colour: yellow

20 82 000 0001

Conductor cross section: AWG 26/27
solid and
stranded
Conductor diameter: $\varnothing$ 0.8 - 1.1 mm
Colour: white

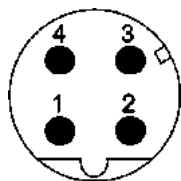
20 82 000 0003



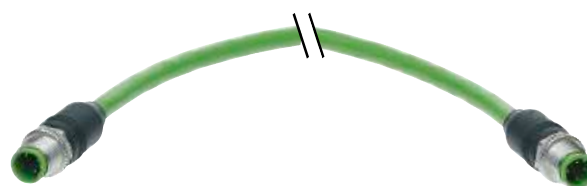
Assembly tool

20 82 000 9901

Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



Technical characteristics

Pre-assembled and tested system cables

for structured cabling of industrial Ethernet networks, based on M12 Circular connectors, D-coded

Cable type: Shielded Twisted Pair
Standard Cable

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

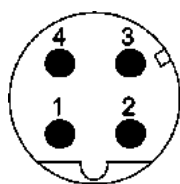
Transmission performance
acc. to ISO/IEC 11801:2002: Class D, 100% tested

Degree of protection IP65 / IP67 (when mated)

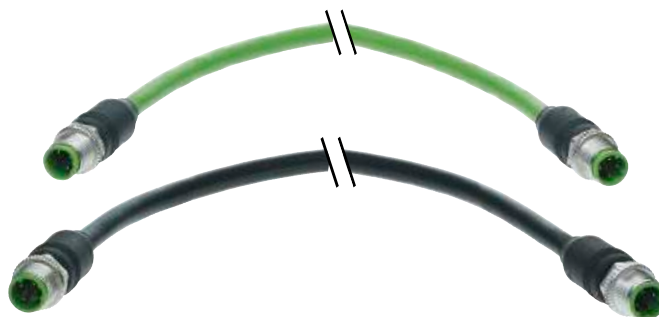
Pin assignment

Signal	Function	Conductor colour PROFINet®	Contact assignment
TD+	Transmission Data+	Yellow	1
TD-	Transmission Data-	Orange	3
RD+	Receiver Data+	White	2
RD-	Receiver Data-	Blue	4

Mating face



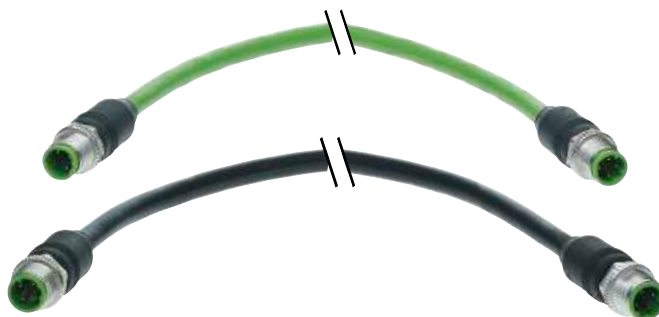
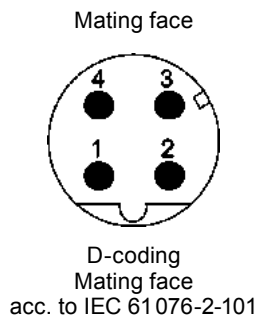
D-coding
Mating face
acc. to IEC 61076-2-101



Overview system cables M12

03

Number of contacts			Male M12 D-coding straight			
			Cable material: PUR		Cable material: PVC	
Male M12	straight		1.0 m	21 03 485 1401 09 48 222 2004 010*	1.0 m	09 47 222 2002 09 48 222 2003 010*
			1.5 m	21 03 485 1451 09 48 222 2004 015*	1.5 m	09 47 222 2003 09 48 222 2003 015*
			3.0 m	21 03 485 1403 09 48 222 2004 030*	3.0 m	09 47 222 2005 09 48 222 2003 030*
			5.0 m	21 03 485 1405 09 48 222 2004 050*	5.0 m	09 47 222 2006 09 48 222 2003 050*
			7.5 m	21 03 485 1457 09 48 222 2004 075*	7.5 m	09 47 222 2022 09 48 222 2003 075*
			10.0 m	21 03 485 1410 09 48 222 2004 100*	10.0 m	09 47 222 2011 09 48 222 2003 100*
			20.0 m	21 03 485 1420 09 48 222 2004 200*	20.0 m	09 47 222 2013 09 48 222 2003 200*
Open end			1.0 m	21 03 585 1401 09 48 220 0004 010*	1.0 m	09 47 220 0002 09 48 220 0003 010*
			1.5 m	21 03 585 1451 09 48 220 0004 015*	1.5 m	09 47 220 0003 09 48 220 0003 015*
			3.0 m	21 03 585 1403 09 48 220 0004 030*	3.0 m	09 47 220 0005 09 48 220 0003 030*
			5.0 m	21 03 585 1405 09 48 220 0004 050*	5.0 m	09 47 220 0006 09 48 220 0003 050*
			7.5 m	21 03 585 1457 09 48 220 0004 075*	7.5 m	09 47 220 0022 09 48 220 0003 075*
			10.0 m	21 03 585 1410 09 48 220 0004 100*	10.0 m	09 47 220 0011 09 48 220 0003 100*
			20.0 m	21 03 585 1420 09 48 220 0004 200*	20.0 m	09 47 220 0013 09 48 220 0003 200*

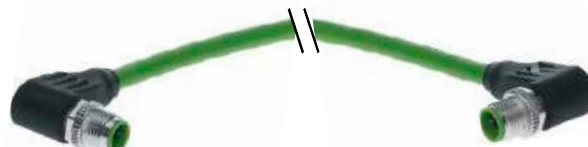
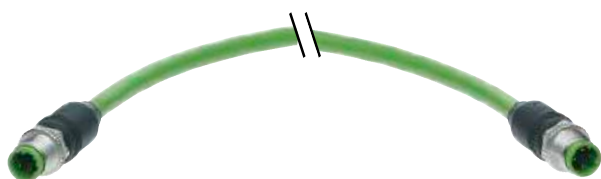


Overview system cables M12

03

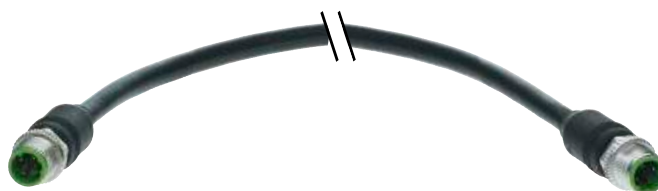
Number of contacts			Male M12 D-coding angled			
			 Cable material: PUR		 Cable material: PVC	
Male M12	angled		1.0 m	21 03 485 3401 09 48 808 0004 010*	1.0 m	09 47 808 0002 09 48 808 0003 010*
			1.5 m	21 03 485 3451 09 48 808 0004 015*	1.5 m	09 47 808 0003 09 48 808 0003 015*
			3.0 m	21 03 485 3403 09 48 808 0004 030*	3.0 m	09 47 808 0005 09 48 808 0003 030*
			5.0 m	21 03 485 3405 09 48 808 0004 050*	5.0 m	09 47 808 0006 09 48 808 0003 050*
			7.5 m	21 03 485 3457 09 48 808 0004 075*	7.5 m	09 47 808 0022 09 48 808 0003 075*
			10.0 m	21 03 485 3410 09 48 808 0004 100*	10.0 m	09 47 808 0011 09 48 808 0003 100*
			20.0 m	21 03 485 3420 09 48 808 0004 200*	20.0 m	09 47 808 0013 09 48 808 0003 200*
Open end			1.0 m	21 03 585 3401 09 48 800 0004 010*	1.0 m	09 47 800 0002 09 48 800 0003 010*
			1.5 m	21 03 585 3451 09 48 800 0004 015*	1.5 m	09 47 800 0003 09 48 800 0003 015*
			3.0 m	21 03 585 3403 09 48 800 0004 030*	3.0 m	09 47 800 0005 09 48 800 0003 030*
			5.0 m	21 03 585 3405 09 48 800 0004 050*	5.0 m	09 47 800 0006 09 48 800 0003 050*
			7.5 m	21 03 585 3457 09 48 800 0004 075*	7.5 m	09 47 800 0022 09 48 800 0003 075*
			10.0 m	21 03 585 3410 09 48 800 0004 100*	10.0 m	09 47 800 0011 09 48 800 0003 100*
			20.0 m	21 03 585 3420 09 48 800 0004 200*	20.0 m	09 47 800 0013 09 48 800 0003 200*

