



HARTING

Circular Connectors

Circular connectors



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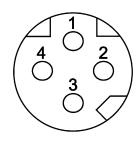
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003 08 1



4

Reflow soldering termination (THR) Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 4 \\ \text{Rated current} & 4 \text{ A} \\ \text{Rated voltage} & 60 \text{ V} \\ \text{Rated impulse voltage} & 1.5 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & >10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \, \text{m} \Omega \\ \text{Mating cycles} & \geq 100 \\ \end{array}$

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

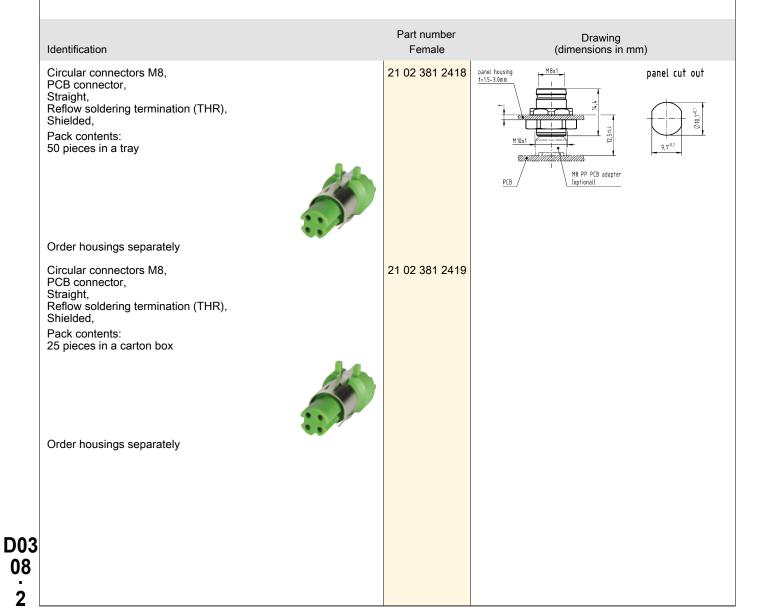
Technical characteristics

Transmission characteristics Cat. 5, Class D up to 100 MHz

Tightening torque 1 Nm Lock nut
Material (contacts) Copper alloy
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals



PCB connectors



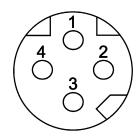
M8

Part number Drawing (dimensions in mm) Identification Female 21 02 301 2001 panel housing t=1.5-3.0mm Circular connectors M8, panel cut out Housing, for front mounting, Pack contents: incl. lock nut M8 PP PCB adapter (optional) 21 02 301 2002 Circular connectors M8, Housing, for front mounting, Pack contents: without lock nut 21 01 000 0051 Lock nut, M10 x 1



4

Reflow soldering termination (THR) Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 4 \\ \text{Rated current} & 4 \text{ A} \\ \text{Rated voltage} & 60 \text{ V} \\ \text{Rated impulse voltage} & 1.5 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & > 10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \, \text{m} \Omega \end{array}$

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Transmission characteristics Cat. 5, Class D up to 100 MHz

Technical characteristics

Tightening torque 1 Nm Lock nut
Material (contacts) Copper alloy
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-114

Part number

Female 21 02 381 2431

Identification

Circular connectors M8, PCB connector,

Straight,

for front mounting,

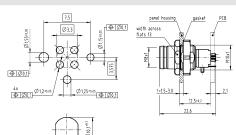
Reflow soldering termination (THR),

Shielded, Pack contents:

incl. housing



Drawing (dimensions in mm)

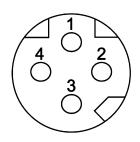


Panel cut out



Number of contacts

Wave soldering termination



Technical characteristics

Number of contacts 4 A Rated current Rated voltage 60 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100

Degree of protection acc. to IEC IP67, when mated 60529

Transmission characteristics Cat. 5, Class D up to 100 MHz

Tightening torque 1 Nm Lock nut

Technical characteristics

Material (contacts) Copper alloy Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals



Identification	Part number Female	Drawing (dimensions in mm)
Circular connectors M8, PCB connector, Straight, Wave soldering termination, Shielded	21 42 000 0006	2.85 15,25 13,3 14, 15,25 15,2
Order housings separately		1 Ob layout
Circular connectors M8, Housing, for front mounting, 9 mm	21 41 000 0016	SMB
Circular connectors M8, Housing, for front mounting, 13 mm	21 41 000 0017	12.5 5.5 5W3 5W3 5W3 5W3 5W3 5W3 5W3 5W3 5W3 5W

PCB connectors

D-coding



Identification

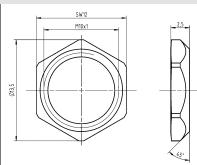
M8

Circular connectors M8, hexagonal nut, M10 x 1

Part number Female

21 41 000 0018

Drawing (dimensions in mm)

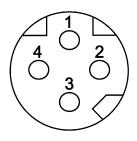


D03 08

Number of contacts

4

Wave soldering termination Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 4 \\ \text{Rated current} & 4 \text{ A} \\ \text{Rated voltage} & 60 \text{ V} \\ \text{Rated impulse voltage} & 1.5 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & > 10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \, \text{m} \Omega \\ \text{Mating cycles} & \geq 100 \\ \end{array}$

Degree of protection acc. to IEC IP67, when mated

60529

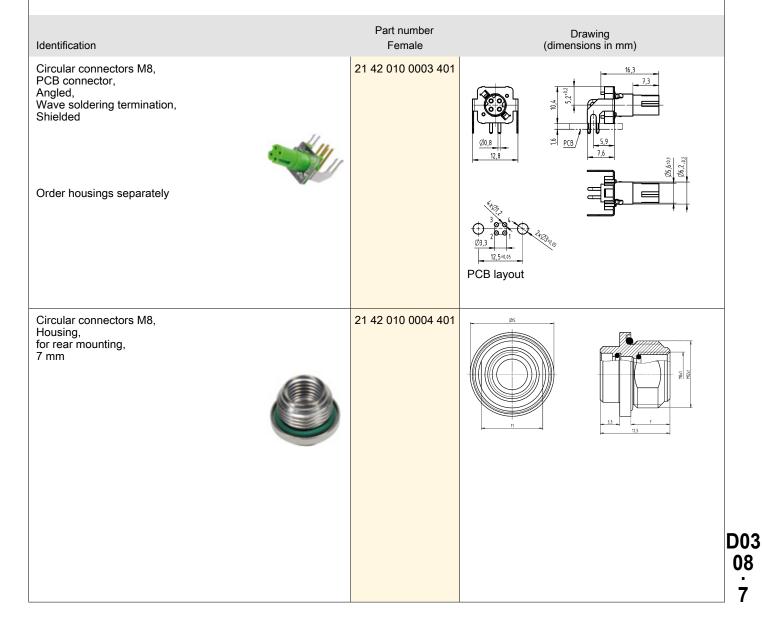
Technical characteristics

Transmission characteristics Cat. 5, Class D up to 100 MHz

Tightening torque 1 Nm Lock nut Material (contacts) Copper alloy Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals



PCB connectors

M8

D-coding

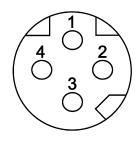


Part number Drawing (dimensions in mm) Identification Female 21 42 010 0002 401 Circular connectors M8, Housing, for rear mounting, 11 mm 21 42 010 0001 401 Circular connectors M8, hexagonal nut, M12 x 1



Number of contacts

Wave soldering termination



Technical characteristics

Number of contacts 4 A Rated current 60 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100 Degree of protection acc. to IEC IP67 60529

Technical characteristics

Transmission characteristics Cat. 5, Class D up to 100 MHz Tightening torque 1 Nm Lock nut

Material (contacts) Copper alloy Gold plated Surface (contacts)

RoHS compliant with exemption

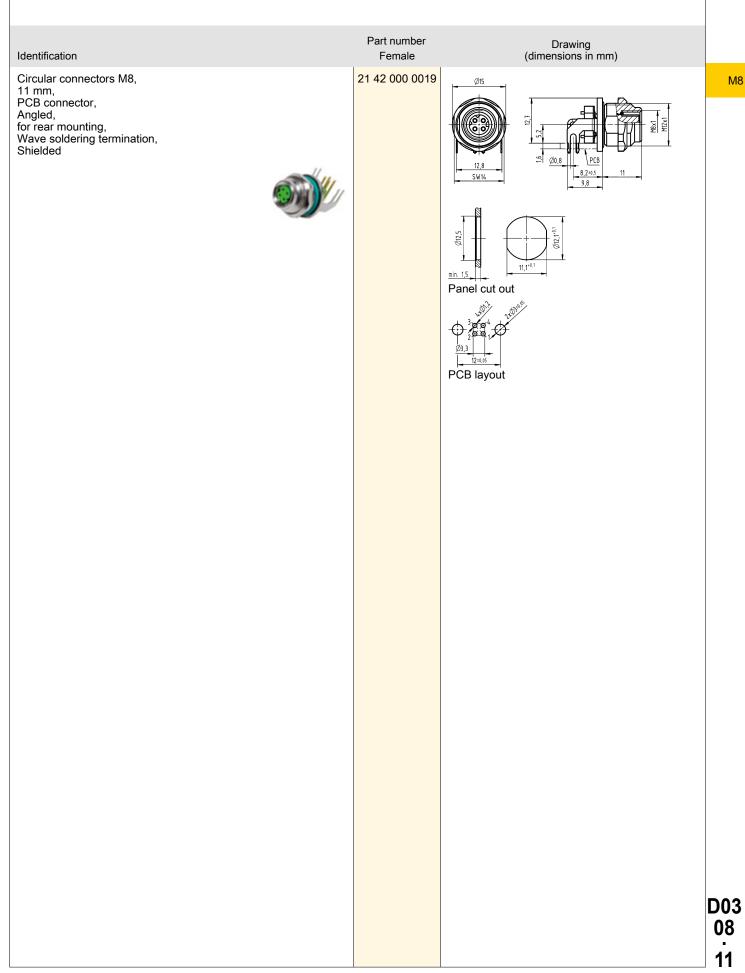
Specifications and approvals

IEC 61076-2-114

Part number Drawing Identification Female (dimensions in mm) 21 42 000 0014 Circular connectors M8, 9 mm, PCB connector, Straight, for front mounting, Wave soldering termination, Shielded Panel cut out PCB layout



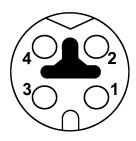
Part number Drawing (dimensions in mm) Identification Female 21 42 000 0005 Circular connectors M8, 13 mm, PCB connector, Straight, for front mounting, Wave soldering termination, Shielded Panel cut out PCB layout 21 42 000 0020 Circular connectors M8, 7 mm, PCB connector,
Angled,
for rear mounting,
Wave soldering termination,
Shielded Panel cut out PCB layout **D03**





4

Reflow soldering termination (THR) Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 4 \\ \text{Rated current} & 4 \text{ A} \\ \text{Rated voltage} & 60 \text{ V} \\ \text{Rated impulse voltage} & 1.5 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & > 10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \, \text{m} \Omega \\ \text{Mating cycles} & \geq 100 \\ \end{array}$

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

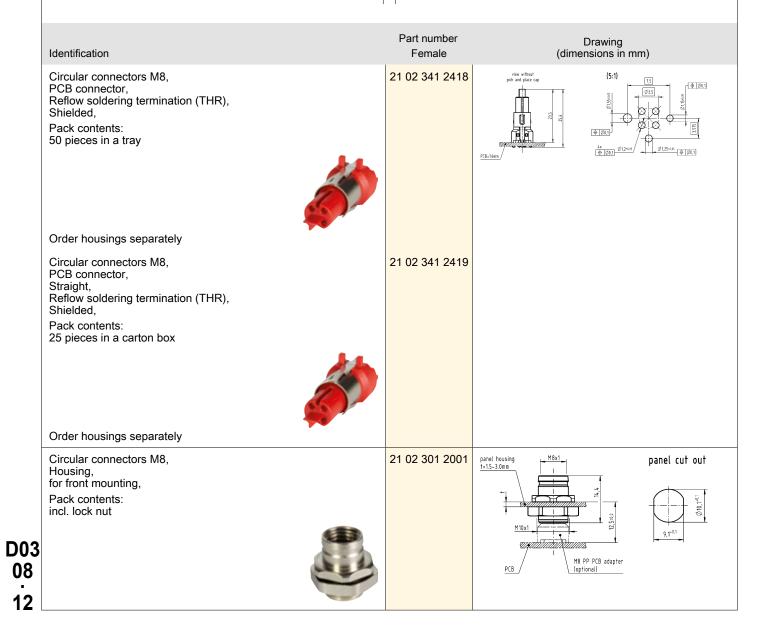
Technical characteristics

Transmission characteristics Cat. 5, Class D up to 100 MHz

Tightening torque 1 Nm Lock nut
Material (contacts) Copper alloy
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals



PCB connectors

P-coding



Identification	Part number Female	Drawing (dimensions in mm)	
Circular connectors M8, Housing, for front mounting, Pack contents: without lock nut	21 02 301 2002		M8
Lock nut, M10 x 1	21 01 000 0051		
			D03 08
			13



Reflow soldering termination (THR) Shielded



Technical characteristics

Number of contacts Rated current 4 A 60 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ

Degree of protection acc. to IEC IP65 / IP67, when mated

Cat. 5, Class D up to 100 MHz Transmission characteristics

Technical characteristics

Tightening torque 1 Nm Lock nut Material (contacts) Copper alloy Gold plated Surface (contacts)

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-114

Part number Drawing (dimensions in mm) Identification Female 21 02 341 2431 Circular connectors M8,

PCB connector, Straight,

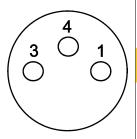
for front mounting,

Reflow soldering termination (THR), Shielded,

Pack contents: incl. housing



Unshielded



Technical characteristics

Number of contacts Rated current 3 A 50 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Locking type Screw locking

Conductor length 50 cm

IP67 Degree of protection acc. to IEC

60529

0.25 mm² Conductor cross-section Conductor cross-section AWG 24 Tightening torque 0.8 Nm Lock nut

Technical characteristics

Material (insert) Thermoplastic polyurethane

(TPU)

Copper-zinc alloy Material (hood/housing)

Material (contacts) Brass Surface (contacts) Gold plated

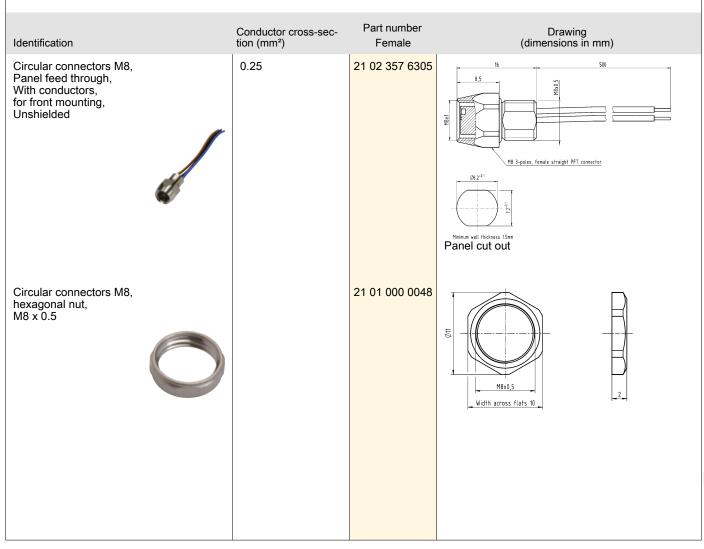
RoHS compliant with exemption,

compliant

Specifications and approvals

IEC 61076-2-104

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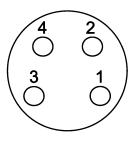


10

Number of contacts

4

Unshielded



Technical characteristics

Locking type Screw locking Conductor length 50 cm

Degree of protection acc. to IEC IP67

60529

Conductor cross-section 0.25 mm²
Conductor cross-section AWG 24

Tightening torque 0.8 Nm Lock nut

Technical characteristics

Material (insert) Thermoplastic polyurethane

(TPU)

Material (hood/housing) Copper-zinc alloy

Material (contacts)

Surface (contacts)

Brass

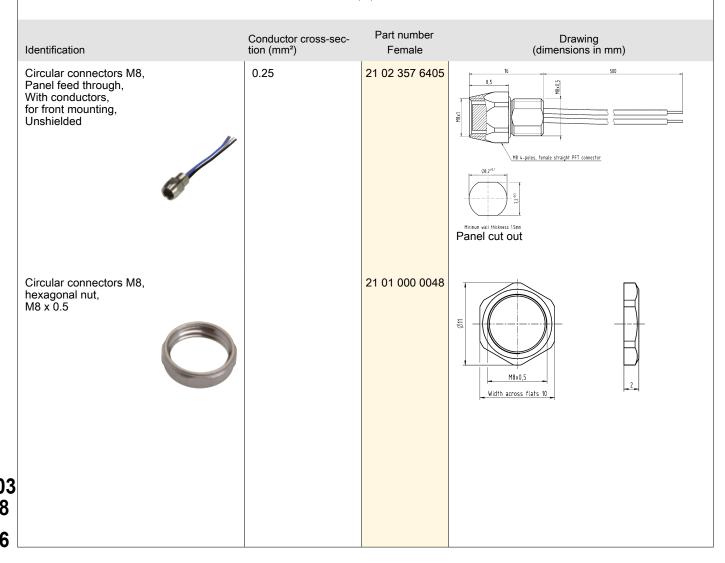
Gold plated

RoHS compliant with exemption,

compliant

Specifications and approvals







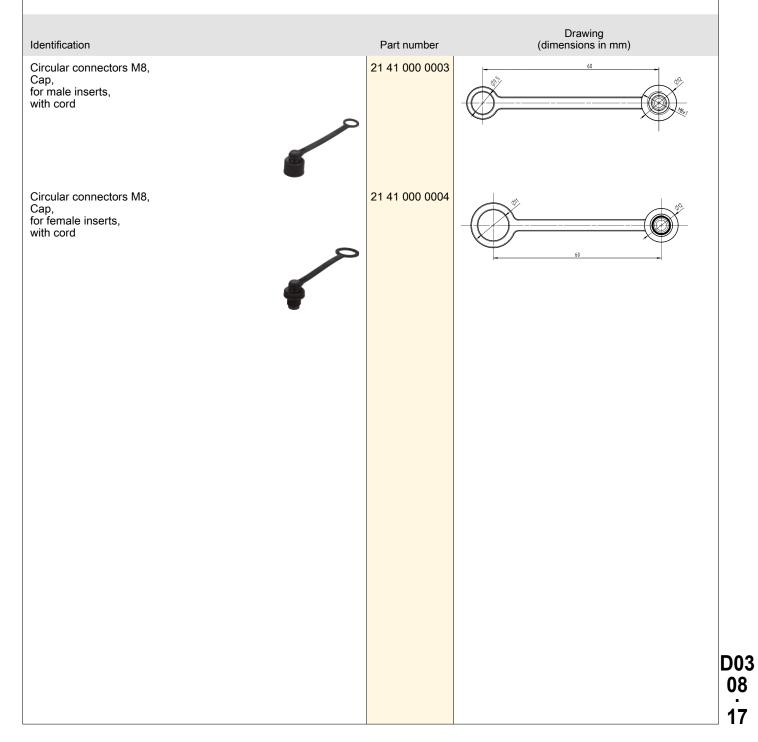
Technical characteristics

Material (accessories)

Thermoplastic

Technical characteristics

Colour (accessories) RoHS Black compliant





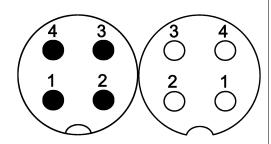
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PCB connectors with transformer	D03 12.71
Panel feed through	D03 12.83
Accessories	D03 12.100

D03 12 1



M12

Reflow soldering termination (THR) Shielded



Technical characteristics

Number of contacts Rated current 4 A Rated voltage 250 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Tightening torque 2 Nm Lock nut

Technical characteristics

Material (insert) Liquid crystal polymer (LCP) Material (contacts) Copper alloy

Surface (contacts) Gold plated

RoHS compliant with exemption,

compliant

Specifications and approvals

IEC 61076-2-101 UL 1977 ECBT2.E102079 CSA-C22.2 No. 182.3 ECBT8.E102079

Part number

Male

Identification

Circular connectors M12,

PCB adapter, Straight,

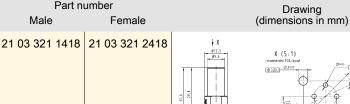
Reflow soldering termination (THR),

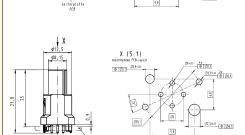
Shielded, Pack contents: 60 pieces in a tray



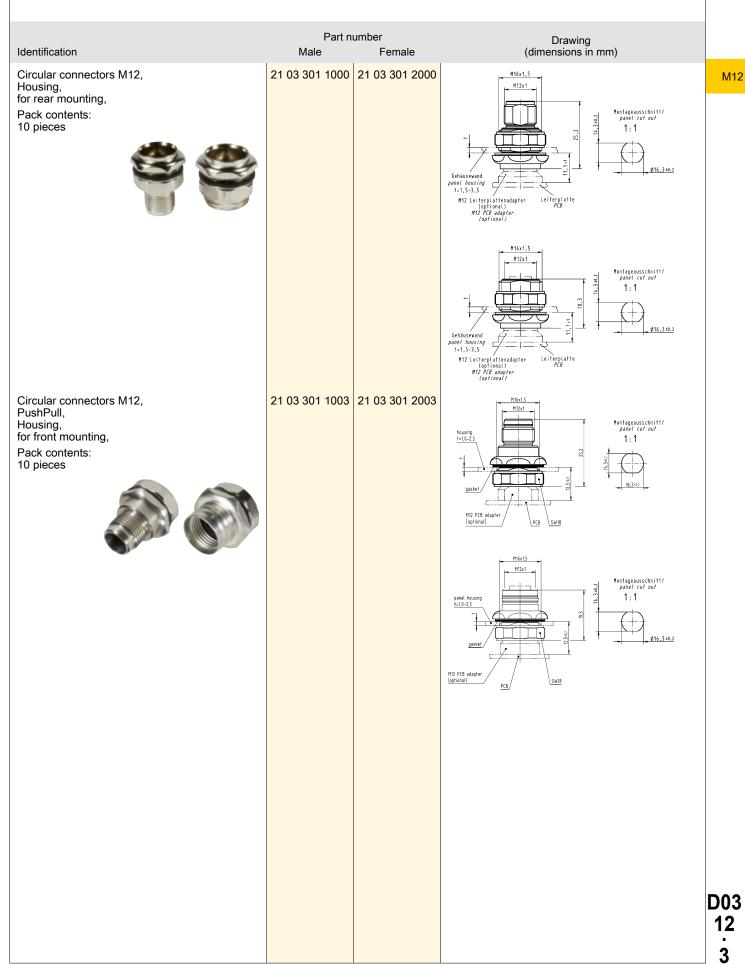


Order housings separately





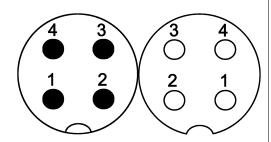
3





M12

Reflow soldering termination (THR)



Technical characteristics

Number of contacts Rated current 4 A 250 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Tightening torque 2 Nm Lock nut

Technical characteristics

Material (insert) Liquid crystal polymer (LCP) Material (hood/housing) Zinc die-cast

Material (contacts) Copper alloy Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101

UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079

Part number Drawing (dimensions in mm) Identification Male Female Circular connectors M12, 21 03 321 1430 21 03 321 2430 PCB adapter, Straight, incl. housing, for rear mounting, Reflow soldering termination (THR), Shielded Panel cut out Panel cut out



Part number Drawing (dimensions in mm) Identification Male Female Circular connectors M12, PushPull, PCB adapter, Straight, incl. housing, for front mounting, Reflow soldering termination (THR), Shielded 21 03 321 1431 21 03 321 2431 **⊕** Ø0,1 Ø1,9-0.0 Panel cut out Panel cut out

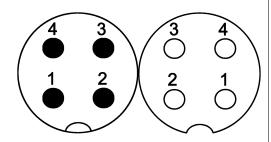
M12



4

M12

Reflow soldering termination (THR) Shielded



Technical characteristics

Number of contacts Rated current 4 A Rated voltage 250 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Locking type Screw locking

Degree of protection acc. to IEC IP20, IP67, when mated

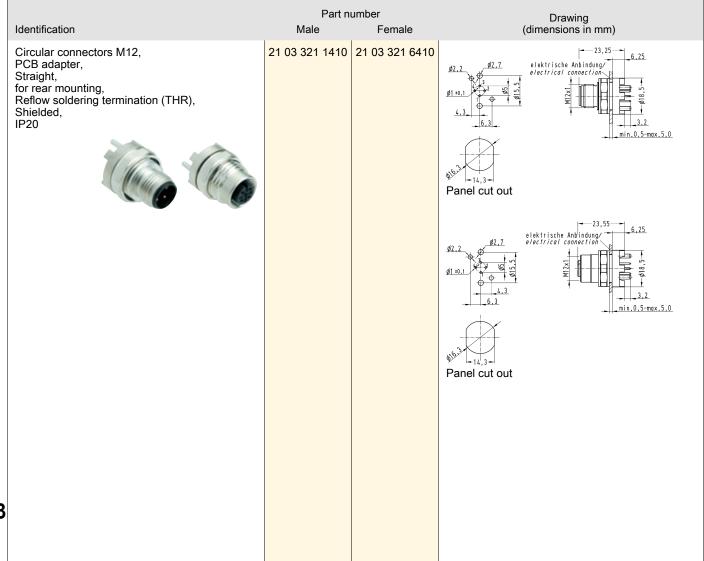
60529

Technical characteristics

Tightening torque 2 Nm Lock nut
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Copper alloy
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals





Part number Drawing (dimensions in mm) Identification Male Female Circular connectors M12, PCB adapter, Straight, for rear mounting, Reflow soldering termination (THR), Shielded, IP67 21 03 321 1420 21 03 321 6420 elektrische Anbindung electrical connection -14,3-Panel cut out 23,55 Panel cut out

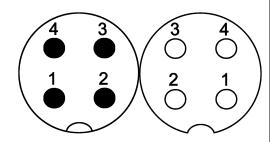
M12



4

M12

Reflow soldering termination (SMT) Unshielded



Technical characteristics

 Number of contacts
 4

 Rated current
 4 A

 Rated voltage
 250 V

 Pollution degree
 3

 Insulation resistance
 >108 Ω

 Contact resistance
 ≤10 mΩ

 Mating cycles
 ≥100

Locking type Screw locking
Degree of protection acc. to IEC IP67, when mated

60529

Technical characteristics

Tightening torque 1 Nm Lock nut
Material (insert) Liquid crystal polymer (LCP)

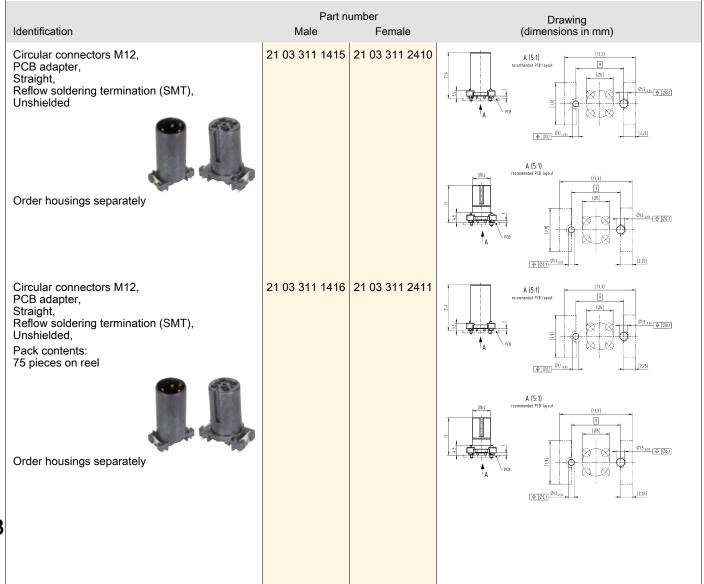
Material (contacts)

Copper alloy
Surface (contacts)

Gold plated

RoHS compliant with exemption

Specifications and approvals



Identification

Drawing (dimensions in mm)



21 41 000 0012 21 41 000 0010 Circular connectors M12, Housing, for front mounting, M14 x 1, 9 mm If necessary, order lock nut 21 41 000 0011 separately. Circular connectors M12, 21 41 000 0013 Housing, for front mounting, M14 x 1, 13 mm If necessary, order lock nut 21 41 000 0011 separately.

Part number

Female

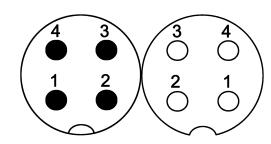
Male

M12



M12

Wave soldering termination Shielded



Technical characteristics

Number of contacts Rated current 4 A 250 V Rated voltage Pollution degree >10⁸ Ω Insulation resistance Mating cycles ≥100 Locking type Screw locking

1 Nm Lock nut

Degree of protection acc. to IEC IP67, when screwed 60529

Tightening torque

Technical characteristics

Material (insert) Polyamide (PA) Material (hood/housing) Copper-zinc alloy Material (contacts) Copper alloy Gold plated Surface (contacts)

RoHS compliant with exemption

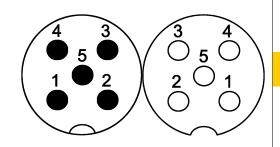
Specifications and approvals

IEC 61076-2-101

Part number Drawing Identification Male (dimensions in mm) Circular connectors M12, 21 03 321 3401 21 03 321 4401 PCB adapter, Angled, for rear mounting, \$2,35 a.m 2x \$ \$0.05 Wave soldering termination, Shielded

5

Reflow soldering termination (THR)



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 5 \\ \text{Rated current} & 4 \text{ A} \\ \text{Rated voltage} & 60 \text{ V} \\ \text{Rated impulse voltage} & 1.5 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & > 10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \text{ m} \Omega \\ \text{Mating cycles} & \geq 100 \end{array}$

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Tightening torque 2 Nm Lock nut

Technical characteristics

Material (insert) Liquid crystal polymer (LCP)

Material (contacts)

Copper alloy
Surface (contacts)

Gold plated

RoHS compliant with exemption,

compliant

Specifications and approvals

IEC 61076-2-101 UL 1977 ECBT2.E102079 CSA-C22.2 No. 182.3 ECBT8.E102079

Part number Drawing (dimensions in mm) Identification Male Female Circular connectors M12, 21 03 321 1518 21 03 321 2518 PCB adapter, Straight, \$1,3+0,65 **4** \$0,2 A B Reflow soldering termination (THR), Shielded, Pack contents: 60 pieces in a tray ⊕ | \$0,2 | A | B Order housings separately

PCB connectors

M12

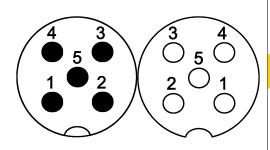




Part number Drawing (dimensions in mm) Identification Male Female 21 03 301 1000 21 03 301 2000 Circular connectors M12, M16x1,5 Housing, M12x1 for rear mounting, Montageausschnitt/ panel cut out Pack contents: 10 pieces 1:1 panel housing t=1,5-3,5 M12 Leiterplattenadapter (optional) M12 PCB adapter (optional) M16x1,5 Montageausschnitt/ panel cut out 1:1 M12 Leiterplattenadapter (optional) M12 PCB adapter (optional) 21 03 301 1003 21 03 301 2003 Circular connectors M12, PushPull, Housing, for front mounting, Montageausschnitt/ panel cut out 1:1 Pack contents: 10 pieces PCB M12x1 1:1 panel housing t=1,0-2,5

5

Reflow soldering termination (THR) Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 5 \\ \text{Rated current} & 4 \text{ A} \\ \text{Rated voltage} & 60 \text{ V} \\ \text{Rated impulse voltage} & 1.5 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & > 10^8 \Omega \\ \text{Contact resistance} & \leq 10 \text{ m}\Omega \\ \text{Mating cycles} & \geq 100 \\ \end{array}$

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Tightening torque 2 Nm Lock nut

Technical characteristics

Material (insert) Liquid crystal polymer (LCP)

Material (hood/housing)

Material (contacts)

Surface (contacts)

Zinc die-cast
Copper alloy
Gold plated

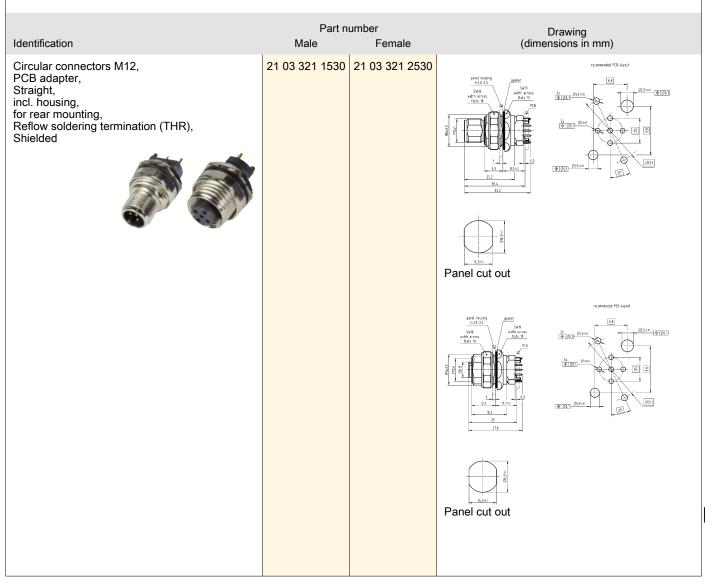
RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101

UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079



PCB connectors

M12

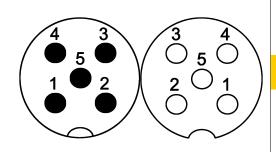




Part number Drawing (dimensions in mm) Identification Male Female Circular connectors M12, PushPull, PCB adapter, 21 03 321 1531 21 03 321 2531 Straight, incl. housing, for front mounting, Reflow soldering termination (THR), Shielded Panel cut out Panel cut out

Number of contacts

Reflow soldering termination (THR)



Technical characteristics

Number of contacts 4 A Rated current Rated voltage 60 V Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100 Locking type Screw locking

Degree of protection acc. to IEC IP20, IP67, when mated

60529

Technical characteristics

Tightening torque 2 Nm Lock nut Material (insert) Polyamide (PA) Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy Gold plated Surface (contacts)

RoHS compliant with exemption

Specifications and approvals

Identification	Part nu	umber	Drawing
	Male	Female	(dimensions in mm)
		21 03 321 6510	elektrische Anbindung/ electrical connection ### Panel cut out 10,1

PCB connectors



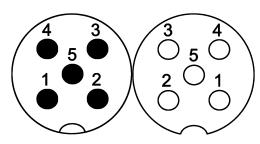


Part number Drawing (dimensions in mm) Identification Male Female Circular connectors M12, PCB adapter, Straight, for rear mounting, Reflow soldering termination (THR), Shielded, IP67 21 03 321 1520 21 03 321 6520 M12 Panel cut out Panel cut out

Number of contacts

5

Reflow soldering termination (SMT) Unshielded



Technical characteristics

 Number of contacts
 5

 Rated current
 4 A

 Rated voltage
 60 V

 Pollution degree
 3

 Insulation resistance
 >108 Ω

 Contact resistance
 ≤10 mΩ

 Mating cycles
 ≥100

 Locking type
 Screw lock

Locking type Screw locking
Degree of protection acc. to IEC IP67, when mated

60529

Technical characteristics

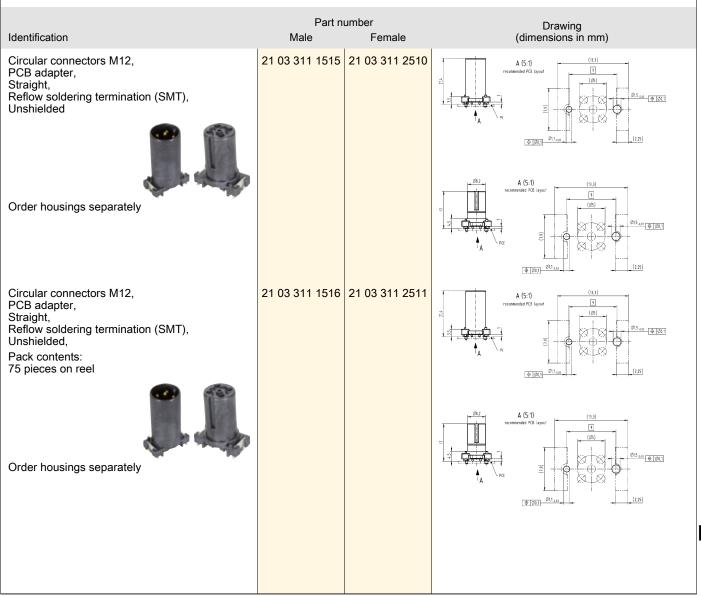
Tightening torque 1 Nm Lock nut

Material (insert) Liquid crystal polymer (LCP)

Material (contacts) Copper alloy Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals



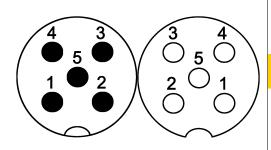




M12

Part number Drawing (dimensions in mm) Identification Female Male 21 41 000 0012 21 41 000 0010 Circular connectors M12, Housing, for front mounting, M14 x 1, 9 mm If necessary, order lock nut 21 41 000 0011 separately. 21 41 000 0013 Circular connectors M12, Housing, for front mounting, M14 x 1, 13 mm If necessary, order lock nut 21 41 000 0011 separately.

Wave soldering termination



Technical characteristics

Number of contacts 4 A Rated current Rated voltage 60 V Pollution degree >10⁸ Ω Insulation resistance ≥100 Mating cycles

Locking type Screw locking Degree of protection acc. to IEC IP67, when mated 60529

Tightening torque 1 Nm Lock nut

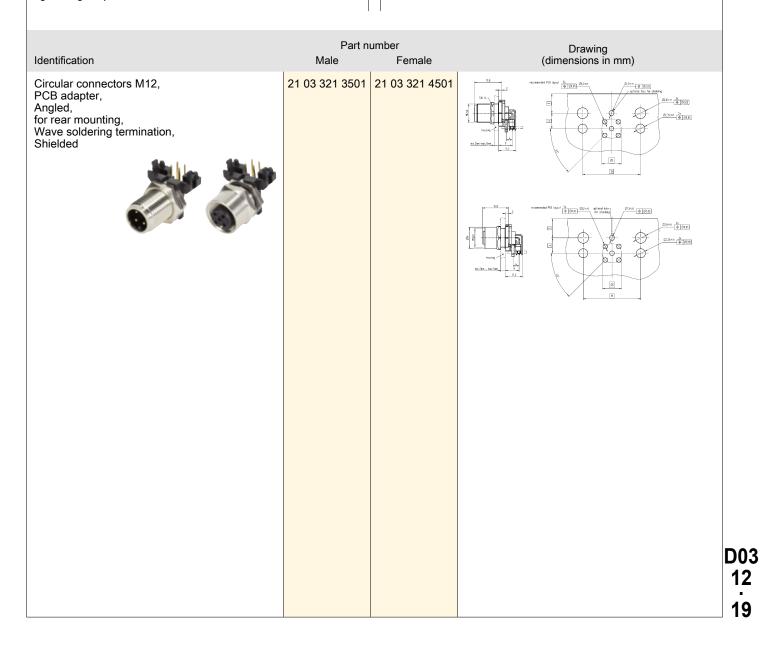
Technical characteristics

Material (insert) Polyamide (PA) Material (hood/housing) Copper-zinc alloy Material (contacts) Copper alloy Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

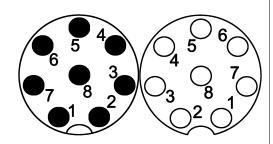
IEC 61076-2-101





M12

Reflow soldering termination (THR)



Technical characteristics

Number of contacts Rated current 2 A 30 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Tightening torque 2 Nm Lock nut

Technical characteristics

Material (insert) Liquid crystal polymer (LCP) Material (contacts) Copper alloy

Surface (contacts) Gold plated

RoHS compliant with exemption,

compliant

Drawing (dimensions in mm)

Specifications and approvals

IEC 61076-2-101 UL 1977 ECBT2.E102079 CSA-C22.2 No. 182.3 ECBT8.E102079

Female

Part number

Identification

Circular connectors M12,

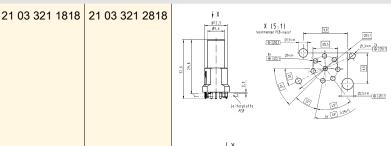
PCB adapter, Straight,

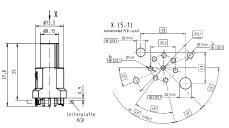
Reflow soldering termination (THR), Shielded,

Pack contents: 60 pieces in a tray



Order housings separately







Part number Drawing (dimensions in mm) Identification Male Female 21 03 301 1000 21 03 301 2000 Circular connectors M12, M16x1,5 Housing, M12x1 for rear mounting, Montageausschnitt/ panel cut out Pack contents: 10 pieces 1:1 Gehäusewand panel housing t=1,5-3,5 M12 Leiterplattenadapter (optional) M12 PCB adapter (optional) Leiterplatte *PCB* M16x1,5 Montageausschnitt/ panel cut out 1:1 M12 Leiterplattenadapter (optional) M12 PCB adapter (optional) Circular connectors M12, 21 03 301 1003 21 03 301 2003 PushPull, Housing, for front mounting, Montageausschnitt/ panel cut out 1:1 Pack contents: 10 pieces PCB M12x1 1:1

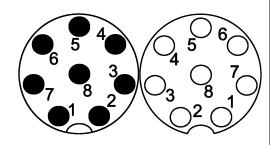
M12



8

M12

Reflow soldering termination (THR) Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 8 \\ \text{Rated current} & 2 \text{ A} \\ \text{Rated voltage} & 30 \text{ V} \\ \text{Rated impulse voltage} & 1.5 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & >10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \, \text{m} \Omega \\ \text{Mating cycles} & \geq 100 \\ \end{array}$

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Tightening torque 2 Nm Lock nut

Technical characteristics

Material (insert) Liquid crystal polymer (LCP)
Material (hood/housing) Zinc die-cast

Material (contacts)

Surface (contacts)

Copper alloy

Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101

UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079

Identification Male Female (Circular connectors M12, PCB adapter, Straight, incl. housing, for rear mounting, Reflow soldering termination (THR), Shielded 21 03 321 1830 21 03 321 2830 Panel cut out Panel cut out



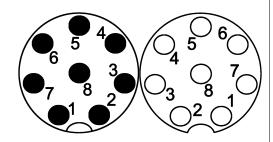
Part number Drawing (dimensions in mm) Identification Male Female Circular connectors M12, PushPull, PCB adapter, Straight, incl. housing, for front mounting, Reflow soldering termination (THR), Shielded 21 03 321 1831 21 03 321 2831 Panel cut out Panel cut out

M12

Number of contacts



Reflow soldering termination (SMT) Unshielded



Technical characteristics

 Number of contacts
 8

 Rated current
 2 A

 Rated voltage
 30 V

 Pollution degree
 3

 Insulation resistance
 >108 Ω

 Contact resistance
 ≤10 mΩ

 Mating cycles
 ≥100

 Locking type
 Serrow loc

Locking type Screw locking
Degree of protection acc. to IEC IP67, when mated

60529

Technical characteristics

Tightening torque 1 Nm Lock nut

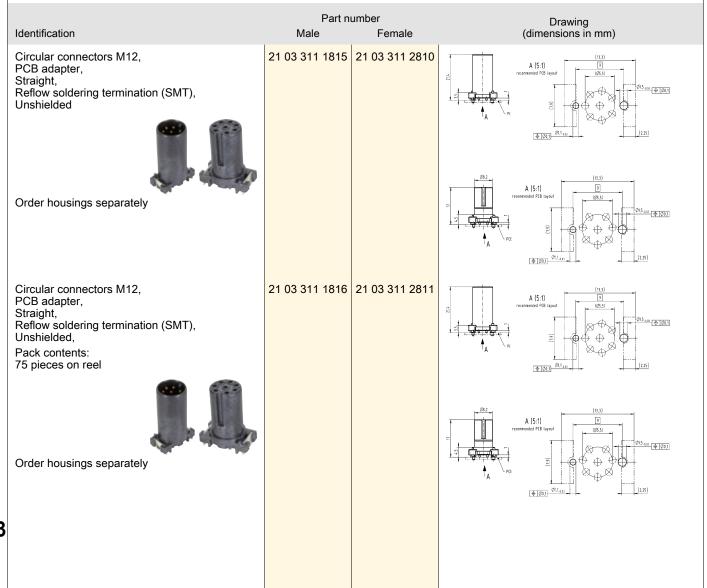
Material (insert) Liquid crystal polymer (LCP)

Material (contacts) Copper alloy Surface (contacts) Gold plated

RoHS compliant with exemption

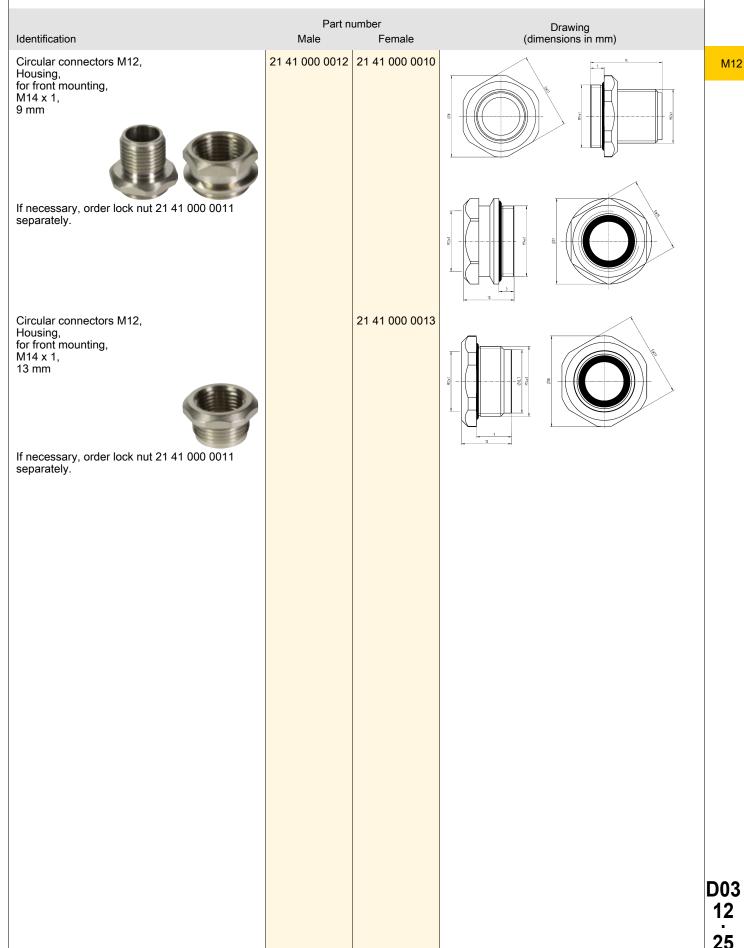
Specifications and approvals

IEC 61076-2-101





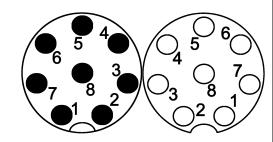
25



Number of contacts



Reflow soldering termination (SMT) Shielded



Technical characteristics

 Number of contacts
 8

 Rated current
 2 A

 Rated voltage
 30 V

 Pollution degree
 3

 Insulation resistance
 >108 Ω

 Contact resistance
 ≤10 mΩ

 Mating cycles
 ≥100

 Locking type
 Serow lock

Locking type Screw locking
Degree of protection acc. to IEC IP67, when mated

60529

Technical characteristics

Tightening torque 1 Nm Lock nut

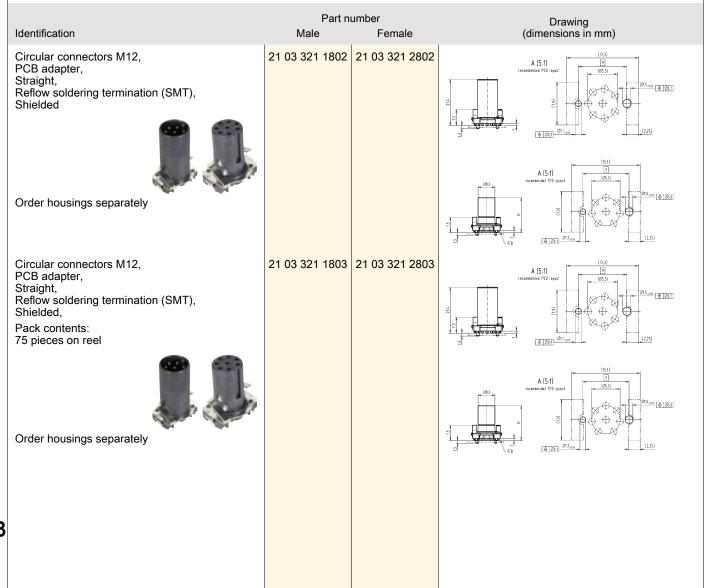
Material (insert) Liquid crystal polymer (LCP)
Material (contacts) Copper alloy

Surface (contacts) Copper alloy Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101





Part number Drawing (dimensions in mm) Identification Male Female 21 41 000 0012 21 41 000 0010 Circular connectors M12, Housing, for front mounting, M14 x 1, 9 mm If necessary, order lock nut 21 41 000 0011 separately. Circular connectors M12, 21 41 000 0013 Housing, for front mounting, M14 x 1, 13 mm If necessary, order lock nut 21 41 000 0011 separately.

M12

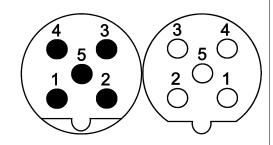
D03

27



M12

Reflow soldering termination (THR)



Technical characteristics

Number of contacts Rated current 4 A 50 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Tightening torque 2 Nm Lock nut

Technical characteristics

Material (insert) Liquid crystal polymer (LCP) Material (contacts) Copper alloy

Surface (contacts) Gold plated

RoHS compliant with exemption,

compliant

Specifications and approvals

IEC 61076-2-101 UL 1977 ECBT2.E102079

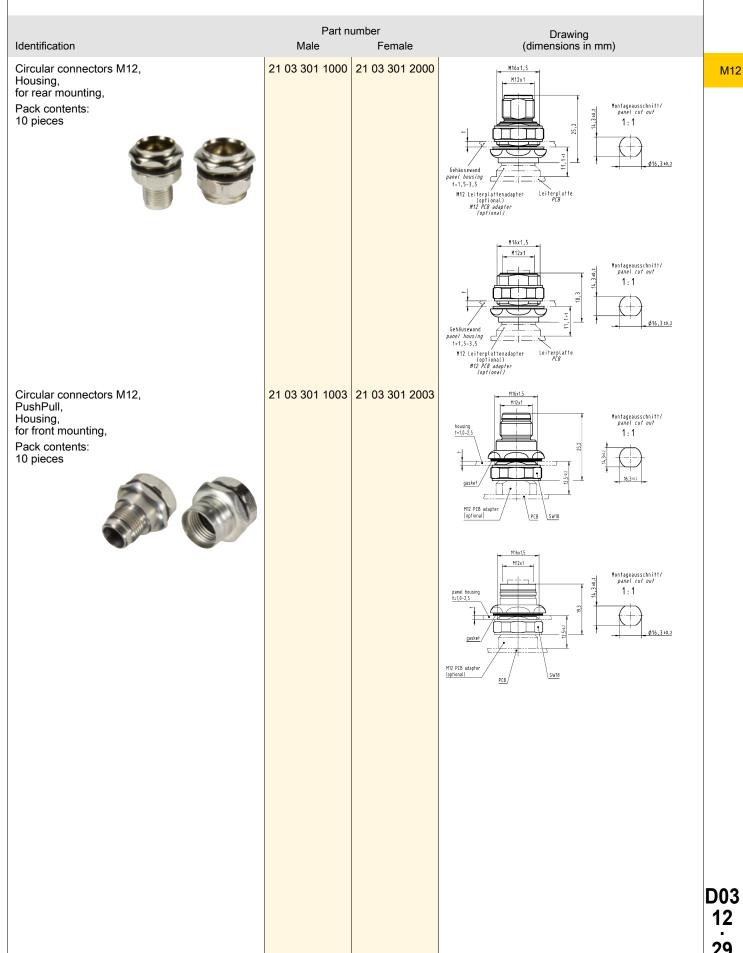
CSA-C22.2 No. 182.3 ECBT8.E102079

Part number Drawing (dimensions in mm) Identification Male Female 21 03 341 1518 21 03 341 2518 Circular connectors M12, PCB adapter, Straight, ⊕ \$0,1 \$1,9±0,0 \$1,3 e1,65 2x 4 (6),1 Reflow soldering termination (THR), Shielded, Pack contents: 60 pieces in a tray X (5:1) \$1,3±1,05 2x 4 (0.1 Order housings separately



12

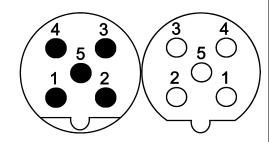
29





M12

Reflow soldering termination (THR)



Technical characteristics

Number of contacts Rated current 4 A 50 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles

Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Tightening torque 2 Nm Lock nut

Technical characteristics

Material (insert) Liquid crystal polymer (LCP) Material (hood/housing) Zinc die-cast

Material (contacts) Copper alloy Surface (contacts) Gold plated

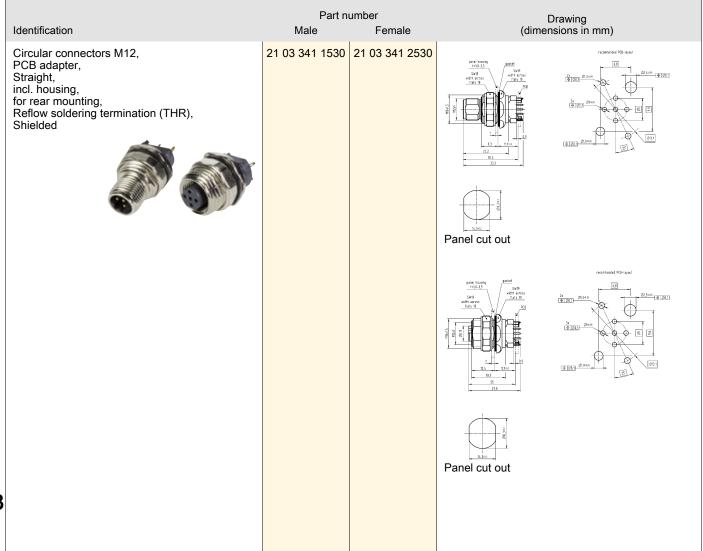
RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101

UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079



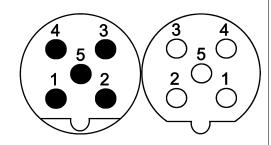
Part number Drawing (dimensions in mm) Identification Male Female Circular connectors M12, PCB adapter, Straight, incl. housing, for front mounting, Reflow soldering termination (THR), Shielded 21 03 341 1531 21 03 341 2531 Panel cut out Panel cut out



5

M12

Reflow soldering termination (THR) Shielded



Technical characteristics

Number of contacts Rated current 4 A 50 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Locking type Screw locking

Locking type Screw locking
Degree of protection acc. to IEC IP67, when mated

60529

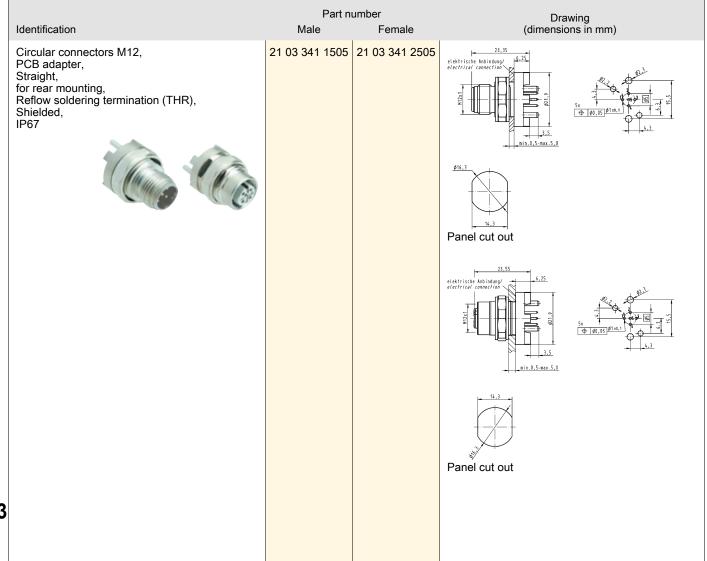
Technical characteristics

Tightening torque 2 Nm Lock nut
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Copper alloy
Surface (contacts) Gold plated

RoHS compliant with exemption

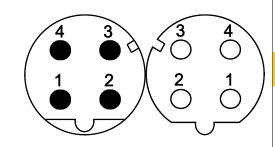
Specifications and approvals

IEC 61076-2-101





Reflow soldering termination (THR)



Technical characteristics

Number of contacts 4 A Rated current 50 V Rated voltage Rated impulse voltage 2.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Transmission characteristics Cat. 5, Class D up to 100 MHz

Tightening torque 2 Nm Lock nut

Material (insert) Liquid crystal polymer (LCP)

Technical characteristics

Material (contacts) Copper alloy Surface (contacts) Gold plated

RoHS compliant with exemption,

compliant

Specifications and approvals

IEC 61076-2-101 UL 1977 ECBT2.E102079 CSA-C22.2 No. 182.3 ECBT8.E102079



Part number Drawing (dimensions in mm) Identification Female Male Circular connectors M12, 21 03 381 1418 21 03 381 2418 PCB adapter, Straight, → | 60,1 Reflow soldering termination (THR), Shielded, Pack contents: 60 pieces in a tray Order housings separately

M12



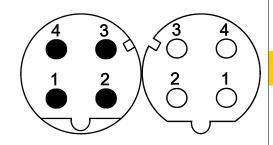


Part number Drawing (dimensions in mm) Identification Male Female 21 03 301 1000 21 03 301 2000 Circular connectors M12, M16x1,5 Housing, M12x1 for rear mounting, Montageausschnitt/ panel cut out Pack contents: 10 pieces 1:1 panel housing t=1,5-3,5 M12 Leiterplattenadapter (optional) M12 PCB adapter (optional) M16x1,5 Montageausschnitt/ panel cut out 1:1 M12 Leiterplattenadapter (optional) M12 PCB adapter (optional) 21 03 301 1003 21 03 301 2003 Circular connectors M12, PushPull, Housing, for front mounting, Montageausschnitt/ panel cut out 1:1 Pack contents: 10 pieces PCB M12x1 1:1 panel housing t=1,0-2,5



4

Reflow soldering termination (THR) Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 4 \\ \text{Rated current} & 4 \text{ A} \\ \text{Rated voltage} & 50 \text{ V} \\ \text{Rated impulse voltage} & 2.5 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & > 10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \text{ m} \Omega \\ \text{Mating cycles} & \geq 100 \end{array}$

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529
Transmission characteristics
Cat. 5, Class D up to 100 MHz

Tightening torque 2 Nm Lock nut

Technical characteristics

Material (insert) Liquid crystal polymer (LCP)

Material (hood/housing)

Material (contacts)

Surface (contacts)

Zinc die-cast
Copper alloy
Surface (contacts)

Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101 UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079

Identification	Part number Male Female		Drawing (dimensions in mm)	
Circular connectors M12, PCB adapter, Straight, incl. housing, for rear mounting, Reflow soldering termination (THR), Shielded	1	21 03 381 2430	Panel cut out	
			Panel cut out	





M12

Part number Drawing (dimensions in mm) Identification Male Female Circular connectors M12, PushPull, PCB adapter, Straight, incl. housing, for front mounting, Reflow soldering termination (THR), Shielded 21 03 381 1431 21 03 381 2431 Panel cut out Panel cut out

PCB layout

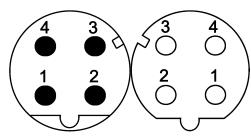
(5:1)

4x ⊕ Ø0.05

M12

Number of contacts

Reflow soldering termination (THR)



Technical characteristics

Number of contacts 4 A Rated current 50 V Rated voltage Rated impulse voltage 2.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles

Locking type Screw locking

Degree of protection acc. to IEC IP67, when mated, IP20

60529

Transmission characteristics

Tightening torque Material (insert)

Cat. 5, Class D up to 100 MHz

2 Nm Lock nut Polyamide (PA)

Technical characteristics

Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101 UL 1977 ECBT2.E235076

CSA-C22.2 No. 182.3 ECBT8.E235076

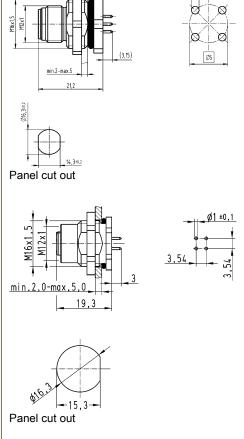


Part number Drawing Identification Male Female (dimensions in mm) 21 03 371 1400 21 03 371 2415 Circular connectors M12,

PCB adapter, Straight, for rear mounting, Reflow soldering termination (THR),

Shielded, IP67





M12

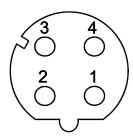




Part number Drawing (dimensions in mm) Identification Male Female Circular connectors M12, With fixing hole, PCB adapter, Straight, for rear mounting, Reflow soldering termination (THR), Shielded, 21 03 381 6410 23,55 elektrische Anbindung/ electrical connector _min.0,5-max.5,0 IP20 Panel cut out Circular connectors M12, With fixing hole, PCB adapter, 21 03 381 6420 Straight, for rear mounting, Reflow soldering termination (THR), Shielded, IP67 Panel cut out

Number of contacts

Reflow soldering termination (THR)



Technical characteristics

Number of contacts Rated current 4 A Rated voltage 50 V Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100 Locking type Screw locking

Degree of protection acc. to IEC IP20, IP67, when mated

60529

Transmission characteristics Cat. 5, Class D up to 100 MHz

Tightening torque 2 Nm Lock nut

Material (insert) Liquid crystal polymer (LCP)

Technical characteristics

Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101 UL 1977 ECBT2.E235076

CSA-C22.2 No. 182.3 ECBT8.E235076



Identification

Circular connectors M12,

PCB adapter, Angled,

for rear mounting,

Reflow soldering termination (THR),

Shielded,

IP20



Coding bottom left = Cable entry direction on the angled connector: to the right

Circular connectors M12,

PCB adapter,

Angled,

for rear mounting,

Reflow soldering termination (THR),

Shielded,

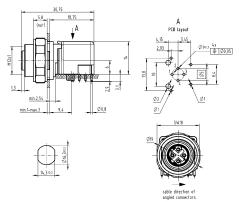
IP20



Coding top left = Cable entry direction on the angled connector: downwards

Part number Female

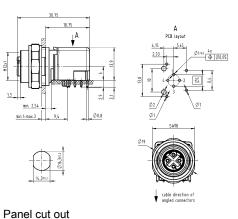
(dimensions in mm) 21 03 381 4410



Drawing

Panel cut out

21 03 381 4411



D03





M12

Part number Drawing (dimensions in mm) Identification Female Circular connectors M12, 21 03 381 4412 With fixing hole, PCB adapter, Angled, for rear mounting, Reflow soldering termination (THR), Shielded, IP20 Coding bottom left = Cable entry direction on the angled connector: to the right Panel cut out Circular connectors M12, 21 03 381 4413 With fixing hole, PCB adapter, Angled, for rear mounting, Reflow soldering termination (THR), Shielded, IP20 Coding top left = Cable entry direction on the angled connector: downwards Panel cut out Circular connectors M12, PCB adapter, 21 03 381 4430 Angled, for rear mounting, Reflow soldering termination (THR), Shielded, IP67 Coding bottom left = Cable entry direction on the angled connector: to the right Panel cut out

Part number Identification Female

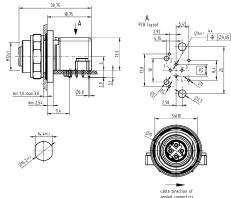
Part number Drawing (dimensions in mm)

21 03 381 4432

Circular connectors M12, With fixing hole, PCB adapter, Angled, for rear mounting, Reflow soldering termination (THR), Shielded, IP67



Coding bottom left = Cable entry direction on the angled connector: to the right

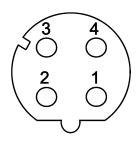


Panel cut out



M12

Reflow soldering termination (THR) Shielded



Technical characteristics

Number of contacts Rated current 4 A Rated voltage 250 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP20, IP67, when mated

60529

Transmission characteristics Cat. 5, Class D up to 100 MHz

Tightening torque 2 Nm Lock nut

Technical characteristics

Material (insert) Liquid crystal polymer (LCP)

Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101



Identification Circular connectors M12, PushPull,

PCB adapter, Angled, for rear mounting,

Reflow soldering termination (THR),

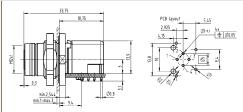
Shielded, IP20



21 03 381 4434

Part number







Panel cut out

Circular connectors M12,

PushPull, With fixing hole, PCB adapter, Angled,

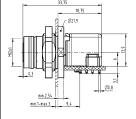
for rear mounting,

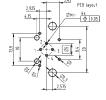
Reflow soldering termination (THR),

Shielded, IP20



21 03 381 4435







Panel cut out

Identification

Drawing (dimensions in mm)



Circular connectors M12, PushPull, PCB adapter, Angled, for rear mounting, Reflow soldering termination (THR), Shielded, IP67

Circular connectors M12, PushPull, With fixing hole, PCB adapter, Angled, for rear mounting, Reflow soldering termination (THR), Shielded, IP67

21 03 381 4437

Panel cut out

21 03 381 4437

Panel cut out

Part number

Female

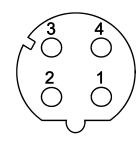
M12



4

M12

Reflow soldering termination (SMT) Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 4 \\ \text{Rated current} & 4 \text{ A} \\ \text{Rated voltage} & 250 \text{ V} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & >10^8 \, \Omega \\ \text{Mating cycles} & \geq 100 \\ \text{Locking type} & \text{Screw locking} \\ \end{array}$

Degree of protection acc. to IEC IP67, when mated

Transmission characteristics

Cat. 5, Class D up to 100 MHz

Technical characteristics

Tightening torque 1 Nm Lock nut

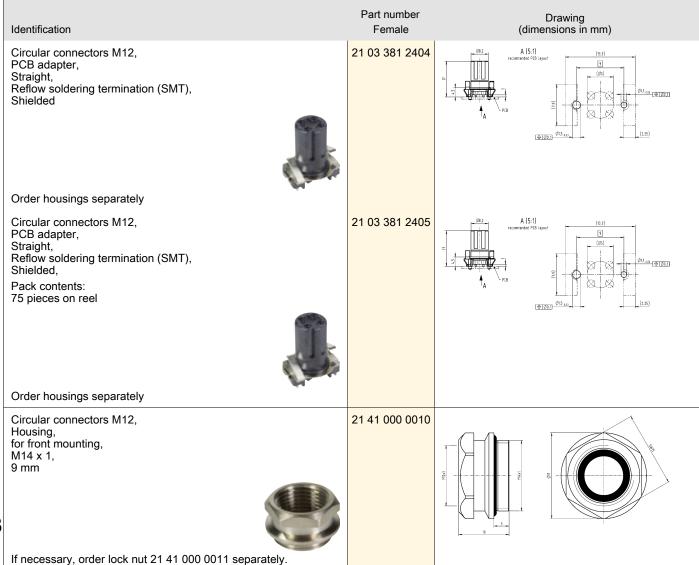
Material (insert) Liquid crystal polymer (LCP)

Material (contacts) Copper alloy Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101







M12

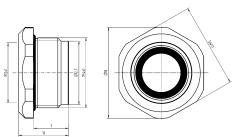
Part number Drawing Identification Female (dimensions in mm)

21 41 000 0013

Circular connectors M12, Housing, for front mounting, M14 x 1, 13 mm



If necessary, order lock nut 21 41 000 0011 separately.



D03 12

> . 45

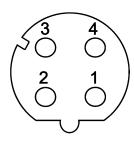
D-coding



Number of contacts

M12

Wave soldering termination Shielded



Technical characteristics

Number of contacts Rated current 4 A Rated voltage 250 V Pollution degree >10⁸ Ω Insulation resistance Mating cycles ≥100 Locking type Screw locking

Degree of protection acc. to IEC IP67, when mated

Transmission characteristics

1 Nm Lock nut

Tightening torque

Cat. 5, Class D up to 100 MHz

Technical characteristics

Material (insert) Polyamide (PA) Material (hood/housing) Copper-zinc alloy Material (contacts) Copper alloy Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101

Identification

Circular connectors M12, PCB adapter, Angled,

for rear mounting, Wave soldering termination,

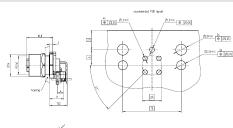
Shielded



Part number Female

21 03 381 4440

Drawing (dimensions in mm)

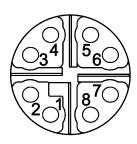


Panel cut out

手机/微信: 13913977476 http://harting.nowking.com/



Reflow soldering termination (THR)



Technical characteristics

Number of contacts 8 Rated current 0.5 A Rated voltage 50 V Rated impulse voltage 0.8 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100

Screw locking, PushPull Locking type Degree of protection acc. to IEC IP65 / IP67, when mated

60529 Transmission characteristics

Cat. 6_A , Class E_A up to 500 MHz, Cat. 5, Class D up to 100 MHz

2 Nm Lock nut

Tightening torque Material (insert) Liquid crystal polymer (LCP)

Technical characteristics

Material (contacts) Copper alloy Surface (contacts) Gold plated

compliant with exemption, compliant RoHS

Specifications and approvals

IEC 61076-2-109 UL 1977 ECBT2.E102079 CSA-C22.2 No. 182.3 ECBT8.E102079

99990° des

Identification		Part number Female	Drawing (dimensions in mm)
Circular connectors M12, PCB adapter, Straight, Reflow soldering termination (THR), Shielded, Pack contents: 60 pieces in a tray Order housings separately	Cat. 5 Cat. 6 _A	21 03 381 2807 21 03 381 2806	TOTAL STATE OF THE PARTY OF THE
Circular connectors M12, PCB adapter, Angled, Reflow soldering termination (THR), Shielded, Pack contents: 30 pieces in a tray Order housings separately	Cat. 6 _A	21 03 381 4806	(5) (5) (5) (5) (6) (6) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7

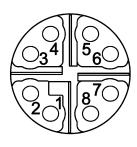




Part number Drawing (dimensions in mm) Identification Female 21 03 301 2000 Circular connectors M12, M16×1,5 M12 Housing, for rear mounting, Montageausschnitt/ panel cut out Pack contents: 10 pieces 1:1 Gehäusewand panel housing t=1,5-3,5 M12 Leiterplattenadapter (optional) M12 PCB adapter (optional) Circular connectors M12, PushPull, 21 03 301 2003 M16x1,5 M12x1 Montageausschnitt/
panel cut out
1:1 Housing, for front mounting, panel hou t=1,0-2,5 Pack contents: 10 pieces



Reflow soldering termination (THR)



Technical characteristics

Number of contacts Rated current 0.5 A Rated voltage 50 V Rated impulse voltage 0.8 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated 60529

Transmission characteristics

Cat. 6_A , Class E_A up to 500 MHz, Cat. 5, Class D up to 100 MHz

Tightening torque 2 Nm Lock nut

Material (insert) Liquid crystal polymer (LCP)

Technical characteristics

Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-109 UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079



Part number Drawing Identification Female (dimensions in mm) 21 03 381 2803 21 03 381 2802 Circular connectors M12, Cat. 5 PushPull, Cat. 6_A PCB adapter, Straight, incl. housing, for front mounting, Reflow soldering termination (THR), Shielded. Pack contents: 60 pieces in a tray Panel cut out Panel cut out

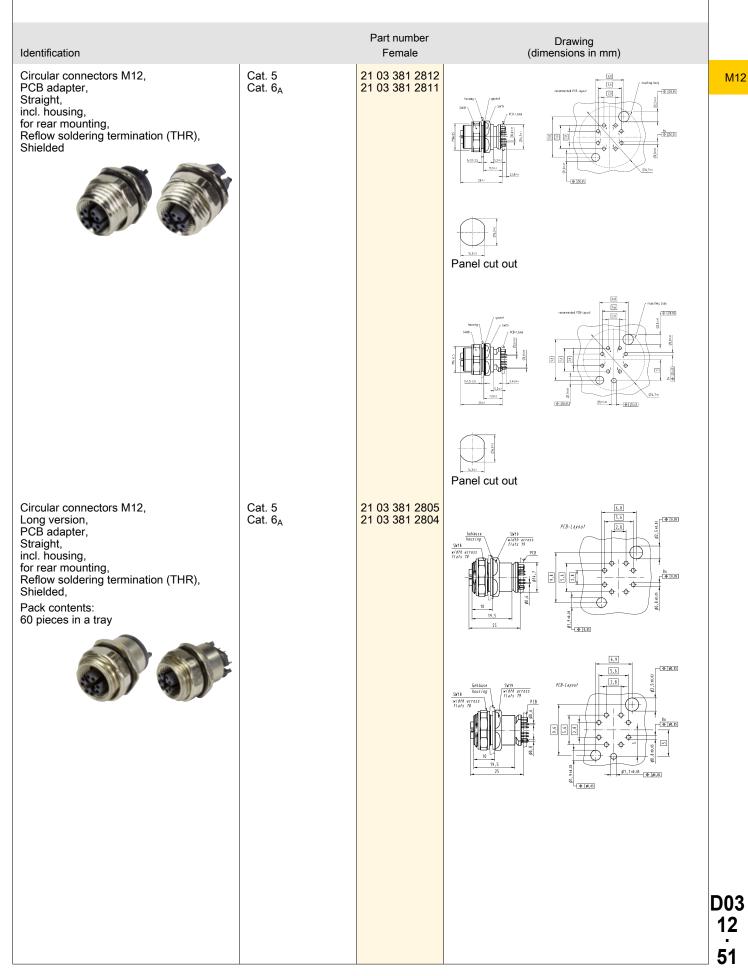
M12





Part number Drawing (dimensions in mm) Identification Female 21 03 381 2814 21 03 381 2813 Circular connectors M12, Cat. 5 PushPull, PCB adapter, Cat. 6_A Straight, incl. housing, for front mounting, Reflow soldering termination (THR), Shielded Panel cut out Panel cut out 21 03 381 2809 21 03 381 2810 Circular connectors M12, PCB adapter, Cat. 5 **♦ 1,1**5 Cat. 6_A Straight, incl. housing, for rear mounting, Reflow soldering termination (THR), 8x + 1,15 Shielded, Pack contents: 60 pieces in a tray **D03**



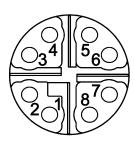




8

M12

Reflow soldering termination (THR) Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 8 \\ \text{Rated current} & 0.5 \text{ A} \\ \text{Rated voltage} & 50 \text{ V} \\ \text{Rated impulse voltage} & 0.8 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & >10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \, \text{m} \Omega \\ \text{Mating cycles} & \geq 100 \\ \end{array}$

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Transmission characteristics Cat. 6_A, Class E_A up to 500 MHz

Tightening torque 2 Nm Lock nut

Material (insert) Liquid crystal polymer (LCP)

Technical characteristics

Material (hood/housing) Zinc die-cast
Material (contacts) Copper alloy
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-109 UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079



Identification

Circular connectors M12,

PushPull, PCB adapter, Angled, incl. housing,

for front mounting,

Reflow soldering termination (THR),

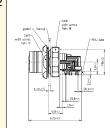
Shielded,

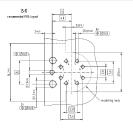
Pack contents: 30 pieces in a tray



21 03 381 4802

Drawing (dimensions in mm)







Panel cut out

Identification

PushPull, PCB adapter,

PCB adapter,

Shielded, Pack contents: Drawing (dimensions in mm)



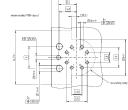
21 03 381 4810 Circular connectors M12, Angled, incl. housing, for front mounting, Reflow soldering termination (THR), Panel cut out Circular connectors M12, 21 03 381 4807 β0 , 8 ±0 , 05 8x Φ | φ0, 05 Angled, incl. housing, for rear mounting, Reflow soldering termination (THR), 30 pieces in a tray 21 03 381 4809

Part number

Female

Circular connectors M12, PCB adapter, Angled, incl. housing, for rear mounting, Reflow soldering termination (THR), Shielded



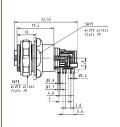


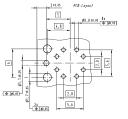
Panel cut out

Circular connectors M12, Long version, PCB adapter, Angled, incl. housing, for rear mounting, Reflow soldering termination (THR), Shielded, Pack contents:

30 pieces in a tray

21 03 381 4804



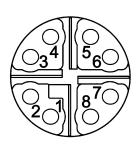


M12



M12

Reflow soldering termination (SMT)



Technical characteristics

Number of contacts Rated current 0.5 A Rated voltage 48 V Pollution degree >10⁸ Ω Insulation resistance Mating cycles ≥100 Locking type Screw locking Degree of protection acc. to IEC IP67, when mated

Cat. 6_A, Class E_A up to 500 MHz Transmission characteristics

Technical characteristics

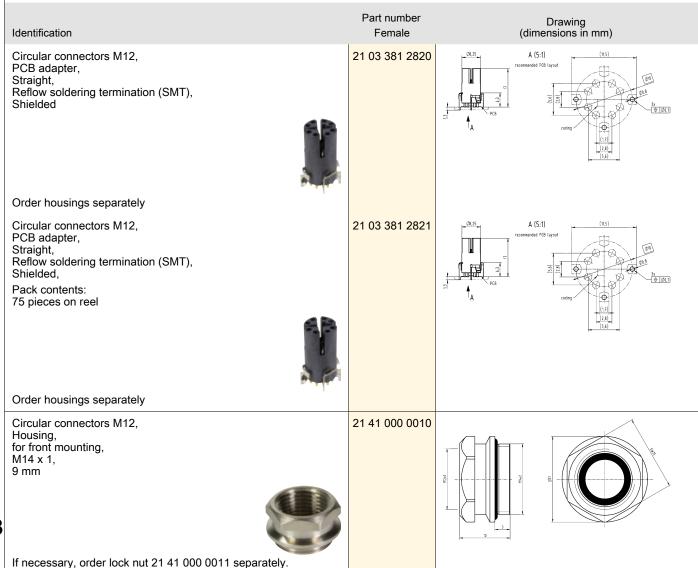
Tightening torque 1 Nm Lock nut

Material (insert) Liquid crystal polymer (LCP) Material (contacts) Copper alloy

Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals



PCB connectors





M12

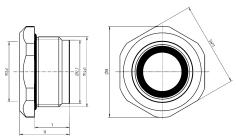
Part number Drawing Identification Female (dimensions in mm)

21 41 000 0013

Circular connectors M12, Housing, for front mounting, M14 x 1, 13 mm



If necessary, order lock nut 21 41 000 0011 separately.



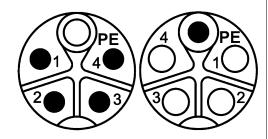
D03 12 .