M12 System cables, D-coding



03

Identification	Part No.	Drawing	Dimensions in mm
2 x M12 Circular connectors, D-coding, PUR, straight	Length*: 1.0 m 1.5 m 3.0 m 5.0 m 7.5 m 10.0 m 20.0 m	21 03 485 1401 21 03 485 1451 21 03 485 1403 21 03 485 1405 21 03 485 1457 21 03 485 1410 21 03 485 1420	Cable: AWG 22 / 0.34 mm ²
1 x M12 Circular connectors, D-coding, PUR, straight	Length*: 1.0 m 1.5 m 3.0 m 5.0 m 7.5 m 10.0 m 20.0 m	21 03 585 1401 21 03 585 1451 21 03 585 1403 21 03 585 1405 21 03 585 1457 21 03 585 1410 21 03 585 1420	Cable: AWG 22 / 0.34 mm ²
2 x M12 Circular connectors, D-coding, PUR, angled	Length*: 1.0 m 1.5 m 3.0 m 5.0 m 7.5 m 10.0 m 20.0 m	21 03 485 3401 21 03 485 3451 21 03 485 3403 21 03 485 3405 21 03 485 3457 21 03 485 3410 21 03 485 3420	Cable: AWG 22 / 0.34 mm ²
1 x M12 Circular connectors, D-coding, PUR, angled	Length*: 1.0 m 1.5 m 3.0 m 5.0 m 7.5 m 10.0 m 20.0 m	21 03 585 3401 21 03 585 3451 21 03 585 3403 21 03 585 3405 21 03 585 3457 21 03 585 3410 21 03 585 3420	Cable: AWG 22 / 0.34 mm ²

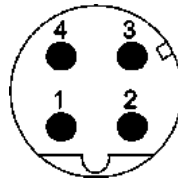


Identification	Part No.	Drawing	Dimensions in mm
2 x M12 Circular connectors, D-coding, PVC, straight	Length*: 1.0 m 1.5 m 3.0 m 5.0 m 7.5 m 10.0 m 20.0 m	09 47 222 2002 09 47 222 2003 09 47 222 2005 09 47 222 2006 09 47 222 2022 09 47 222 2011 09 47 222 2013	Cable: AWG 22 / 0.34 mm²
1 x M12 Circular connectors, D-coding, PVC, straight	Length*: 1.0 m 1.5 m 3.0 m 5.0 m 7.5 m 10.0 m 20.0 m	09 47 220 0002 09 47 220 0003 09 47 220 0005 09 47 220 0006 09 47 220 0022 09 47 220 0011 09 47 220 0013	Cable: AWG 22 / 0.34 mm²
2 x M12 Circular connectors, D-coding, PVC, angled	Length*: 1.0 m 1.5 m 3.0 m 5.0 m 7.5 m 10.0 m 20.0 m	09 47 808 0002 09 47 808 0003 09 47 808 0005 09 47 808 0006 09 47 808 0022 09 47 808 0011 09 47 808 0013	Cable: AWG 22 / 0.34 mm²
1 x M12 Circular connectors, D-coding, PVC, angled	Length*: 1.0 m 1.5 m 3.0 m 5.0 m 7.5 m 10.0 m 20.0 m	09 47 800 0002 09 47 800 0003 09 47 800 0005 09 47 800 0006 09 47 800 0022 09 47 800 0011 09 47 800 0013	Cable: AWG 22 / 0.34 mm²

M12 Panel feed-through HARAX® D-coded



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



Applications / Advantages

- D-coding for Ethernet/Profinet applications
- Patent HARAX® fast termination
- Robust design
- 360° shielding termination
- Transmission performance Cat. 5

Identification

Part No.