Number of contacts





Reflow soldering termination (THR) Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 4 \\ \text{Rated current} & 12 \text{ A} \\ \text{Rated voltage} & 630 \text{ V} \\ \text{Rated impulse voltage} & 6 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & >10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \, \text{m} \Omega \\ \text{Mating cycles} & \geq 100 \\ \end{array}$

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Technical characteristics

Tightening torque 2 Nm Lock nut

Material (insert) Liquid crystal polymer (LCP)

Material (contacts) Copper alloy Surface (contacts) Gold plated

Specifications and approvals

IEC 61076-2-111

Identification	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Power, PushPull, PCB adapter, Straight, Reflow soldering termination (THR), Shielded, Pack contents: 30 pieces in a carton box	21 03 309 1505 407	21 03 309 2505 407	PECONOMIC PS System A (5-1) A (5-1)
Order housings separately			7 **Commended P(St-layout A (5:1) A (5:1) Out 5
Circular connectors M12, Power, PushPull, PCB adapter, Straight, Reflow soldering termination (THR), Shielded, Pack contents: 60 pieces in a tray	21 03 309 1505	21 03 309 2505	
Order housings separately			

D03 12

. 56

PCB connectors



K-coding	HARTING

Identification	Par Male	t number Female	Drawing (dimensions in mm)	
Circular connectors M12, Housing, for rear mounting, Pack contents: 30 pieces		21 03 302 2000 407		
Circular connectors M12, Housing, for front mounting, Pack contents: 30 pieces	21 03 302 1001 40	21 03 302 2001 407		
				D
				1

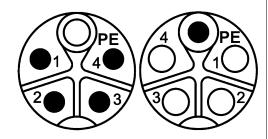




M12



Reflow soldering termination (THR) Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 4 \\ \text{Rated current} & 12 \text{ A} \\ \text{Rated voltage} & 630 \text{ V} \\ \text{Rated impulse voltage} & 6 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & >10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \, \text{m} \Omega \\ \text{Mating cycles} & \geq 100 \\ \end{array}$

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

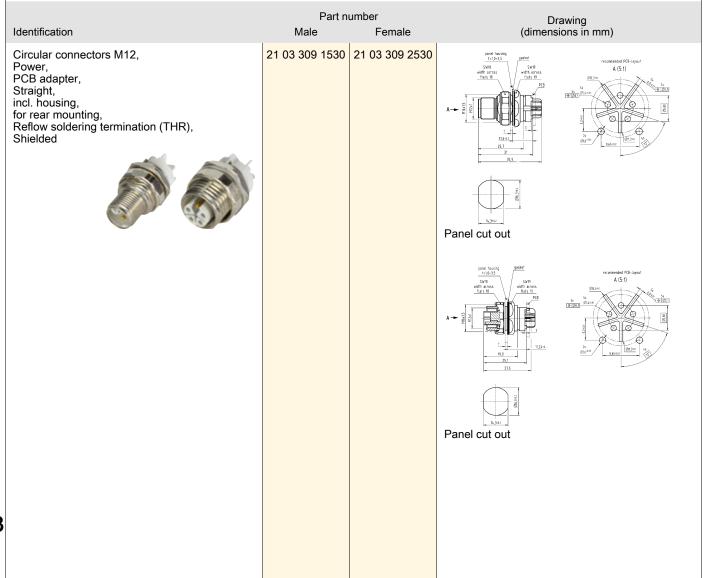
Technical characteristics

Tightening torque 2 Nm Lock nut

Material (insert) Liquid crystal polymer (LCP)

Material (contacts) Copper alloy Surface (contacts) Gold plated

Specifications and approvals





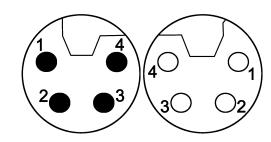
Part number Drawing (dimensions in mm) Identification Male Female recommended PEB-layout A (5:1) 21 03 309 1531 21 03 309 2531 Circular connectors M12, Circular connectors M12,
Power,
PushPull,
PCB adapter,
Straight,
incl. housing,
for front mounting,
Reflow soldering termination (THR),
Shielded Panel cut out Panel cut out



4

M12

Reflow soldering termination (THR) Shielded



Technical characteristics

Locking type Screw locking
Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Tightening torque 2 Nm Lock nut Material (insert) Polyamide (PA)

Technical characteristics

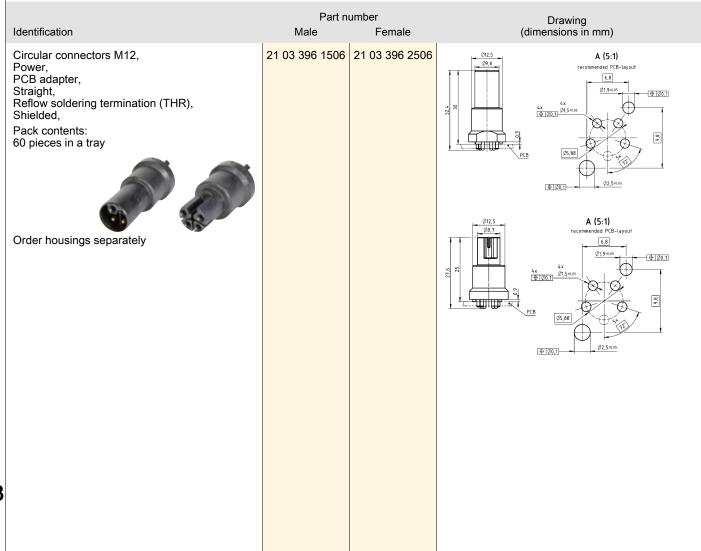
Colour (insert) Black
Material (contacts) Copper alloy
Surface (contacts) Gold plated

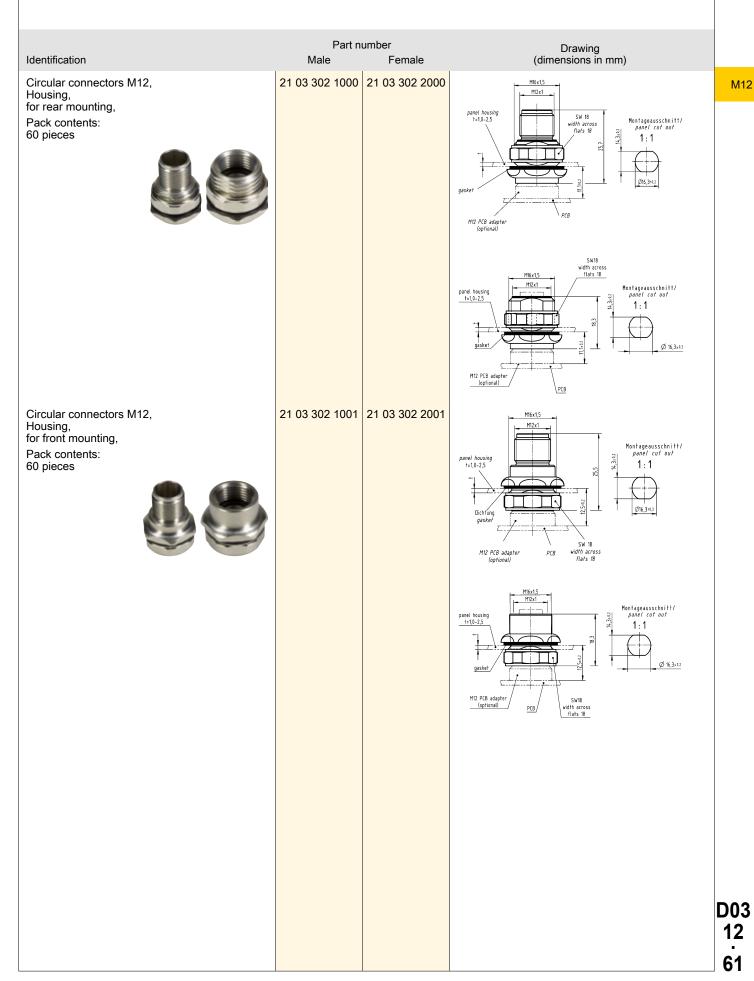
RoHS compliant, compliant with

exemption

Specifications and approvals





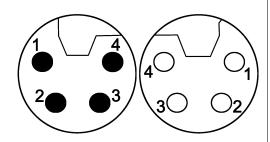




4

M12

Reflow soldering termination (THR) Shielded



Technical characteristics

 Number of contacts
 4

 Rated current
 16 A

 Rated voltage
 63 V

 Rated impulse voltage
 1.5 kV

 Pollution degree
 3

 Insulation resistance
 >108 Ω

 Contact resistance
 ≤10 mΩ

 Mating cycles
 ≥100 mΩ

Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Tightening torque 2 Nm Lock nut Material (insert) Polyamide (PA)

Technical characteristics

Colour (insert)BlackMaterial (hood/housing)Zinc die-castMaterial (contacts)Copper alloySurface (contacts)Gold platedRoHScompliant

Specifications and approvals

IEC 61076-2-111



Part number Drawing Identification Male Female (dimensions in mm) 21 03 396 1532 21 03 396 2532 Circular connectors M12, A (5:1) Power, 6,8 PCB adapter, Ø1,9:0.05 Straight, incl. housing, for front mounting, Reflow soldering termination (THR), Shielded **⊕** Ø0.1⊢ (2:1) Panel cut out A (5:1) 6,8 (2:1)

Panel cut out



Part number Drawing (dimensions in mm) Identification Male Female 21 03 396 1533 21 03 396 2533 A (5:1) mmended PCB layout Circular connectors M12, panel housing t=1,0+3,5 Power,
PCB adapter,
Straight,
incl. housing,
for rear mounting,
Reflow soldering termination (THR), 6,8 ⊕ Ø0,1 Shielded **⊕** Ø0,1 Panel cut out A (5:1) mended PCB-layout 6,8 4x ⊕ Ø0,1 **⊕** Ø0,1⊢ Panel cut out

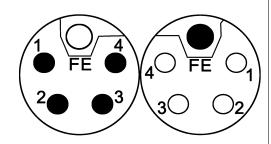




M12



Reflow soldering termination (THR) Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 4 \\ \text{Rated current} & 16 \text{ A} \\ \text{Rated voltage} & 63 \text{ V} \\ \text{Rated impulse voltage} & 1.5 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & >10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \, \text{m} \Omega \\ \text{Mating cycles} & \geq 100 \\ \end{array}$

Locking type Screw locking
Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Tightening torque 2 Nm Lock nut Material (insert) Polyamide (PA)

Technical characteristics

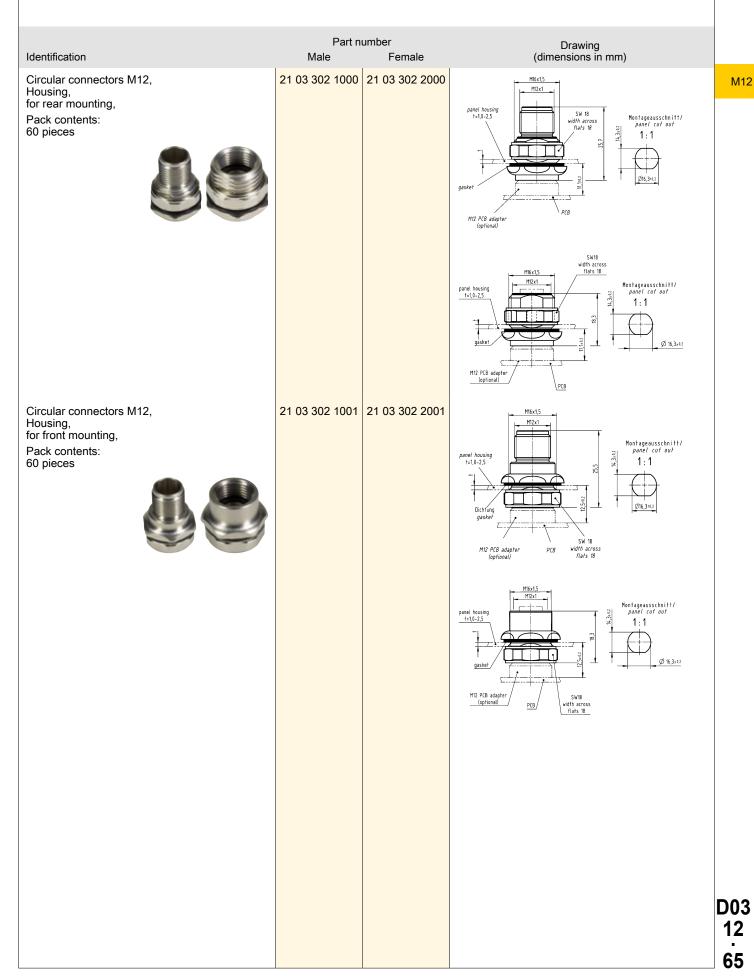
Colour (insert) Grey
Material (contacts) Copper alloy
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals



Identification	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Power, PCB adapter, Straight, Reflow soldering termination (THR), Shielded, Pack contents: 60 pieces in a tray Order housings separately	21 03 396 1505	21 03 396 2505	reconnected PCB Jayout X (5:1) (05.8)



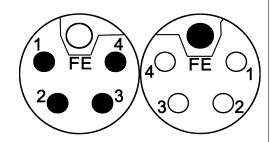




M12



Reflow soldering termination (THR) Shielded



Technical characteristics

Number of contacts 16 A Rated current 63 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles

Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated 60529

Tightening torque Material (insert)

2 Nm Lock nut Polyamide (PA)

Technical characteristics

Colour (insert) Grey Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy Gold plated Surface (contacts)

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-111



Part number Drawing Identification Male Female (dimensions in mm) 21 03 396 1530 21 03 396 2530 Circular connectors M12, Power, PCB adapter, Straight, incl. housing, for rear mounting, 916 Reflow soldering termination (THR), Shielded 30.9 33,2 M16x1,5 10,8±0,2 19,8 27,6



Part number Drawing (dimensions in mm) Identification Male Female 21 03 396 1531 21 03 396 2531 Circular connectors M12, Power,
PCB adapter,
Straight,
incl. housing,
for front mounting,
Reflow soldering termination (THR),
Shielded Ø16 12,6 33,2 0,9 18,3 25 27,6

M12

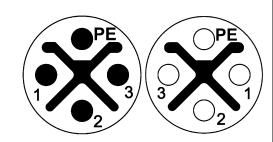
D03



M12



Reflow soldering termination (THR) Shielded



Technical characteristics

Number of contacts Rated current 12 A 630 V Rated voltage Rated impulse voltage 6 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Technical characteristics

Tightening torque 2 Nm Lock nut

Material (insert) Liquid crystal polymer (LCP)

Material (contacts) Copper alloy Gold plated Surface (contacts)

Specifications and approvals

	Identification	Part n Male	umber Female	Drawing (dimensions in mm)
	Circular connectors M12, Power, PushPull, PCB adapter, Straight, Reflow soldering termination (THR), Shielded, Pack contents: 30 pieces in a carton box	21 03 399 1430	21 03 399 2430	recommended P(B-layout 6.70)
	Order housings separately			000.5 000.1
	Circular connectors M12, Power, PushPull, PCB adapter, Straight, Reflow soldering termination (THR), Shielded, Pack contents: 60 pieces in a tray Order housings separately	21 03 399 1460	21 03 399 2460	
3	Circular connectors M12, Housing, for rear mounting, Pack contents: 30 pieces	21 03 302 1000 407	21 03 302 2000 407	

PCB connectors

S-coding



Identification	Part n Male	umber Female	Drawing (dimensions in mm)	
Identification Circular connectors M12, Housing, for front mounting, Pack contents: 30 pieces	Male		t.	M
				D0 12

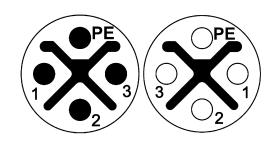


3+

M12



Reflow soldering termination (THR) Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 3 \\ \text{Rated current} & 12 \text{ A} \\ \text{Rated voltage} & 630 \text{ V} \\ \text{Rated impulse voltage} & 6 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & > 10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \, \text{m} \Omega \\ \text{Mating cycles} & \geq 100 \\ \end{array}$

Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Technical characteristics

Tightening torque 2 Nm Lock nut

Material (insert) Liquid crystal polymer (LCP)
Material (contacts) Copper alloy

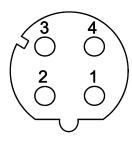
Material (contacts) Copper alloy Surface (contacts) Gold plated

Specifications and approvals

Identification	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Power, PCB adapter, Straight, Reflow soldering termination (THR), Shielded, Pack contents: incl. housing	21 03 399 1403	21 03 399 2403	## Panel cut out
			Part bearing 1-16-15 2-16 1-16-15
			Panel cut out

Number of contacts

Reflow soldering termination (SMT)



Technical characteristics

Number of contacts Rated current 3 A Rated voltage 57 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Transmission characteristics Cat. 5, Class D up to 100 MHz

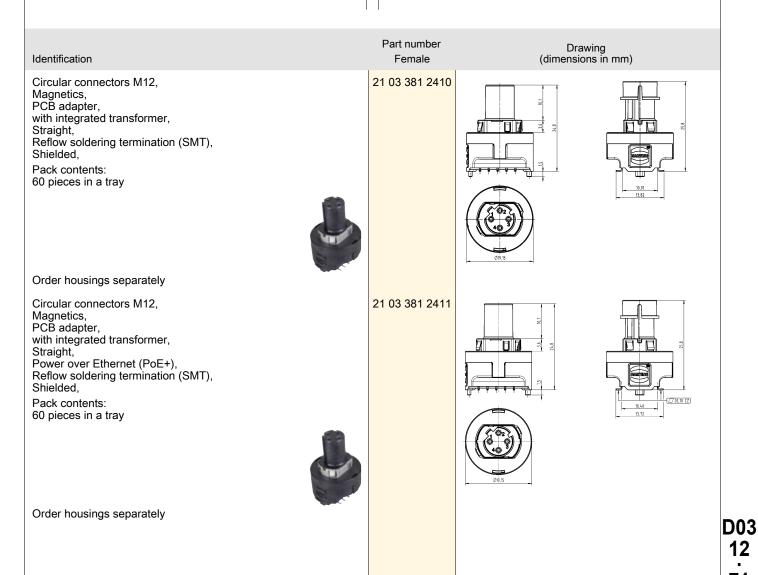
Technical characteristics

100 Mbit/s Data rate Tightening torque 2 Nm Lock nut

Liquid crystal polymer (LCP) Material (insert)

Material (contacts) **Brass** Surface (contacts) Gold plated Material (accessories) Brass, nickel plated **RoHS** compliant with exemption

Specifications and approvals



PCB connectors with transformer





Part number Drawing (dimensions in mm) Identification Female Circular connectors M12, 21 03 381 4420 Magnetics, PCB adapter, with integrated transformer, Angled, Reflow soldering termination (SMT), Shielded, Pack contents: 30 pieces in a tray Order housings separately Circular connectors M12, 21 03 381 4421 Magnetics, PCB adapter, with integrated transformer, Angled, Power over Ethernet (PoE+), Reflow soldering termination (SMT), Shielded, Pack contents: 30 pieces in a tray Order housings separately Circular connectors M12, 21 03 301 2006 PushPull, Housing, for front mounting, Pack contents: 30 pieces Panel cut out

PCB connectors with transformer

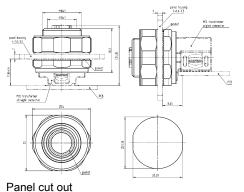


M12

Drawing (dimensions in mm) Identification Female 21 03 301 2007 Circular connectors M12, Housing, for rear mounting, Pack contents: 30 pieces

Part number



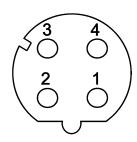


D03 **73**



M12

Reflow soldering termination (SMT) Shielded



Technical characteristics

Number of contacts Rated current 3 A Rated voltage 57 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Transmission characteristics Cat. 5, Class D up to 100 MHz

Technical characteristics

Data rate 100 Mbit/s Tightening torque 2 Nm Lock nut

Material (insert) Liquid crystal polymer (LCP)

Material (contacts) **Brass** Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101

Part number

Female

Identification

Circular connectors M12, Magnetics,

PushPull, PCB adapter,

with integrated transformer,

Straight,

incl. housing, Power over Ethernet (PoE+), for front mounting,

Circular connectors M12.

with integrated transformer,

incl. housing, Power over Ethernet (PoE+),

Reflow soldering termination (SMT),

for front mounting,

Reflow soldering termination (SMT),

Shielded

Magnetics, PushPull, PCB adapter,

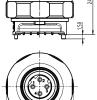
Analed.

Shielded



21 03 381 4422

21 03 381 2421



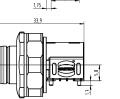








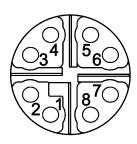




手机/微信: 13913977476 http://harting.nowking.com/

Number of contacts

Reflow soldering termination (SMT)



Technical characteristics

Number of contacts 0.8 A Rated current Rated voltage 57 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Transmission characteristics Cat. 6A, Class EA up to 500 MHz

Technical characteristics

Data rate 1 Gbit/s Tightening torque 2 Nm Lock nut

Material (insert) Liquid crystal polymer (LCP)

Material (contacts) **Brass** Surface (contacts) Gold plated Material (accessories) Brass, nickel plated **RoHS** compliant with exemption

Specifications and approvals

IEC 61076-2-109

Part number Drawing (dimensions in mm) Identification Female Circular connectors M12, 21 03 381 2815 Magnetics, PCB adapter, with integrated transformer, Straight, Reflow soldering termination (SMT), Shielded, Pack contents: 60 pieces in a tray Order housings separately Circular connectors M12, 21 03 381 2817 Magnetics, PCB adapter, with integrated transformer, Power over Ethernet (PoE+), Reflow soldering termination (SMT), Shielded, Pack contents: 60 pieces in a tray Order housings separately

PCB connectors with transformer





Part number Drawing (dimensions in mm) Identification Female Circular connectors M12, 21 03 381 4820 Magnetics, PCB adapter, with integrated transformer, 6006 Angled, Reflow soldering termination (SMT), Shielded, Pack contents: 30 pieces in a tray Order housings separately 21 03 381 4822 Circular connectors M12, Magnetics, PCB adapter, with integrated transformer, Angled, Power over Ethernet (PoE+), Reflow soldering termination (SMT), Shielded, Pack contents: 30 pieces in a tray 2,54 Order housings separately 21 03 301 2006 Circular connectors M12, PushPull, Housing, for front mounting, Pack contents: 30 pieces Panel cut out

PCB connectors with transformer





Identification

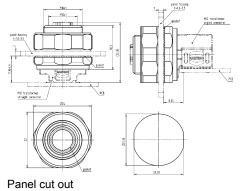
Part number Female

Circular connectors M12, Housing, for rear mounting, Pack contents: 30 pieces

Part number (dimensions in mm)

21 03 301 2007

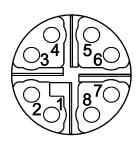






M12

Reflow soldering termination (SMT)



Technical characteristics

Number of contacts 0.8 A Rated current Rated voltage 57 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Transmission characteristics Cat. 6A, Class EA up to 500 MHz

Technical characteristics

Data rate 1 Gbit/s Tightening torque 2 Nm Lock nut

Material (insert) Liquid crystal polymer (LCP)

Material (contacts) **Brass** Surface (contacts) Gold plated

RoHS compliant with exemption

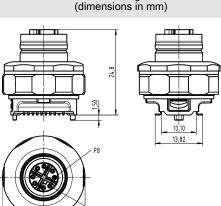
Specifications and approvals

IEC 61076-2-109

Identification Circular connectors M12, Magnetics, PushPull, PCB adapter, with integrated transformer, Straight, incl. housing, Power over Ethernet (PoE+), for front mounting, Reflow soldering termination (SMT),

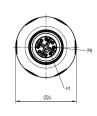
Female 21 03 381 2824

Part number



Drawing

21 03 381 4826



Circular connectors M12, Magnetics, PushPull,

PCB adapter, with integrated transformer,

Shielded

Angled,

incl. housing, Power over Ethernet (PoE+), for front mounting,

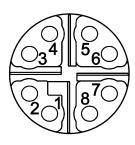
Reflow soldering termination (SMT),

Shielded

手机/微信: 13913977476 http://harting.nowking.com/

Number of contacts

Reflow soldering termination (SMT)



Technical characteristics

Number of contacts 0.8 A Rated current Rated voltage 57 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Transmission characteristics Cat. 6_A, Class E_A up to 500 MHz

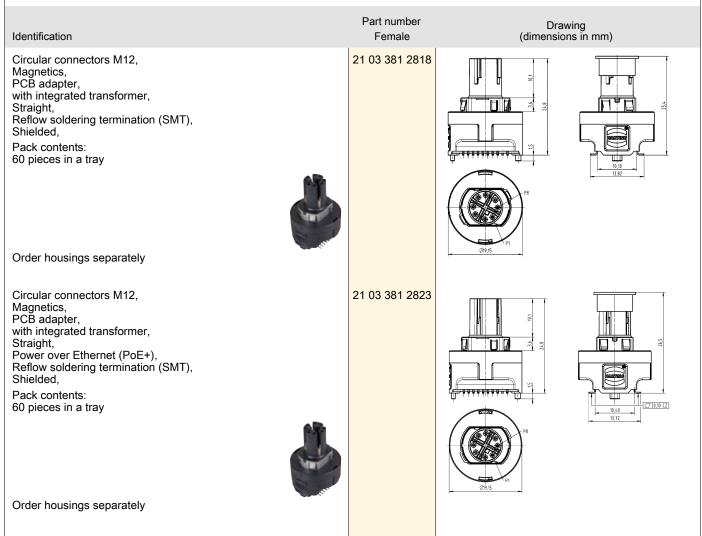
Technical characteristics

Data rate 10 Gbit/s Tightening torque 2 Nm Lock nut

Material (insert) Liquid crystal polymer (LCP)

Material (contacts) Brass Surface (contacts) Gold plated Material (accessories) Brass, nickel plated **RoHS** compliant with exemption

Specifications and approvals



PCB connectors with transformer





Part number Drawing (dimensions in mm) Identification Female Circular connectors M12, 21 03 381 4823 Magnetics, PCB adapter, with integrated transformer, **6006** Angled, Reflow soldering termination (SMT), Shielded, Pack contents: 30 pieces in a tray Order housings separately 21 03 381 4825 Circular connectors M12, Magnetics, PCB adapter, with integrated transformer, Angled, Power over Ethernet (PoE+), Reflow soldering termination (SMT), Shielded, Pack contents: 30 pieces in a tray Order housings separately 21 03 301 2006 Circular connectors M12, PushPull, Housing, for front mounting, Pack contents: 30 pieces Panel cut out

PCB connectors with transformer





Drawing (dimensions in mm)

Circular connectors M12, Housing, for rear mounting,

Pack contents: 30 pieces

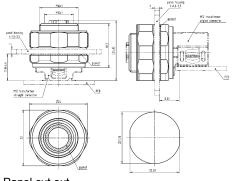
Identification



21 03 301 2007

Part number

Female

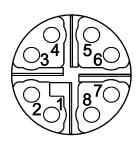


Panel cut out



M12

Reflow soldering termination (SMT)



Technical characteristics

Number of contacts 0.8 A Rated current Rated voltage 57 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Transmission characteristics Cat. 6A, Class EA up to 500 MHz

Technical characteristics

Data rate 10 Gbit/s Tightening torque 2 Nm Lock nut

Material (insert) Liquid crystal polymer (LCP)

Material (contacts) **Brass** Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-109

Identification

Circular connectors M12,

Magnetics, PushPull,

PCB adapter,

with integrated transformer, Straight,

incl. housing, Power over Ethernet (PoE+),

for front mounting,

Reflow soldering termination (SMT),

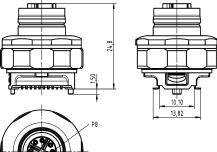
Shielded



Part number Female

21 03 381 2825

Drawing (dimensions in mm)





Circular connectors M12,

Magnetics, PushPull, PCB adapter,

with integrated transformer,

Angled,

incl. housing, Power over Ethernet (PoE+),

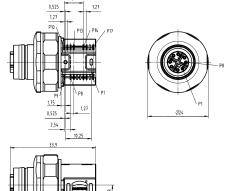
for front mounting,

Reflow soldering termination (SMT),

Shielded

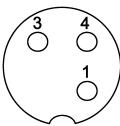


21 03 381 4827



Number of contacts

Unshielded



Technical characteristics

Number of contacts Rated current 4 A 250 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Locking type Screw locking

Conductor length 50 cm

Degree of protection acc. to IEC IP67, when mated

60529

0.25 mm² Conductor cross-section Conductor cross-section AWG 24

Technical characteristics

Tightening torque 2 Nm Lock nut Polyamide (PA) Material (insert) Material (hood/housing) Zinc die-cast Material (contacts) Brass Gold plated Surface (contacts)

RoHS compliant with exemption

Specifications and approvals

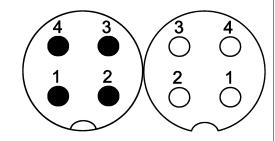
IEC 61076-2-101

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Part number Conductor cross-sec-Drawing Identification (dimensions in mm) tion (mm²) Female Circular connectors M12, 0.25 21 03 317 6305 Panel feed through, With conductors, for front mounting, Unshielded M12 A-coded 3-poles, female straight PFT connector without lock nut

4

Unshielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 4 \\ \text{Rated current} & 4 \text{ A} \\ \text{Rated voltage} & 250 \text{ V} \\ \text{Rated impulse voltage} & 1.5 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & >10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \, \text{m} \Omega \\ \text{Mating cycles} & \geq 100 \\ \end{array}$

Locking type Screw locking
Conductor length 50 cm, 100 cm
Degree of protection acc. to IEC IP67, when mated

60529

Conductor cross-section 0.5 mm², 0.25 mm²
Conductor cross-section AWG 20, AWG 24
Tightening torque 2 Nm Lock nut

Technical characteristics

Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Brass
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101 UL 1977 ECBT2.E102079 CSA-C22.2 No. 182.3 ECBT8.E102079

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Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Panel feed through, With conductors, for front mounting, Unshielded, Pack contents: incl. lock nut	0.5	21 03 311 1402	21 03 311 2400	1 lbrowl 2 lowred 5 MT3
				3 Oliul Sorting Sold Sold Sorting Sold Sold Sold Sold Sold Sold Sold Sold
3				

Panel feed through



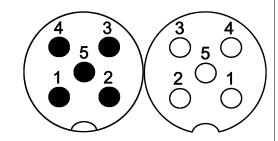
Conductor cross-section (mm²) Part number Drawing (dimensions in mm) Identification Male Female Circular connectors M12, Panel feed through, With conductors, for front mounting, Unshielded without lock nut 21 03 317 6405 21 03 317 6410 0.25 M12 A-coded 4-pole, female straight PFT connector 21 03 317 6405: a = 50 cm 21 03 317 6410: a = 100 cm



5

M12

Unshielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 5 \\ \text{Rated current} & 4 \text{ A} \\ \text{Rated voltage} & 60 \text{ V} \\ \text{Rated impulse voltage} & 1.5 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & > 10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \text{ m}\Omega \\ \text{Mating cycles} & \geq 100 \\ \end{array}$

Locking type Screw locking
Conductor length 50 cm, 100 cm
Degree of protection acc. to IEC IP67, when mated 60529

Conductor cross-section 0.5 mm², 0.25 mm²
Conductor cross-section AWG 20, AWG 24
Tightening torque 2 Nm Lock nut

Technical characteristics

Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Brass
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101 UL 1977 ECBT2.E102079 CSA-C22.2 No. 182.3 ECBT8.E102079

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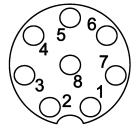
Identification	Conductor cross-section (mm²)	Part no Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Panel feed through, With conductors, for front mounting, Unshielded, Pack contents: incl. lock nut	0.5	21 03 311 1501	21 03 311 2501	1
				3 hlod Self-Smile Self-Smil
Circular connectors M12, Panel feed through, With conductors, for front mounting, Unshielded without lock nut	0.25		21 03 317 6505 21 03 317 6510	20.5 a with a straight PFT connector 21 03 317 6510: a = 50 cm 21 03 317 6510: a = 100 cm

D03

D03

Number of contacts

Unshielded



Technical characteristics

Number of contacts 2 A Rated current Rated voltage 30 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100

Locking type Screw locking Conductor length 50 cm, 100 cm Degree of protection acc. to IEC IP67, when mated

0.25 mm² Conductor cross-section Conductor cross-section AWG 24

Technical characteristics

Tightening torque 2 Nm Lock nut Material (insert) Polyamide (PA) Material (hood/housing) Zinc die-cast Material (contacts) **Brass** Surface (contacts) Gold plated

RoHS compliant with exemption

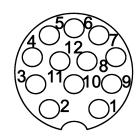
Specifications and approvals



Identification	Conductor contion (mm²)	ross-sec- Part number Female	Drawing (dimensions in mm)
Circular connectors M12, Panel feed through, With conductors, for front mounting, Unshielded	0.25 0.25	21 03 317 6805 21 03 317 6810	20.5 12 WIZ A-coded 8-poles, female straight PFT connector
without lock nut			21 03 317 6805: a = 50 cm 21 03 317 6810: a = 100 cm

Unshielded

M12



Technical characteristics

Number of contacts Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100 Locking type Screw locking Conductor length 50 cm

Degree of protection acc. to IEC IP67, when mated 60529

0.13 mm² Conductor cross-section Conductor cross-section AWG 26 Tightening torque 2 Nm Lock nut

Technical characteristics

Material (insert) Polyamide (PA) Material (hood/housing) Zinc die-cast Material (contacts) Brass Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

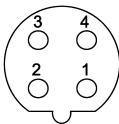
IEC 61076-2-101

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Identification	Conductor cross-section (mm²)	Part number Female	Drawing (dimensions in mm)
Circular connectors M12, Panel feed through, With conductors, for front mounting, Unshielded	0.13	21 03 353 2C00	20,5 a 12 W12 A-coded 12-pole, female PFT front mounting connector
without lock nut			Ø16,1 ^{-0,1}
			Panel cut out
3			

Number of contacts

Unshielded



Technical characteristics

Number of contacts 4 A Rated current Rated voltage 60 V Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100 Locking type Screw locking

Conductor length 50 cm

Degree of protection acc. to IEC IP67, when mated

60529

Conductor cross-section

0.34 mm²

Technical characteristics

Conductor cross-section AWG 22 Tightening torque 2 Nm Lock nut Material (insert) Polyamide (PA) Material (hood/housing) Zinc die-cast Material (contacts) Brass

Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

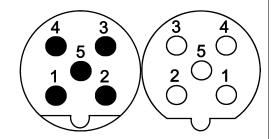
Identification	Conductor cross-section (mm²)	Part number Female	Drawing (dimensions in mm)
Circular connectors M12, Panel feed through, With conductors, for front mounting, Unshielded	0.34	21 03 338 6405	20,5 12 Ø15,3*0.1
without lock nut			Panel cut out

M12

Number of contacts

5

Unshielded



Technical characteristics

Number of contacts Rated current 4 A 60 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100 Locking type Screw locking Conductor length 20 cm

Degree of protection acc. to IEC IP67, when mated

60529

Conductor cross-section 0.34 mm² Conductor cross-section AWG 22

Technical characteristics

Tightening torque 2 Nm Lock nut
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Brass
Surface (contacts) Gold plated

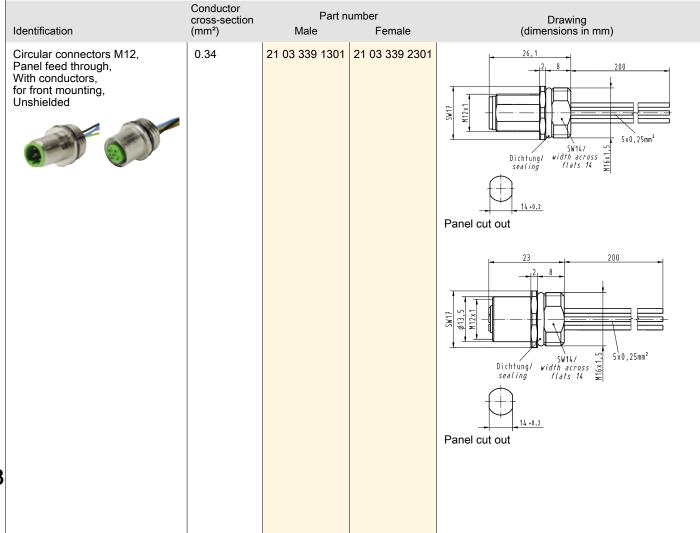
RoHS compliant, compliant with

exemption

Specifications and approvals

IEC 61076-2-101 UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079

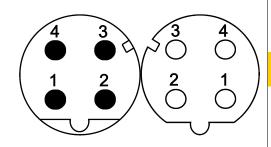


M12

Number of contacts

4

Unshielded



Technical characteristics

Number of contacts 4 A Rated current 250 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Locking type Screw locking

Locking type Screw lockin
Conductor length 50 cm

Degree of protection acc. to IEC IP67, when mated

60529

Conductor cross-section 0.34 mm², 0.5 mm²
Conductor cross-section AWG 22, AWG 20

Transmission characteristics Cat. 5, Class D up to 100 MHz

Tightening torque 2 Nm Lock nut

Technical characteristics

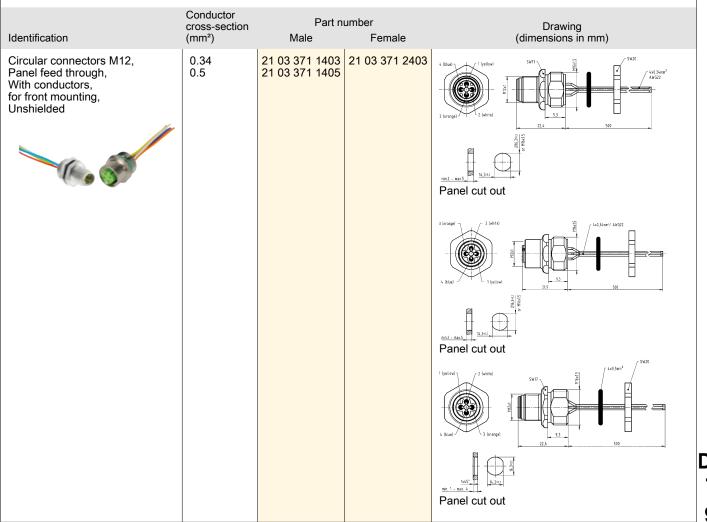
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Brass
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101 UL 1977 ECBT2.E102079 CSA-C22.2 No. 182.3 ECBT8.E102079





Panel feed through

M12





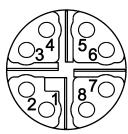
Conductor cross-section (mm²) Part number Drawing (dimensions in mm) Identification Male Female Circular connectors M12, Panel feed through, With conductors, for front mounting, Unshielded 0.34 21 03 375 2400 PG9 without lock nut Panel cut out

M12



Number of contacts

4x 2x AWG 24/7 Shielded



Liquid crystal polymer (LCP)

compliant with exemption

Zinc die-cast

Gold plated

Brass

Technical characteristics

Number of contacts

4x 2x AWG 24/7, Core structure 4x 2x AWG 26/7

Rated current 0.5 A Rated voltage 50 V

1.5 kV Rated impulse voltage Pollution degree 3 Insulation resistance >108 Ω Contact resistance ≤10 mΩ ≥100 Mating cycles

Locking type Degree of protection acc. to IEC IP65 / IP67, when mated 60529

Transmission characteristics

Tightening torque

Cat. 6_A , Class E_A up to 500 MHz

2 Nm Lock nut

Screw locking, PushPull

Other cable lengths on request!

Technical characteristics

Specifications and approvals

Details

IEC 61076-2-109

Material (insert)

Material (contacts)

Surface (contacts)

RoHS

Material (hood/housing)

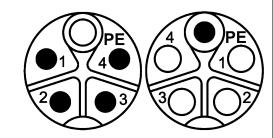
Identification	Cable length	Part number Female	Drawing (dimensions in mm)
Circular connectors M12, Panel feed through, Pre-assembled on one side, EtherRail cable (4x 2x AWG 24/7), for rear mounting, Shielded	0.3 m 0.5 m 1 m 1.5 m	21 33 070 0853 003 21 33 070 0853 005 21 33 070 0853 010 21 33 070 0853 015	
Circular connectors M12, Panel feed through, Pre-assembled on one side, Industrial Ethernet cable (4x 2x AWG 26/7), for rear mounting, Shielded	0.3 m 0.5 m 1 m 1.5 m	21 33 080 0850 003 21 33 080 0850 005 21 33 080 0850 010 21 33 080 0850 015	with cross and the cross and t







Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 4 \\ \text{Rated current} & 12 \text{ A} \\ \text{Rated voltage} & 630 \text{ V} \\ \text{Rated impulse voltage} & 6 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & >10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \, \text{m} \Omega \\ \text{Mating cycles} & \geq 100 \\ \end{array}$

Locking type Screw locking, PushPull

Conductor length 30 cm

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Technical characteristics

Conductor cross-section
Tightening torque
Material (insert)
Material (contacts)

2.5 mm², 1.5 mm²
0.6 Nm, 2 Nm Lock nut
Polyamide (PA)
Brass

Material (contacts) Brass
Surface (contacts) Gold plated

Specifications and approvals

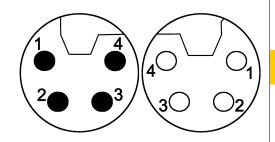
IEC 61076-2-111

Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Power, Panel feed through, With conductors, for front mounting, Shielded	1.5 2.5	21 03 309 5503 21 03 309 5501	21 03 309 6503 21 03 309 6501	SW20 SW20 SW20 SW20 SW20 SW20 SW20 SW20
				Panel cut out
Circular connectors M12, Power, Panel feed through, With conductors, for rear mounting, Shielded	1.5 2.5	21 03 309 5504 21 03 309 5502	21 03 309 6504 21 03 309 6502	\(\(\frac{\(\frac{\) \frac{\(\frac{\(\frac{\(\frac{\) \frac{\(\frac{\(\frac{\) \frac{\) \frac{\(\frac{\) \frac{\(\frac{\) \frac{\(\frac{\) \frac{\(\) \frac{\(\frac{\) \frac{\(\frac{\) \frac{\(\frac{\) \frac{\) \frac{\(\frac{\) \frac{\(\frac{\) \frac{\(\frac{\) \frac{\) \frac{\initital \frac{\) \frac{\initita \frac{\) \frac{\initita \frac{\) \frac{\initita \frac{\initita \frac{\) \frac{\frac{\inititita \frac{\inititire \frac{\initita \frac{\inititita \frac{\inititita \frac{\inititita \frac{\iniititita \frac{\inititita \frac{\inititita \frac{\inititire \f \frac{\initititititir
CONTRACTOR OF THE PARTY OF THE				Panel cut out
				SW20 panel housing (SW17) width across frats 20 0.8 ling (12,5 t.) 8 (13,5 t.) 9 (1415 t.)
				Panel cut out



4

Unshielded



Technical characteristics

Locking type Screw locking
Conductor length 30 cm

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section
Conductor cross-section
Tightening torque
Material (insert)

1.5 mm², 2.5 mm²
AWG 16, AWG 14
2 Nm Lock nut
Polyamide (PA)

Technical characteristics

Colour (insert)

Material (hood/housing)

Material (contacts)

Surface (contacts)

Black

Zinc die-cast

Copper alloy

Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-111 UL 2238 CYJV2.E302521

CSA-C22.2 No. 182.3 CYJV8.E302521



Waterial (insert)	oryannac (i 71)	'	ı	
Identification	Conductor cross-section (mm²)	Part n	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Power, Panel feed through, With conductors, for front mounting, Unshielded	1.5 2.5	21 03 596 1506 21 03 599 1506	21 03 596 2506 21 03 599 2506	Panel cut out Switch Panel Pane

Panel feed through

M12

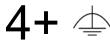


Conductor cross-section (mm²) Part number Drawing (dimensions in mm) Identification Male Female 21 03 596 1516 21 03 596 2516 21 03 599 1516 21 03 599 2516 1.5 2.5 Circular connectors M12, Power, Panel feed through, With conductors, for rear mounting, Unshielded Panel cut out Panel cut out

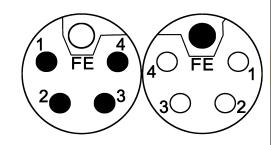
D03 12

96





Unshielded



Technical characteristics

Number of contacts 16 A Rated current Rated voltage 63 V Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100 Screw locking Locking type

Locking type Screw lockin
Conductor length 30 cm

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section
Conductor cross-section
Tightening torque
Material (insert)

1.5 mm², 2.5 mm²
AWG 16, AWG 14
2 Nm Lock nut
Polyamide (PA)

Technical characteristics

Colour (insert)GreyMaterial (hood/housing)Zinc die-castMaterial (contacts)Copper alloySurface (contacts)Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-111 UL 2238 CYJV2.E302521

CSA-C22.2 No. 182.3 CYJV8.E302521



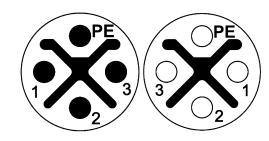
Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Power, Panel feed through, With conductors, for front mounting, Unshielded	1.5 2.5	21 03 596 1505 21 03 599 1505		Panel housing 1-2,0+5,0 SW20 SW17 With across Flats 17 L1 (brown) With across Flats 17 L2 (black) N1 (blue) Wisk 15 N2 (white) Sw15 mm July 25,6 J
				Danel cut out
Circular connectors M12, Power, Panel feed through, With conductors, for rear mounting, Unshielded	1.5 2.5	21 03 596 1515 21 03 599 1515		



3+ €

Unshielded

M12



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 3 \\ \text{Rated current} & 12 \text{ A} \\ \text{Rated voltage} & 630 \text{ V} \\ \text{Rated impulse voltage} & 6 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & >10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \, \text{m} \Omega \\ \text{Mating cycles} & \geq 100 \\ \end{array}$

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

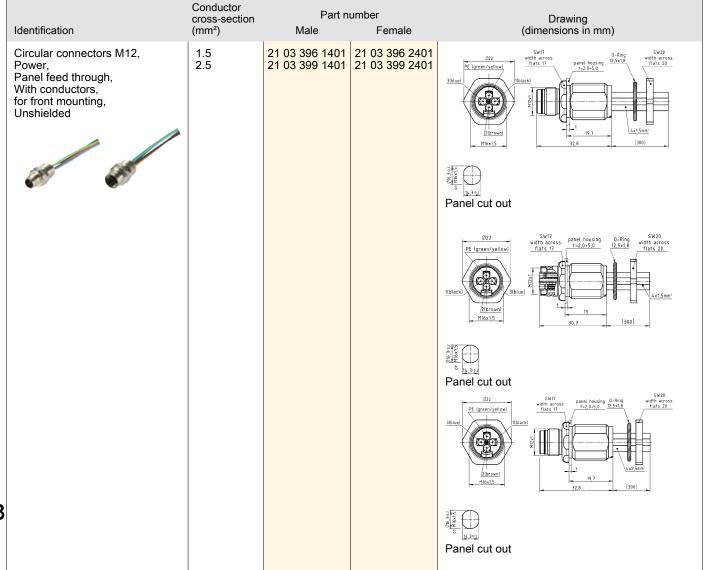
Technical characteristics

Conductor cross-section
Conductor cross-section
Tightening torque
Material (insert)
Material (contacts)
Surface (contacts)

1.5 mm², 2.5 mm²
AWG 16, AWG 14
0.6 Nm, 2 Nm Lock nut
Polyamide (PA)
Brass
Gold plated

Specifications and approvals

IEC 61076-2-111



D03



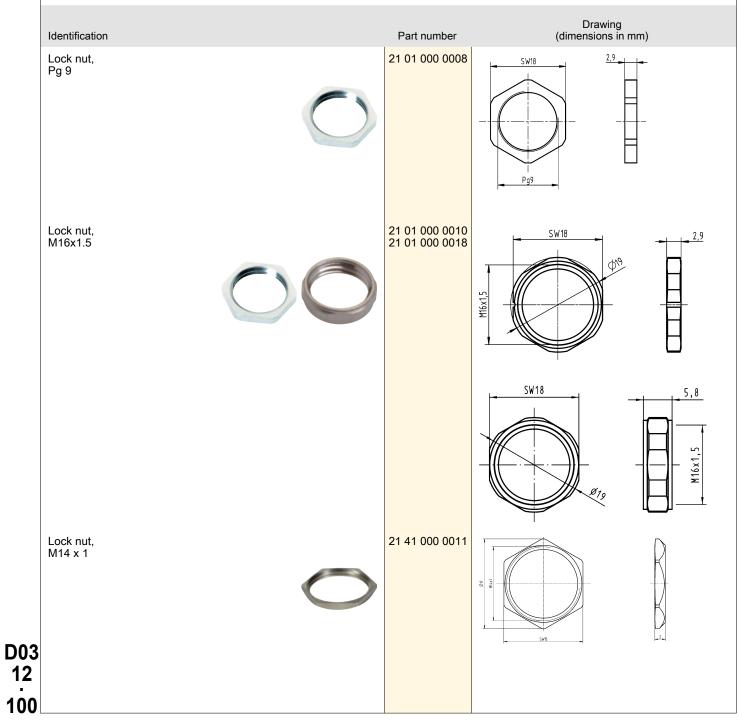
Conductor cross-section (mm²) Part number Drawing (dimensions in mm) Identification Male Female 21 03 396 1402 21 03 396 2402 21 03 399 1402 21 03 399 2402 1.5 2.5 Circular connectors M12, Power, Panel feed through, With conductors, for rear mounting, Unshielded Panel cut out Panel cut out Panel cut out

M12

Technical characteristics

RoHS

compliant with exemption, compliant



Technical characteristics

Degree of protection acc. to IEC IP65 / IP67, IP67 60529

Technical characteristics

Material (accessories) Colour (accessories) RoHS Thermoplastic Black compliant

Drawing (dimensions in mm) Identification Part number Circular connectors M12, Cap, IP65 / IP67 21 01 000 0003 Circular connectors M12, 21 41 000 0001 Cap, for male inserts, with cord, IP67 21 41 000 0002 Circular connectors M12, Cap, for female inserts, with cord, IP67 D03 101

M12

Technical characteristics

Technical characteristics

Material (accessories) RoHS Metal compliant with exemption

Identification	Part number	Drawing (dimensions in mm)
Circular connectors M12, Cap, for female inserts, with cord	21 01 000 0030	S 100
Circular connectors M12, Cap, for female inserts, with cable clip	21 01 000 0031	(19n
Circular connectors M12, Cap, for male inserts, with cord	21 01 000 0033	
Circular connectors M12, Cap, for male inserts, with cable clip	21 01 000 0038	§ 19.1
3		
,		

D03 12

102



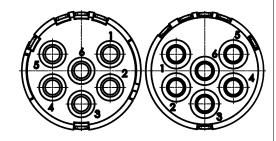
Contents	Page
M23 Signal inserts	D03 23.2
M23 Signal contacts	D03 23.22
M23 Signal Hoods/Housings	D03 23.23
M23 Power inserts	D03 23.28
M23 Power contacts	D03 23.33
M23 Power Hoods/Housings	D03 23.34



Number of contacts



Crimp termination



Technical characteristics

Number of contacts 20 A Rated current Rated voltage 300 V Rated impulse voltage 2.5 kV Pollution degree $>10^{10} \Omega$ Insulation resistance -40 ... +125 °C Limiting temperature ≥500 Mating cycles

0.75 ... 2.5 mm² Conductor cross-section Material (insert) Polyamide (PA)

Technical characteristics

Colour (insert) White Material flammability class acc. V-0 to UL 94

RoHS compliant

Specifications and approvals

UL 1977 ECBT2.E235076

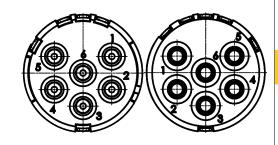
Identification	Conductor cross-section (mm²)	Part n	umber Female	Drawii (dimensions	ng in mm)
Circular connectors M23, Signal, Inserts, Crimp termination	0.75 2.5	09 15 106 3001	09 15 106 3101	11,6	Ø17 —
Please order crimp contacts separately. 6x 2 mm				20,1	Ø17 —
3					



Number of contacts



Solder termination



Copper alloy

Gold plated

V-0

Technical characteristics

Number of contacts Rated current 20 A 300 V Rated voltage Rated impulse voltage 2.5 kV Pollution degree $>10^{10} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C Mating cycles ≥500 Conductor cross-section 2.5 mm² max. Material (insert) Polyamide (PA) Colour (insert) White

RoHS compliant with exemption

Technical characteristics

UL 1977 ECBT2.E235076

Material flammability class acc.

Material (contacts)

Surface (contacts)

to UL 94

Specifications and approvals

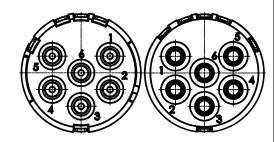
Conductor Part number Drawing (dimensions in mm) cross-section Identification (mm^2) Male Female 2.5 max. 09 15 106 2602 09 15 106 2702 Circular connectors M23, Signal, Inserts. Solder termination (22,2)



Number of contacts



PCB solder termination



Technical characteristics

Material (insert) Polyamide (PA)

Colour (insert) White

Technical characteristics

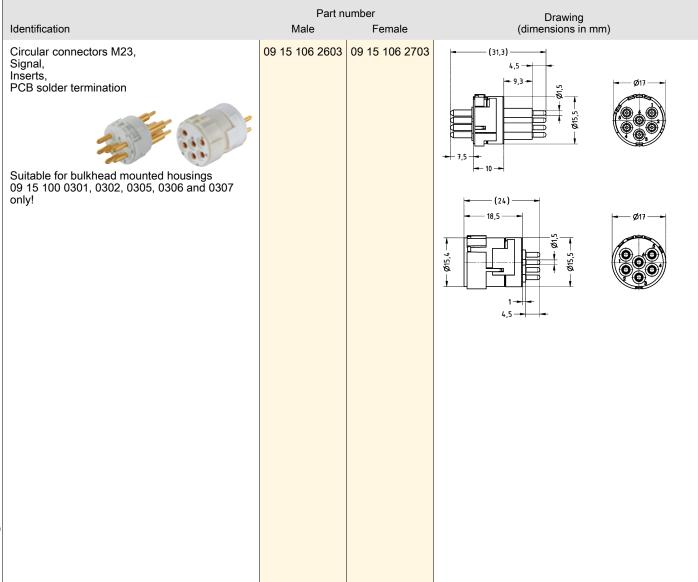
Material (contacts) Copper alloy Surface (contacts) Gold plated Material flammability class acc. V-0

to UL 94

RoHS compliant with exemption

Specifications and approvals

UL 1977 ECBT2.E235076

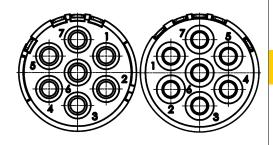




Number of contacts

7

Crimp termination



Technical characteristics

Conductor cross-section 0.75 ... 2.5 mm²
Material (insert) Polyamide (PA)

Technical characteristics

Colour (insert) White Material flammability class acc. V-0

to UL 94 RoHS

compliant with exemption

Specifications and approvals

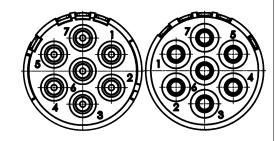
Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawi (dimensions	ng s in mm)
Circular connectors M23, Signal, Inserts, Crimp termination Please order crimp contacts separately. 7x 2 mm	0.75 2.5	09 15 107 3001	09 15 107 3101	20,1	Ø17 —



Number of contacts

7

Solder termination



Technical characteristics

Number of contacts 20 A Rated current 300 V Rated voltage Rated impulse voltage 2.5 kV Pollution degree $>10^{10} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C ≥500 Mating cycles Conductor cross-section 2.5 mm² max.

Material (insert) Polyamide (PA)

Colour (insert) White

Technical characteristics

Material (contacts) Copper alloy Surface (contacts) Gold plated Material flammability class acc. V-0

to UL 94

RoHS compliant with exemption

Specifications and approvals

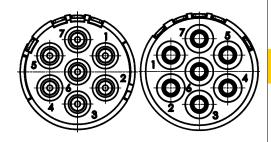
UL 1977 ECBT2.E235076

Identification	Conductor cross-section (mm²)	Part n	umber Female	Drawing (dimensions in mm)
Circular connectors M23, Signal, Inserts, Solder termination	2.5 max.	09 15 107 2602	09 15 107 2702	(21) 7,5 (21) (21) (21) (21) (3) (3) (4) (5) (6) (6) (7) (8) (8) (9) (9) (9) (9) (9) (9) (9) (9
				(22,2) 18,5 3,7
3				



Number of contacts

PCB solder termination



Technical characteristics

Number of contacts 20 A Rated current 300 V Rated voltage Rated impulse voltage 2.5 kV Pollution degree $>10^{10} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C ≥500 Mating cycles Material (insert) Polyamide (PA)

White

Colour (insert)

Technical characteristics

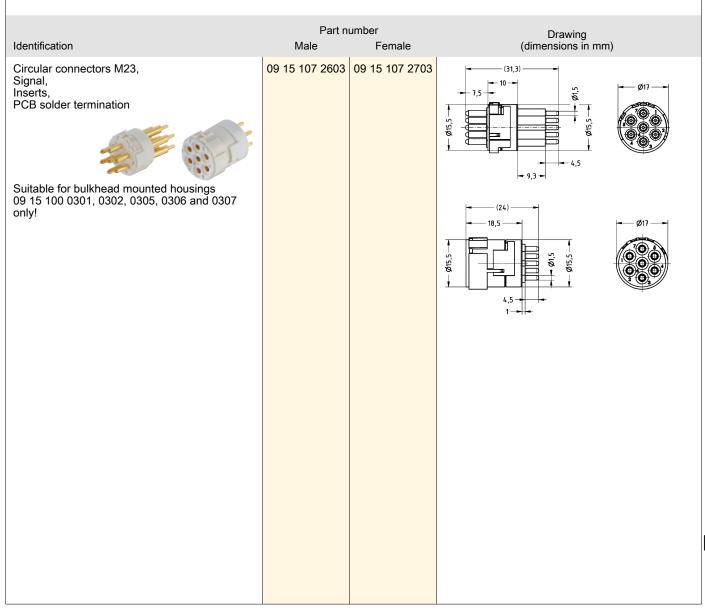
Material (contacts) Copper alloy Gold plated Surface (contacts)

Material flammability class acc.

to UL 94

RoHS compliant with exemption

Specifications and approvals



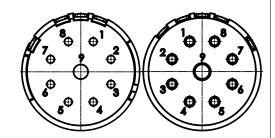


Number of contacts

8

M23

+ 1 additional special contact Crimp termination



Technical characteristics

Number of contacts 8

Additional contacts + 1 additional special contact

Rated current 8 A
Rated voltage 200 V
Rated impulse voltage 2.5 kV
Pollution degree 3
Rated current (special contact) 20 A
Rated voltage (special contact) 200 V
Rated impulse voltage (special 2.5 kV contact)

Pollution degree (special

contact)

Insulation resistance $>10^{10} \Omega$

Technical characteristics

Limiting temperature -40 ... +125 °C

Mating cycles ≥500

Conductor cross-section 0.08 ... 1.5 mm² Material (insert) Polyamide (PA)

Colour (insert) White Material flammability class acc. V-0 to UL 94

RoHS compliant with exemption

Specifications and approvals

UL 1977 ECBT2.E235076

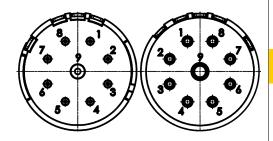
Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawi (dimension:	ing s in mm)
Circular connectors M23, Signal, Inserts, Crimp termination	0.08 1.5	09 15 109 3001	09 15 109 3101	12	Ø17
separately. 8x 1 mm 1x 2 mm				20	Ø17 10 08 20 07 30 06 40 08
3					

D03



Number of contacts

+ 1 additional special contact Solder termination



Technical characteristics

Number of contacts

+ 1 additional special contact Additional contacts

Rated current 8 A Rated voltage 200 V Rated impulse voltage 2.5 kV Pollution degree Rated current (special contact) 20 A Rated voltage (special contact) 200 V Rated impulse voltage (special 2.5 kV contact)

Pollution degree (special

contact)

Insulation resistance $>10^{10} \Omega$ Limiting temperature -40 ... +125 °C

Technical characteristics

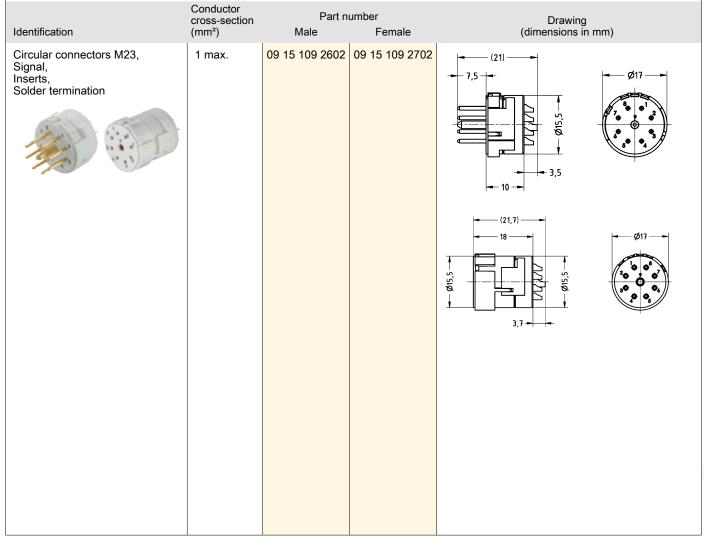
≥500 Mating cycles Conductor cross-section 1 mm² max. Material (insert) Polyamide (PA) Colour (insert) White Material (contacts) Copper alloy Surface (contacts) Gold plated

Material flammability class acc.

to UL 94

RoHS compliant with exemption

Specifications and approvals



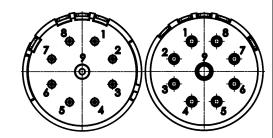


Number of contacts

8

M23

+ 1 additional special contact PCB solder termination



Technical characteristics

Number of contacts 8

Additional contacts + 1 additional special contact

Rated current 8 A
Rated voltage 200 V
Rated impulse voltage 2.5 kV
Pollution degree 3
Rated current (special contact) 20 A
Rated voltage (special contact) 200 V
Rated impulse voltage (special 2.5 kV

contact)

Pollution degree (special 3

contact)

Insulation resistance $>10^{10} \Omega$ Limiting temperature $-40 \dots +125 ^{\circ} C$

Technical characteristics

Mating cycles ≥500

Material (insert) Polyamide (PA)
Colour (insert) White
Material (contacts) Copper alloy
Surface (contacts) Gold plated

Material flammability class acc. to UL 94

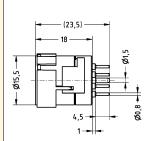
RoHS compliant with exemption

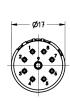
Specifications and approvals

UL 1977 ECBT2.E235076

Part number Identification Male Female Circular connectors M23, Signal, Inserts, PCB solder termination Part number Drawing (dimensions in mm) 09 15 109 2603 09 15 109 2703

Suitable for bulkhead mounted housings 09 15 100 0301, 0302, 0305, 0306 and 0307 only!



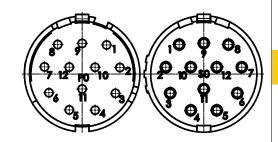


D03 23



11+ 😩

Crimp termination



Technical characteristics

Number of contacts11Rated current8 ARated voltage200 VRated impulse voltage2.5 kVPollution degree3Insulation resistance>1010 ΩLimiting temperature-40 ... +125 °CMating cycles≥500

Conductor cross-section 0.08 ... 1.5 mm²
Material (insert) Polyamide (PA)

Technical characteristics

Colour (insert) Grey Material flammability class acc. V-0

to UL 94 RoHS

compliant with exemption

Specifications and approvals

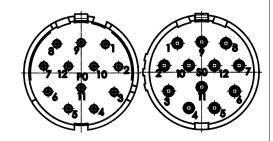
Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)	
Circular connectors M23, Signal, Inserts, Crimp termination Please order crimp contacts separately. 12x 1 mm	0.08 1.5	ı			



Number of contacts

11+ 😩

Solder termination



Technical characteristics

Number of contacts Rated current 8 A Rated voltage 200 V Rated impulse voltage 2.5 kV Pollution degree $>10^{10} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C ≥500 Mating cycles Conductor cross-section 1 mm² max. Material (insert) Polyamide (PA)

Colour (insert) Grey

Technical characteristics

Material (contacts) Copper alloy Surface (contacts) Gold plated Material flammability class acc. V-0

to UL 94

RoHS compliant with exemption

Specifications and approvals

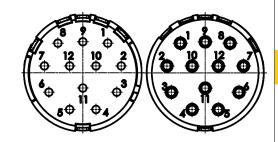
UL 1977 ECBT2.E235076

Identification	Conductor cross-section (mm²)	Part no Male	umber Female	Drawing (dimensions in mm)
Circular connectors M23, Signal, Inserts, Solder termination	1 max.	09 15 112 2622	09 15 112 2722	7,5
				(20,7) 17 SS SS SS SS SS SS SS SS SS SS SS SS SS

Number of contacts

12

Crimp termination



Technical characteristics

Conductor cross-section 0.08 ... 1.5 mm²
Material (insert) Polyamide (PA)

Technical characteristics

Colour (insert) White Material flammability class acc. V-0

to UL 94 RoHS

compliant with exemption,

compliant

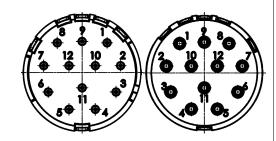
Specifications and approvals

Identification	Conductor cross-section (mm²)	Part number Male Female		Drawing (dimensions in mm)	
Circular connectors M23, Signal, Inserts, Crimp termination	0.08 1.5	09 15 112 3001	09 15 112 3101	11,6 -	Ø17 0
Please order crimp contacts separately. 12x 1 mm				19,6	Ø17
Circular connectors M23, Signal, Inserts, Marking in opposite direction, Crimp termination Please order crimp contacts separately. 12x 1 mm	0.08 1.5	09 15 112 3011	09 15 112 3111		



Number of contacts

Solder termination



Technical characteristics

Number of contacts Rated current 8 A 200 V Rated voltage Rated impulse voltage 2.5 kV Pollution degree $>10^{10} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C ≥500 Mating cycles Conductor cross-section 1 mm² max. Material (insert) Polyamide (PA) Colour (insert) White

Technical characteristics

Material (contacts) Copper alloy Gold plated Surface (contacts) Material flammability class acc. V-0

to UL 94

RoHS compliant with exemption,

compliant

Specifications and approvals

UL 1977 ECBT2.E235076

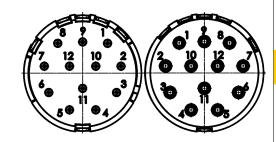
	Identification	Conductor cross-section (mm²)	Part number Male Female		Drawing (dimensions in mm)	
	Circular connectors M23, Signal, Inserts, Solder termination	1 max.	09 15 112 2602	09 15 112 2702	7,3	
					(20,7) 18 017 017 017 027	
	Circular connectors M23, Signal, Inserts, Marking in opposite direction, Solder termination	1 max.	09 15 112 2612	09 15 112 2712		
3						

HARTING

Number of contacts

12

PCB solder termination



Technical characteristics

Material (insert) Polyamide (PA)

Colour (insert) White

Technical characteristics

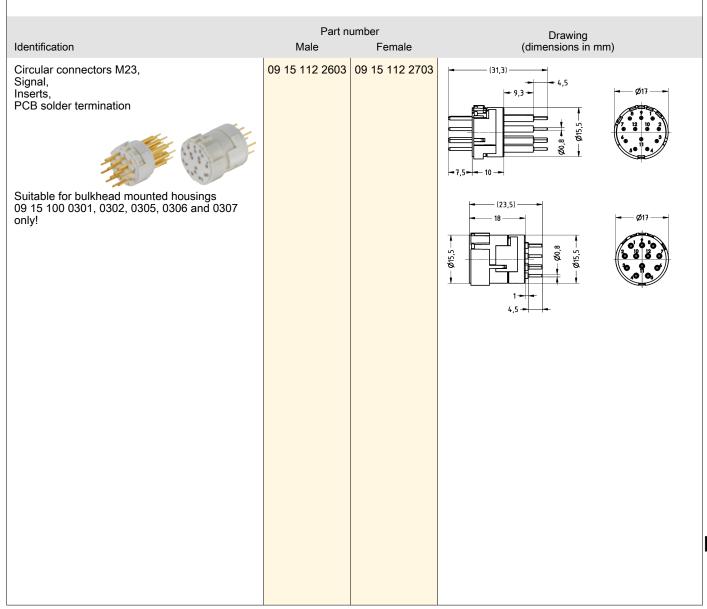
Material (contacts) Copper alloy Surface (contacts) Gold plated

Material flammability class acc. V-0

to UL 94

RoHS compliant with exemption

Specifications and approvals

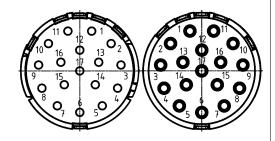




Number of contacts

17

Crimp termination



Technical characteristics

Conductor cross-section 0.08 ... 1.5 mm²
Material (insert) Polyamide (PA)

Technical characteristics

Colour (insert) White Material flammability class acc. V-0

to UL 94

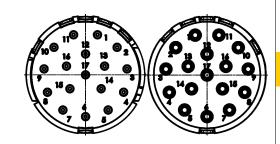
RoHS compliant with exemption

Specifications and approvals

UL 1977 ECBT2.E235076

Identification	Conductor cross-section (mm²)	Part number Male Female		Drawing (dimensions in mm)		
Circular connectors M23, Signal, Inserts, Crimp termination Please order crimp contacts separately. 17x 1 mm	(mm²) 0.08 1.5	Male 09 15 117 3001		(dimension	Ø17 Ø17 Ø17 Ø17 Ø17 Ø17 Ø17 Ø17	
3						

Solder termination



Technical characteristics

Number of contacts 8 A Rated current Rated voltage 160 V Rated impulse voltage 1.5 kV Pollution degree 3 >10⁶ Ω Insulation resistance Limiting temperature -40 ... +125 °C ≥500 Mating cycles 1 mm² max. Conductor cross-section Material (insert) Polyamide (PA) White

Colour (insert)

Technical characteristics

Material (contacts) Copper alloy Gold plated Surface (contacts)

Material flammability class acc.

to UL 94

RoHS compliant with exemption

Specifications and approvals

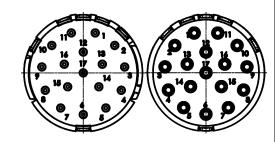
Identification	Conductor cross-section (mm²)	Part number Male Female		Drawing (dimensions in mm)		
Circular connectors M23, Signal, Inserts, Solder termination	1 max.	09 15 117 2602	09 15 117 2702	7,5	Ø17 —	
				2,7	Ø17	



Number of contacts

17

PCB solder termination



Technical characteristics

Number of contacts17Rated current8 ARated voltage160 VRated impulse voltage1.5 kVPollution degree3Insulation resistance>106 ΩLimiting temperature-40 ... +125 °CMating cycles≥500

Material (insert) Polyamide (PA)

Colour (insert) White

Technical characteristics

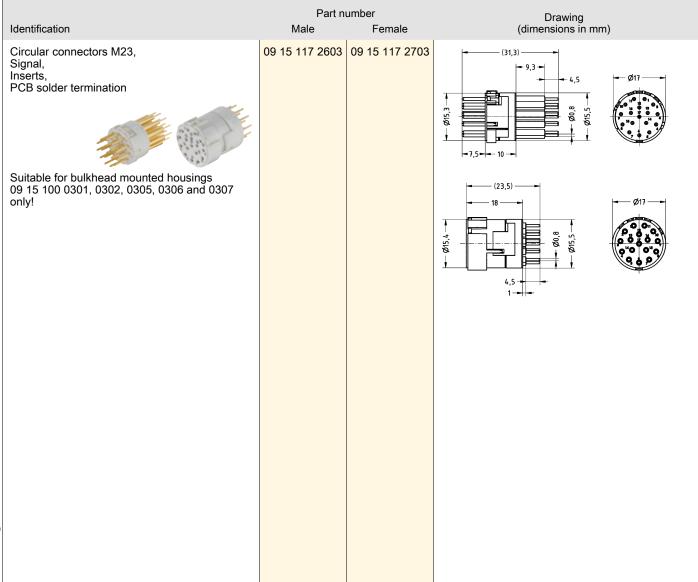
Material (contacts) Copper alloy Surface (contacts) Gold plated Material flammability class acc. V-0

to UL 94

RoHS compliant with exemption

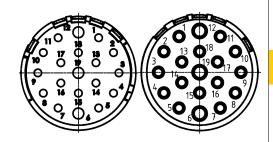
Specifications and approvals

UL 1977 ECBT2.E235076





+ 3 additional special contacts Crimp termination



Technical characteristics

Number of contacts

Additional contacts

Rated current 8 A Rated voltage 100 V Rated impulse voltage 1.5 kV Pollution degree 3 Rated current (special contact) 10 A Rated voltage (special contact) 100 V Rated impulse voltage (special 1.5 kV contact)

Pollution degree (special

contact)

Insulation resistance

+ 3 additional special contacts

3

>10⁶ Ω

Technical characteristics

Limiting temperature -40 ... +125 °C

Mating cycles ≥500

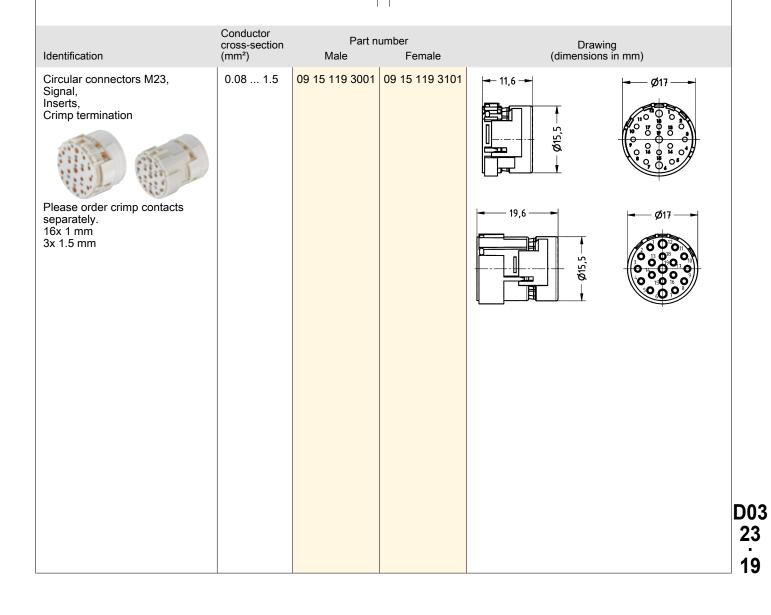
Conductor cross-section 0.08 ... 1.5 mm² Material (insert) Polyamide (PA)

Colour (insert) White Material flammability class acc.

to UL 94

RoHS compliant with exemption

Specifications and approvals

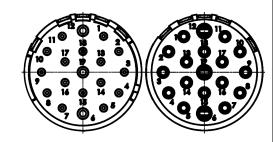




Number of contacts

16

+ 3 additional special contacts Solder termination



Technical characteristics

Number of contacts 16

Additional contacts + 3 additional special contacts

Rated current 8 A
Rated voltage 100 V
Rated impulse voltage 1.5 kV
Pollution degree 3
Rated current (special contact) 10 A
Rated voltage (special contact) 100 V
Rated impulse voltage (special 5 kV contact)

Pollution degree (special

contact)

Insulation resistance $>10^6 \, \Omega$ Limiting temperature $-40 \dots +125 \, ^{\circ} C$

Technical characteristics

Mating cycles≥500Conductor cross-section1 mm² max.Material (insert)Polyamide (PA)Colour (insert)WhiteMaterial (contacts)Copper alloy

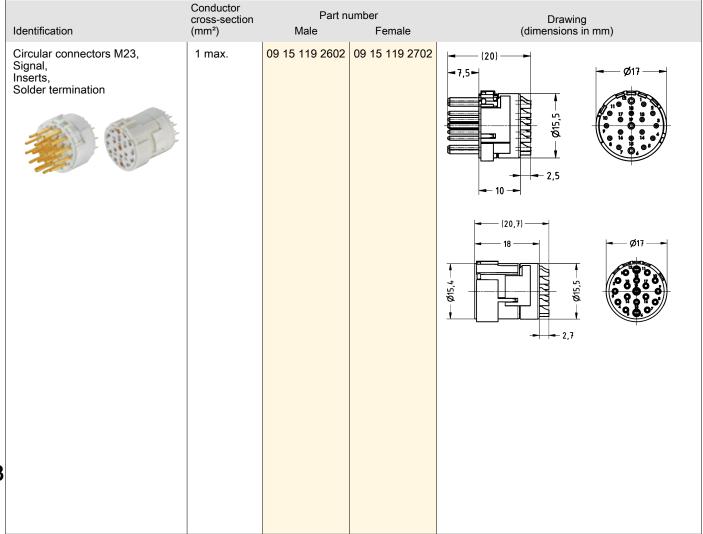
Surface (contacts) Gold plated
Material flammability class acc. V-0

to UL 94

RoHS compliant with exemption

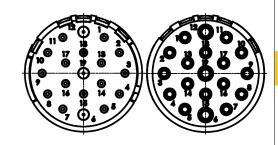
Specifications and approvals

UL 1977 ECBT2.E235076





+ 3 additional special contacts PCB solder termination



Technical characteristics

Number of contacts

+ 3 additional special contacts Additional contacts

Rated current 8 A Rated voltage 100 V Rated impulse voltage 1.5 kV Pollution degree 3 Rated current (special contact) 10 A Rated voltage (special contact) 100 V Rated impulse voltage (special 1.5 kV

contact)

Pollution degree (special 3

contact)

Insulation resistance >10⁶ Ω Limiting temperature -40 ... +125 °C

Technical characteristics

Mating cycles

Material (insert) Polyamide (PA)

Colour (insert) White Material (contacts) Copper alloy Surface (contacts) Gold plated

Material flammability class acc.

to UL 94

RoHS compliant with exemption

Specifications and approvals

UL 1977 ECBT2.E235076

Part number Drawing Identification (dimensions in mm) Male Female

Circular connectors M23, Signal,

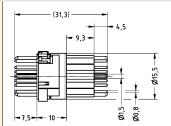
Inserts,

PCB solder termination

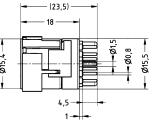


Suitable for bulkhead mounted housings 09 15 100 0301, 0302, 0305, 0306 and 0307 only!

09 15 119 2603 09 15 119 2703











M23

Technical characteristics

 $\begin{array}{lll} \text{Contact resistance} & \leq 3 \ m\Omega \\ \text{Conductor cross-section} & 0.08 \dots 0.56 \ \text{mm}^2, \, 0.14 \dots 1 \ \text{mm}^2, \\ 0.75 \dots 1.5 \ \text{mm}^2, \, 0.75 \dots 2.5 \ \text{mm}^2, \\ 0.34 \dots 1 \ \text{mm}^2, \, 0.14 \dots 0.56 \ \text{mm}^2, \\ 0.56 \dots 1 \ \text{mm}^2 \\ \text{Conductor cross-section} & AWG 28 \dots AWG 20, \\ AWG 28 \dots AWG 17, \\ AWG 19 \dots AWG 16, \\ AWG 19 \dots AWG 14, \\ AWG 22 \dots AWG 17, \\ AWG 26 \dots AWG 20, \\ AWG 20 \dots AWG 20, \\ AWG 20 \dots AWG 17 \\ \end{array}$

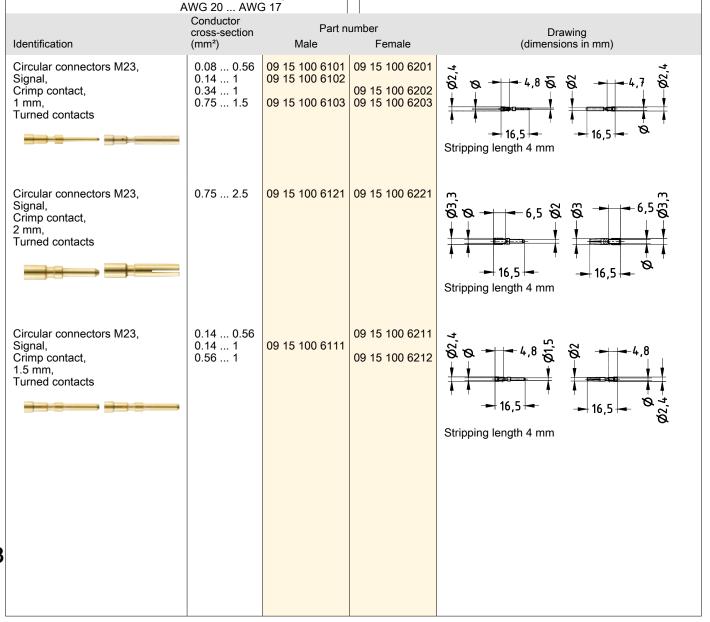
Technical characteristics

Material (contacts) Copper alloy Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

EN 60664-1 IEC 61984



D03 23



Technical characteristics

 $\begin{array}{lll} \mbox{Limiting temperature} & -40 \dots +125 \ ^{\circ}\mbox{C} \\ \mbox{Locking type} & \mbox{Screw locking,} \\ \end{array}$

ComLock rapid locking

Degree of protection acc. to IEC IP67, in locked position, IP69 / 60529 IPX9K acc. to ISO 20653

Material (hood/housing) Copper-zinc alloy Surface (hood/housing) Nickel plated

Material (seal) NBR

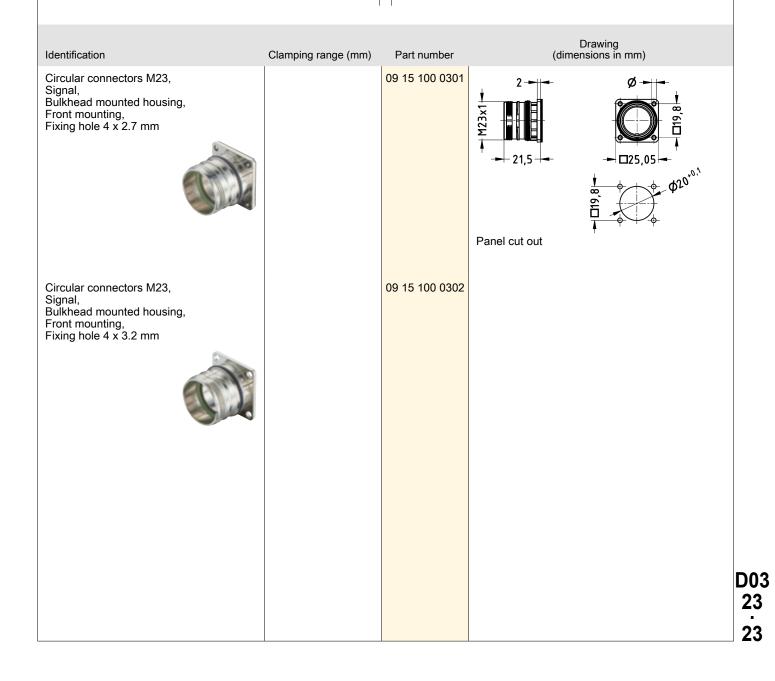
Technical characteristics

Colour (seal) B

RoHS compliant with exemption,

compliant

Specifications and approvals





Drawing (dimensions in mm) Identification Part number Clamping range (mm) 09 15 100 0901 Circular connectors M23, Bulkhead mounted housing, Front mounting, Angled, Fixing hole 4 x 2.7 mm Panel cut out 09 15 100 0902 Circular connectors M23, Signal, Bulkhead mounted housing, Front mounting, Angled, Rotatable, Fixing hole 4 x 2.7 mm Panel cut out Circular connectors M23, 09 15 100 0363 Signal, Bulkhead mounted housing, Front mounting, Thread M20 x 1.5 Ø20,2 Panel cut out for male inserts Not compatible to ComLock 09 15 100 0364 Circular connectors M23, Signal, Bulkhead mounted housing, Front mounting, Thread Pg 13.5 for male inserts Not compatible to ComLock Ø20,6 Panel cut out

M23

Drawing (dimensions in mm) Identification Clamping range (mm) Part number 09 15 100 0373 Circular connectors M23, Signal, Bulkhead mounted housing, Front mounting, Thread M20 x 1.5 Ø20,2 for female inserts Panel cut out Not compatible to ComLock Circular connectors M23, 09 15 100 0374 Signal, Bulkhead mounted housing, Front mounting, Thread Pg 13.5 for female inserts Not compatible to ComLock Ø20,6 Panel cut out Circular connectors M23, 09 15 100 0307 Signal,
Bulkhead mounted housing, Rear mounting, Fixing hole 4 x 2.7 mm □25 22.5 Panel cut out 09 15 100 0305 Circular connectors M23, Signal, Bulkhead mounted housing, Rear mounting, Thread 4 x M2.5 22,5 **25 Ø**23 **D03** Panel cut out

25



	Identification	Clamping range (mm)	Part number	Drawing (dimensions in mm)
	Circular connectors M23, Signal, Bulkhead mounted housing, Rear mounting, Thread 4 x M3 Circular connectors M23, Signal, Bulkhead mounted housing, Rear mounting, Thread M25 x 1.5 Not compatible to ComLock		09 15 100 0306	3,5 SW29 SW30 SW29 SW30
	Circular connectors M23, Signal, Panel feed through housing, Rear mounting	3 7 7 12 11 17	09 15 100 0309 09 15 100 0310 09 15 100 0311	(approx. 67) -26 -26 -37 -28 -37 -38 -38 -38 -38 -38 -38 -3
33	Circular connectors M23, Signal, Cover, for hoods, With chain (100 mm) Not compatible to ComLock		09 15 100 9103	- (20,7) - 13,5 - 1 XEZW

M23



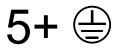
Drawing (dimensions in mm) Identification Clamping range (mm) Part number 09 15 100 9101 Circular connectors M23, Signal,
Cover,
for bulkhead mounted housings,
for cable to cable housing Circular connectors M23, Signal, Cover, for bulkhead mounted housings, for cable to cable housing, With chain (70 mm) 09 15 100 9102 (14,7) D03

M23

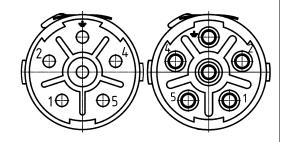
M23 Power inserts



Number of contacts



Crimp termination



Technical characteristics

Number of contacts 28 A Rated current Rated voltage 600 V Rated impulse voltage 4 kV Pollution degree $>10^{13} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C ≥500 Mating cycles

Conductor cross-section 0.14 ... 4 mm² Material (insert) Polyamide (PA)

Conductor

Technical characteristics

Colour (insert) Blue Material flammability class acc. V-0 to UL 94

RoHS compliant

Specifications and approvals

UL 1977 ECBT2.E235076

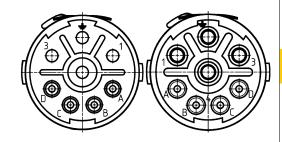
	Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Dr (dimens	awing ions in mm)	
	Circular connectors M23, Power, Inserts, Crimp termination	0.14 4	09 15 606 3001	09 15 606 3101	Ø21 	30,2	
	Please order crimp contacts separately. 6x 2 mm				Ø21	30,2	
3							

28



3+ 😩

+ 4 additional signal contacts Crimp termination



Technical characteristics

Number of contacts 3

Additional contacts + 4 additional signal contacts

Rated current 28 A Rated voltage 600 V Rated impulse voltage 4 kV Pollution degree 3 Rated current (signal) 8 A 300 V Rated voltage (signal) Rated impulse voltage (signal) 2.5 kV Pollution degree (signal) $>10^{13} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C

Technical characteristics

Mating cycles ≥500

Conductor cross-section 0.14 ... 4 mm²
Material (insert) Polyamide (PA)

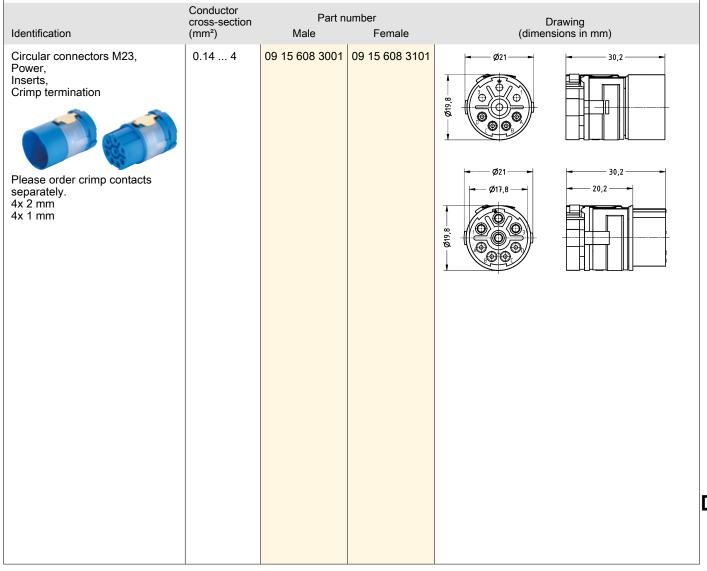
Colour (insert) Blue Material flammability class acc. V-0

to UL 94

RoHS compliant

Specifications and approvals

UL 1977 ECBT2.E235076



M23 Power inserts

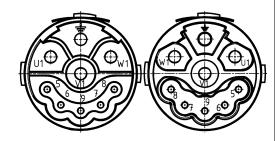


Number of contacts

3+



+ 5 additional signal contacts Crimp termination



Technical characteristics

Number of contacts 3

Additional contacts + 5 additional signal contacts

Rated current 28 A Rated voltage 630 V Rated impulse voltage 4 kV Pollution degree 3 Rated current (signal) 10 A Rated voltage (signal) 250 V Rated impulse voltage (signal) 2.5 kV Pollution degree (signal) $>10^{13} \Omega$ Insulation resistance -40 ... +125 °C Limiting temperature