Drawing

Dimensions in mm

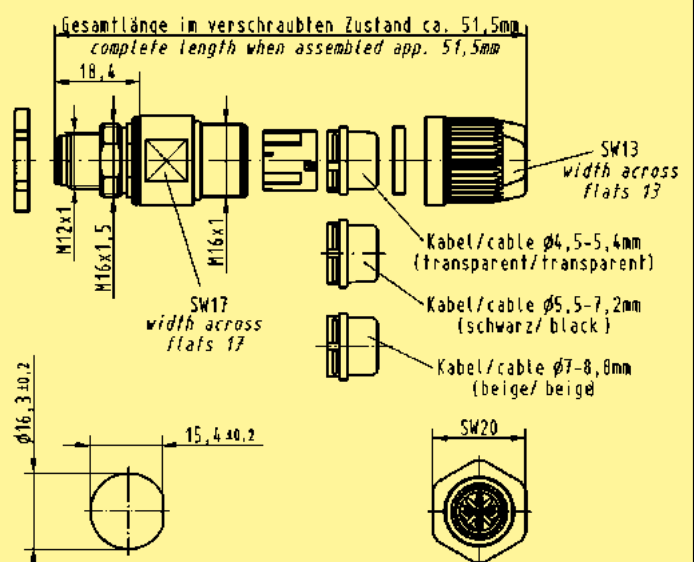
HARAX® Panel feed-through



Male
4 poles, D-coding
0.14 - 0.34 mm² / AWG 26 - 22

Panel thickness
min. 2.5 mm
max. 4.5 mm

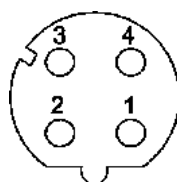
21 03 381 1425



M12 Panel feed-through HARAX® D-coded



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

Dimensions in mm

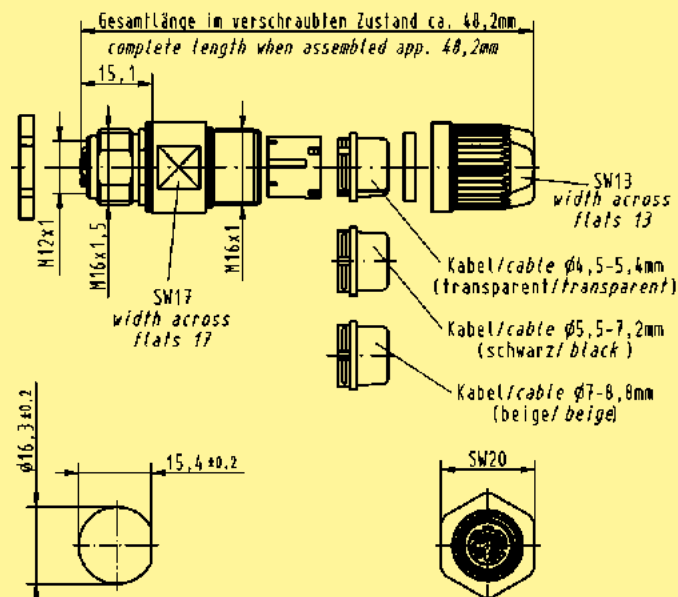
HARAX® Panel feed-through



Female
4 poles, D-coding
0.14 - 0.34 mm² / AWG 26 - 22

Panel thickness
min. 2.5 mm
max. 4.5 mm

21 03 381 2425

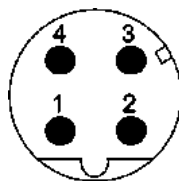


03

M12 Panel feed-through Crimp D-coded



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

Dimensions in mm

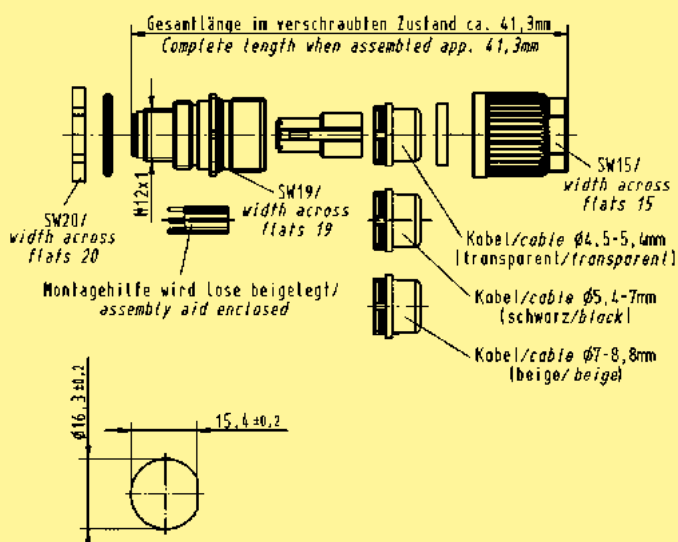
M12 Panel feed-through Crimp



21 03 882 1425

Male
4 poles, D-coding

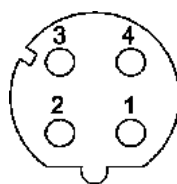
Panel thickness
min. 2.5 mm
max. 4.5 mm



M12 Panel feed-through Crimp D-coded



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

Dimensions in mm

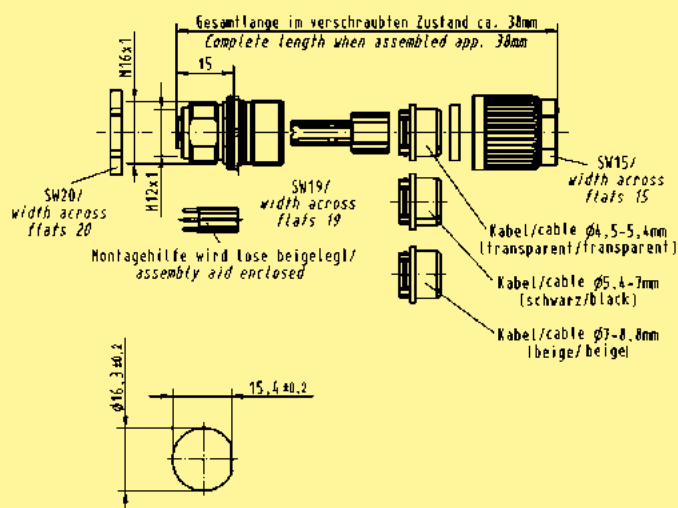
M12 Panel feed-through Crimp



Female
4 poles, D-coding

Panel thickness
min. 2.5 mm
max. 4.5 mm

21 03 882 2425

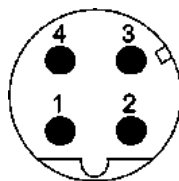


03

M12 Panel feed-through D-coded



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

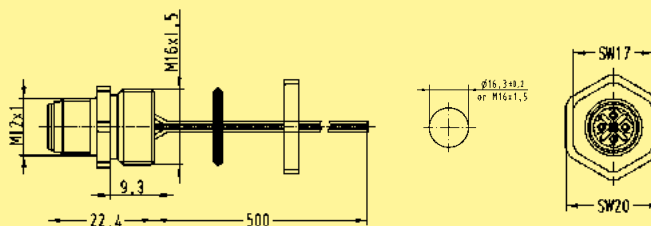
Drawing

Dimensions in mm

M12 Panel feed-through



21 03 371 1403



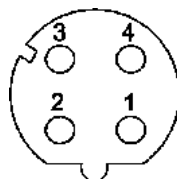
Male
D-coding
50 cm conductors, AWG 22, 4 poles

Panel thickness
min. 2.0 mm
max. 5.0 mm

M12 Panel feed-through D-coded



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

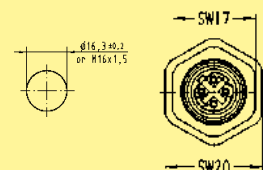
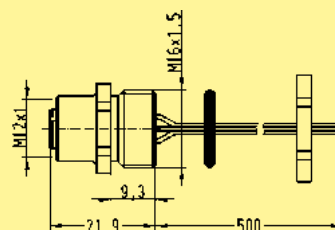
Drawing

Dimensions in mm

M12 Panel feed-through



21 03 371 2403



Female
D-coding
50 cm conductors, AWG 22, 4 poles

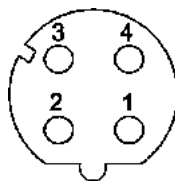
Panel thickness
min. 2.0 mm
max. 5.0 mm

03

M12 Panel feed-through D-coded



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



03

Identification

Part No.

Drawing

Dimensions in mm

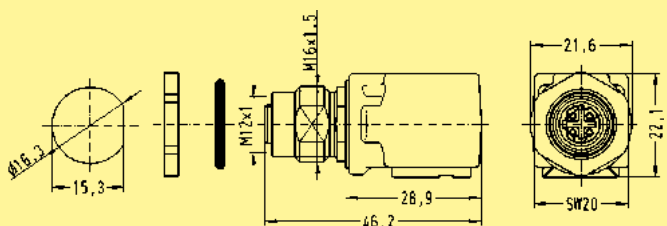
**M12 Female-RJ45
Panel feed-through**



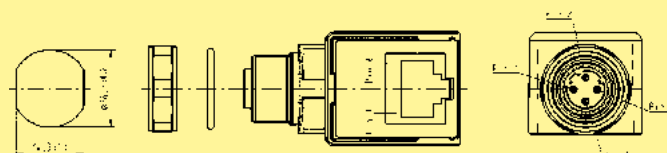
4 poles, D-coding
angled

Panel thickness
min. 2.1 mm
max. 4.5 mm

21 03 381 4400



21 03 381 4401*



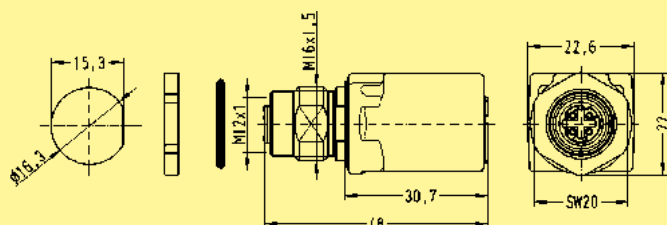
**M12 Female-RJ45
Panel feed-through**



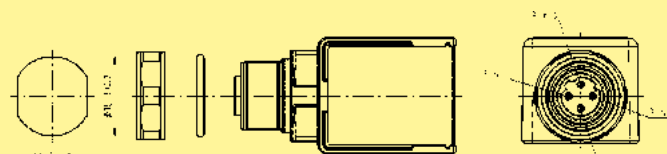
4 poles, D-coding
straight

Panel thickness
min. 2.1 mm
max. 4.5 mm

21 03 381 2400



21 03 381 2401*

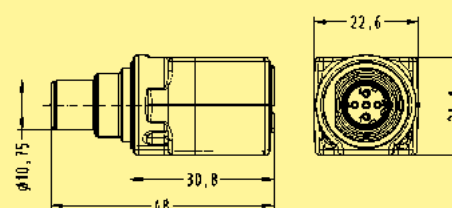


M12 Male-RJ45 Adapter



4 poles, D-coding
straight
(coupler, without thread in the
termination area)