Technical characteristics

Mating cycles≥500Conductor cross-section0.14 ... 4 mm²Material (insert)Polyamide (PA)

Colour (insert) Blue Material flammability class acc. V-0 to UL 94

RoHS compliant

Specifications and approvals

UL 1977 ECBT2.E235076

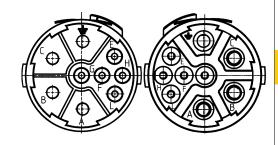
Identification	Conductor cross-section (mm²)	Part n Male	umber Female	(dime	Drawing nsions in mm)
Circular connectors M23, Power, Inserts, Mating face (A), Crimp termination Please order crimp contacts separately. 4x 2 mm 5x 1 mm	0.14 4	09 15 609 3001	09 15 609 3101	Ø21 Ø21 Ø19,7 Ø19,7	32,4
3					

M23



3+ 😩

+ 5 additional signal contacts Crimp termination



Technical characteristics

Number of contacts 3

Additional contacts + 5 additional signal contacts

Rated current 28 A Rated voltage 630 V Rated impulse voltage 4 kV Pollution degree 3 Rated current (signal) 10 A Rated voltage (signal) 250 V Rated impulse voltage (signal) 2.5 kV Pollution degree (signal) $>10^{13} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C

Technical characteristics

Mating cycles ≥500

Conductor cross-section 0.14 ... 4 mm²
Material (insert) Polyamide (PA)

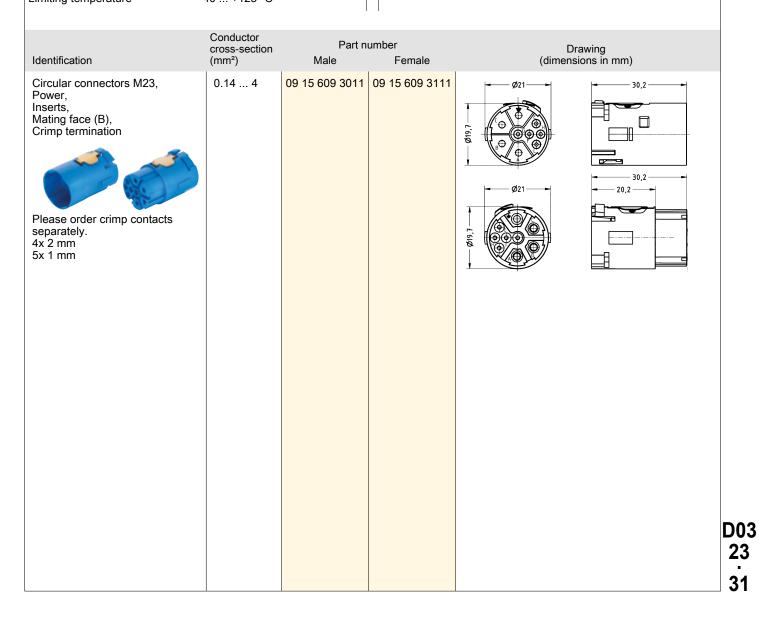
Colour (insert) Blue Material flammability class acc. V-0

to UL 94

RoHS compliant

Specifications and approvals

UL 1977 ECBT2.E235076



M23 Power inserts



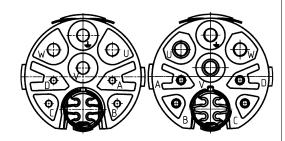
Number of contacts

3+



Rated impulse voltage (data)

+ 4 additional signal contacts + 4 Data Crimp termination



Technical characteristics

Number of contacts Additional contacts + 4 additional signal contacts, + 4 Data Rated current 28 A 630 V Rated voltage Rated impulse voltage 4 kV 3 Pollution degree Rated current (signal) 8 A Rated voltage (signal) 300 V 2.5 kV Rated impulse voltage (signal) Pollution degree (signal) 3 Rated current (data) 2 A Rated voltage (data) 60 V

0.5 kV

Technical characteristics

Pollution degree (data) 3

Limiting temperature -40 ... +125 °C Mating cycles ≥500

Conductor cross-section 0.08 ... 4 mm²

Material (insert)

Ood ... 4 min
Polyamide (PA)

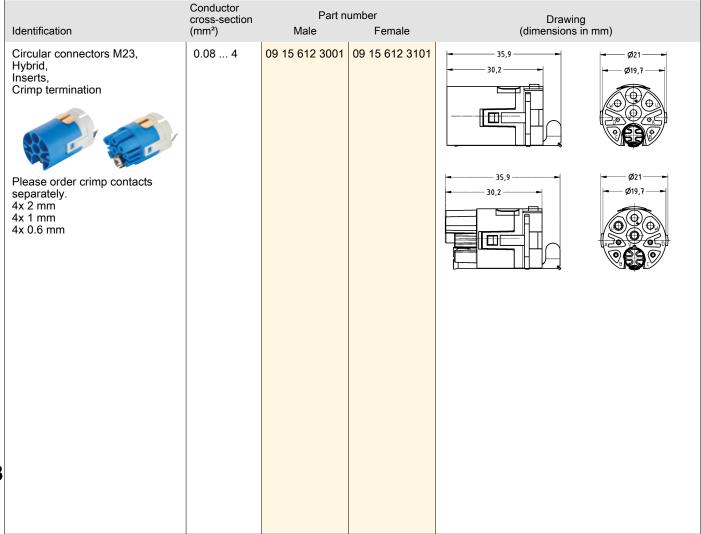
Colour (insert) Blue Material flammability class acc. V-0

to UL 94

RoHS compliant

Specifications and approvals

UL 1977 ECBT2.E235076



M23

Technical characteristics

Contact resistance

Conductor cross-section

Material (contacts) Surface (contacts) RoHS

≤3 mΩ

0.08 ... 0.34 mm², 0.14 ... 1 mm², 0.75 ... 2.5 mm², 2.5 ... 4 mm²

Copper alloy

Gold plated compliant, compliant with exemption

Specifications and approvals

EN 60664-1 IEC 61984

Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M23, Power, Crimp contact, 0.6 mm, Turned contacts	0.08 0.34	09 15 600 6191	09 15 600 6291	15.8 17.9 Stripping length 4 mm
Circular connectors M23, Power, Crimp contact, 1 mm, Turned contacts	0.14 1	09 15 600 6101	09 15 600 6201	Stripping length 4 mm
Circular connectors M23, Power, Crimp contact, 2 mm, Turned contacts	0.75 2.5 2.5 4	09 15 600 6121 09 15 600 6122	09 15 600 6221 09 15 600 6222	7,8 % 7,8 — 7,8 % 7,8 — 23,6 — 23,6 — 23,6 — 24 % % % 7,8 — 23,6 — 24 % % % % 7,8 — 24 % % % % % % % % % % % % % % % % % %

Technical characteristics

Limiting temperature -40 ... +125 °C Locking type Screw locking,

ComLock rapid locking

Degree of protection acc. to IEC IP67 / IP69 / IPX9K acc. to 60529 ISO 20653, in locked position

Material (hood/housing) Copper-zinc alloy Surface (hood/housing) Nickel plated

Material (seal) NBR

Technical characteristics

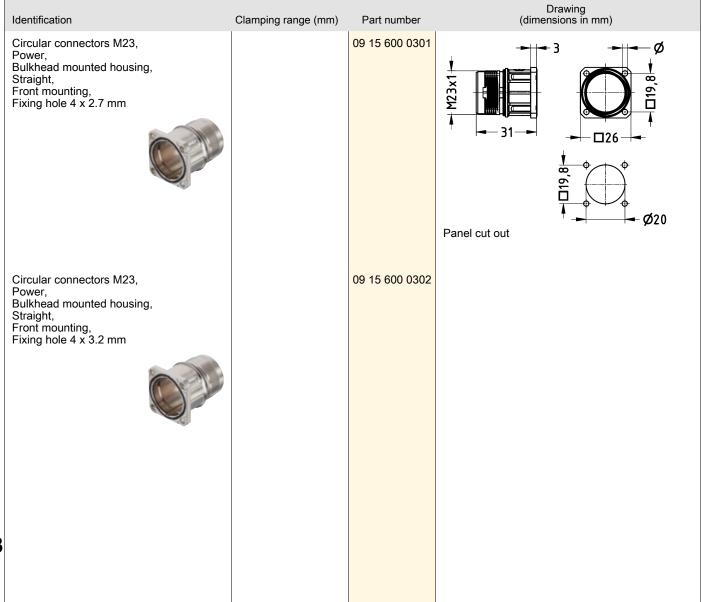
Colour (seal) Black

RoHS compliant, compliant with

exemption

Specifications and approvals

UL 1977 ECBT2.E235076



D03 23

34

M23 Power Hoods/Housings



Drawing (dimensions in mm) Identification Clamping range (mm) Part number 09 15 600 0303 Circular connectors M23, - 39 Power, Bulkhead mounted housing, Straight, Front mounting, Thread M20 x 1.5 Not compatible to ComLock Ø20,2 Panel cut out 09 15 600 0313 Circular connectors M23, **-** 30,5 Power, Bulkhead mounted housing, Ø31**→** Straight, Front mounting, Thread M25 x 1.5 Ø25 Panel cut out Circular connectors M23, 09 15 600 0308 -37,3Power, - 33,8 Bulkhead mounted housing, Ø32,9+ Straight, Rear mounting, Thread M25 x 1.5 Ø25 Panel cut out

M23

D03

M23 Power Hoods/Housings



Drawing (dimensions in mm) Identification Part number Clamping range (mm) 09 15 600 0902 Circular connectors M23, Bulkhead mounted housing, Angled, Rotatable. Fixing hole 4 x 2.7 mm Ø20 Panel cut out Circular connectors M23, 09 15 600 0912 Power, Bulkhead mounted housing, Angled, Rotatable, Fixing hole 4 x 3.2 mm Ø20 Panel cut out 09 15 600 0310 Circular connectors M23, 7 ... 12 (approx. 72) 11 ... 17 09 15 600 0311 Panel feed through housing, Rear mounting, EMC version - Ø25 Panel cut out Circular connectors M23, 09 15 600 9103 Power, Cover, for hoods, With chain (100 mm) Not compatible to ComLock

36

M23

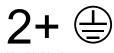
M23 Power Hoods/Housings

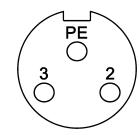


Identification	Clamping range (mm)	Part number	Drawing (dimensions in mm)	
Circular connectors M23, Power, Cover, for bulkhead mounted housings, for cable to cable housing, With chain (70 mm)	land the second control of the second contro	09 15 600 9102		M23
With chain (70 mm)			(14,7)	
Expansion				
				D03
				23 37

Contents Page Panel feed through	7
	-
Panel feed through	7
	D0 35







Technical characteristics

Number of contacts 10 A Rated current 230 V Rated voltage conductor-earth Rated voltage conductor-con-400 V ductor 4.8 kV Rated impulse voltage Pollution degree 3 Insulation resistance >108 Ω Contact resistance ≤10 mΩ ≥100 Mating cycles Locking type Screw locking Conductor length 50 cm

Degree of protection acc. to IEC IP67

60529

Technical characteristics

Conductor cross-section 1 mm²
Conductor cross-section AWG 18
Material (insert) Thermop

Material (insert) Thermoplastic polyurethane

(TPU)

Material (hood/housing) Copper-zinc alloy Material (contacts) Brass

Surface (contacts)

Brass

Gold plated

RoHS compliant with exemption

Specifications and approvals

(€

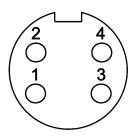
Identification	Conductor cross-section (mm²)	Part number Female	Drawing (dimensions in mm)
Circular connectors 7/8", Panel feed through, With conductors, for front mounting, Unshielded	1	21 04 316 2301	Panel cut out
3			



Number of contacts

4

Unshielded



Technical characteristics

Number of contacts Rated current 10 A 230 V Rated voltage conductor-earth Rated voltage conductor-con-400 V ductor 4.8 kV Rated impulse voltage Pollution degree 3 Insulation resistance >108 Ω Contact resistance ≤10 mΩ ≥100 Mating cycles

Locking type Screw locking Conductor length 50 cm

Degree of protection acc. to IEC IP67

60529

Technical characteristics

Conductor cross-section 1 mm²
Conductor cross-section AWG 18

Material (insert) Thermoplastic polyurethane

(TPU)

Material (hood/housing) Copper-zinc alloy

Material (contacts)

Surface (contacts)

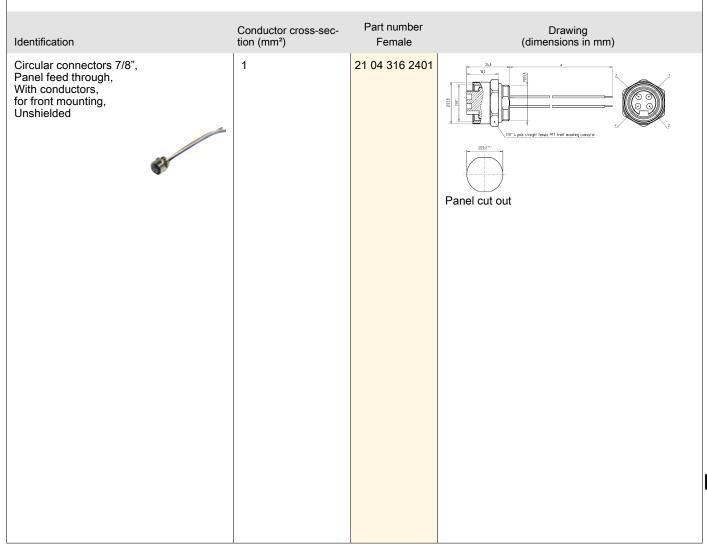
Brass

Gold plated

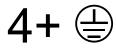
RoHS compliant with exemption

Specifications and approvals

(E

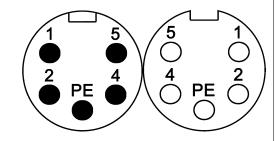






Unshielded

60529



Technical characteristics

Number of contacts 10 A Rated current 230 V Rated voltage conductor-earth Rated voltage conductor-con-400 V ductor 4.8 kV Rated impulse voltage Pollution degree 3 Insulation resistance >108 Ω Contact resistance ≤10 mΩ ≥100 Mating cycles Locking type Screw locking Conductor length 50 cm Degree of protection acc. to IEC IP67

Technical characteristics

Conductor cross-section 1 mm² Conductor cross-section AWG 18 Material (insert)

Material (hood/housing)

Thermoplastic polyurethane

Copper-zinc alloy

Material (contacts) **Brass**

Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

(€

	0 1 1	Part num	her	
Identification	Conductor cross section (mm²)	Male	Female	Drawing (dimensions in mm)
Circular connectors 7/8", Panel feed through, With conductors, for front mounting, Unshielded	1	21 34 740 0571 005	21 04 316 2501	Panel cut out
3				Panel cut out

HARAX® panel feed through



Contents	Page	
Panel feed through	D03 50.2	HARAX
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		D03 50 1



Number of contacts

Number of contacts



HARAX



HARAX® connection technology Unshielded



Technical characteristics

Rated current 16 A 230 V Rated voltage conductor-earth Rated voltage conductor-con-400 V ductor Rated impulse voltage 4 kV Pollution degree 3 Insulation resistance >108 Ω Contact resistance ≤10 mΩ ≤2.8 mm Wire outer diameter Conductor length 50 cm Degree of protection acc. to IEC IP67

60529

Conductor cross-section 0.75 ... 1.5 mm² Conductor cross-section AWG 18 ... AWG 16

Technical characteristics

Cable diameter 6 ... 9 mm

Polyamide (PA), Thermoplastic polyurethane (TPU) Material (insert)

Material (hood/housing) Polyamide (PA), Thermoplastic polyurethane (TPU)

Material (contacts) Copper alloy

Surface (contacts) Gold plated RoHS compliant

Specifications and approvals

UL 1977 ECBT2.E102079 CSA-C22.2 No. 182.3 ECBT8.E102079

Identification	Conductor cross-section (mm²)	Size	Part number	Drawing (dimensions in mm)
HARAX®, Panel feed through, With faston blades, for front mounting, HARAX® connection technology, Unshielded	0.75 1.5	Pg 13.5	21 01 130 3013	Gesantlänge im verschraubten Zustand ca. 49,6mm Complete length when assembled app. 49,6mm SW24 Contact arrangement (view from mating side)
HARAX®, Panel feed through, With solder termination, for front mounting, HARAX® connection technology, Unshielded	0.75 1.5	Pg 13.5	21 01 130 3023	
HARAX®, Panel feed through, With conductors, for front mounting, HARAX® connection technology, Unshielded	0.75 1.5	Pg 13.5	21 01 130 3233	
3				



Number of contacts

HARAX® connection technology Unshielded





HARAX

Technical characteristics

Number of contacts 3 Rated current 16 A 230 V Rated voltage conductor-earth Rated voltage conductor-con-400 V ductor Rated impulse voltage 4 kV Pollution degree 3 Insulation resistance >108 Ω Contact resistance ≤10 mΩ ≤2.8 mm Wire outer diameter Conductor length 50 cm Degree of protection acc. to IEC IP67

60529

Conductor cross-section 0.75 ... 1.5 mm² AWG 18 ... AWG 16 Conductor cross-section

Technical characteristics

Cable diameter 6 ... 9 mm

Polyamide (PA), Thermoplastic polyurethane (TPU) Material (insert)

Material (hood/housing) Polyamide (PA), Thermoplastic

polyurethane (TPU)

Material (contacts) Copper alloy Surface (contacts) Gold plated RoHS compliant

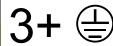
Specifications and approvals

UL 1977 ECBT2.E102079 CSA-C22.2 No. 182.3 ECBT8.E102079

	Conductor			
Identification	cross-section (mm²)	Size	Part number	Drawing (dimensions in mm)
HARAX®, Panel feed through, With faston blades, for front mounting, HARAX® connection technology, Unshielded	0.75 1.5	Pg 13.5	21 01 130 1013	Gesantlinge im verschraubten Zustand co. 49.6mm Complete length when assembled app. 49.6mm SW24 Contact arrangement (view from mating side)
HARAX®, Panel feed through, With solder termination, for front mounting, HARAX® connection technology, Unshielded	0.75 1.5	Pg 13.5	21 01 130 1023	
HARAX®, Panel feed through, With conductors, for front mounting, HARAX® connection technology, Unshielded	0.75 1.5	Pg 13.5	21 01 130 1223	



Number of contacts



Number of contacts

HARAX® connection technology Unshielded



Technical characteristics

Rated current 16 A 230 V Rated voltage conductor-earth Rated voltage conductor-con-400 V ductor Rated impulse voltage 4 kV Pollution degree 3 Insulation resistance >108 Ω Contact resistance ≤10 mΩ ≤2.8 mm Wire outer diameter Conductor length 50 cm Degree of protection acc. to IEC IP67

60529

Conductor cross-section 0.75 ... 1.5 mm² Conductor cross-section AWG 18 ... AWG 16

Technical characteristics

Cable diameter 6 ... 9 mm

Polyamide (PA), Thermoplastic polyurethane (TPU) Material (insert)

Material (hood/housing) Polyamide (PA), Thermoplastic polyurethane (TPU)

Material (contacts) Copper alloy Surface (contacts) Gold plated RoHS compliant

Specifications and approvals

UL 1977 ECBT2.E102079 CSA-C22.2 No. 182.3 ECBT8.E102079

	.			
Identification	Conductor cross-section (mm²)	Size	Part number	Drawing (dimensions in mm)
HARAX®, Panel feed through, With solder termination, for front mounting, HARAX® connection technology, Unshielded	0.75 1.5 0.75 1.5	M20 Pg 13.5	21 01 141 3023 21 01 140 3023	Gesomlänge im verschraubten Zustand co. 48.2mm Complete length when assembled app. 48.2mm 12.9 Contact arrangement (view from mating side)
HARAX®, Panel feed through, With conductors, for front mounting, HARAX® connection technology, Unshielded	0.75 1.5	M20	21 01 141 3333	
3				

HARAX



Number of contacts

Number of contacts

HARAX® connection technology Unshielded





HARAX

Technical characteristics

Rated current 16 A 230 V Rated voltage conductor-earth Rated voltage conductor-con-400 V ductor Rated impulse voltage 4 kV Pollution degree 3 Insulation resistance >108 Ω Contact resistance ≤10 mΩ ≤2.8 mm Wire outer diameter Conductor length 50 cm Degree of protection acc. to IEC IP67

60529

0.75 ... 1.5 mm² Conductor cross-section AWG 18 ... AWG 16 Conductor cross-section

Technical characteristics

Cable diameter 6 ... 9 mm

Polyamide (PA), Thermoplastic polyurethane (TPU) Material (insert)

Material (hood/housing) Polyamide (PA), Thermoplastic

polyurethane (TPU)

Material (contacts) Copper alloy Surface (contacts) Gold plated RoHS compliant

Specifications and approvals

UL 1977 ECBT2.E102079 CSA-C22.2 No. 182.3 ECBT8.E102079

Identification	Conductor cross-section (mm²)	Size	Part number	Drawing (dimensions in mm)
HARAX®, Panel feed through, With solder termination, for front mounting, HARAX® connection technology, Unshielded	0.75 1.5 0.75 1.5	M20 Pg 13.5	21 01 141 1023 21 01 140 1023	Gesont lange in verschroubten Zustand co. 48,2mm Complete length when assembled app. 48,2mm SW24 Contact arrangement (view from mating side)
HARAX®, Panel feed through, With conductors, for front mounting, HARAX® connection technology, Unshielded	0.75 1.5 0.75 1.5	M20 Pg 13.5	21 01 141 1323 21 01 140 1323	



HARAX

Technical characteristics

RoHS

compliant with exemption, compliant

HARAX®, Lock nut, Thermoplastic M20 Pg 13.5 21 01 000 0009 21 01 000 0007 vidth across flats 24 SW24 Width across flats 27 SW27 SW2	Thermoplastic W20x1,5 width across flats 27 SW27	Identification	Size	Part number	Drawi (dimensions	s in mm)
Sw27 Pg13,5	HARAX®, Lock nut, Metal	HARAX®, Lock nut, Thermoplastic	M20 Pg 13.5	21 01 000 0009 21 01 000 0007	SW24	- 5
	Lock nut, Metal	HARAX®	Pa 13 5	21.01.000.0039	SW27	5

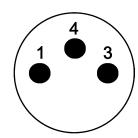


Contents	Page	
M8	C03 08.2	M8
Accessories	C03 08.11	
		C03 08
		1



3

HARAX® connection technology Unshielded



Technical characteristics

Number of contacts 2 A Rated current 32 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Wire outer diameter ≤1 mm Screw locking Locking type

Degree of protection acc. to IEC IP67, in locked position

60529

Conductor cross-section 0.1 ... 0.14 mm²

Technical characteristics

Conductor cross-section AWG 27 ... AWG 26
Cable diameter 1.9 ... 3.5 mm
Tightening torque 0.4 Nm
Material (insert) Polyamide (PA)

Material (insert) Polyamide (PA)
Material (hood/housing) Polyamide (PA), Zinc die-cast

Material (contacts)

Copper alloy
Surface (contacts)

Gold plated

RoHS compliant with exemption

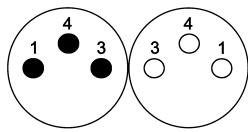
Specifications and approvals

	Identification	Conductor cross-section (mm²)	Part number Male	Drawing (dimensions in mm)
	Circular connectors M8, M8-XS, Cable connector, Straight, HARAX® connection technology, Unshielded	0.1 0.14	21 02 159 1305	Gesantlänge im verschraubten Zustand ca. 40,8mm Complete length when assembled app. 40,8mm width across flats 9
3				

Number of contacts

3

HARAX® connection technology Unshielded



Technical characteristics

Number of contacts 4 A Rated current 32 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Wire outer diameter ≤1.6 mm Screw locking Locking type

Degree of protection acc. to IEC IP67, in locked position

60529

Conductor cross-section 0.14 ... 0.34 mm² Conductor cross-section AWG 26 ... AWG 22

Technical characteristics

Cable diameter 2.5 ... 5.1 mm
Tightening torque 0.4 Nm
Material (insert) Polyamide (PA)

Material (hood/housing) Polyamide (PA), Zinc die-cast

Material (contacts) Copper alloy Surface (contacts) Gold plated RoHS compliant

Specifications and approvals

IEC 61076-2-104

UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079

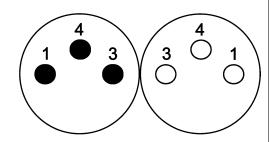
Identification	Conductor cross-section (mm²)	Part n	umber Female	Drawing (dimensions in mm)
Circular connectors M8, M8-S, Cable connector, Straight, HARAX® connection technology, Unshielded	0.14 0.34	21 02 151 1305	21 02 151 2305	Gesamtlange im verschraubten Zustand ca. 40,8mm/ complete length when assembled app. 42,8mm/ complete length when assembled app. 42,5mm/ complete length when assembled app. 42,5mm/ width across liats 9

/IQ

Number of contacts

3

Screw termination Unshielded



Technical characteristics

Locking type Screw locking

Degree of protection acc. to IEC IP67, in locked position

60529

Conductor cross-section 0.09 ... 0.5 mm²
Conductor cross-section AWG 28 ... AWG 20

Technical characteristics

Cable diameter 4 ... 5.5 mm
Tightening torque 0.4 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Polyamide (PA),
Copper-zinc alloy

Material (contacts)

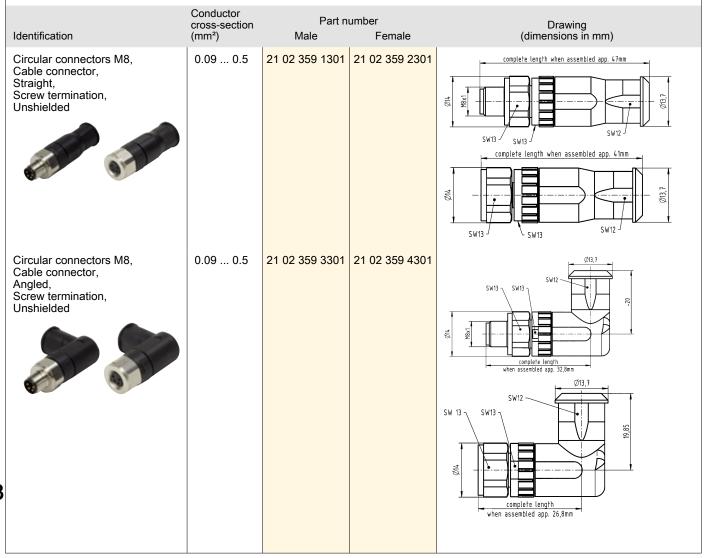
Surface (contacts)

Brass

Gold plated

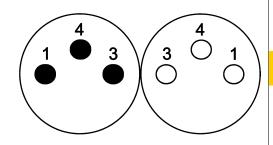
RoHS compliant with exemption

Specifications and approvals



Number of contacts

Screw termination Shielded



Technical characteristics

Number of contacts 4 A Rated current 60 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Locking type Screw locking

Degree of protection acc. to IEC IP67, in locked position

60529

Conductor cross-section 0.09 ... 0.5 mm² AWG 28 ... AWG 20 Conductor cross-section

Technical characteristics

Cable diameter 4 ... 5.5 mm Tightening torque 0.4 Nm Material (insert) Polyamide (PA) Material (hood/housing) Copper-zinc alloy

Material (contacts) Brass Surface (contacts) Gold plated

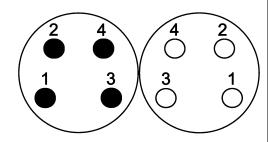
RoHS compliant with exemption

Specifications and approvals

Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M8, Cable connector, Straight, Screw termination, Shielded	0.09 0.5	21 02 369 1301	21 02 369 2301	SW13 SW13 SW13 SW13 SW13 SW13 SW13 SW13



HARAX® connection technology Unshielded



Technical characteristics

Number of contacts Rated current 4 A Rated voltage 32 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100 Wire outer diameter ≤1.6 mm Locking type Screw locking

Degree of protection acc. to IEC IP67, in locked position

60529

0.14 ... 0.34 mm² Conductor cross-section AWG 26 ... AWG 22 Conductor cross-section

Technical characteristics

Cable diameter 2.5 ... 5.1 mm Tightening torque 0.4 Nm Material (insert) Polyamide (PA) Material (hood/housing) Polyamide (PA), Zinc die-cast

Material (contacts) Copper alloy

Surface (contacts) Gold plated RoHS compliant

Specifications and approvals

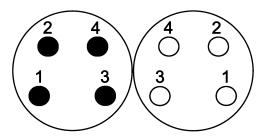
IEC 61076-2-104

UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079

Number of contacts

Screw termination Unshielded



Technical characteristics

Number of contacts 4 A Rated current Rated voltage 30 V Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Locking type Screw locking

Degree of protection acc. to IEC IP67, in locked position

60529

Conductor cross-section 0.09 ... 0.5 mm² AWG 28 ... AWG 20 Conductor cross-section

Technical characteristics

Cable diameter 4 ... 5.5 mm Tightening torque 0.4 Nm Material (insert) Polyamide (PA) Polyamide (PA), Material (hood/housing) Copper-zinc alloy

Material (contacts) Brass Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

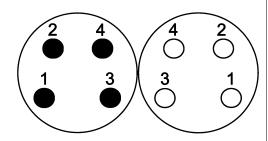
Identification	Conductor cross-section (mm²)	Part n	number Female	Drawing (dimensions in mm)
Circular connectors M8, Cable connector, Straight, Screw termination, Unshielded	0.09 0.5	21 02 359 1401	21 02 359 2401	complete length when assembled app. 47mm SW13 SW13 SW12 SW12 SW12 SW12
Circular connectors M8, Cable connector, Angled, Screw termination, Unshielded	0.09 0.5	21 02 359 3401	21 02 359 4401	SW13 SW13 SW13 SW13 SW13 SW13 SW13 SW13

A-coding



Number of contacts

Screw termination Shielded



Technical characteristics

Number of contacts 4 A Rated current Rated voltage 30 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance Mating cycles ≥100

60529

Conductor cross-section Conductor cross-section

≤10 mΩ Locking type Screw locking Degree of protection acc. to IEC IP67, in locked position

> 0.09 ... 0.5 mm² AWG 28 ... AWG 20

Technical characteristics

Cable diameter 4 ... 5.5 mm Tightening torque 0.4 Nm Material (insert) Polyamide (PA) Material (hood/housing) Copper-zinc alloy

Material (contacts) Brass Surface (contacts) Gold plated

RoHS compliant with exemption

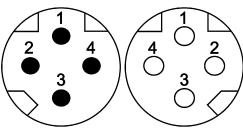
Specifications and approvals

	Identification	Conductor cross-section (mm²)	Part n	umber Female	Drawing (dimensions in mm)
	Circular connectors M8, Cable connector, Straight, Screw termination, Shielded	0.09 0.5	21 02 369 1401		complete length when assembled app. 47mm SW13 SW13 SW13 SW13 SW13 SW13 SW13
3					

Number of contacts

4

HARAX® connection technology Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 4 \\ \text{Rated current} & 4 \text{ A} \\ \text{Rated voltage} & 60 \text{ V} \\ \text{Rated impulse voltage} & 1.5 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & > 10^8 \Omega \\ \text{Contact resistance} & \leq 10 \text{ m}\Omega \\ \text{Mating cycles} & \geq 100 \\ \end{array}$

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, in locked position

60529

Cable diameter 6.2 ... 6.8 mm

Technical characteristics

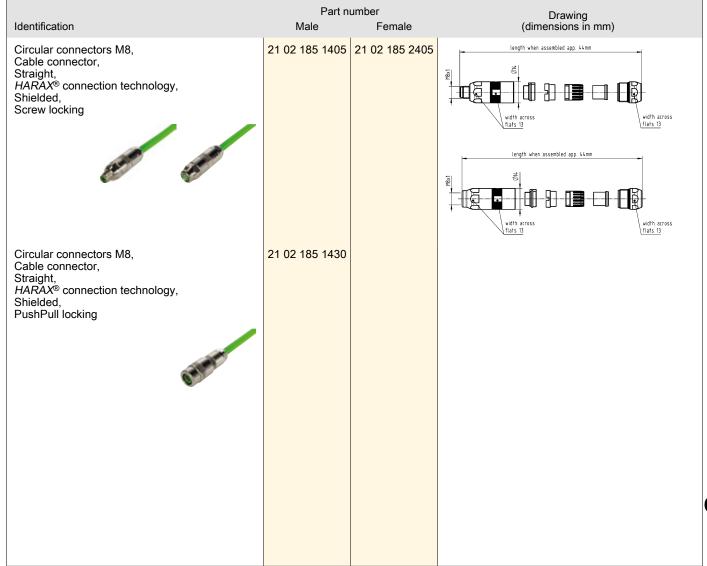
Transmission characteristics Cat. 5, Class D up to 100 MHz

Tightening torque 0.4 Nm Material (insert) Polyamide (PA)

Material (hood/housing) Polyamide (PA), Zinc die-cast

Material (contacts) Copper alloy Surface (contacts) Gold plated

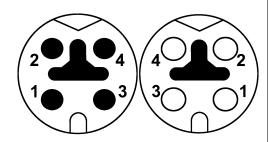
Specifications and approvals





4

HARAX® connection technology Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 4 \\ \text{Rated current} & 4 \text{ A} \\ \text{Rated voltage} & 60 \text{ V} \\ \text{Rated impulse voltage} & 1.5 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & >10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \, \text{m} \Omega \\ \text{Mating cycles} & \geq 100 \\ \end{array}$

Locking type Screw locking, PushPull
Degree of protection acc. to IEC IP65 / IP67, in locked position

60529

Cable diameter 6.2 ... 6.8 mm

Technical characteristics

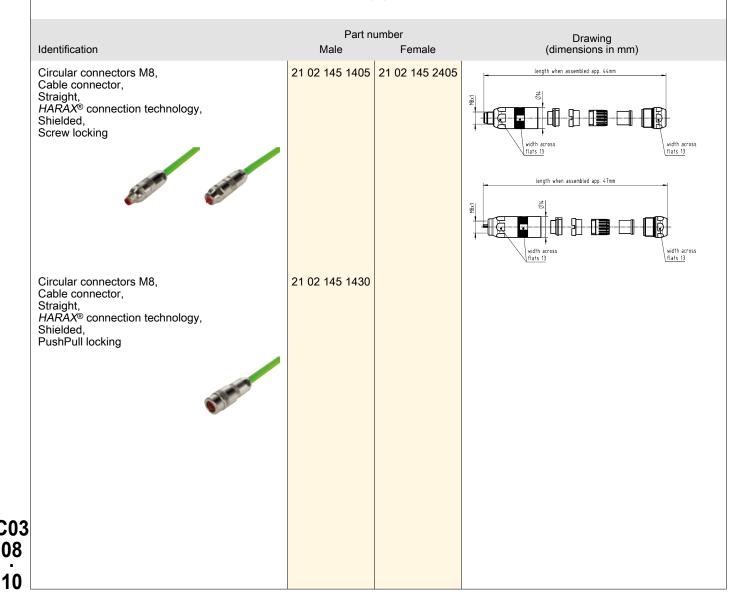
Transmission characteristics Cat. 5, Class D up to 100 MHz

Tightening torque 0.4 Nm Material (insert) Polyamide (PA)

Material (hood/housing) Polyamide (PA), Zinc die-cast

Material (contacts) Copper alloy Surface (contacts) Gold plated

Specifications and approvals



Technical characteristics

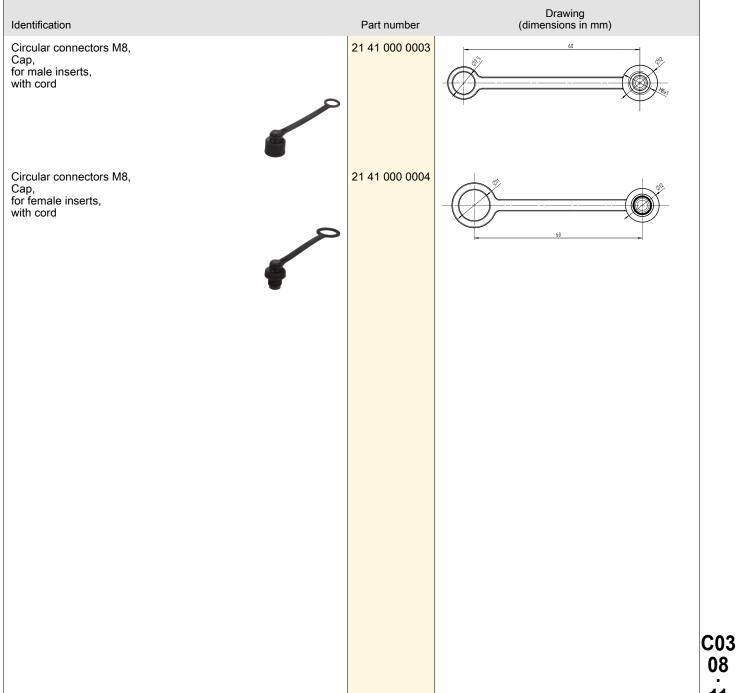
Material (accessories)

Thermoplastic

Technical characteristics

Colour (accessories) RoHS

Black compliant



Technical characteristics

Material (accessories)

Thermoplastic

Technical characteristics

Colour (accessories) RoHS Black, Grey, Transparent compliant

Identification	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
Circular connectors M8, M8-XS, Seal, Black	1.9 2.5	21 01 010 2016	
Circular connectors M8, M8-XS, Seal, Grey	2.5 3.5	21 01 010 2008	12,4
Circular connectors M8, M8-XS, Seal, Transparent	4.2 5.4	21 01 010 2005	
Circular connectors M8, M8-S, Set of seals	2.5 5.1	21 01 010 2013	60 25-32 00 32-4,00 4,0-5,1

C03 08



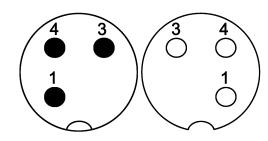
Contents	Page
M12	C03 12.2
preLink® M12	C03 12.32
M12 Slim Design	C03 12.40
M12 PushPull	C03 12.60
M12 Power	C03 12.74
Adapter	C03 12.82
Accessories	C03 12.87



3

M12

HARAX® connection technology Unshielded



Technical characteristics

Number of contacts Rated current 4 A Rated voltage 32 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100 Wire outer diameter ≤1.6 mm Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.14 ... 0.34 mm²
Conductor cross-section AWG 26 ... AWG 22

Technical characteristics

Cable diameter 2.9 ... 5.1 mm
Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Polyamide (PA), Zinc die-cast

Material (contacts)
Surface (contacts)
RoHS
Brass
Gold plated
compliant

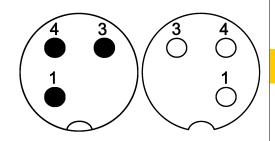
Specifications and approvals

IEC 61076-2-101

UL 1977 ECBT2.E102079

3

HARAX® connection technology Unshielded



Technical characteristics

Number of contacts 3 6 A Rated current 50 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Wire outer diameter ≤2.6 mm Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.34 ... 0.75 mm² Conductor cross-section AWG 22 ... AWG 18

Technical characteristics

Cable diameter 6 ... 8 mm
Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)

Material (hood/housing) Polyamide (PA), Zinc die-cast

Material (contacts) Brass
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101

UL 1977 ECBT2.E102079

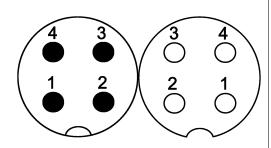
Identification	Conductor cross-section (mm²)	Part n	umber Female	Drawing (dimensions in mm)
Circular connectors M12, M12-L, Cable connector, Straight, Deviating contact configuration, 1, 3, 4, HARAX® connection technology, Unshielded	0.34 0.75	21 03 212 1306	21 03 212 2306	app. 52,2
				app. 48.9
Circular connectors M12, M12-L, Cable connector, Straight, Deviating contact configuration, 3, 4, 5, HARAX® connection technology, Unshielded	0.34 0.75	21 03 212 1400	21 03 212 2400	



4

M12

HARAX® connection technology Unshielded



Technical characteristics

Number of contacts Rated current 4 A Rated voltage 32 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100 Wire outer diameter ≤1.6 mm Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.14 ... 0.34 mm²
Conductor cross-section AWG 26 ... AWG 22

Technical characteristics

Cable diameter 2.9 ... 5.1 mm
Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Polyamide (PA), Zinc die-cast

Material (contacts)
Surface (contacts)
RoHS
Brass
Gold plated
compliant

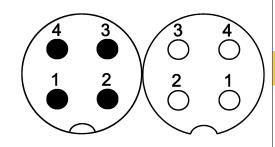
Specifications and approvals

IEC 61076-2-101

UL 1977 ECBT2.E102079

4

HARAX® connection technology Unshielded



Technical characteristics

Number of contacts 6 A Rated current 50 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Wire outer diameter ≤2.6 mm Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.34 ... 0.75 mm²
Conductor cross-section AWG 22 ... AWG 18

Technical characteristics

Cable diameter 6 ... 8 mm, 7 ... 8.8 mm

Tightening torque 0.6 Nm Material (insert) Polyamide (PA)

Material (hood/housing) Polyamide (PA), Zinc die-cast

Material (contacts) Brass
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101

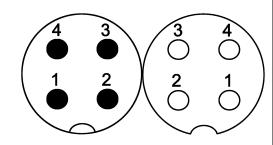
UL 1977 ECBT2.E102079

Identification	Conductor cross-section (mm²)	Part n	umber Female	Drawing (dimensions in mm)
Circular connectors M12, M12-L, Cable connector, Straight, HARAX® connection technology, Unshielded	0.34 0.75	21 03 212 1305	21 03 212 2305	app. 52
				app. 48,9
Circular connectors M12, M12-L, Cable connector, Straight, HARAX® connection technology, Unshielded, Cable-Ø 7 8.8 mm	0.34 0.75	21 03 212 1407	21 03 212 2407	