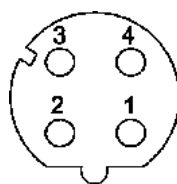
21 03 371 1420



M12 Panel feed-through D-coded



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

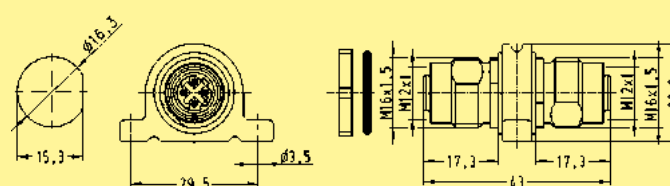
Dimensions in mm

M12 Gender Changer
Female-Female



4 poles, D-coding
Cat. 5

21 03 381 6405

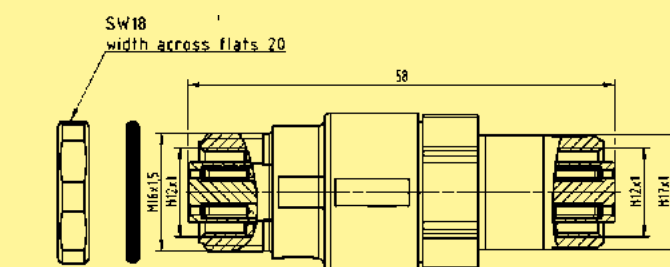


M12 Gender Changer
Female-Female

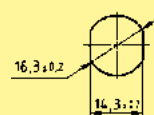


4 poles, D-coding
Cat. 5

21 03 381 6401*



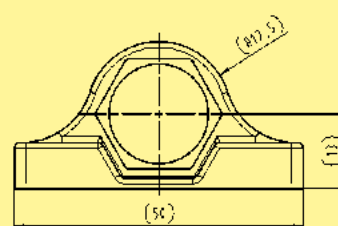
Panel cut out
(1:1)



Wall bracket



21 01 000 0036

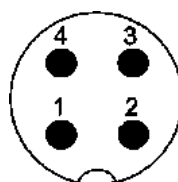


03

M12 PCB adapter D-coded



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



Technical characteristics: M12 PCB adapter D-coded angled

Degree of protection	IP20, IP67 (mated and locked)	Temperature during connection	-5 °C ... +50 °C
Rated current	max. 4 A (dependant on PCB layout)	Termination	Reflow
Rated voltage	50 V	Contact material	Copper alloy
Mating cycles	max. 100	Contact plating (mating side)	Au over Ni
Limiting temperature	-40 °C ... +85 °C	Insulator material	LCP

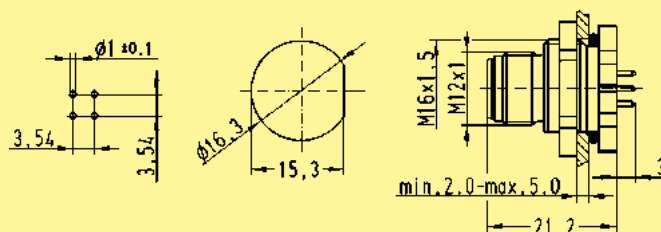
Identification	Part No.	Drawing	Dimensions in mm
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M12 PCB adapter
Male, D-coding,
straight



4 poles, IP67

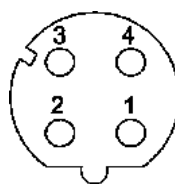
21 03 371 1400



M12 PCB adapter D-coded



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

Dimensions in mm

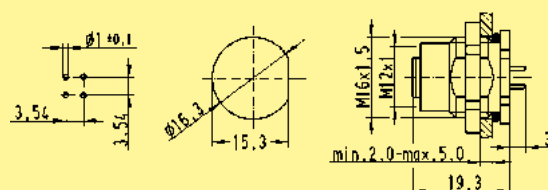
M12 PCB adapter

Female, D-coding,
straight



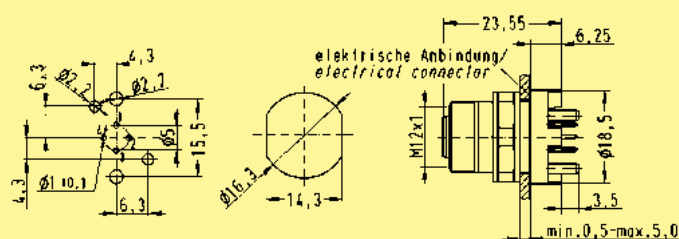
4 poles, IP67

21 03 371 2415



4 poles, IP20
4 poles, IP67

21 03 381 6410
21 03 381 6420

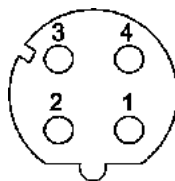


03

M12 PCB adapter D-coded



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

Dimensions in mm

M12 PCB adapter

Female, D-coding,
angled, 4 poles

without fixing hole

IP20

21 03 381 4410¹⁾

IP20

21 03 381 4411²⁾

IP67

21 03 381 4430¹⁾



with fixing hole

IP20

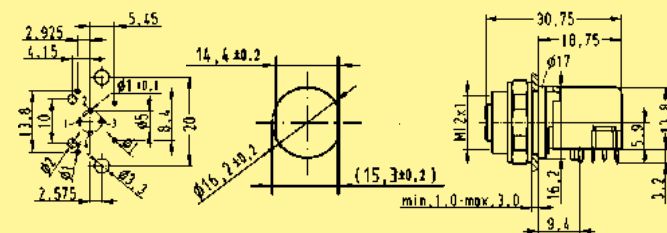
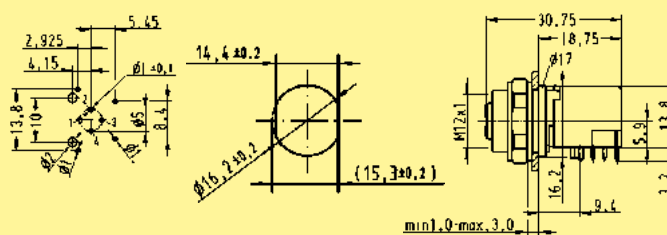
21 03 381 4412¹⁾

IP20

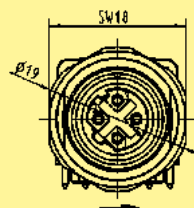
21 03 381 4413²⁾

IP67

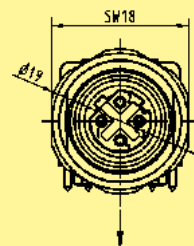
21 03 381 4432¹⁾



1) Cable direction
to the right



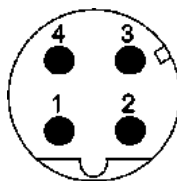
2) Cable direction
to the bottom



M12 PCB adapter shielded D-coded



Mating face



D-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

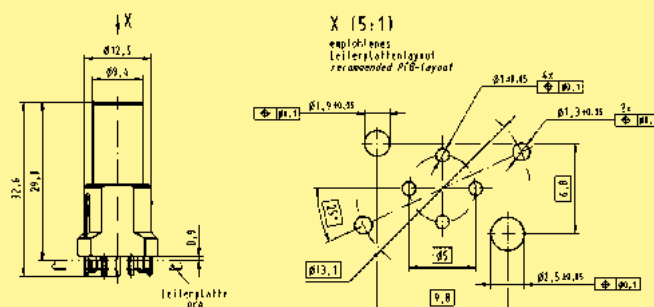
Dimensions in mm

M12 PCB adapter, shielded



Male
4 poles, D-coding

21 03 381 1418*



Housing

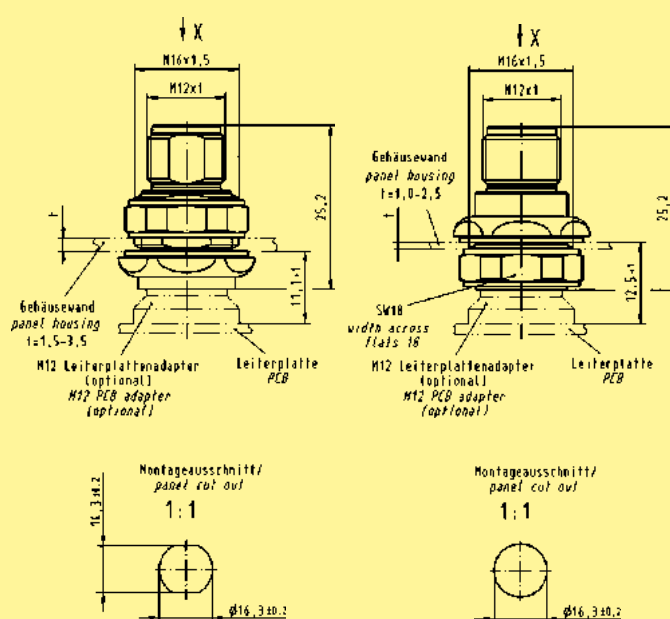


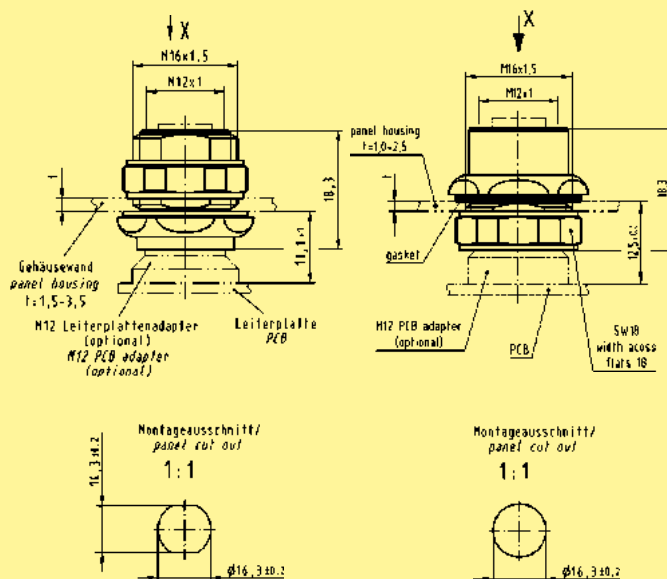
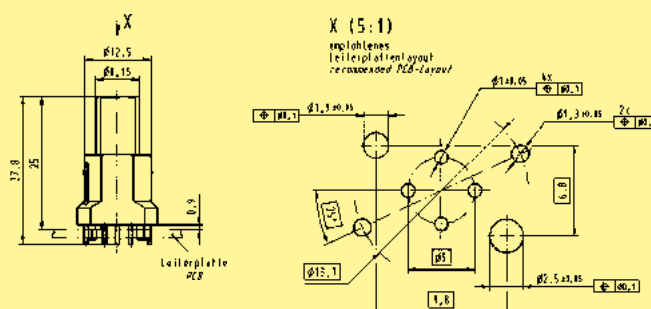
for rear mounting

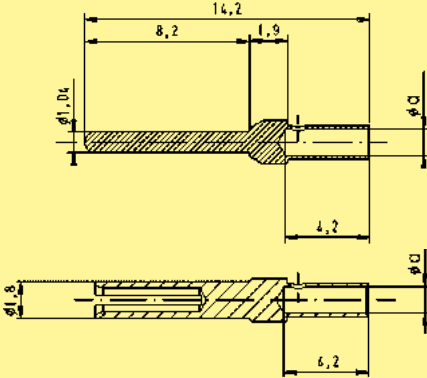
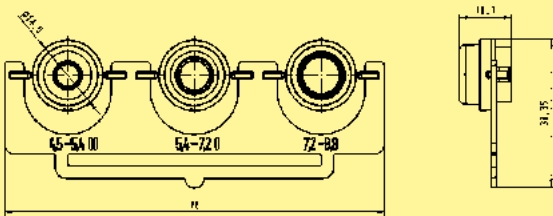
21 03 301 1000

for front mounting

21 03 301 1001





Identification	Part No.	Drawing																
Crimping tool for M12 Crimp	09 99 000 0501																	
Accessories M12 Crimp		D-Sub contacts																
Locator	09 99 000 0531	 <table><tr><th>Part number</th><th>AWG</th><th>Tool settings</th></tr><tr><td rowspan="3">09 67 000 3x76</td><td>18</td><td>6</td></tr><tr><td>20</td><td>6</td></tr><tr><td>22</td><td>5</td></tr><tr><td>09 67 000 8x76</td><td>20, 22, 24</td><td>6</td></tr><tr><td>09 67 000 5x76</td><td>22, 24, 26</td><td>6</td></tr></table>	Part number	AWG	Tool settings	09 67 000 3x76	18	6	20	6	22	5	09 67 000 8x76	20, 22, 24	6	09 67 000 5x76	22, 24, 26	6
Part number	AWG	Tool settings																
09 67 000 3x76	18	6																
	20	6																
	22	5																
09 67 000 8x76	20, 22, 24	6																
09 67 000 5x76	22, 24, 26	6																
D-Sub single contacts (500 mating cycles)																		
turned male contacts																		
AWG 22-18 / 0.33-0.82 mm²	09 67 000 3576	 <table><tr><td></td><td>a</td></tr><tr><td>AWG 22-18</td><td>1.34</td></tr><tr><td>AWG 24-20</td><td>1.13</td></tr><tr><td>AWG 26-22</td><td>0.88</td></tr></table>		a	AWG 22-18	1.34	AWG 24-20	1.13	AWG 26-22	0.88								
	a																	
AWG 22-18	1.34																	
AWG 24-20	1.13																	
AWG 26-22	0.88																	
AWG 24-20 / 0.25-0.52 mm²	09 67 000 8576																	
AWG 26-22 / 0.13-0.33 mm²	09 67 000 5576																	
turned female contacts																		
AWG 22-18 / 0.33-0.82 mm²	09 67 000 3476																	
AWG 24-20 / 0.25-0.52 mm²	09 67 000 8476																	
AWG 26-22 / 0.13-0.33 mm²	09 67 000 5476																	
M12 dynamometric screwdriver																		
Tightening torque 0.6 Nm																		
for M12 Slim design SW 15	09 99 000 0646																	
for M12-L SW 17	09 99 000 0384																	
Set of seals M12-L shielded																		
for 4.5 - 5.4 mm cable Ø	21 01 010 2017																	
for 5.4 - 7.2 mm cable Ø																		
for 7.2 - 8.8 mm cable Ø																		
Accessories M12																		
Lock nut	21 01 000 0018																	

M12 X-coding

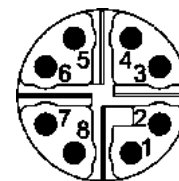


Specifications IEC 60 352-4

Approval 



Mating face



X-coding
Mating face
acc. to IEC 61076-2-101

Technical characteristics M12 – X-coding

Type M12 X-coded

har-speed M12
har-speed M12 Slim design

General data

Conductor cross section	0.08 - 0.25 mm ² AWG 28-23
Diameter of individual strands	–
Conductor insulation material	–
Conductor diameter	0.33 - 0.61 mm
Cable diameter	4.5 - 8.8 mm
Temperature range	-40 °C ... +85 °C
Temperature during connection	-5 °C ... +50 °C
Degree of protection	IP65 / IP67
Mating cycles	500
Tightening torque connector / hexagonal wrench	0.6 Nm / SW 15

Electrical characteristics

Rated current	0.5 A
Rated voltage	48 V
Rated impulse voltage	1.5 kV
Contact resistance	15 mΩ
Insulation resistance	10 ⁸ Ω
Pollution degree	3
Overvoltage category	3
Isolation group	1
Transmission performance (Category)	Cat. 6 _A