4

HARAX® connection technology Unshielded



Technical characteristics

Number of contacts Rated current 4 A 32 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100 Wire outer diameter ≤1.6 mm Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.25 ... 0.5 mm²
Conductor cross-section AWG 24 ... AWG 20

Technical characteristics

Cable diameter 4 ... 5.1 mm

Tightening torque 0.6 Nm

Material (insert) Polyamide (PA)

Material (hood/housing) Polyamide (PA), Zinc die-cast

Material (contacts)

Brass

Surface (contacts)

Surface (contacts)

RoHS

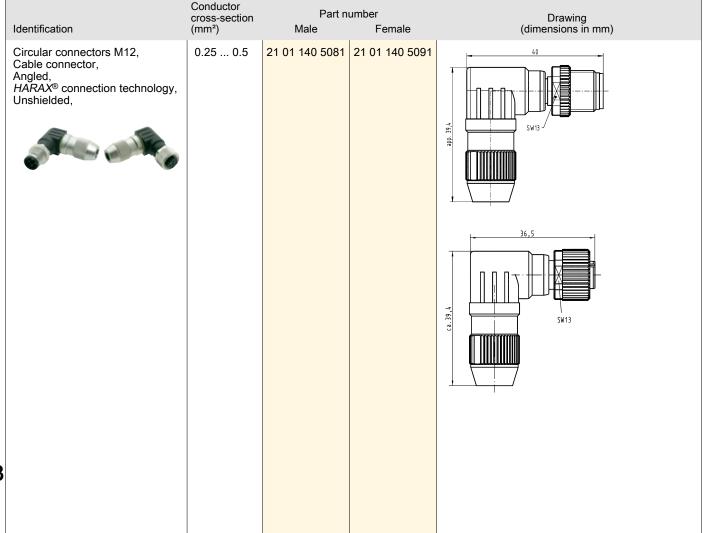
Brass

Gold plated compliant

Specifications and approvals

IEC 61076-2-101

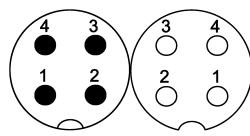
UL 1977 ECBT2.E102079



Number of contacts

4

HARAX® connection technology Shielded



Technical characteristics

Number of contacts Rated current 4 A 50 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Wire outer diameter ≤1.6 mm Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.14 ... 0.34 mm²
Conductor cross-section AWG 26 ... AWG 22

Technical characteristics

Cable diameter 4.5 ... 8.8 mm

Tightening torque 0.6 Nm, 2 Nm Lock nut
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Brass
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101 UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079

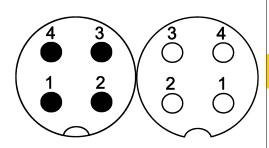
Conductor Part number cross-section Drawing Identification Male Female (dimensions in mm) 21 03 221 1405 21 03 221 2405 Circular connectors M12, 0.14 ... 0.34 complete length when assembled app. 52mm M12-L, Cable connector, Straight, HARAX® connection technology, Shielded complete length when assembled app. 49mm



Conductor cross-section (mm²) Part number Drawing (dimensions in mm) Identification Male Female 21 03 321 1425 21 03 321 2425 Circular connectors M12, $0.14\ ...\ 0.34$ complete length when assembled app. 51.5mm M12-L,
Cable connector,
Panel feed through,
for rear mounting,
HARAX® connection technology, Shielded

4

Screw termination Unshielded



Technical characteristics

Number of contacts 7.5 A Rated current Rated voltage 250 V Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Locking type Screw locking

Locking type Screw locking
Degree of protection acc. to IEC IP67, when mated

60529

Conductor cross-section 1.5 mm² max.
Conductor cross-section AWG 16

Technical characteristics

Cable diameter 4 ... 8 mm
Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)

Material (hood/housing) Polyamide (PA), Zinc die-cast

Material (contacts) Brass
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

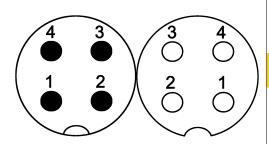
IEC 61076-2-101

Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Cable connector, Straight, Screw termination, Unshielded	1.5 max.	21 03 319 1401	21 03 319 2401	complete length when assembled app. 65mm complete length when assembled app. 55mm SW18 SW18 SW17



Conductor cross-section (mm²) Part number Drawing (dimensions in mm) Identification Male Female Circular connectors M12, Cable connector, Angled, Screw termination, Unshielded 21 03 319 3401 21 03 319 4401 1.5 max. M12 M12×1 complete length when assembled app. 46mm complete length when assembled app. 42mm

Screw termination Shielded



Technical characteristics

Number of contacts 4 A Rated current Rated voltage 250 V Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Locking type Screw locking

Degree of protection acc. to IEC IP67, when mated

60529

Conductor cross-section 1.5 mm² max.
Conductor cross-section AWG 16

Technical characteristics

Cable diameter 4 ... 8 mm
Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Brass
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

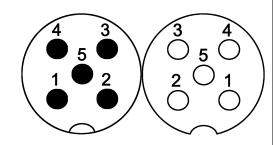
IEC 61076-2-101

Conductor cross-section Part number (mm²) Male	er Drawing Female (dimensions in mm)
Circular connectors M12, Cable connector, Straight, Screw termination, Shielded 1.5 max. 21 03 329 1401 21 0	complete length when assembled app. 58mm complete length when assembled app. 53mm complete length when assembled app. 53mm swise swise swise swise



5

HARAX® connection technology Unshielded



Technical characteristics

Number of contacts Rated current 4 A 50 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100 Wire outer diameter ≤2 mm Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.34 ... 0.5 mm²
Conductor cross-section AWG 22 ... AWG 20

Technical characteristics

Cable diameter 6 ... 8 mm
Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Polyamide (PA), Zinc die-cast

Material (contacts) Brass
Surface (contacts) Gold plated

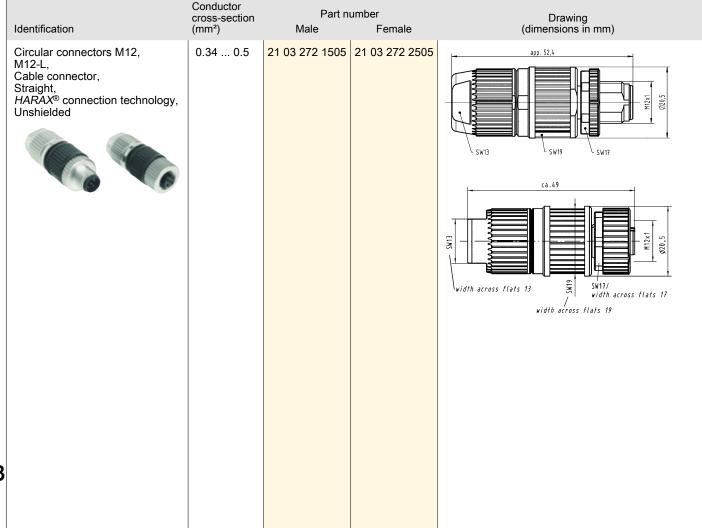
RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101

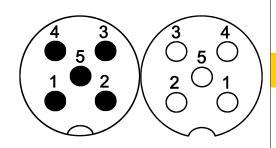
UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079



Number of contacts

Crimp termination Shielded



Technical characteristics

Number of contacts Rated current 4 A Rated impulse voltage 1.5 kV Pollution degree

48 V AC, 60 V DC Rated voltage

>10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥500 Mating cycles Wire outer diameter ≤2.3 mm Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

0.14 ... 0.75 mm², Conductor cross-section

0.09 ... 0.25 mm², 0.13 ... 0.33 mm², 0.25 ... 0.52 mm², 0.33 ... 0.82 mm²

Technical characteristics

AWG 26 ... AWG 18, AWG 28 ... AWG 24, AWG 26 ... AWG 22, AWG 24 ... AWG 20, AWG 22 ... AWG 18 Conductor cross-section Cable diameter 4.5 ... 8.8 mm Tightening torque 0.6 Nm Material (insert) Polyamide (PA) Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy RoHS compliant, compliant with exemption

Specifications and approvals

IEC 61076-2-101

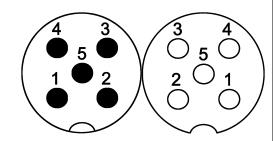
UL 1977 ECBT2.E102079

Identification	Conductor cross-section (mm²)	Part n	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Cable connector, with conduit, Straight, Crimp termination, Shielded Please order crimp contacts separately.	0.14 0.75	21 03 812 1511	21 03 812 2511	conglete length when assembled ago, 69 finan vidth across fists 19 conglete length when assembled ago, 66 finan vidth across fists 39 vidth across fists 39
D-Sub, Standard, Crimp contact, Turned contacts		09 67 000 7576 09 67 000 5576 09 67 000 8576 09 67 000 3576	09 67 000 5476	Wire gauge Ø Stripping length 0.09-0.25 mm² 0.64 mm 4 mm 0.13-0.33 mm² 0.88 mm 4 mm 0.25-0.52 mm² 1.13 mm 4 mm 0.33-0.82 mm² 1.34 mm 4 mm for stranded wire according IEC 60228 Class 5



5

Screw termination Unshielded



Technical characteristics

 Number of contacts
 5

 Rated current
 7.5 A

 Rated voltage
 60 V

 Rated impulse voltage
 1.5 kV

 Pollution degree
 3

 Insulation resistance
 >108 Ω

 Contact resistance
 ≤10 mΩ

 Mating cycles
 ≥100

 Locking type
 Screw loc

Locking type Screw locking
Degree of protection acc. to IEC IP67, when mated

60529

Conductor cross-section 1.5 mm² max.
Conductor cross-section AWG 16

Technical characteristics

Cable diameter 4 ... 8 mm
Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Polyamide (PA), Zinc die-cast

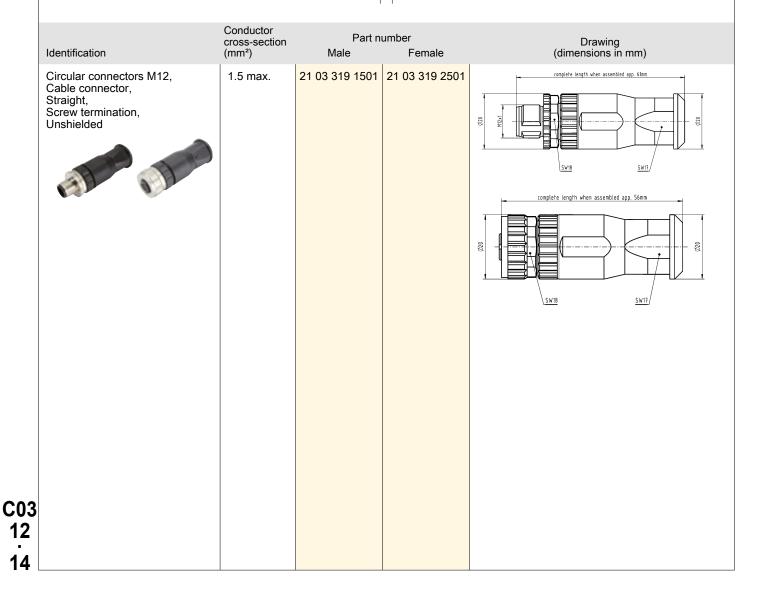
Material (contacts) Brass
Surface (contacts) Gold plated

RoHS compliant, compliant with

exemption

Specifications and approvals

IEC 61076-2-101



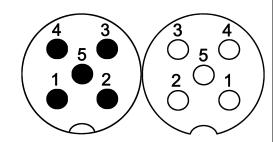


	Canadinatan				
Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)	
Circular connectors M12, Cable connector, Angled, Screw termination, Unshielded	1.5 max.	21 03 319 3501	21 03 319 4501	SVID Complete length when assembled ago. 42mm Complete length when assembled ago. 42mm Complete length when assembled ago. 42mm	C03 12 15



5

Screw termination Shielded



Technical characteristics

Number of contacts 4 A Rated current Rated voltage 60 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100 Locking type Screw locking Degree of protection acc. to IEC IP67, when mated

60529

Conductor cross-section 1.5 mm² max.
Conductor cross-section AWG 16

Technical characteristics

Cable diameter 4 ... 8 mm
Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Brass
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101

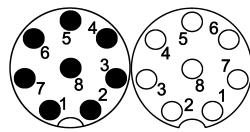
	Identification	Conductor cross-section (mm²)	Part no Male	umber Female	Drawing (dimensions in mm)
	Circular connectors M12, Cable connector, Straight, Screw termination, Shielded	1.5 max.	21 03 329 1501	21 03 329 2501	complete length when assembled app. 58mm SW18 SW19
					complete length when assembled app. 53mm SW18 SW18
3					

VI IZ

Number of contacts

8

IDC termination Shielded



Technical characteristics

Number of contacts 8 Rated current 2 A 30 V Rated voltage Rated impulse voltage 0.8 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Wire outer diameter ≤1.6 mm Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.14 ... 0.34 mm²
Conductor cross-section AWG 26 ... AWG 22

Technical characteristics

Cable diameter 4 ... 8 mm
Tightening torque 0.4 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Brass
Surface (contacts) Gold plated

RoHS compliant, compliant with

exemption

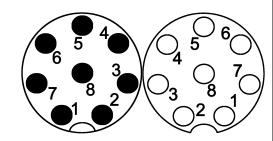
Specifications and approvals

IEC 61076-2-101

Identification	Conductor cross-section (mm²)	Part n	umber Female	Drawing (dimensions in mm)
Circular connectors M12, M12-L, Cable connector, Straight, IDC termination, Shielded	0.14 0.34	21 03 121 1801	21 03 121 2801	complete length when assembled app. 60mm



Screw termination Unshielded



Technical characteristics

Number of contacts 2 A Rated current Rated voltage 30 V Rated impulse voltage 0.8 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100 Locking type Screw locking

Degree of protection acc. to IEC IP67, when mated 60529

Conductor cross-section 0.5 mm² max. AWG 20 Conductor cross-section

Technical characteristics

Cable diameter 4 ... 8 mm Tightening torque 0.6 Nm Material (insert) Polyamide (PA)

Material (hood/housing) Polyamide (PA), Zinc die-cast

Material (contacts) **Brass** Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101

	Identification	Conductor cross-section (mm²)	Part no Male	umber Female	Drawing (dimensions in mm)
	Circular connectors M12, Cable connector, Straight, Screw termination, Unshielded	0.5 max.	21 03 319 1801		complete length when assembled app. 56mm complete length when assembled app. 56mm complete length when assembled app. 56mm SW18 SW17
3					

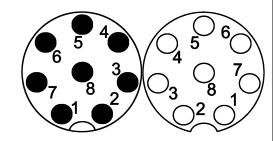


Conductor cross-section (mm²) Part number Drawing (dimensions in mm) Identification Male Female Circular connectors M12, Cable connector, Angled, Screw termination, Unshielded 0.5 max. 21 03 319 3801 21 03 319 4801 complete length when assembled app. 46mm SW18 complete length when assembled app. 42mm C03 19



8

Screw termination Shielded



Technical characteristics

Number of contacts 2 A Rated current Rated voltage 30 V Rated impulse voltage 0.8 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥100 Locking type Screw locking Degree of protection acc. to IEC IP67, when mated 60529

Conductor cross-section 0.5 mm² max. Conductor cross-section AWG 20

Technical characteristics

Cable diameter 4 ... 8 mm
Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Brass
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

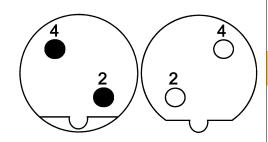
IEC 61076-2-101

Identification	Conductor cross-section (mm²)	Part no Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Cable connector, Straight, Screw termination, Shielded	0.5 max.	21 03 329 1801	21 03 329 2801	complete length when assembled app. 58mm SW18 SW18
				complete length when assembled app. 53mm SW18

Number of contacts

2

HARAX® connection technology Shielded



Technical characteristics

Number of contacts 4 A Rated current 32 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Wire outer diameter ≤2.6 mm Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.25 ... 0.34 mm² Conductor cross-section AWG 24 ... AWG 22

Technical characteristics

Cable diameter 4.5 ... 8.8 mm, 7 ... 8.8 mm
Tightening torque 0.6 Nm, 2 Nm Lock nut
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Brass
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101 UL 1977 ECBT2.E102079

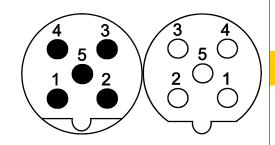
Identification	Conductor cross-section (mm²)	Part n	umber Female	Drawing (dimensions in mm)
Circular connectors M12, M12-L, Cable connector, Straight, HARAX® connection technology, Shielded	0.25 0.34	21 03 241 1301	21 03 241 2301	Gesamtlänge im verschraubten Zustand ca. 58mm complete length when assembled app. 58mm SW17 vidth across flats 17 Gesamtlänge im verschraubten Zustand ca. 54,5mm complete length when assembled app. 54,5mm SW17 vidth across flats 17 SW17 vidth across flats 17



Conductor cross-section (mm²) Part number Drawing (dimensions in mm) Identification Male Female 21 03 341 1425 21 03 341 2425 Circular connectors M12, $0.25 \dots 0.34$ M12 complete length when assembled app. 57mm M12-L, Cable connector, Panel feed through, for rear mounting, HARAX® connection technology, Shielded, Cable-Ø 7 ... 8.8 mm complete length when assembled app. 53mm 22

Number of contacts

Crimp termination Shielded



Technical characteristics

Number of contacts Rated current 4 A 60 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥500 Mating cycles Wire outer diameter ≤2.3 mm Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section

0.14 ... 0.75 mm², 0.09 ... 0.25 mm², 0.13 ... 0.33 mm², 0.25 ... 0.52 mm², 0.33 ... 0.82 mm²

Technical characteristics

AWG 26 ... AWG 18, AWG 28 ... AWG 24, Conductor cross-section AWG 26 ... AWG 22, AWG 24 ... AWG 20, AWG 22 ... AWG 18 Cable diameter 4.5 ... 8.8 mm Tightening torque 0.6 Nm, 2 Nm Lock nut Material (insert) Polyamide (PA) Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy RoHS compliant, compliant with

exemption

Specifications and approvals

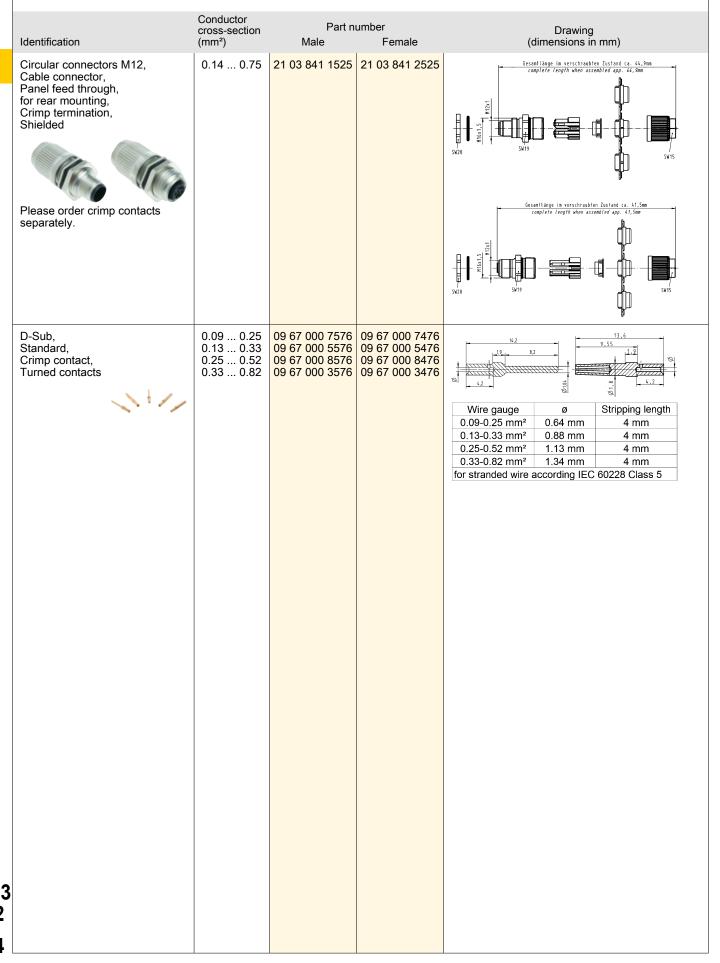
IEC 61076-2-101

UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079

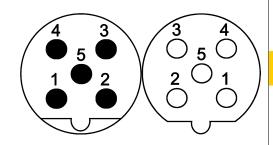
Conductor Part number cross-section Drawing Identification (mm²) Male Female (dimensions in mm) 0.14 ... 0.75 21 03 841 1505 21 03 841 2505 Circular connectors M12, complete length when assembled app. 44.8m Cable connector, Straight, Crimp termination, Shielded Please order crimp contacts separately. complete length when assembled app. 41.4mm





Number of contacts

Screw termination Shielded



Technical characteristics

Number of contacts 4 A Rated current Rated voltage 60 V Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Locking type Screw locking

Degree of protection acc. to IEC IP67, when mated

60529

Conductor cross-section 1.5 mm² max. Conductor cross-section AWG 16

Technical characteristics

Cable diameter 4 ... 8 mm Tightening torque 0.6 Nm Material (insert) Polyamide (PA) Material (hood/housing) Zinc die-cast Material (contacts) Brass Surface (contacts) Gold plated

RoHS compliant with exemption

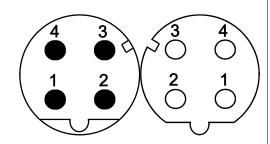
Specifications and approvals

IEC 61076-2-101

Circular connectors M12, Cable connector, Straight, Screw termination, Shelded 1.5 max. 21 03 349 1501 21 03 349 2501 21 03 349 2501 21 03 349 2501 2508 2508 2508 2508 2508 2508 2508 2508	Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
	Cable connector, Straight, Screw termination.	1.5 max.	21 03 349 1501	21 03 349 2501	complete length when assembled app. 53mm



HARAX® connection technology Shielded



Technical characteristics

Number of contacts Rated current 4 A 50 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Wire outer diameter ≤2 mm Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

0.14 ... 0.34 mm², Conductor cross-section 0.34 ... 0.75 mm² AWG 26 ... AWG 22, Conductor cross-section AWG 22 ... AWG 18

Cable diameter 4.5 ... 8.8 mm

Transmission characteristics Cat. 5, Class D up to 100 MHz

0.6 Nm, 2 Nm Lock nut Tightening torque Polyamide (PA) Material (insert)

Technical characteristics

Material (hood/housing) Zinc die-cast Material (contacts) **Brass** Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101

UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079



Details

For Fast Ethernet applications only

Identification	Conductor cross-section (mm²)	Part n	umber Female	Drawing (dimensions in mm)
Circular connectors M12, M12-L, Cable connector, Straight, HARAX® connection technology, Shielded	0.14 0.34 0.34 0.75	21 03 281 1405 21 03 282 1405	21 03 281 2405 21 03 282 2405	complete length when assembled app. 52mm
3				complete length when assembled app. 49mm SW17



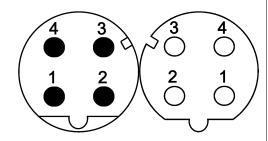
Conductor Part number Drawing (dimensions in mm) cross-section Identification Male (mm^2) Female 21 03 381 1425 21 03 381 2425 Circular connectors M12, $0.14 \dots 0.34$ complete length when assembled app. 51.5mm M12-L, Cable connector, Panel feed through, for rear mounting,

HARAX® connection technology, Shielded Gesamtlänge im verschraubten Zustand ca. 48,2mm complete length when assembled app. 48,2mm 15,1 width across flats 13 SW17 width across flats 17 C03



4

Crimp termination Shielded



Technical characteristics

Number of contacts 4
Rated current 4 A
Rated impulse voltage 1.5 kV
Pollution degree 3

Rated voltage 48 V AC, 60 V DC

 Insulation resistance
 >108 Ω

 Contact resistance
 ≤10 mΩ

 Mating cycles
 ≥500

 Wire outer diameter
 ≤2.3 mm

 Locking type
 Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.14 ... 0.75 mm², 0.09 ... 0.25 mm², 0.13 ... 0.33 mm², 0.25 ... 0.52 mm², 0.25 ... 0.52 mm²,

0.33 ... 0.82 mm²
Conductor cross-section AWG 26 ... AWG 18,

AWG 26 ... AWG 18, AWG 28 ... AWG 24, AWG 26 ... AWG 22, AWG 24 ... AWG 20, AWG 22 ... AWG 18 Technical characteristics

Cable diameter 4.5 ... 8.8 mm

Transmission characteristics Cat. 5, Class D up to 100 MHz Tightening torque 0.6 Nm

Material (insert)
Material (hood/housing)
Material (contacts)

Octobril

Polyamide (PA)
Zinc die-cast
Copper alloy

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101

UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079

Details

For Fast Ethernet applications only

Identification Conductor cross-section (mm²) Circular connectors M12, Cable connector, with conduit, Straight, Crimp termination, Shielded Please order crimp contacts separately. 21 03 882 1411 21 03 882 2411 21 03 882 2411				,	,	
Cable connector, with conduit, Straight, Crimp termination, Shielded Please order crimp contacts separately.		Identification	cross-section			Drawing (dimensions in mm)
vidth across flats 17 Vidth across flats 29		Cable connector, with conduit, Straight, Crimp termination, Shielded Please order crimp contacts	0.14 0.75	21 03 882 1411	21 03 882 2411	Width across fights 17
	3					width acress 1784's 57

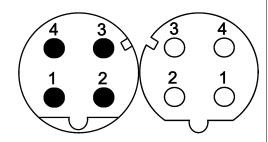


Identification	Conductor cross-section (mm²)	Part ni Male	umber Female	Drawing (dimensions in mm)	
D-Sub, Standard, Crimp contact, Turned contacts	0.09 0.25 0.13 0.33 0.25 0.52 0.33 0.82	09 67 000 5576	09 67 000 8476	Wire gauge	C03 12 29



4

Screw termination Shielded



Technical characteristics

 Number of contacts
 4

 Rated current
 4 A

 Rated voltage
 250 V

 Rated impulse voltage
 1.5 kV

 Pollution degree
 3

 Insulation resistance
 >108 Ω

 Contact resistance
 ≤10 mΩ

 Mating cycles
 ≥100

 Locking type
 Secretary leading

Locking type Screw locking
Degree of protection acc. to IEC IP67, when mated 60529

Conductor cross-section 1.5 mm² max.
Conductor cross-section AWG 16
Cable diameter 4 ... 8 mm

Transmission characteristics Cat. 5, Class D up to 100 MHz

Conductor

Tightening torque 0.6 Nm

Technical characteristics

Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Brass
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101

Details

For Fast Ethernet applications only

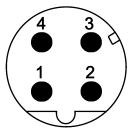
	Identification	Conductor cross-section (mm²)	Part ni Male	umber Female	Drawing (dimensions in mm)
	Circular connectors M12, Cable connector, Straight, Screw termination, Shielded, IP67	1.5 max.	21 03 389 1402	21 03 389 2402	complete length when assembled app. 57mm SW19 SW19 Complete length when assembled app. 53mm
					SW18
3					
)					

VI12

Number of contacts

4

Screw termination Shielded



Technical characteristics

 Number of contacts
 4

 Rated current
 4 A

 Rated voltage
 250 V

 Rated impulse voltage
 1.5 kV

 Pollution degree
 3

 Insulation resistance
 >108 Ω

 Contact resistance
 ≤10 mΩ

 Mating cycles
 ≥100

 Locking type
 Screw lock

Locking type Screw locking
Degree of protection acc. to IEC IP65, when mated

60529

Conductor cross-section 1.5 mm² max.
Conductor cross-section AWG 16
Cable diameter 4.5 ... 8.3 mm

Transmission characteristics Cat. 5, Class D up to 100 MHz

Tightening torque 0.6 Nm

Technical characteristics

Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Brass
Surface (contacts) Gold plated

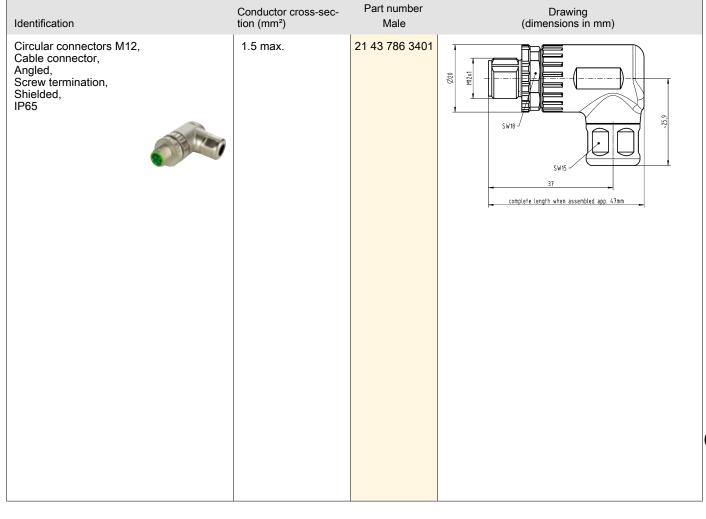
Specifications and approvals

IEC 61076-2-101 UL 1977 ECBT2.E102079

CSA-C22.2 No. 182.3 ECBT8.E102079

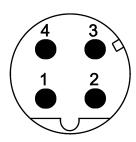
Details

For Fast Ethernet applications only





preLink® IDC insulation displacement termination



Technical characteristics

Number of contacts

-40 ... +85 °C Limiting temperature ≥500 Mating cycles

Locking type Screw locking Degree of protection acc. to IEC IP65, IP67

60529

Conductor cross-section AWG 27 ... AWG 26, Conductor cross-section AWG 24 ... AWG 22

Cable diameter 5 ... 9.5 mm

Transmission characteristics Cat. 5, Class D up to 100 MHz

Data rate 10 Mbit/s, 100 Mbit/s Material (hood/housing) Zinc die-cast

Surface (hood/housing) Nickel plated

RoHS compliant with exemption

Specifications and approvals

UL 1863 DUXR2.E470046

CSA-C22.2 No. 182.4, No. 233-09 DUXR8.E470046 DNV GL

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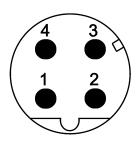
Details

For Fast Ethernet applications only

	Identification	Conductor cross-section (mm²)	Part number Male	Drawing (dimensions in mm)	
	preLink®, Circular connectors M12, Screw mounted housing, Cable connector, preLink® IDC insulation displacement termination, Shielded	0.1 0.12, 0.22 0.32	20 82 005 0001		
	Please order terminal module separately				
3					
)					



preLink® IDC insulation displacement termination



Technical characteristics

Number of contacts

-40 ... +85 °C Limiting temperature

≥500 Mating cycles

Locking type Screw locking Degree of protection acc. to IEC IP65, IP67

Conductor cross-section

 $\begin{array}{c} 0.1 \; ... \; 0.12 \; mm^2, \\ 0.22 \; ... \; 0.32 \; mm^2 \end{array}$

AWG 27 ... AWG 26, Conductor cross-section

AWG 24 ... AWG 22

Cable diameter 5 ... 9.5 mm

Transmission characteristics Cat. 5, Class D up to 100 MHz

Data rate 10 Mbit/s, 100 Mbit/s Material (insert) Zinc die-cast, nickel-plated

Material (hood/housing) Zinc die-cast

RoHS compliant with exemption,

compliant

Specifications and approvals

UL 1863 DUXR2.E470046

CSA-C22.2 No. 182.4, No. 233-09 DUXR8.E470046

DNV GL

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Details

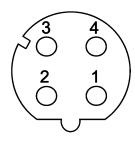
For Fast Ethernet applications only

Identification	Conductor cross-section (mm²)	Part number Male	Drawing (dimensions in mm)
preLink [®] , Circular connectors M12, Connector insert, preLink [®] IDC insulation displacement termination, Shielded	0.1 0.12, 0.22 0.32	20 82 005 1214	
The second			
Please order terminal module separately Please order screw mounted housing separately.			
preLink [®] , Circular connectors M12, Screw mounted housing, Empty housing	0.1 0.12, 0.22 0.32	20 82 000 1210	



M12

preLink® IDC insulation displacement termination



Features

- · Ethernet data connector suitable for industry
- Robust design
- 360° shielding
- Category of transmission Cat. 5
- Suitable for termination of massive and flexible wires
- Suitable for all PoE versions
- Very fast preLink® termination technology

Technical characteristics

Number of contacts

-40 ... +85 °C Limiting temperature

≥500 Mating cycles

Locking type Screw locking, PushPull

Degree of protection acc. to IEC IP65, IP67

0.1 ... 0.12 mm², Conductor cross-section

0.22 ... 0.32 mm² AWG 27 ... AWG 26,

10 Mbit/s, 100 Mbit/s

compliant with exemption

Zinc die-cast

Nickel plated

Conductor cross-section AWG 24 ... AWG 22

Cable diameter 5 ... 9.5 mm Cat. 5, Class D up to 100 MHz

Transmission characteristics

Data rate

Material (hood/housing)

RoHS

Surface (hood/housing)

Conductor cross-sec-

Part number

Specifications and approvals

IEC 61076-2-101 DNV GL

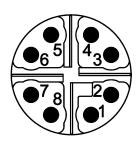
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Details

For Fast Ethernet applications only



preLink® IDC insulation displacement termination



Technical characteristics

Number of contacts

-40 ... +85 °C Limiting temperature

Mating cycles ≥500

Locking type Screw locking Degree of protection acc. to IEC IP65, IP67

60529

0.1 ... 0.12 mm², 0 .22 ... 0.32 mm² Conductor cross-section

Conductor cross-section AWG 27 ... AWG 26, AWG 24 ... AWG 22

Cable diameter 5 ... 9.5 mm

Transmission characteristics Cat. 6_A, Class E_A up to 500

10 Mbit/s, 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, 10 Gbit/s Data rate

Material (hood/housing) Zinc die-cast Surface (hood/housing) Nickel plated

Technical characteristics

RoHS compliant with exemption

Specifications and approvals

UL 1863 DUXR2.E470046

CSA-C22.2 No. 182.4, No. 233-09 DUXR8.E470046

DNV GL



Details

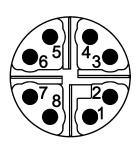
For Ethernet applications up to 10 Gbit only

Identification	Conductor cross-section (mm²)	Part number Male	Drawing (dimensions in mm)
preLink®, Circular connectors M12, Screw mounted housing, Cable connector, preLink® IDC insulation displacement termination, Shielded	0.1 0.12, 0.22 0.32	20 82 005 0002	
Please order terminal module separately			



8

preLink® IDC insulation displacement termination Shielded



Technical characteristics

Number of contacts 8

Limiting temperature -40 ... +85 °C

Mating cycles ≥500

Locking type Screw locking Degree of protection acc. to IEC IP65, IP67

60529

Conductor cross-section 0.1 ... 0.12 mm²,

0.22 ... 0.32 mm²

Conductor cross-section AWG 27 ... AWG 26,

AWG 27 ... AWG 20, AWG 24 ... AWG 22

Cable diameter 5 ... 9.5 mm

Transmission characteristics Cat. 6_A, Class E_A up to 500

MHz

Data rate 10 Mbit/s, 100 Mbit/s, 1 Gbit/s,

2.5 Gbit/s, 5 Gbit/s, 10 Gbit/s

Material (insert) Zinc die-cast, nickel-plated

Material (hood/housing) Zinc die-cast

Technical characteristics

RoHS compliant with exemption,

compliant

Specifications and approvals

UL 1863 DUXR2.E470046

CSA-C22.2 No. 182.4, No. 233-09 DUXR8.E470046

DNV GL



Details

Part number

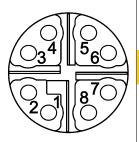
For Ethernet applications up to 10 Gbit only

Identification	Conductor cross-section (mm²)	Part number Male	Drawing (dimensions in mm)
preLink®, Circular connectors M12, Connector insert, preLink® IDC insulation displacement termination, Shielded Please order terminal module separately Please order screw mounted housing separately.	0.1 0.12, 0.22 0.32	20 82 006 1218	
preLink®, Circular connectors M12, Screw mounted housing, Empty housing	0.1 0.12, 0.22 0.32	20 82 000 1210	





preLink® IDC insulation displacement termination



Features

- · Ethernet data connector suitable for industry
- · Robust design
- · 360° shielding
- · Category of transmission Cat. 6A
- · Suitable for termination of massive and flexible wires
- · Suitable for all PoE versions
- · Very fast preLink® termination technology

Technical characteristics

Number of contacts

-40 ... +85 °C Limiting temperature

Mating cycles ≥500

Locking type Screw locking, PushPull

Degree of protection acc. to IEC IP65, IP67

0.1 ... 0.12 mm², Conductor cross-section

0.22 ... 0.32 mm²

AWG 27 ... AWG 26, Conductor cross-section

AWG 24 ... AWG 22

5 ... 9.5 mm Cable diameter

Transmission characteristics Cat. 6_A, Class E_A up to 500

MHz

Data rate 10 Mbit/s, 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, 10 Gbit/s

Material (hood/housing) Zinc die-cast

Surface (hood/housing) Nickel plated

RoHS compliant with exemption

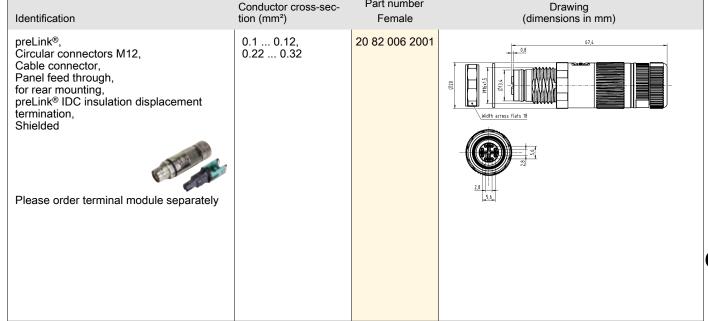
Specifications and approvals

IEC 61076-2-109 **DNV GL**



Details

For Ethernet applications up to 10 Gbit only



Part number

preLink® IDC insulation displacement termination



Technical characteristics

Limiting temperature -40 ... +85 °C

Mating cycles ≥10

Wire outer diameter 1.3 ... 1.6 mm, 0.8 ... 1.1 mm

Conductor cross-section 0.22 ... 0.32 mm², 0.1 ... 0.12 mm²

Conductor cross-section AWG 24 ... AWG 22,

AWG 24 ... AWG 22, AWG 27 ... AWG 26

Colour (insert) Yellow, White, Black

RoHS compliant

Specifications and approvals

DNV GL

UL 1863 DUXR2.E470046

CSA-C22.2 No. 182.4, No. 233-09 DUXR8.E470046



Identification	Conductor cross-section (mm²)	Part number	Drawing (dimensions in mm)
preLink®, Terminal module, 8-pins, preLink® IDC insulation displacement termination, Conductor diameter 1.3 - 1.6 mm, Pack contents: 10 pieces	0.22 0.32	20 82 000 0001	
preLink®, Terminal module, 8-pins, preLink® IDC insulation displacement termination, Conductor diameter 0.8 - 1.1 mm, Pack contents: 10 pieces	0.1 0.12	20 82 000 0003	10,0 10,0 10,0 10,0 10,0 10,0 10,0 10,0
THE LEE AND THE PARTY OF THE PA			

preLink® M12

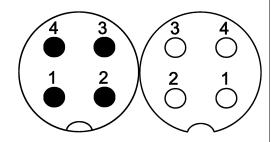


Identification	Conductor cross-section (mm²)	Part number	Drawing (dimensions in mm)	
preLink®, Terminal module, 4-pin, AIDA compliant, preLink® IDC insulation displacement termination, Conductor diameter 1.3 - 1.6 mm, Pack contents: 10 pieces	0.22 0.32	20 82 000 0005	9.5	M12
preLink®, Terminal module, 4-pin, AlDA compliant, preLink® IDC insulation displacement termination, Conductor diameter 1.3 - 1.6 mm, Pack contents: 100 pieces	0.22 0.32	20 82 000 0005 XL	9,5	C03 12 39



4

HARAX® connection technology Shielded



Technical characteristics

Number of contacts 4 A Rated current 50 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥500 Mating cycles Wire outer diameter ≤1.6 mm Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section
Conductor cross-section

IP65 / IP67, when mat 0.34 mm², 0.14 mm²

AWG 22, AWG 26

Technical characteristics

Cable diameter 5.7 ... 8.8 mm
Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Copper alloy
Surface (contacts) Gold plated
RoHS compliant

Specifications and approvals

IEC 61076-2-101

UL 2238 CYJV2.E302521

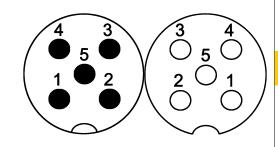
CSA-C22.2 No. 182.3 CYJV8.E302521

Identification	Conductor cross-section (mm²)	Part no Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Slim Design, Cable connector, Straight, HARAX® connection technology, Shielded	0.14 0.34	21 03 322 1410 21 03 322 1400	21 03 322 2410 21 03 322 2400	vidth across flats 15
3				length when assembled app. 42mm width across width across flats 15 length when assembled app. 42mm width across flats 15



5

Crimp termination Shielded



Technical characteristics

Number of contacts 5
Rated current 4 A
Rated impulse voltage 1.5 kV
Pollution degree 3

Rated voltage 48 V AC, 60 V DC

 $\begin{array}{lll} \text{Insulation resistance} & > 10^8 \ \Omega \\ \text{Contact resistance} & \leq 10 \ \text{m}\Omega \\ \text{Mating cycles} & \geq 500 \\ \text{Wire outer diameter} & \leq 2.3 \ \text{mm} \end{array}$

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.13 ... 0.82 mm²,

 $\begin{array}{c} 0.09 \; ... \; 0.25 \; mm^2, \\ 0.13 \; ... \; 0.33 \; mm^2, \\ 0.25 \; ... \; 0.52 \; mm^2, \\ 0.33 \; ... \; 0.82 \; mm^2 \end{array}$

Technical characteristics

AWG 26 ... AWG 18, AWG 28 ... AWG 24, Conductor cross-section AWG 26 ... AWG 22, AWG 24 ... AWG 20, AWG 22 ... AWG 18 Cable diameter 5.7 ... 8.8 mm Tightening torque 0.6 Nm, 2 Nm Lock nut Material (insert) Liquid crystal polymer (LCP) Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy RoHS compliant, compliant with

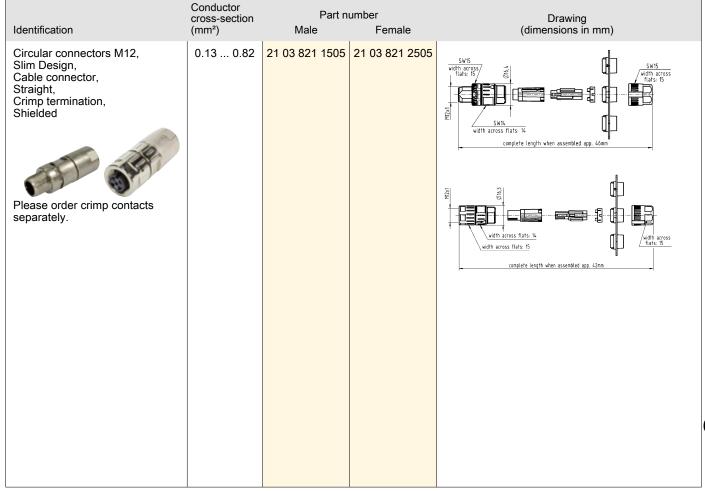
exemption

Specifications and approvals

IEC 61076-2-101

UL 2238 CYJV2.E302521

CSA-C22.2 No. 182.3 CYJV8.E302521





Conductor Part number Drawing cross-section Identification (dimensions in mm) (mm²) Male Female 21 03 821 1507 Circular connectors M12, $0.13 \dots 0.82$ 21 03 821 2507 SW15 width across Slim Design, Ø16,4 flats: 15 Cable connector, Straight,
Crimp termination, Shielded, Shield connection with crimp flange width across width across flats: 14 flats: 15 complete length when assembled app. 40,5 SW15 width across Please order crimp contacts separately. Please order crimp flange set separately. SW14 width across flats: 14 width arross flats: 15 complete length when assembled app. 36,5 Circular connectors M12, 0.13 ... 0.82 21 03 821 1525 21 03 821 2525 length when assembled app. 46mm Slim Design, Cable connector, Panel feed through, for rear mounting, Crimp termination, Shielded Please order crimp contacts separately. Circular connectors M12, 0.13 ... 0.82 21 03 821 2527 Slim Design, Cable connector, Panel feed through, for rear mounting, Crimp termination, width aci flat:15 flat:19 Shielded, Shield connection with crimp flange Please order crimp contacts separately. Please order crimp flange set separately.

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I۱	/1	ч	

Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)	
Circular connectors M12, Slim Design, Cable connector, Angled, Crimp termination, Shielded Please order crimp contacts separately. Circular connectors M12, Slim Design, Cable connector, Angled, Crimp termination, Shielded, Shield connection with crimp flange Please order crimp contacts separately. Please order crimp flange set separately.		21 03 821 3507		length when assembled app. 51 Vidth across flats: 15 Vidth across flats: 15	M12
D-Sub, Standard, Crimp contact, Turned contacts	0.09 0.25 0.13 0.33 0.25 0.52 0.33 0.82	09 67 000 8576	09 67 000 5476	Wire gauge Ø Stripping length 0.09-0.25 mm² 0.64 mm 4 mm 0.13-0.33 mm² 0.88 mm 4 mm 0.25-0.52 mm² 1.13 mm 4 mm 0.33-0.82 mm² 1.34 mm 4 mm for stranded wire according IEC 60228 Class 5	C03 12

M12 Slim Design

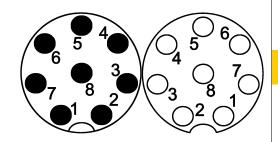
A-coding



Conductor Part number Drawing (dimensions in mm) cross-section Identification Male Female (mm²) 21 01 010 00xx Circular connectors M12, 21 01 010 00xx M12 Slim Design, Crimp flange set D2 D1 D3 D4 D5 HARTING offers to test and define the best crimp flange and 21 01 010 0017 3.5 4.5 6.0 6.5 7.5 ferrule combination for customer specific cables. 21 01 010 0018 5.5 7.5 8.5 4.5 6.6 5.5 6.8 21 01 010 0019 4.5 8.0 9.0 21 01 010 0020 5.0 6.0 7.8 9.0 10.0 21 01 010 0021 10.0 10.8 6.5 7.5 8.0 6.0 10.0 21 01 010 0022 5.0 7.4 9.0 21 01 010 0024 6.5 8.8 10.0 10.8



Crimp termination Shielded



Technical characteristics

Number of contacts 8 Rated current 2 A 0.8 kV Rated impulse voltage Pollution degree

30 V AC, 30 V DC Rated voltage

>10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥500 Mating cycles Wire outer diameter ≤1.65 mm

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

0.13 ... 0.33 mm² Conductor cross-section Conductor cross-section AWG 26 ... AWG 22 Cable diameter 5.7 ... 8.8 mm

Technical characteristics

Tightening torque 0.6 Nm, 2 Nm Lock nut Material (insert) Liquid crystal polymer (LCP) Material (hood/housing) Zinc die-cast

Material (contacts) Copper alloy Gold plated Surface (contacts)

compliant, compliant with exemption RoHS

Specifications and approvals

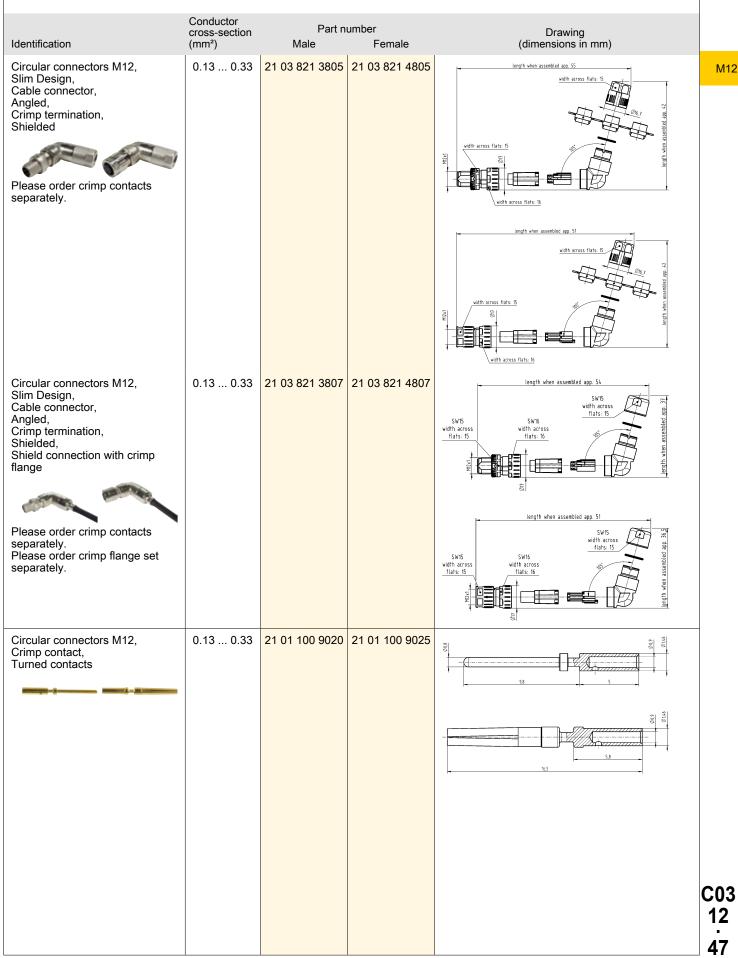
IEC 61076-2-101 UL 2238 CYJV2.E302521

CSA-C22.2 No. 182.3 CYJV8.E302521

Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Slim Design, Cable connector, Straight, Crimp termination, Shielded	0.13 0.33	21 03 821 1805	21 03 821 2805	complete length when assembled app. 46mm width across flats: 14 width across flats: 15
Please order crimp contacts separately.				width across flats: 14 width across flats: 15 complete length when assembled app. 42mm



Conductor Part number Drawing (dimensions in mm) cross-section Identification (mm²) Male Female 21 03 821 1807 Circular connectors M12, $0.13 \dots 0.33$ 21 03 821 2807 SW15 width across Slim Design, Ø16,4 flats: 15 Cable connector, Straight,
Crimp termination, Shielded, Shield connection with crimp flange SW14 SW15 width across width across flats: 15 complete length when assembled app. 40,5 Please order crimp contacts separately. Please order crimp flange set flats: 15 separately. SW14 SW15 complete length when assembled app. 36,5 Circular connectors M12, 0.13 ... 0.33 21 03 821 1825 21 03 821 2825 Slim Design, Cable connector, Panel feed through, for rear mounting, Crimp termination, Shielded width acros Please order crimp contacts separately. Circular connectors M12, 21 03 821 2827 0.13 ... 0.33 Slim Design, Cable connector, Panel feed through, for rear mounting, Crimp termination, Shielded, complete length when assembled app. 36,5 Shield connection with crimp flange Please order crimp contacts separately. Please order crimp flange set separately.



M12 Slim Design

M12

A-coding

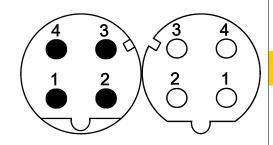


Conductor Part number Drawing (dimensions in mm) cross-section Identification Male Female (mm²) 21 01 010 00xx Circular connectors M12, 21 01 010 00xx Slim Design, Crimp flange set D2 D1 D3 D4 D5 HARTING offers to test and define the best crimp flange and 21 01 010 0017 3.5 4.5 6.0 6.5 7.5 ferrule combination for customer specific cables. 21 01 010 0018 5.5 7.5 8.5 4.5 6.6 6.8 21 01 010 0019 4.5 5.5 8.0 9.0 21 01 010 0020 5.0 6.0 7.8 9.0 10.0 21 01 010 0021 10.0 10.8 6.5 7.5 8.0 6.0 10.0 21 01 010 0022 5.0 7.4 9.0 21 01 010 0024 6.5 8.8 10.0 10.8

C03

4

HARAX® connection technology Shielded



Technical characteristics

Number of contacts 4 A Rated current 50 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥500 Mating cycles Wire outer diameter ≤1.6 mm Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section
Conductor cross-section
Cable diameter

0.34 mm², 0.14 mm²
AWG 22, AWG 26
5.7 ... 8.8 mm

Transmission characteristics Cat. 5, Class D up to 100 MHz

Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast

Technical characteristics

Material (contacts) Copper alloy
Surface (contacts) Gold plated
RoHS compliant

Specifications and approvals

IEC 61076-2-101 UL 2238 CYJV2.E302521 CSA-C22.2 No. 182.3 CYJV8.E302521



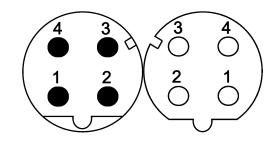
Details

For Fast Ethernet applications only

Identification	Conductor cross-section (mm²)	Part no Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Slim Design, Cable connector, Straight, HARAX® connection technology, Shielded	0.14 0.34	21 03 382 1410 21 03 382 1400	21 03 382 2410 21 03 382 2400	46mm
				4.2mm SW15



Crimp termination Shielded



Technical characteristics

Number of contacts Rated current 4 A Rated impulse voltage 1.5 kV Pollution degree

48 V AC, 60 V DC Rated voltage

>10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥500 Wire outer diameter <2.3 mm

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529 Conductor cross-section 0.13 ... 0.82 mm²,

0.09 ... 0.25 mm², 0.13 ... 0.33 mm², 0.25 ... 0.52 mm², 0.33 ... 0.82 mm²

AWG 26 ... AWG 18, Conductor cross-section AWG 28 ... AWG 24,

AWG 26 ... AWG 22, AWG 24 ... AWG 20, AWG 22 ... AWG 18

Cable diameter 5.7 ... 8.8 mm

Technical characteristics

Transmission characteristics Tightening torque Material (insert) Material (hood/housing) Material (contacts)

RoHS

Cat. 5, Class D up to 100 MHz 0.6 Nm, 2 Nm Lock nut Liquid crystal polymer (LCP)

Zinc die-cast Copper alloy

compliant, compliant with

exemption

Specifications and approvals

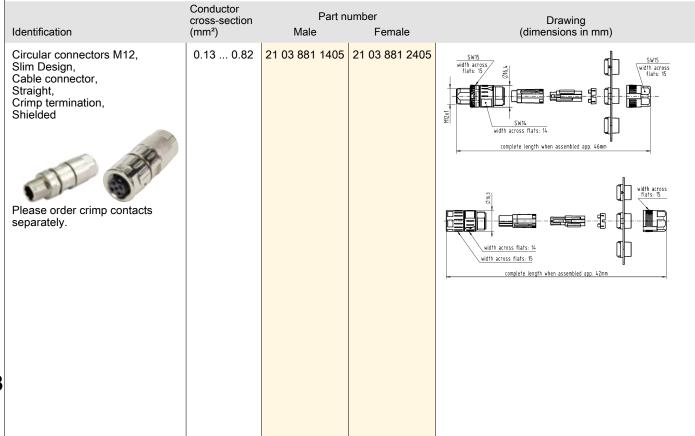
IEC 61076-2-101 UL 2238 CYJV2.E302521

CSA-C22.2 No. 182.3 CYJV8.E302521



Details

For Fast Ethernet applications only



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Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)	
Circular connectors M12, Slim Design, Cable connector, Straight, Crimp termination, Shielded, Shield connection with crimp flange	0.13 0.82	21 03 881 1407	21 03 881 2407	SW15 width across flats: 15 SW14 width across flats: 15 SW14 width across flats: 14 complete length when is assembled app. 40,5	M12
separately. Please order crimp flange set separately.	0.40	04.00.004.4400	04.00.004.0405	SW14 width across flats: 14 SW15 width across flats: 15 SW15 width across flats: 15 complete length when assembled app. 36,5	
Circular connectors M12, Slim Design, Cable connector, Panel feed through, for rear mounting, Crimp termination, Shielded	0.13 0.82	21 03 881 1426	21 03 881 2425	ength when assembled app. 46mm width across flats 19 flats 19 flats 19	
Please order crimp contacts separately. Circular connectors M12,	0.13 0.82		21 03 881 2427	with across fail is with across fail is consists length when assembled ago, 42 mm SW18	
Circular connectors witz, Slim Design, Cable connector, Panel feed through, for rear mounting, Crimp termination, Shielded, Shield connection with crimp flange	0.13 0.62		21 03 001 2421	vidth across flat:18 SW19 vidth across flat:19 complete length when assembled app. 36,5	
Please order crimp contacts separately. Please order crimp flange set separately.					
					CU3
					C03 12 51



Conductor Part number Drawing cross-section Identification (dimensions in mm) (mm²) Male Female Circular connectors M12, $0.13 \dots 0.82$ 21 03 881 3405 21 03 881 4405 length when assembled app. 55 Slim Design, Cable connector, Angled, Crimp termination, Shielded Please order crimp contacts separately. length when assembled app. 51 Circular connectors M12, 0.13 ... 0.82 21 03 881 3407 21 03 881 4407 Slim Design, length when assembled app. 51 Cable connector, SW15 width across flats: 15 Angled, width across flats: 15 Crimp termination, Shielded, Shield connection with crimp flange SW16 width across flats: 16 Please order crimp contacts separately. Please order crimp flange set separately. 09 67 000 7576 09 67 000 5576 D-Sub. 0.09 ... 0.25 09 67 000 7476 13,6 09 67 000 5476 Standard, $0.13 \dots 0.33$ 09 67 000 8576 09 67 000 8476 Crimp contact, $0.25 \dots 0.52$ Turned contacts $0.33 \dots 0.82$ 09 67 000 3576 09 67 000 3476 Wire gauge Stripping length 0.09-0.25 mm² 0.64 mm 4 mm 0.13-0.33 mm² 0.88 mm 4 mm 0.25-0.52 mm² 1.13 mm 4 mm 0.33-0.82 mm² 1.34 mm 4 mm for stranded wire according IEC 60228 Class 5

M12 Slim Design



M12

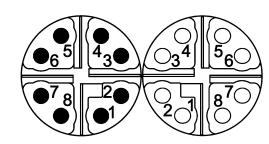
Conductor cross-section (mm²) Part number Drawing (dimensions in mm) Identification Male Female 21 01 010 00xx 21 01 010 00xx Circular connectors M12, Slim Design, Crimp flange set D1 D2 D3 D4 HARTING offers to test and D5 define the best crimp flange and ferrule combination for customer 21 01 010 0017 3.5 4.5 6.0 6.5 7.5 21 01 010 0018 5.5 6.6 7.5 8.5 4.5 specific cables. 21 01 010 0019 4.5 5.5 6.8 8.0 9.0 21 01 010 0020 5.0 6.0 7.8 9.0 10.0 21 01 010 0021 10.0 10.8 6.5 7.5 8.0 21 01 010 0022 10.0 5.0 6.0 7.4 9.0 21 01 010 0024 5.5 6.5 8.8 10.0 10.8

C03 12



8

Crimp termination Shielded



Technical characteristics

Number of contacts Rated current 0.5 A Rated voltage 48 V Rated impulse voltage 0.8 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥500 Wire outer diameter ≤1.4 mm

Locking type Screw locking, PushPull Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.08 ... 0.25 mm², 0.13 ... 0.25 mm², 0.08 ... 0.22 mm²

Conductor cross-section AWG 28 ... AWG 23, AWG 26 ... AWG 23, AWG 28 ... AWG 24

Cable diameter 5.7 ... 8.8 mm

Transmission characteristics Cat. 6_A, Class E_A up to 500 MHz

Tightening torque 0.6 Nm, 2 Nm Lock nut

Technical characteristics

Material (insert)Liquid crystal polymer (LCP)Material (hood/housing)Zinc die-castMaterial (contacts)Copper alloy

Surface (contacts)

RoHS

Copper alloy

Gold plated

compliant, compliant with

exemption

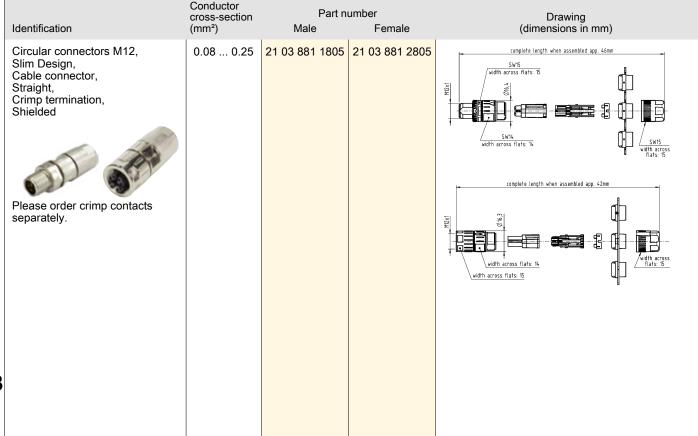
Specifications and approvals

IEC 61076-2-109 UL 2238 CYJV2.E302521 CSA-C22.2 No. 182.3 CYJV8.E302521



Details

For Ethernet applications up to 10 Gbit only



M12

C03

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C03

55

Identification	Conductor cross-section (mm²)	Part n	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Slim Design, Cable connector, Straight, Crimp termination, Shielded, Shield connection with crimp flange Please order crimp contacts separately. Please order crimp flange set separately.	0.08 0.25	21 03 881 1807	21 03 881 2807	complete length when assembled app. 40,5 SW15 Width across flats: 15 Complete length when assembled app. 36,5 SW15 Width across flats: 14 Complete length when assembled app. 36,5 SW15 Width across flats: 15 SW15 Width across flats: 15
Circular connectors M12, Slim Design, Cable connector, Panel feed through, for rear mounting, Crimp termination, Shielded	0.08 0.25	21 03 881 1825	21 03 881 2825	tength when assembled ago. 46mn length when assembled ago. 46mn vidth across flats 19 flats 19
Please order crimp contacts separately.				complete length when assembled app. 42 mm width across flats 19 Width across flats 19 Width across flats 19
Circular connectors M12, Slim Design, Cable connector, Panel feed through, for rear mounting, Crimp termination, Shielded, Shield connection with crimp flange	0.08 0.25		21 03 881 2827	complete length when assembled app. 36,5 width across flats:18 SW15 SW15 width across flats:19 If lats:15
Please order crimp contacts separately. Please order crimp flange set separately.				



56

Conductor Part number Drawing cross-section (dimensions in mm) Identification (mm²) Male Female 0.08 ... 0.25 Circular connectors M12, 21 03 881 3805 21 03 881 4805 length when assembled app. 55 Slim Design, Cable connector, Angled, Crimp termination, Shielded width across flats: 15 Please order crimp contacts separately. length when assembled app. 51 21 03 881 3807 21 03 881 4807 Circular connectors M12, 0.08 ... 0.25 Slim Design, length when assembled app. 51 Cable connector, SW 15 width across Angled, flats: 15 Crimp termination, SW 15 width acros flats: 15 Shielded, Shield connection with crimp flange ŧØ. Please order crimp contacts separately. Please order crimp flange set separately. 0.08 ... 0.22 0.13 ... 0.25 21 01 100 9014 21 01 100 9023 21 01 100 9019 21 01 100 9021 har-speed, Crimp contact, Turned contacts

M12 Slim Design



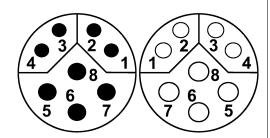


Conductor cross-section (mm²) Part number Drawing (dimensions in mm) Identification Male Female 21 01 010 00xx 21 01 010 00xx Circular connectors M12, Slim Design, Crimp flange set D1 D2 D3 D4 HARTING offers to test and D5 define the best crimp flange and ferrule combination for customer 21 01 010 0017 3.5 4.5 6.0 6.5 7.5 21 01 010 0018 5.5 6.6 7.5 8.5 4.5 specific cables. 21 01 010 0019 4.5 5.5 6.8 8.0 9.0 21 01 010 0020 5.0 6.0 7.8 9.0 10.0 21 01 010 0021 10.0 10.8 6.5 7.5 8.0 21 01 010 0022 10.0 5.0 6.0 7.4 9.0 21 01 010 0024 5.5 6.5 8.8 10.0 10.8 C03



8

4 Power + 4 Data Crimp termination Shielded



Technical characteristics

Number of contacts Rated current 6 A 50 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree Rated current (data) 0.5 A Insulation resistance >108 Ω ≤10 mΩ Contact resistance Mating cycles ≥100

Locking type PushPull, Screw locking Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.33 ... 0.82 mm², 0.13 ... 0.25 mm²,

0.13 ... 0.25 mm², 0.08 ... 0.22 mm²

Conductor cross-section AWG 22 ... AWG 18,

AWG 26 ... AWG 23, AWG 28 ... AWG 24

Technical characteristics

Cable diameter 5.7 ... 8.8 mm
Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Copper alloy
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-113

Details

For Fast Ethernet applications only

Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Slim Design, Cable connector, Straight, Crimp termination, Shielded, PushPull locking Please order crimp contacts separately.		21 03 861 1830		
Circular connectors M12, Slim Design, Cable connector, Straight, Crimp termination, Shielded, Screw locking Please order crimp contacts separately.		21 03 861 1814	21 03 861 2805	conglete length when assembled app. 40 width across flats 15 conglete length when assembled app. 42 mm width across flats 15 width across flats 15 width across flats 15
3				



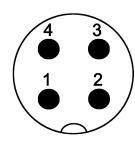
Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)	
Circular connectors M12, Slim Design, Cable connector, Panel feed through, for rear mounting, Crimp termination, Shielded Please order crimp contacts separately.		21 03 861 1825	21 03 861 2825		M12
Circular connectors M12, Power, Crimp contact, Turned contacts, Pack contents: 50 pieces	0.13 0.25 0.33 0.82	21 01 100 9982 21 01 100 9981	21 01 100 9984 21 01 100 9983	7.7 5	
har-speed, Crimp contact, Turned contacts	0.08 0.22 0.13 0.25	21 01 100 9014 21 01 100 9019	21 01 100 9023 21 01 100 9021	26 115 115 127	
				5	
					C03
					59



4

M12

HARAX® connection technology Shielded



Technical characteristics

Number of contacts Rated current 4 A 50 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥500 Wire outer diameter ≤1.6 mm Locking type **PushPull**

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.34 mm², 0.14 mm² Conductor cross-section AWG 22, AWG 26

Technical characteristics

Cable diameter 5.7 ... 8.8 mm
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Copper alloy
Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101

UL 2238 CYJV2.E302521

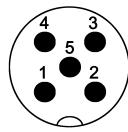
CSA-C22.2 No. 182.3 CYJV8.E302521

Part number Drawing (dimensions in mm) Conductor cross-sec-Identification tion (mm²) Male 0.14 21 03 322 1411 Circular connectors M12, 21 03 322 1401 PushPull, 0.34 Cable connector, Straight, HARAX® connection technology, Shielded

Number of contacts

5

Crimp termination Shielded



Technical characteristics

Number of contacts 5
Rated current 4 A
Rated impulse voltage 1.5 kV
Pollution degree 3

Rated voltage 48 V AC, 60 V DC

 Insulation resistance
 >108 Ω

 Contact resistance
 ≤10 mΩ

 Mating cycles
 ≥500

 Wire outer diameter
 ≤2.3 mm

 Locking type
 PushPull

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.13 ... 0.82 mm²,

0.09 ... 0.25 mm², 0.13 ... 0.33 mm², 0.25 ... 0.52 mm², 0.33 ... 0.82 mm²

Technical characteristics

Conductor cross-section AWG 26 ... AWG 18, AWG 28 ... AWG 24, AWG 26 ... AWG 22, AWG 24 ... AWG 20, AWG 22 ... AWG 18

Cable diameter 5.7 ... 8.8 mm

Material (insert) Liquid crystal polymer (LCP)

Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy

RoHS compliant with exemption

Specifications and approvals

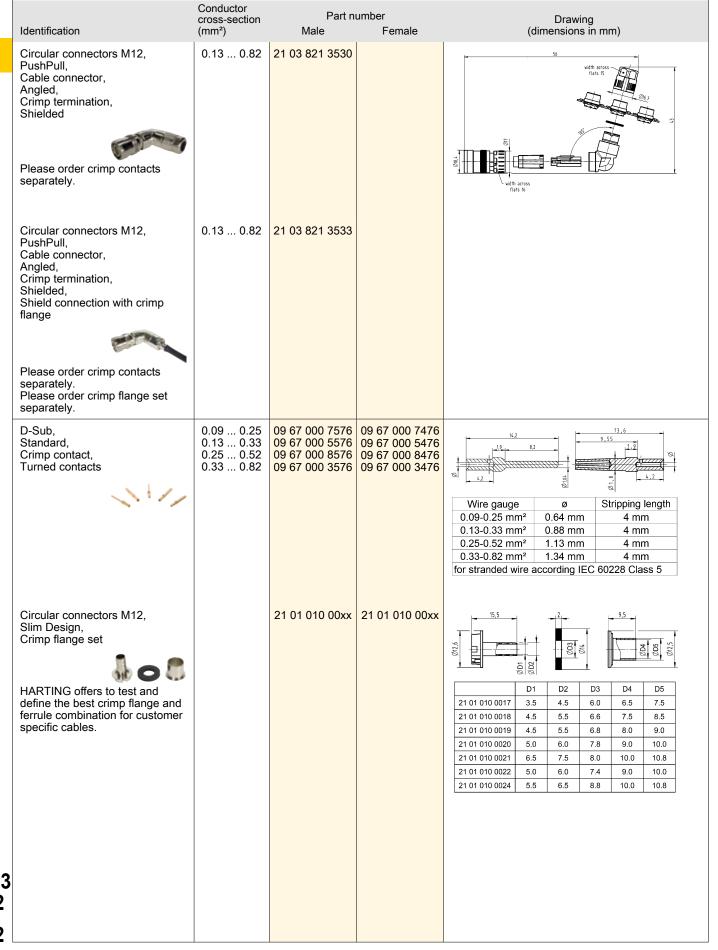
IEC 61076-2-101

UL 2238 CYJV2.E302521

CSA-C22.2 No. 182.3 CYJV8.E302521

Identification	Conductor cross-section (mm²)	Part nu Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, PushPull, Cable connector, Straight, Crimp termination, Shielded	0.13 0.82	21 03 821 1530		complete length when assembled app. 46mm width across flats: 14
Please order crimp contacts separately.				
Circular connectors M12, PushPull, Cable connector, Straight, Crimp termination, Shielded, Shield connection with crimp flange	0.13 0.82	21 03 821 1533		SW14 SW15 width across flats: 14 flats: 15 complete length when assembled app. 41
Please order crimp contacts separately. Please order crimp flange set separately.				

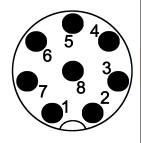




Number of contacts



Crimp termination Shielded



Technical characteristics

Number of contacts 8 Rated current 2 A 0.8 kV Rated impulse voltage Pollution degree

30 V AC, 30 V DC Rated voltage

>10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥500 Mating cycles Wire outer diameter ≤1.65 mm Locking type PushPull

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

0.13 ... 0.33 mm² Conductor cross-section Conductor cross-section AWG 26 ... AWG 22

Technical characteristics

Cable diameter 5.7 ... 8.8 mm

Material (insert) Liquid crystal polymer (LCP)

Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy Gold plated Surface (contacts)

RoHS compliant with exemption

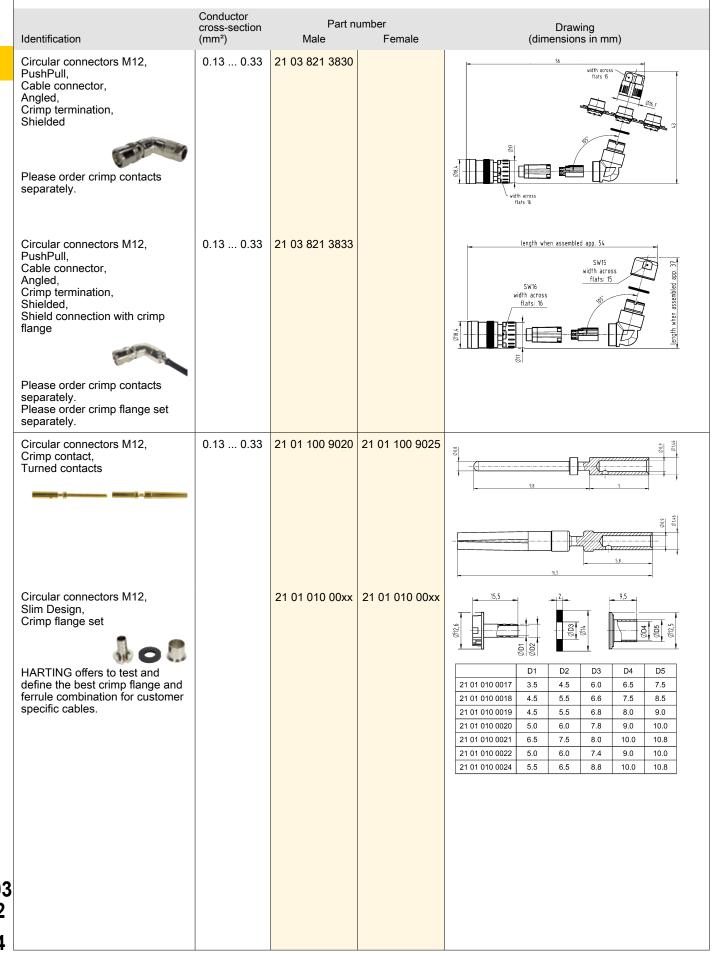
Specifications and approvals

IEC 61076-2-101 UL 2238 CYJV2.E302521

CSA-C22.2 No. 182.3 CYJV8.E302521

Identification	Conductor cross-section (mm²)	Part no Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, PushPull, Cable connector, Straight, Crimp termination, Shielded Please order crimp contacts	0.13 0.33	21 03 821 1830		complete length when assembled app. 46mm width across flats: 14
separately. Circular connectors M12, PushPull, Cable connector, Straight, Crimp termination, Shielded, Shield connection with crimp flange Please order crimp contacts separately. Please order crimp flange set separately.	0.13 0.33	21 03 821 1833		complete length when assembled app. 41 SW14 width across flats: 14 SW15 width across flats: 15

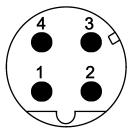




Number of contacts

4

HARAX® connection technology Shielded



Technical characteristics

Number of contacts 4 A Rated current 50 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥500 Mating cycles Wire outer diameter ≤1.6 mm Locking type **PushPull**

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section
Conductor cross-section
Cable diameter

O.34 mm², 0.14 mm²
AWG 22, AWG 26
5.7 ... 8.8 mm

Transmission characteristics Cat. 5, Class D up to 100 MHz

Polyamide (PA)

Zinc die-cast

Material (insert)
Material (hood/housing)

Technical characteristics

Material (contacts) Copper alloy Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101 UL 2238 CYJV2.E302521

CSA-C22.2 No. 182.3 CYJV8.E302521



Details

For Fast Ethernet applications only

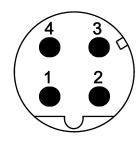
Identification	Conductor cross-section (mm²)	Part number Male	Drawing (dimensions in mm)
Circular connectors M12, PushPull, Cable connector, Straight, HARAX® connection technology, Shielded	0.14 0.34	21 03 382 1411 21 03 382 1401	46mm VSW14



4

M12

Crimp termination Shielded



Technical characteristics

Number of contacts 4
Rated current 4 A
Rated impulse voltage 1.5 kV
Pollution degree 3

Rated voltage 48 V AC, 60 V DC

 $\begin{array}{lll} \text{Insulation resistance} & > 10^8 \ \Omega \\ \text{Contact resistance} & \leq 10 \ \text{m}\Omega \\ \text{Mating cycles} & \geq 500 \\ \text{Wire outer diameter} & \leq 2.3 \ \text{mm} \\ \text{Locking type} & \text{PushPull} \end{array}$

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.13 ... 0.82 mm²,

 $\begin{array}{c} 0.09 \; ... \; 0.25 \; mm^2, \\ 0.13 \; ... \; 0.33 \; mm^2, \\ 0.25 \; ... \; 0.52 \; mm^2, \\ 0.33 \; ... \; 0.82 \; mm^2 \end{array}$

Conductor cross-section AWG 26 ... AWG 18,

AWG 28 ... AWG 24, AWG 26 ... AWG 22, AWG 24 ... AWG 20, AWG 22 ... AWG 18

Technical characteristics

Cable diameter 5.7 ... 8.8 mm

Transmission characteristics Cat. 5, Class D up to 100 MHz Material (insert) Liquid crystal polymer (LCP)

Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-101

UL 2238 CYJV2.E302521

CSA-C22.2 No. 182.3 CYJV8.E302521



Details

For Fast Ethernet applications only

			· ·	,	
	Identification	Conductor cross-section (mm²)	Part ni Male	umber Female	Drawing (dimensions in mm)
	Circular connectors M12, PushPull, Cable connector, Straight, Crimp termination, Shielded	0.13 0.82	21 03 881 1430		complete length when assembled app. 46mm special printing SW14 width across flats: 14 width across flats: 15
	Please order crimp contacts separately.				
	Circular connectors M12, PushPull, Cable connector, Straight, Crimp termination, Shielded, Shield connection with crimp flange	0.13 0.82	21 03 881 1433		
3	Please order crimp contacts separately. Please order crimp flange set separately.				

C0: 12

C03

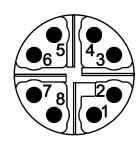
Identification	Conductor cross-section (mm²)	Part ni Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, PushPull, Cable connector, Angled, Crimp termination, Shielded Please order crimp contacts separately.	0.13 0.82	21 03 881 3430		vidth across flats 15
Circular connectors M12, PushPull, Cable connector, Angled, Crimp termination, Shielded, Shield connection with crimp flange Please order crimp contacts separately.	0.13 0.82	21 03 881 3433		length when assembled app. 54 SW15 width across flats: 16 Flats: 15 Page 188
Please order crimp flange set separately. D-Sub,	0.09 0.25	09 67 000 7576	09 67 000 7476	. 13.6
Standard, Crimp contact, Turned contacts	0.13 0.33 0.25 0.52 0.33 0.82	09 67 000 7576 09 67 000 8576 09 67 000 3576	09 67 000 5476 09 67 000 8476 09 67 000 3476	Wire gauge Ø Stripping length 0.09-0.25 mm² 0.64 mm 4 mm 0.13-0.33 mm² 0.88 mm 4 mm 0.25-0.52 mm² 1.13 mm 4 mm 0.33-0.82 mm² 1.34 mm 4 mm for stranded wire according IEC 60228 Class 5
Circular connectors M12, Slim Design, Crimp flange set HARTING offers to test and define the best crimp flange and ferrule combination for customer specific cables.		21 01 010 00xx	21 01 010 00xx	15,5 D1 D2 D3 D4 D5 21 01 010 0018 4.5 5.5 6.6 7.5 8.5 21 01 010 0020 5.0 6.0 7.8 9.0 10.0 21 01 010 0022 5.0 6.0 7.4 9.0 10.0 21 01 010 0024 5.5 6.5 8.8 10.0 10.8



8

M12

Crimp termination Shielded



Technical characteristics

Number of contacts Rated current 0.5 A Rated voltage 48 V Rated impulse voltage 0.8 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ Mating cycles ≥500 Wire outer diameter ≤1.4 mm Locking type **PushPull**

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section

0.08 ... 0.25 mm², 0.13 ... 0.25 mm², 0.08 ... 0.22 mm²

5.7 ... 8.8 mm

Conductor cross-section

AWG 28 ... AWG 23, AWG 26 ... AWG 23, AWG 28 ... AWG 24

Cable diameter

Transmission characteristics Cat. 6_A, Class E_A up to 500 MHz

Technical characteristics

Material (insert) Liquid crystal polymer (LCP)

Material (hood/housing)

Material (contacts)

Surface (contacts)

Zinc die-cast
Copper alloy

Gold plated

RoHS compliant with exemption

Specifications and approvals

IEC 61076-2-109 UL 2238 CYJV2.E302521

CSA-C22.2 No. 182.3 CYJV8.E302521



Details

For Ethernet applications up to 10 Gbit only

	Identification	Conductor cross-section (mm²)	Part no Male	umber Female	Drawing (dimensions in mm)
	Circular connectors M12, PushPull, Cable connector, Straight, Crimp termination, Shielded	0.08 0.25	21 03 881 1830		complete length when assembled app. 46mm SW15 Width across flats: 14 Width across flats: 15
	Please order crimp contacts separately. Circular connectors M12, PushPull, Cable connector, Straight, Crimp termination, Shielded, Shield connection with crimp flange	0.08 0.25	21 03 881 1833		complete length when assembled app. 41 SW14 width across flats: 14 SW2 SW2 SW2 SW3 SW3 Flats: 15
3	Please order crimp contacts separately. Please order crimp flange set separately.				7.81.0

C03 12 68



Conductor Part number Drawing cross-section (dimensions in mm) Identification (mm²)Male Female 21 03 881 3830 Circular connectors M12, $0.08 \dots 0.25$ PushPull, Cable connector, Angled, Crimp termination, Shielded Please order crimp contacts separately. Circular connectors M12, 0.08 ... 0.25 21 03 881 3833 PushPull, Cable connector, Angled, Crimp termination, Shielded, Shield connection with crimp flange Please order crimp contacts separately.
Please order crimp flange set separately. 21 01 100 9014 21 01 100 9023 21 01 100 9019 21 01 100 9021 $0.08 \dots 0.22$ har-speed, 0.13 ... 0.25 Crimp contact, Turned contacts Circular connectors M12, 21 01 010 00xx 21 01 010 00xx Slim Design, Crimp flange set HARTING offers to test and D1 D2 D3 D4 D5 define the best crimp flange and 21 01 010 0017 3.5 4.5 6.0 6.5 7.5 ferrule combination for customer 21 01 010 0018 4.5 5.5 6.6 7.5 8.5 specific cables. 21 01 010 0019 4.5 5.5 6.8 8.0 9.0 21 01 010 0020 6.0 9.0 10.0 5.0 7.8 21 01 010 0021 8.0 10.8 6.5 7.5 10.0 21 01 010 0022 5.0 6.0 7.4 9.0 10.0 21 01 010 0024 5.5 6.5 10.0 10.8 8.8

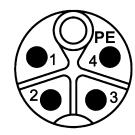




M12



Crimp termination Shielded



Technical characteristics

Number of contacts Rated current 12 A 630 V Rated voltage Rated impulse voltage 6 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥500 Mating cycles Locking type PushPull

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section

0.5 ... 2.5 mm², 2.5 mm², 1.5 mm², 0.75 mm², 0.5 mm²

Technical characteristics

Conductor cross-section AWG 20 ... AWG 14, AWG 14, AWG 16, AWG 19, AWG 21

Cable diameter 5.8 ... 13.5 mm
Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Copper alloy

Surface (contacts)

Gold plated

Specifications and approvals

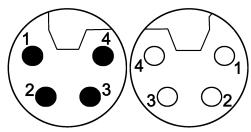
IEC 61076-2-111

Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Power, PushPull, Cable connector, Straight, Crimp termination, Shielded, PushPull locking	0.5 2.5	21 03 896 1525	21 03 896 2525	camplete length when assembled upp \$27mm seat insert, red OTION width across flats 17 Seat insert, green Justin across flats 18 Sw18 width across flats 18 Sw18
Please order crimp contacts separately.				
Circular connectors M12, Power, Crimp contact, Turned contacts, Pack contents:	0.5 0.75 1.5 2.5	21 01 100 9962 21 01 100 9963 21 01 100 9937 21 01 100 9938	21 01 100 9939	
50 pieces				(21,80).)
3				8 ⁻¹² 0,9-4,55 (2) (3) 1,2 (3) 1,3 (3
				12,344,05

Number of contacts

4

Crimp termination Shielded



Technical characteristics

Number of contacts 16 A Rated current Rated voltage 63 V Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥500 Mating cycles Locking type PushPull

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 2.5 mm², 1.5 mm², 0.75 mm²,

0.5 mm²

Conductor cross-section AWG 14, AWG 16, AWG 19,

AWG 21

Technical characteristics

Cable diameter 5.8 ... 13.5 mm
Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Copper alloy
Surface (contacts) Gold plated

Specifications and approvals

IEC 61076-2-111



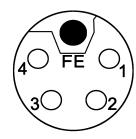
Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Power, PushPull, Cable connector, Straight, Crimp termination, Shielded, PushPull locking Please order crimp contacts separately.		21 03 896 1420	21 03 896 2420	
Circular connectors M12, Power, Crimp contact, Turned contacts, Pack contents: 50 pieces	0.5 0.75 1.5 2.5	21 01 100 9962 21 01 100 9963 21 01 100 9937 21 01 100 9938	21 01 100 9965 21 01 100 9939	21,800. 21,800. 21,800. 21,800. 21,800. 21,800. 21,800. 21,800. 21,800. 21,800. 21,300.5 22,300.5