Materials

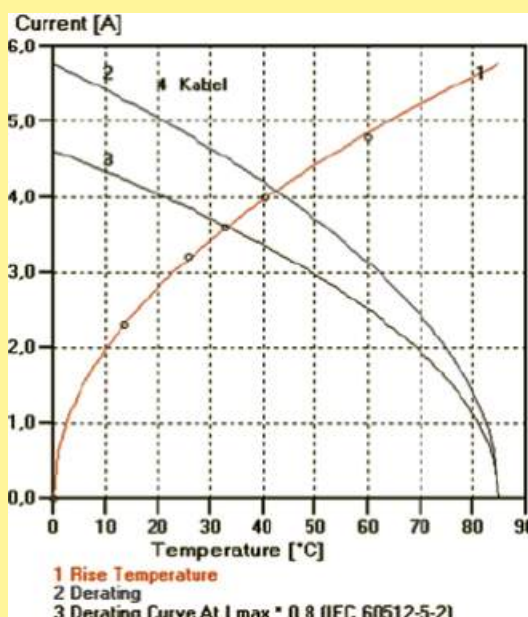
Contact material	Brass
Contact plating	Gold
Contact carrier material	LCP
Housing material	ZP410

Technical characteristics M12 – X-coding

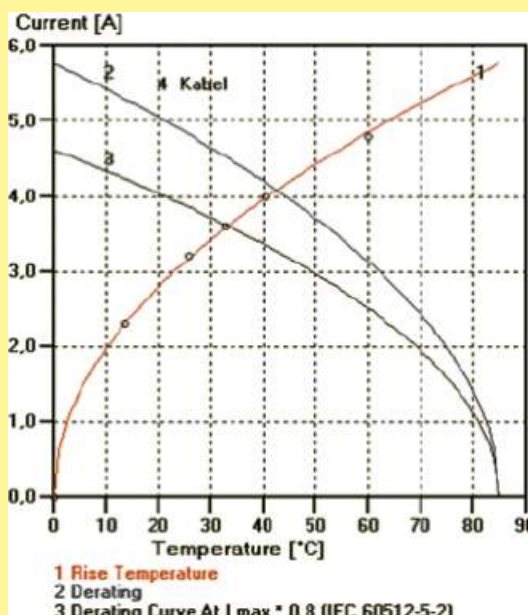
Current carrying capacity The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals. The current capacity-curve is valid for continuous, not interrupted current-loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.

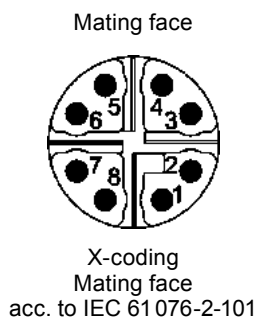
Control and test procedures according to DIN IEC 60512-5.

har-speed M12
8 poles



har-speed M12
PCB adapter





Applications / Advantages

- High-Speed Ethernet applications for process automatization, e.g. camera system for process control in the production
- Maximum data rates through the configuration of the contacts in conformance with Ethernet technology. Transfer class E_A for 1 and 10 Gigabit
- Perfect shielding through paired shielding of the contacts
- Overmoulded system cables in various lengths

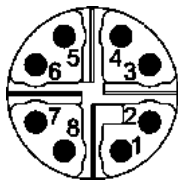
04

Identification	Part No.	Drawing	Dimensions in mm
har-speed M12 Male straight version 8 poles, Cat. 6 _A Cable diameter: 4.5 - 8.8 mm	21 03 881 5805	Gesamtlänge im verschraubten Zustand ca. 62,5mm complete length when assembled app. 62,5mm SW17/ width across flats 17 SW15/ width across flats 15 Steckgesicht n. Contact face acc. IEC 61076-2-10 PAS	
har-speed M12 Slim design Male straight version 8 poles, Cat. 6 _A Cable diameter: 4.5 - 8.8 mm	21 03 881 1805	Gesamtlänge im verschraubten Zustand ca. 45,1mm complete length when assembled app. 45,1mm SW15/ width across flats 15 SW17/ width across flats 17 SW15/ width across flats 15 X (2 1) Steckgesicht n. Contact face acc. IEC 61076-2-10 PAS 800 81000 1007738	

har-speed M12 System cables X-coded

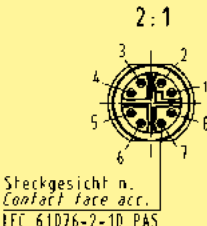
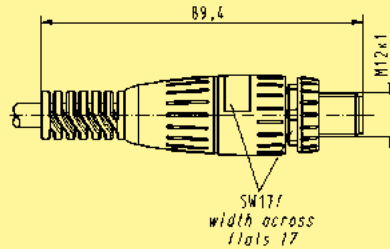
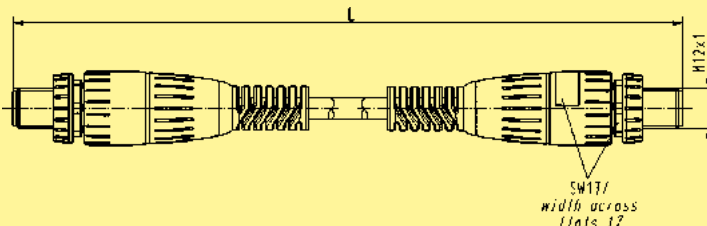


Mating face



X-coding
Mating face
acc. to IEC 61076-2-101

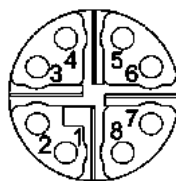


Identification	Part No.	Drawing	Dimensions in mm
har-speed M12 System cables single ended overmoulded system cable			
Length: 1 m 3 m 5 m 7 m 10 m	21 03 483 1801 21 03 483 1803 21 03 483 1805 21 03 483 1807 21 03 483 1810		
double ended overmoulded system cable			
Length: 0.5 m 1.0 m 1.5 m 2.0 m 2.5 m	21 03 483 5850 21 03 483 5801 21 03 483 5851 21 03 483 5802 21 03 483 5852		

har-speed M12 Panel feed-through X-coded



Mating face



X-coding
Mating face
acc. to IEC 61076-2-101



Identification	Part No.	Drawing	Dimensions in mm
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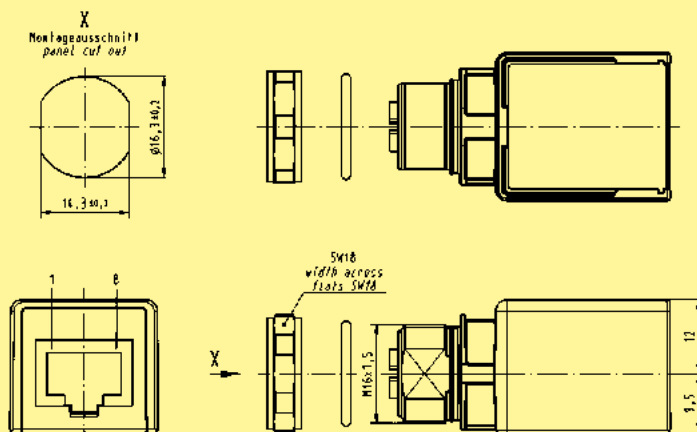
har-speed M12
Adapter M12-RJ45



straight, Cat. 6A

Panel thickness
min. 2.1 mm
max. 4.5 mm

21 03 381 2800



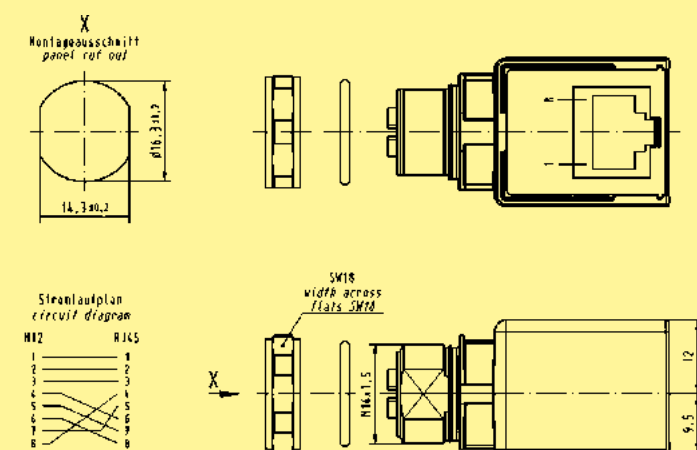
04



angled, Cat. 6A

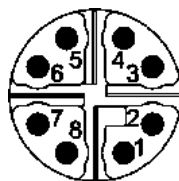
Panel thickness
min. 2.1 mm
max. 4.5 mm

21 03 381 4800





Mating face



X-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

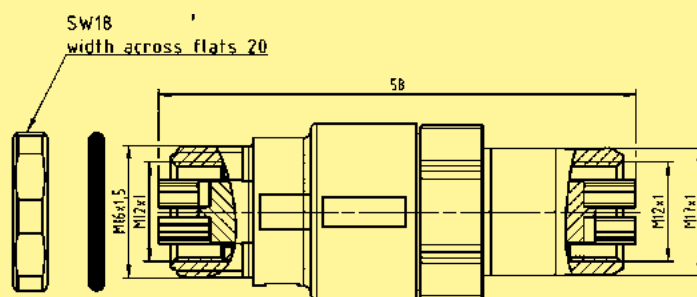
Drawing

Dimensions in mm

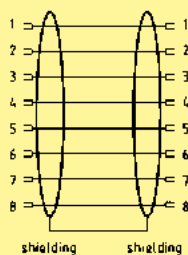
Gender changer, Cat. 6A



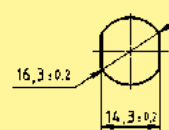
21 03 381 6815



schematic diagram



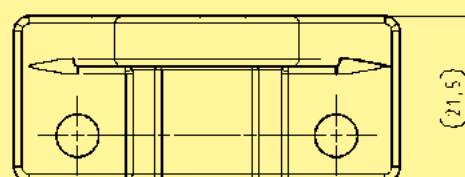
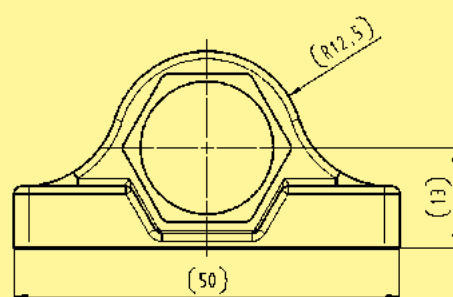
Panel cut out
(1:1)



Wall bracket



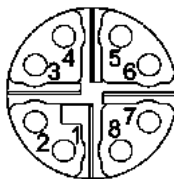
21 01 000 0036



har-speed M12 PCB adapter X-coded



Mating face



X-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

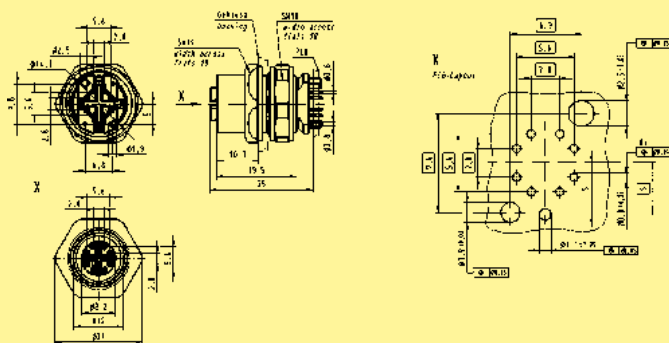
Dimensions in mm

har-speed M12 PCB adapter

Female, X-coding,
straight, Cat. 6_A
for front mounting



21 03 381 2802

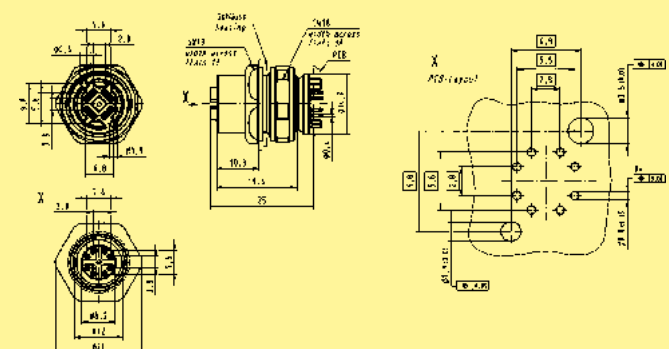


har-speed M12 PCB adapter

Female, X-coding,
straight, Cat. 5
for front mounting



21 03 381 2803

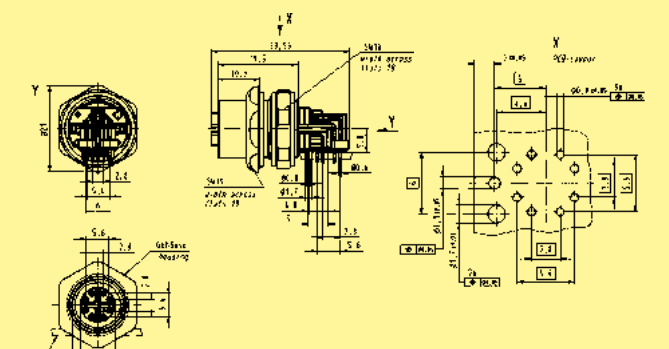


har-speed M12 PCB adapter

Female, X-coding,
angled, Cat. 6_A
for front mounting



21 03 381 4802

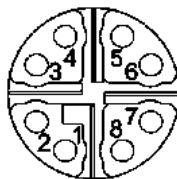


04

har-speed M12 PCB adapter X-coded



Mating face



X-coding
Mating face
acc. to IEC 61076-2-101



Identification

Part No.

Drawing

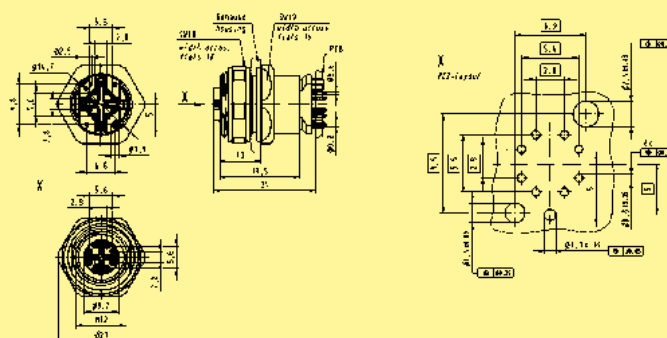
Dimensions in mm

har-speed M12 PCB adapter

Female, X-coding,
straight, Cat. 6A
for rear mounting



21 03 381 2804



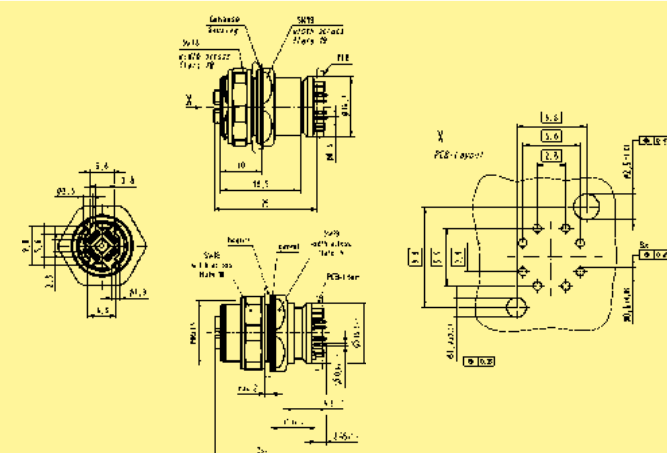
har-speed M12 PCB adapter

Female, X-coding,
straight, Cat. 5
for rear mounting



21 03 381 2805

21 03 381 2809

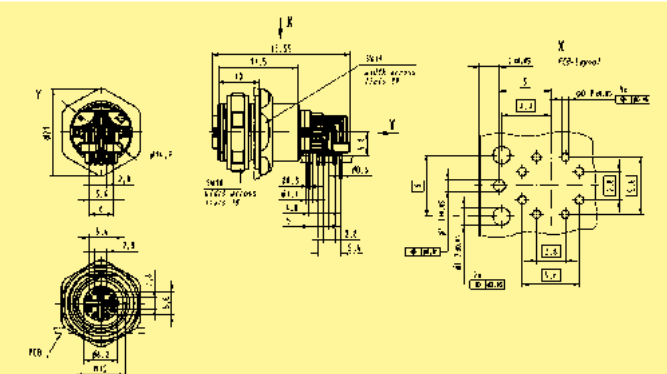


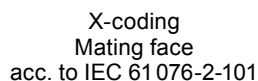
har-speed M12 PCB adapter

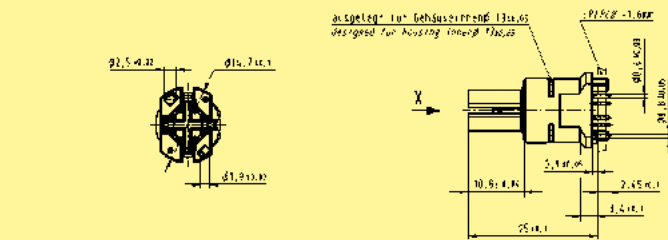
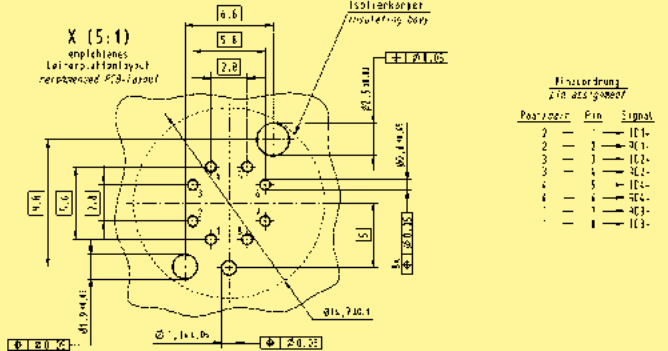
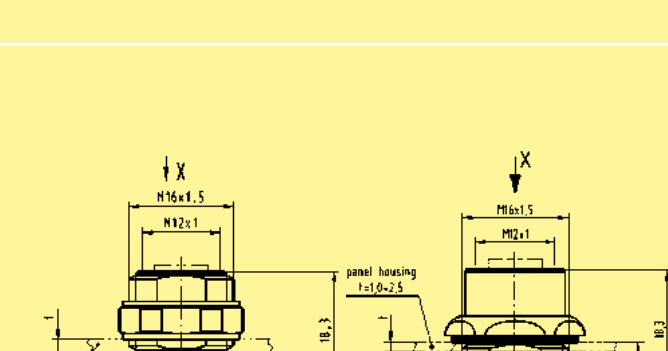
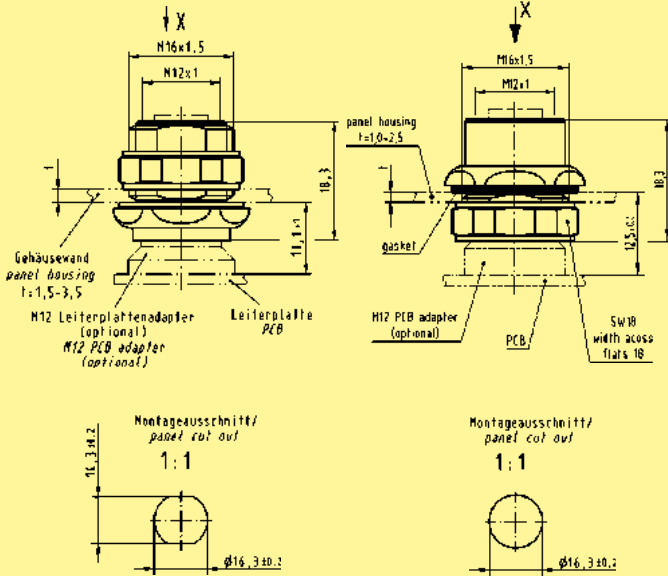
Female, X-coding,
angled, Cat. 6A
for rear mounting



21 03 381 4804





Identification	Part No.	Drawing	Dimensions in mm
har-speed M12 PCB adapter 			
Female 8 poles, X-coding Cat. 6A	21 03 381 2806		
Female 8 poles, X-coding Cat. 5	21 03 381 2807		
Housing  			
for rear mounting	21 03 301 2000		
for front mounting	21 03 301 2001		



Mating face



X-coding
Mating face
acc. to IEC 61076-2-101



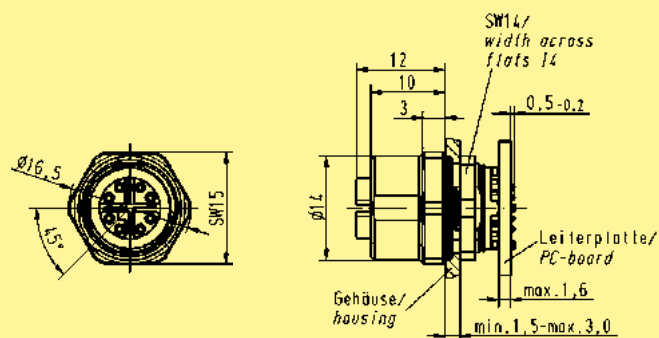
Identification	Part No.	Drawing	Dimensions in mm
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har-speed M12
PCB adapter

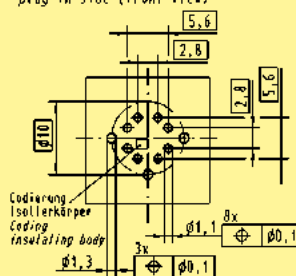
Female, X-coding,
straight, Cat. 6A
for front mounting



21 03 381 2801



Bohrplan/drilling plan
Bestückungsseite (Frontansicht)
plug-in side (front view)



Identification

Part No.

Drawing

Crimping tool
for *har-speed* M12

09 99 000 0501



Accessories *har-speed* M12

Locator

09 99 000 0525



Single contacts
(500 mating cycles)

har-speed M12 contacts
AWG 28-24 / 0.08-0.22 mm²



21 01 100 9014

har-speed M12 contacts
AWG 26-23 / 0.13-0.25 mm²

21 01 100 9019

har-speed contacts

Part number	AWG	Tool settings
21 01 100 9014	28	3
	26	4
	24	5
21 01 100 9019	26	4
	24	5
	23	5

Accessories M12

Lock nut

21 01 000 0018



M12
dynamometric screwdriver
Tightening torque 0.6 Nm

for M12 Slim design SW 15

09 99 000 0646



Identification	Part No.	Drawing	Dimensions in mm
Cap metal M12 for IP65 / IP67 M12 metal cap for male side with cord	21 01 000 0033		
Cap metal M12 for IP65 / IP67 M12 metal cap for male side with cable clip	21 01 000 0038		
Cap metal M12 for IP65 / IP67 M12 metal cap for female side with cord	21 01 000 0030		
Cap metal M12 for IP65 / IP67 M12 metal cap for female side with cable clip	21 01 000 0031		
Cap M12 for IP65 / IP67 Seals material Viton Plastic cap for female	21 01 000 0003		