Crimp termination Shielded



Technical characteristics

Number of contacts 16 A Rated current Rated voltage 63 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥500 Mating cycles Locking type PushPull

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section

2.5 mm², 1.5 mm², 0.75 mm²,

0.5 mm²

Conductor cross-section AWG 14, AWG 16, AWG 19,

AWG 21

Technical characteristics

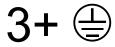
Cable diameter 5.8 ... 13.5 mm
Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Copper alloy
Surface (contacts) Gold plated

Specifications and approvals

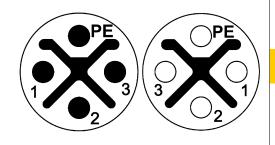
IEC 61076-2-111



Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Power, PushPull, Cable connector, Straight, Crimp termination, Shielded, PushPull locking Please order crimp contacts separately.		21 03 896 1520	21 03 896 2520	
Circular connectors M12, Power, Crimp contact, Turned contacts, Pack contents: 50 pieces	0.5 0.75 1.5 2.5	21 01 100 9962 21 01 100 9963 21 01 100 9937 21 01 100 9938	21 01 100 9964 21 01 100 9965 21 01 100 9939 21 01 100 9940	21.8 ····· 21.8 ···· 21.8 ···· 21.8 ···· 21.8 ···· 21.8 ···· 21.8 ···· 21.8 ···· 21.8 ···· 21.8 ···· 22.8 ···· 23.4 ···· 23.4 ···· 23.4 ···· 23.4 ···· 23.4 ···· 23.4 ···· 23.4 ···· 24.3 ···· 25.5 ···· 27.3 ··· 27.3 ·· 27.3 ·· 27.3 ·· 27.3



Crimp termination Shielded



Technical characteristics

Number of contacts 3 Rated current 12 A 630 V Rated voltage Rated impulse voltage 6 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥500 Mating cycles Locking type PushPull

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 2.5 mm², 1.5 mm², 0.75 mm²,

0.5 mm²

Technical characteristics

Conductor cross-section

AWG 14, AWG 16, AWG 19, AWG 21

Cable diameter

Tightening torque

Material (insert)

Polyamide (PA)

Material (insert) Polyamide (P. Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy Surface (contacts) Gold plated

Specifications and approvals

IEC 61076-2-111

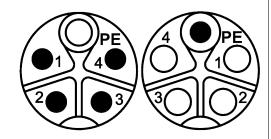
Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Power, PushPull, Cable connector, Straight, Crimp termination, Shielded, PushPull locking Please order crimp contacts separately.		21 03 896 1425	21 03 896 2425	complete length when assembled app 52mm Seal insert, blue Only from Complete length when assembled app 55mm Seal insert, green Only from Seal insert, green
Circular connectors M12, Power, Crimp contact, Turned contacts, Pack contents: 50 pieces	0.5 0.75 1.5 2.5	21 01 100 9962 21 01 100 9963 21 01 100 9937 21 01 100 9938	21 01 100 9965 21 01 100 9939	20.4 20.4 21.80 to 5 1.5 to 6 21.80 to 5 1.7 to 94.05 to 94.05 to 95.05







Shielded



Technical characteristics

Number of contacts Rated current 12 A 630 V Rated voltage Rated impulse voltage 6 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥500 Mating cycles

Locking type Screw locking Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section

0.5 ... 2.5 mm², 2.5 mm²,

1.5 mm², 0.75 mm², 0.5 mm²

Technical characteristics

Conductor cross-section AWG 20 ... AWG 14, AWG 14, AWG 16, AWG 19, AWG 21

5.8 ... 13.5 mm Cable diameter Tightening torque 0.6 Nm Material (insert) Polyamide (PA) Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy Surface (contacts) Gold plated

Specifications and approvals

IEC 61076-2-111

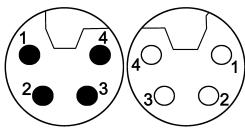
Identification	Conductor cross-section (mm²)	Part no Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Power, Cable connector, Straight, Crimp termination, Shielded, Screw locking	0.5 2.5	21 03 896 1515	21 03 896 2515	complete length when assembled upp. 32mm seel insert, red 2/10mm width across flats 17 seel insert, green 2/10mm width across flats 18 seel insert, black SW18 SW18
Please order crimp contacts separately. Circular connectors M12	0.5	21 01 100 9962	21 01 100 9964	20
Circular connectors M12, Power, Crimp contact, Turned contacts, Pack contents: 50 pieces	0.5 0.75 1.5 2.5	21 01 100 9962 21 01 100 9963 21 01 100 9937 21 01 100 9938	21 01 100 9964 21 01 100 9965 21 01 100 9939 21 01 100 9940	204 205 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

M12

M12

Number of contacts

HARAX® connection technology Shielded



Technical characteristics

Number of contacts 12 A Rated current 63 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.75 ... 1.5 mm² AWG 18 ... AWG 16 Conductor cross-section Cable diameter 5.8 ... 13.5 mm

Tightening torque 0.6 Nm

Technical characteristics

Material (insert) Polyamide (PA) Colour (insert) Black Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy Gold plated Surface (contacts) RoHS compliant

Specifications and approvals

IEC 61076-2-111

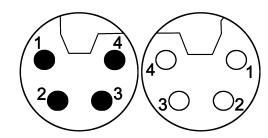


Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Power, Cable connector, Straight, HARAX® connection technology, Shielded	0.75 1.5	21 03 296 1506	21 03 296 2506	ORIGINA INCIDA SEC. MANDRIA SEC. 3300.
				MATERIAL MATERIAL AND



4

Crimp termination Shielded



Technical characteristics

 $\begin{array}{lll} \text{Number of contacts} & 4 \\ \text{Rated current} & 16 \text{ A} \\ \text{Rated voltage} & 63 \text{ V} \\ \text{Rated impulse voltage} & 1.5 \text{ kV} \\ \text{Pollution degree} & 3 \\ \text{Insulation resistance} & > 10^8 \, \Omega \\ \text{Contact resistance} & \leq 10 \, \text{m} \Omega \\ \text{Mating cycles} & \geq 500 \\ \end{array}$

Locking type Screw locking
Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 2.5 mm², 1.5 mm², 0.75 mm²,

0.5 mm²

Conductor cross-section AWG 14, AWG 16, AWG 19,

AWG 21

Technical characteristics

Cable diameter 5.8 ... 13.5 mm
Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Copper alloy
Surface (contacts) Gold plated

Specifications and approvals

IEC 61076-2-111

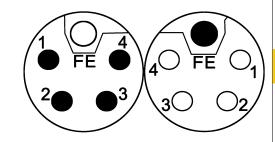


Identification	Conductor cross-section (mm²)	Part no Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Power, Cable connector, Straight, Crimp termination, Shielded, Screw locking Please order crimp contacts separately.		21 03 896 1410	21 03 896 2410	
Circular connectors M12, Power, Crimp contact, Turned contacts, Pack contents: 50 pieces	0.5 0.75 1.5 2.5	21 01 100 9962 21 01 100 9963 21 01 100 9937 21 01 100 9938	21 01 100 9965	75.4 75.4 75.4 75.4 75.4 76.6 77.3 to 55

M12



HARAX® connection technology Shielded



Technical characteristics

Number of contacts 12 A Rated current 63 V Rated voltage Rated impulse voltage 1.5 kV Pollution degree 3 >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥100 Mating cycles Screw locking

Locking type Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 0.75 ... 1.5 mm² AWG 18 ... AWG 16 Conductor cross-section Cable diameter 5.8 ... 13.5 mm 0.6 Nm

Tightening torque

Technical characteristics

Material (insert) Polyamide (PA) Colour (insert) Grey Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy Gold plated Surface (contacts) RoHS compliant

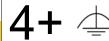
Specifications and approvals

IEC 61076-2-111

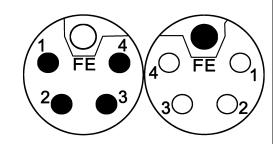


Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Power, Cable connector, Straight, HARAX® connection technology, Shielded	0.75 1.5	21 03 296 1505	21 03 296 2505	SMD SMD
				complete idealth value assertioid ago. Shan





Crimp termination Shielded



Technical characteristics

Number of contacts Rated current 16 A Rated voltage 63 V Rated impulse voltage 1.5 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥500 Mating cycles Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section

0.5 ... 2.5 mm², 2.5 mm², 1.5 mm², 0.75 mm², 0.5 mm² AWG 20 ... AWG 14, AWG 14,

Conductor cross-section

AWG 16, AWG 20, AWG 21 5.8 ... 13.5 mm 0.6 Nm

Conductor

Cable diameter Tightening torque

Technical characteristics

Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Copper alloy
Surface (contacts) Gold plated

RoHS compliant, compliant with

exemption

Specifications and approvals

IEC 61076-2-111 UL 2238 CYJV2.E302521 CSA-C22.2 No. 182.3 CYJV8.E302521



	Identification	cross-section (mm²)	Part no Male	umber Female	Drawing (dimensions in mm)
	Circular connectors M12, Power, Cable connector, Straight, Crimp termination, Shielded	0.5 2.5	21 03 896 1505	21 03 896 2505	conplete length when assembled app. 53mm SW17 SW20 SW17
	Please order crimp contacts separately.				complete length when assembled approx. 52mm SW17 SW20 SW17
	Circular connectors M12, Power, Crimp contact, 23.2 mm length, Turned contacts	0.5 0.75 1.5 2.5	21 01 100 9923 21 01 100 9924 21 01 100 9925 21 01 100 9926	21 01 100 9932 21 01 100 9933	23,2
3					

M12 Power



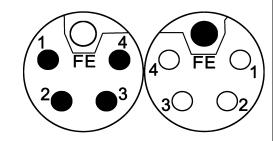
M12

Conductor cross-section (mm²) Part number Drawing (dimensions in mm) Identification Male Female 0.5 0.75 1.5 2.5 21 01 100 9927 21 01 100 9928 21 01 100 9929 21 01 100 9930 Circular connectors M12, Power, Crimp contact, FE contact, 24.8 mm length, Turned contacts 24,8 use with M12 Power female contacts C03 **79**





Crimp termination Shielded



Technical characteristics

Locking type Screw locking
Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section 2.5 mm², 1.5 mm², 0.75 mm²,

0.5 mm²

Conductor cross-section AWG 14, AWG 16, AWG 19,

AWG 21

Technical characteristics

Cable diameter 5.8 ... 13.5 mm
Tightening torque 0.6 Nm
Material (insert) Polyamide (PA)
Material (hood/housing) Zinc die-cast
Material (contacts) Copper alloy
Surface (contacts) Gold plated

Specifications and approvals

IEC 61076-2-111

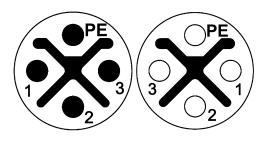


Identification	Conductor cross-section (mm²)	Part no Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Power, Cable connector, Straight, Crimp termination, Shielded, Screw locking Please order crimp contacts separately.		21 03 896 1510	21 03 896 2510	
Circular connectors M12, Power, Crimp contact, Turned contacts, Pack contents: 50 pieces	0.5 0.75 1.5 2.5	21 01 100 9962 21 01 100 9963 21 01 100 9937 21 01 100 9938	21 01 100 9965	78.4.2 (3).5.4.3.5 (3).5.5.5 (3).5.5 (3).5.5 (3).5.5 (3).5.5 (3).5.5 (3).5.5 (3).5.5 (3).5

M12

Number of contacts

Crimp termination Shielded



Technical characteristics

Number of contacts 3 Rated current 12 A 630 V Rated voltage Rated impulse voltage 6 kV Pollution degree >10⁸ Ω Insulation resistance Contact resistance ≤10 mΩ ≥500 Mating cycles Locking type Screw locking

Degree of protection acc. to IEC IP65 / IP67, when mated

60529

Conductor cross-section

2.5 mm², 1.5 mm², 0.75 mm²,

0.5 mm²

Technical characteristics

Conductor cross-section AWG 14, AWG 16, AWG 19,

AWG 21

Cable diameter 5.8 ... 13.5 mm Tightening torque 0.6 Nm

Material (insert) Polyamide (PA) Material (hood/housing) Zinc die-cast Material (contacts) Copper alloy Surface (contacts) Gold plated

Specifications and approvals

IEC 61076-2-111

Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, Power, Cable connector, Straight, Crimp termination, Shielded, Screw locking		21 03 896 1415	21 03 896 2415	complete length when assembled ago 52me spal insert, blore Of him have spal insert, speen Of him across flats 18 Serial spart, speen Of him Serial spart, speen
Please order crimp contacts separately.				conglete length when assembled app Ston sed liner1, tibe (50), lan
Circular connectors M12, Power, Crimp contact, Turned contacts, Pack contents: 50 pieces	0.5 0.75 1.5 2.5	21 01 100 9963 21 01 100 9937	21 01 100 9964 21 01 100 9965 21 01 100 9939 21 01 100 9940	704 105 105 105 105 105 105 105 105 105 105
				(21,8m1) (21,8m1) (35,4) (35,4) (36,4) (37,4) (3
				12,348,85

M12

Technical characteristics

Mating cycles Locking type ≥100 PushPull

compliant, compliant with exemption RoHS

Specifications and approvals



	oxomption.	'	ı	
Identification		Part nu Male	umber Female	Drawing (dimensions in mm)
Circular connectors M12, M12-male moving load, A-coding		21 03 030 1400		42
Circular connectors M12, Unshielded, T-splitter, A-coding		21 03 319 9501		56 57 10 67 14.5
Circular connectors M12, Unshielded, Y-splitter, A-coding		21 03 321 9400		25
03 12 32				
32				

Adapter



M12

Part number Drawing (dimensions in mm) Identification Male Female Circular connectors M12, M12-male moving load, B-coding 21 03 030 1300 M12x1 ø15 Fertigungscode/ Date code Circular connectors M12, M12-male/female panel feed through, 21 03 330 1300 max.35 10,5 B-coding **-10 -**M12x1 Circular connectors M12, M12 female-RJ45 panel feed through, 21 03 381 2401 D-coding, 4-pin, Straight Circular connectors M12, M12 PushPull adapter, D-coding, 4-pin 21 03 381 2403 23,3 10,5 Ø16,1 width across flats 15

Adapter

M12



	Identification	Part no Male	umber Female	Drawing (dimensions in mm)
	Circular connectors M12, M12 female-RJ45 panel feed through, D-coding, 4-pin, Angled		21 03 381 4401	SW18 SW18 SW4 46
	Circular connectors M12, har-speed M12 adapter M12-RJ45, X-coding, Straight, Cat. 6 _A		21 03 381 2800	SW18 width across flats SW 34 45,5
	Circular connectors M12, har-speed M12 adapter M12-RJ45, X-coding, Angled, Cat. 6 _A		21 03 381 4800	SW18 22 25 26 25 26 26 27 28 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20
3				
<u>'</u> -				

C03 12 84

Technical characteristics

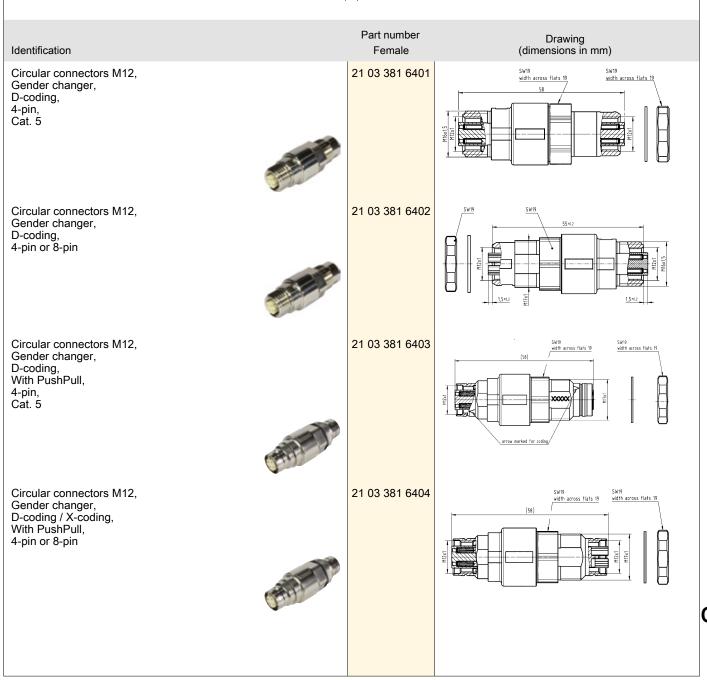
Locking type Material (accessories) Colour (accessories) RoHS PushPull, Screw locking Thermoplastic Black compliant with exemption,

compliant

Specifications and approvals

UL 2238 CYJV2.E302521 CSA-C22.2 No. 182.3 CYJV8.E302521





Adapter

M12



Part number Drawing (dimensions in mm) Identification Female Circular connectors M12, Gender changer, X-coding, Cat. 6_A 21 03 381 6815 \SW19 <u>SW19</u> Circular connectors M12, Gender changer, 21 03 381 6816 X-coding, With PushPull, Cat. 6_A Circular connectors M12, Panel mounting parts 21 01 000 0036 (50) C03 86

Technical characteristics

RoHS

compliant with exemption

Identification

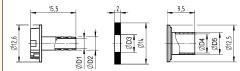
Circular connectors M12, Slim Design, Crimp flange set

100

HARTING offers to test and define the best crimp flange and ferrule combination for customer specific cables.

Part number

Drawing (dimensions in mm)



	D1	D2	D3	D4	D5
21 01 010 0017	3.5	4.5	6.0	6.5	7.5
21 01 010 0018	4.5	5.5	6.6	7.5	8.5
21 01 010 0019	4.5	5.5	6.8	8.0	9.0
21 01 010 0020	5.0	6.0	7.8	9.0	10.0
21 01 010 0021	6.5	7.5	8.0	10.0	10.8
21 01 010 0022	5.0	6.0	7.4	9.0	10.0
21 01 010 0024	5.5	6.5	8.8	10.0	10.8

C03 12 ... M12

Technical characteristics

Material (accessories)

Thermoplastic

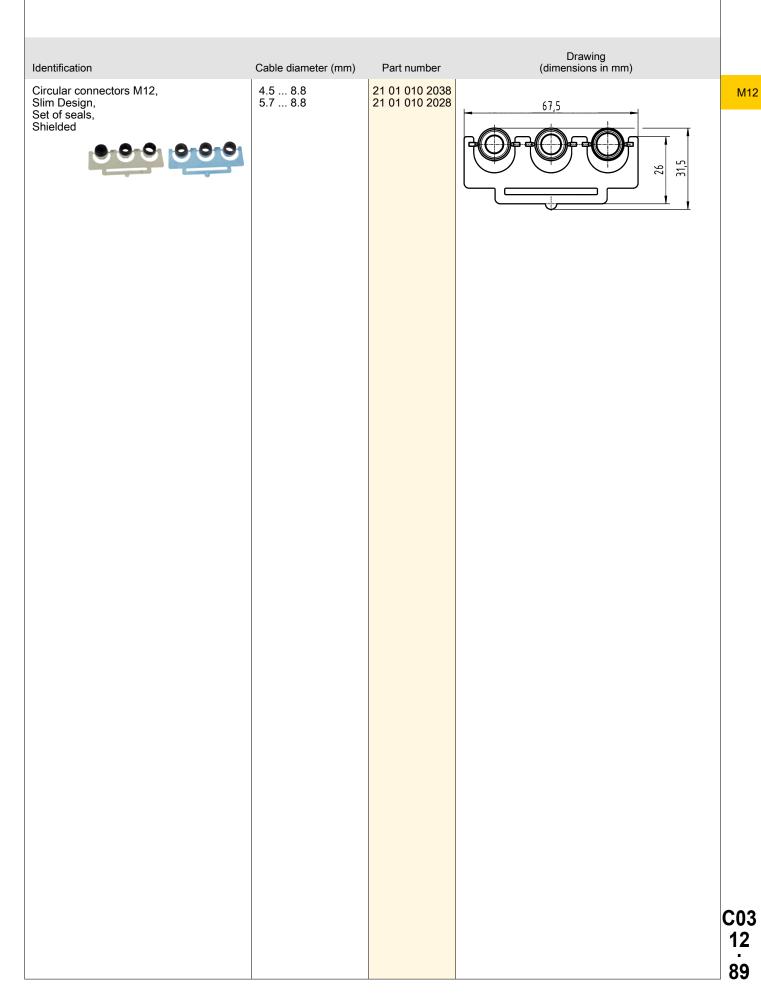
Technical characteristics

Colour (accessories) RoHS Black compliant

			Drawing (dimensions in mm)
Identification Circular connectors M12, M12-S, Seal, Unshielded	Cable diameter (mm) 2.9 4 4 5.1	Part number 21 01 010 2011 21 01 010 2001	(dimensions in mm)
Circular connectors M12, M12-L, Seal, Unshielded	4.7 6 6 8	21 01 010 2015 21 01 010 2007	10,7
			10,7
Circular connectors M12, M12-L, Set of seals, Shielded	4.5 8.8	21 01 010 2017	45-5¼ 00 5¼-7½ 0 7½-88

Accessories



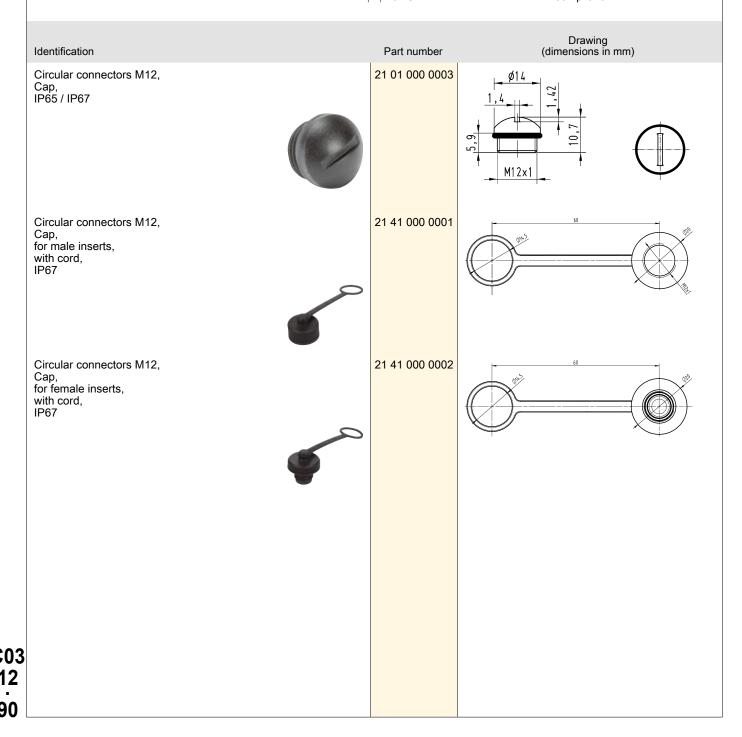


M12

Technical characteristics

Technical characteristics

Material (accessories) Colour (accessories) RoHS Thermoplastic Black compliant



Technical characteristics

Degree of protection acc. to IEC IP65 / IP67 60529

Technical characteristics

Material (accessories) RoHS Metal compliant with exemption

Identification	Part numb	Drawing per (dimensions in mm)
Circular connectors M12, Cap, for female inserts, with cord	21 01 000 0	0030 5
Circular connectors M12, Cap, for female inserts, with cable clip	21 01 000 0	0031 s
Circular connectors M12, Cap, for male inserts, with cord	21 01 000	0033 5 86.3
Circular connectors M12, Cap, for male inserts, with cable clip	21 01 000 0	0038 S



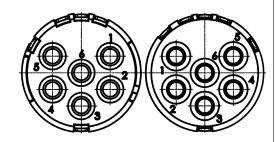
Contents	Page	
M23 Signal inserts	C03 23.2	ı
M23 Signal contacts	C03 23.16	
M23 Signal Hoods/Housings	C03 23.17	
M23 Power inserts	C03 23.20	
M23 Power contacts	C03 23.25	
M23 Power Hoods/Housings	C03 23.26	
		C
		2



Number of contacts



Crimp termination



Technical characteristics

Conductor cross-section 0.75 ... 2.5 mm²
Material (insert) Polyamide (PA)

Technical characteristics

Colour (insert) White Material flammability class acc. V-0 to UL 94

RoHS compliant

Specifications and approvals

UL 1977 ECBT2.E235076

Identification	Conductor cross-section (mm²)	Part no Male	umber Female	Drawing (dimensions in mm)	
Circular connectors M23, Signal, Inserts, Crimp termination	0.75 2.5	09 15 106 3001	09 15 106 3101	11,6	Ø17 —
Please order crimp contacts separately. 6x 2 mm				20,1	Ø17 — — — — — — — — — — — — — — — — — — —

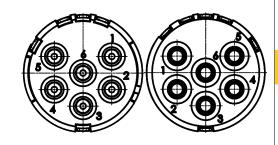
M23



Number of contacts



Solder termination



Technical characteristics

Number of contacts 20 A Rated current Rated voltage 300 V Rated impulse voltage $2.5 \, kV$ Pollution degree $>10^{10} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C ≥500 Mating cycles Conductor cross-section 2.5 mm² max. Material (insert) Polyamide (PA) White

Colour (insert)

Material (contacts) Copper alloy Gold plated Surface (contacts) V-0

Technical characteristics

Material flammability class acc.

to UL 94

RoHS compliant with exemption

Specifications and approvals

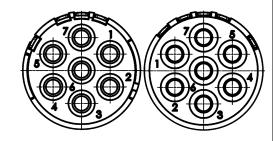
Identification	Conductor cross-section (mm²)	Part n	umber Female	Drawing (dimensions in mm)	
Circular connectors M23, Signal, Inserts, Solder termination	2.5 max.	09 15 106 2602	09 15 106 2702	7,5 — Ø17 —	
				(22,2) 18,5 3,7 (22,2) Ø17 Ø17 Ø17	



Number of contacts

7

Crimp termination



Technical characteristics

Conductor cross-section 0.75 ... 2.5 mm²
Material (insert) Polyamide (PA)

Technical characteristics

Colour (insert) White Material flammability class acc. V-0

to UL 94

RoHS compliant with exemption

Specifications and approvals

UL 1977 ECBT2.E235076

Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Draw (dimension	ing s in mm)
Circular connectors M23, Signal, Inserts, Crimp termination	0.75 2.5	09 15 107 3001	09 15 107 3101	11,6 -	Ø17————————————————————————————————————
Please order crimp contacts separately. 7x 2 mm				20,1	Ø17————————————————————————————————————
3					

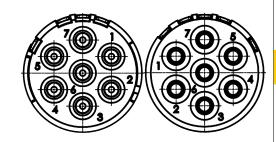
M23



Number of contacts

7

Solder termination



Technical characteristics

Number of contacts 20 A Rated current Rated voltage 300 V Rated impulse voltage $2.5 \, kV$ Pollution degree $>10^{10} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C ≥500 Mating cycles Conductor cross-section 2.5 mm² max. Material (insert) Polyamide (PA) Colour (insert) White

Technical characteristics

Material (contacts)

Surface (contacts)

Gold plated

Material flammability class acc. V-0

to UL 94

RoHS compliant with exemption

Specifications and approvals

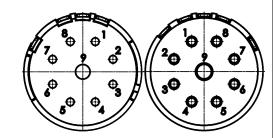
Identification	Conductor cross-section (mm²)	Part n	umber Female	Drawing (dimensions in	mm)
Circular connectors M23, Signal, Inserts, Solder termination	2.5 max.	09 15 107 2602	09 15 107 2702	7,5	Ø17 —
				(22,2) 18,5 3,7	Ø17 —



Number of contacts

M23

+ 1 additional special contact Crimp termination



Technical characteristics

Number of contacts

+ 1 additional special contact Additional contacts

Rated current 8 A Rated voltage 200 V Rated impulse voltage 2.5 kVPollution degree Rated current (special contact) 20 A Rated voltage (special contact) 200 V Rated impulse voltage (special 2.5 kV contact)

Pollution degree (special

contact)

Insulation resistance $>10^{10} \Omega$

Technical characteristics

Limiting temperature -40 ... +125 °C

Mating cycles ≥500

Conductor cross-section 0.08 ... 1.5 mm² Material (insert) Polyamide (PA)

Colour (insert) White Material flammability class acc. V-0

to UL 94

RoHS compliant with exemption

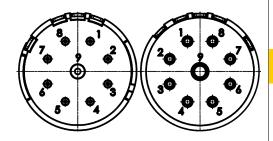
Specifications and approvals

Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Draw (dimension	ing s in mm)
Circular connectors M23, Signal, Inserts, Crimp termination	0.08 1.5	09 15 109 3001	09 15 109 3101	12 — S S S S S S S S S S S S S S S S S S	Ø17 — Ø17 — Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø
Please order crimp contacts separately. 8x 1 mm 1x 2 mm				20 5.5.5	Ø17 — Ø17 — Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø
3					



Number of contacts

+ 1 additional special contact Solder termination



Technical characteristics

Number of contacts

+ 1 additional special contact Additional contacts

Rated current 8 A Rated voltage 200 V Rated impulse voltage 2.5 kV Pollution degree Rated current (special contact) 20 A Rated voltage (special contact) 200 V Rated impulse voltage (special 2.5 kV contact)

Pollution degree (special

contact)

Insulation resistance $>10^{10} \Omega$ Limiting temperature -40 ... +125 °C

Technical characteristics

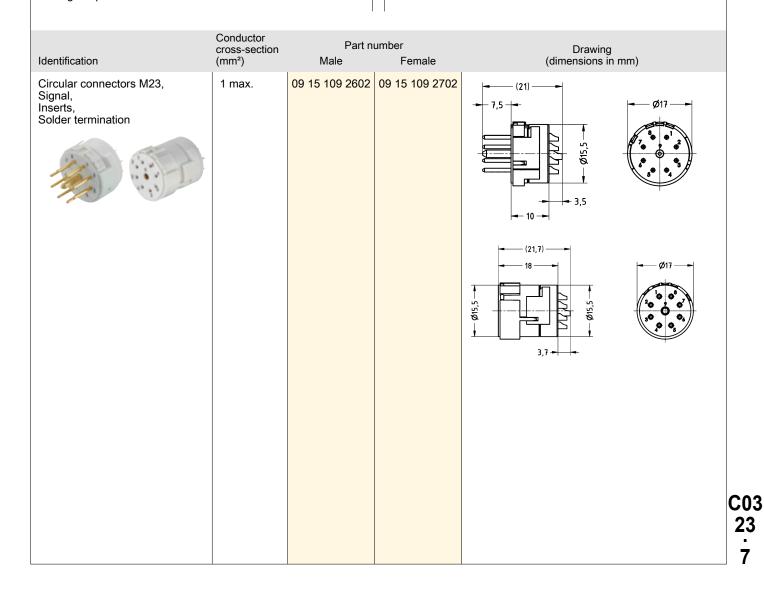
≥500 Mating cycles Conductor cross-section 1 mm² max. Material (insert) Polyamide (PA) Colour (insert) White Material (contacts) Copper alloy

Surface (contacts) Gold plated Material flammability class acc.

to UL 94

RoHS compliant with exemption

Specifications and approvals

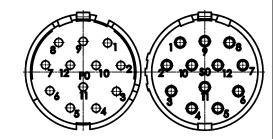




Number of contacts

11+ 😩

Crimp termination



Technical characteristics

Conductor cross-section 0.08 ... 1.5 mm² Material (insert) Polyamide (PA)

Technical characteristics

Colour (insert) Grey Material flammability class acc. V-0

to UL 94

RoHS compliant with exemption

Specifications and approvals

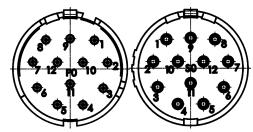
UL 1977 ECBT2.E235076

Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M23, Signal, Inserts, Crimp termination	0.08 1.5	09 15 112 3021	09 15 112 3121	Ø17 Ø17 Ø17 Ø 19 Ø 1
Please order crimp contacts separately. 12x 1 mm				

M23

Number of contacts

Solder termination



Technical characteristics

Number of contacts Rated current 8 A Rated voltage 200 V Rated impulse voltage $2.5 \, kV$ Pollution degree $>10^{10} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C ≥500 Mating cycles Conductor cross-section 1 mm² max. Material (insert) Polyamide (PA) Colour (insert) Grey

Technical characteristics

Material (contacts) Copper alloy Gold plated Surface (contacts)

Material flammability class acc.

to UL 94

RoHS compliant with exemption

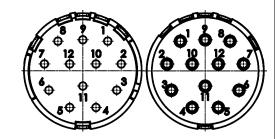
Specifications and approvals

Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M23, Signal, Inserts, Solder termination	1 max.	09 15 112 2622	09 15 112 2722	7,5 — Ø17 —
				(20,7) 17 25 3,7



Number of contacts

Crimp termination



Technical characteristics

Number of contacts 8 A Rated current Rated voltage 200 V Rated impulse voltage 2.5 kV Pollution degree $>10^{10} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C ≥500 Mating cycles

Conductor cross-section 0.08 ... 1.5 mm² Material (insert) Polyamide (PA)

Technical characteristics

Colour (insert) White Material flammability class acc. V-0 to UL 94

RoHS compliant with exemption,

compliant

Specifications and approvals

UL 1977 ECBT2.E235076

Identification	Conductor cross-section (mm²)	Part n	umber Female	Drawi (dimension:	ng s in mm)
Circular connectors M23, Signal, Inserts, Crimp termination Please order crimp contacts separately. 12x 1 mm	0.08 1.5	09 15 112 3001	09 15 112 3101	19,6	Ø17 Ø17 Ø17 Ø17
Circular connectors M23, Signal, Inserts, Marking in opposite direction, Crimp termination Please order crimp contacts separately. 12x 1 mm	0.08 1.5	09 15 112 3011	09 15 112 3111		

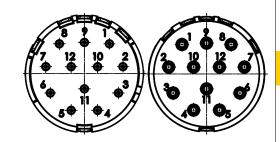
M23



Number of contacts

12

Solder termination



Technical characteristics

Number of contacts 12 Rated current 8 A 200 V Rated voltage Rated impulse voltage 2.5 kV Pollution degree $>10^{10} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C Mating cycles ≥500 Conductor cross-section 1 mm² max. Material (insert) Polyamide (PA) Colour (insert) White

Technical characteristics

Material (contacts)

Surface (contacts)

Gold plated

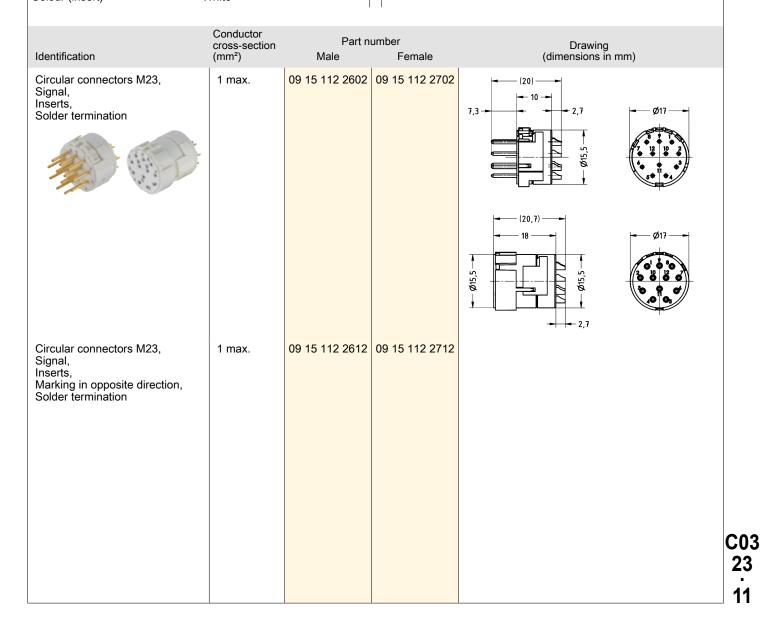
Material flammability class acc. V-0

to UL 94

RoHS compliant with exemption,

compliant

Specifications and approvals

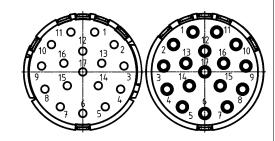




Number of contacts

17

Crimp termination



Technical characteristics

Conductor cross-section 0.08 ... 1.5 mm²
Material (insert) Polyamide (PA)

Technical characteristics

Colour (insert) White Material flammability class acc. V-0

to UL 94

RoHS compliant with exemption

Specifications and approvals

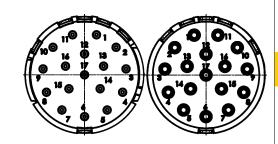
UL 1977 ECBT2.E235076

material (mostly)	, (. 7.,	!	'	
Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in mm)
Circular connectors M23, Signal, Inserts, Crimp termination Please order crimp contacts separately. 17x 1 mm	0.08 1.5		09 15 117 3101	11,6 — Ø17 —

M23



Solder termination



Technical characteristics

Number of contacts 8 A Rated current Rated voltage 160 V Rated impulse voltage 1.5 kV Pollution degree 3 >10⁶ Ω Insulation resistance Limiting temperature -40 ... +125 °C ≥500 Mating cycles 1 mm² max. Conductor cross-section Material (insert) Polyamide (PA) White

Colour (insert)

Technical characteristics

Material (contacts) Copper alloy Gold plated Surface (contacts)

Material flammability class acc.

to UL 94

RoHS compliant with exemption

Specifications and approvals

Identification	Conductor cross-section (mm²)	Part n Male	umber Female	Drawing (dimensions in	ımm)
Circular connectors M23, Signal, Inserts, Solder termination	1 max.	09 15 117 2602	09 15 117 2702	7,5	Ø17 — — — — — — — — — — — — — — — — — — —
				2,7	Ø17

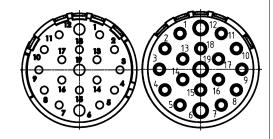


Number of contacts

16

M23

+ 3 additional special contacts Crimp termination



Technical characteristics

Number of contacts 16

Additional contacts + 3 additional special contacts

Rated current 8 A
Rated voltage 100 V
Rated impulse voltage 1.5 kV
Pollution degree 3
Rated current (special contact) 10 A
Rated voltage (special contact) 100 V
Rated impulse voltage (special 5 kV contact)

Pollution degree (special

contact)

Insulation resistance $>10^6 \Omega$

Technical characteristics

Limiting temperature -40 ... +125 °C

Mating cycles ≥500

Conductor cross-section 0.08 ... 1.5 mm² Material (insert) Polyamide (PA)

Colour (insert) White Material flammability class acc. V-0

to UL 94

RoHS compliant with exemption

Specifications and approvals

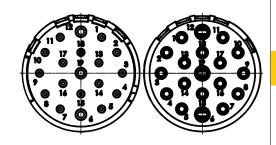
UL 1977 ECBT2.E235076

Identification	Conductor cross-section (mm²)	Part number Male Female		Drawing (dimensions in mm)	
Circular connectors M23, Signal, Inserts, Crimp termination	0.08 1.5	09 15 119 3001	09 15 119 3101	11,6	Ø17
Please order crimp contacts separately. 16x 1 mm 3x 1.5 mm				19,6	Ø17 —
3					

C03



+ 3 additional special contacts Solder termination



Technical characteristics

Number of contacts

+ 3 additional special contacts Additional contacts

Rated current 8 A Rated voltage 100 V Rated impulse voltage 1.5 kV Pollution degree 3 Rated current (special contact) 10 A Rated voltage (special contact) 100 V Rated impulse voltage (special 1.5 kV contact) 3

Pollution degree (special

contact)

Insulation resistance >10⁶ Ω Limiting temperature -40 ... +125 °C

Technical characteristics

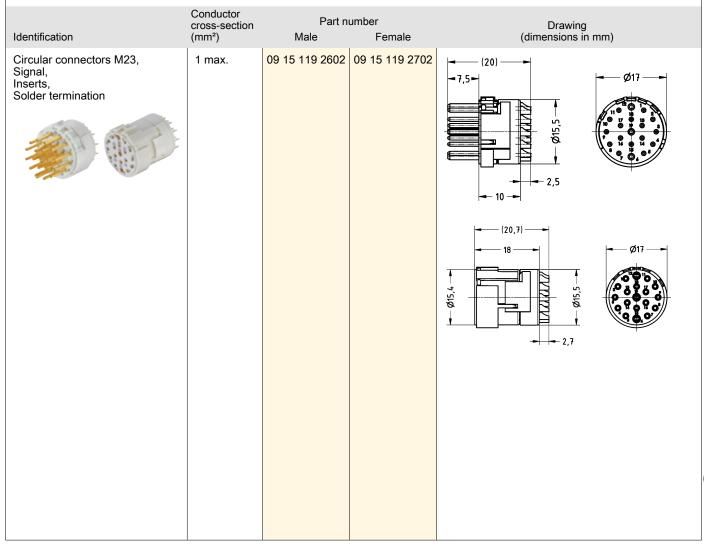
≥500 Mating cycles Conductor cross-section 1 mm² max. Material (insert) Polyamide (PA) Colour (insert) White Material (contacts) Copper alloy Surface (contacts) Gold plated

Material flammability class acc.

to UL 94

RoHS compliant with exemption

Specifications and approvals



M23

Technical characteristics

 $\begin{array}{lll} \text{Contact resistance} & \leq 3 \ m\Omega \\ \text{Conductor cross-section} & 0.08 \dots 0.56 \ \text{mm}^2, \, 0.14 \dots 1 \ \text{mm}^2, \\ 0.75 \dots 1.5 \ \text{mm}^2, \, 0.75 \dots 2.5 \ \text{mm}^2, \\ 0.34 \dots 1 \ \text{mm}^2, \, 0.14 \dots 0.56 \ \text{mm}^2, \\ 0.56 \dots 1 \ \text{mm}^2 \\ \text{Conductor cross-section} & AWG 28 \dots AWG 20, \\ AWG 28 \dots AWG 17, \\ AWG 19 \dots AWG 16, \\ AWG 19 \dots AWG 14, \\ AWG 22 \dots AWG 17, \\ AWG 26 \dots AWG 20, \\ AWG 20 \dots AWG 20, \\ AWG 20 \dots AWG 17 \\ \end{array}$

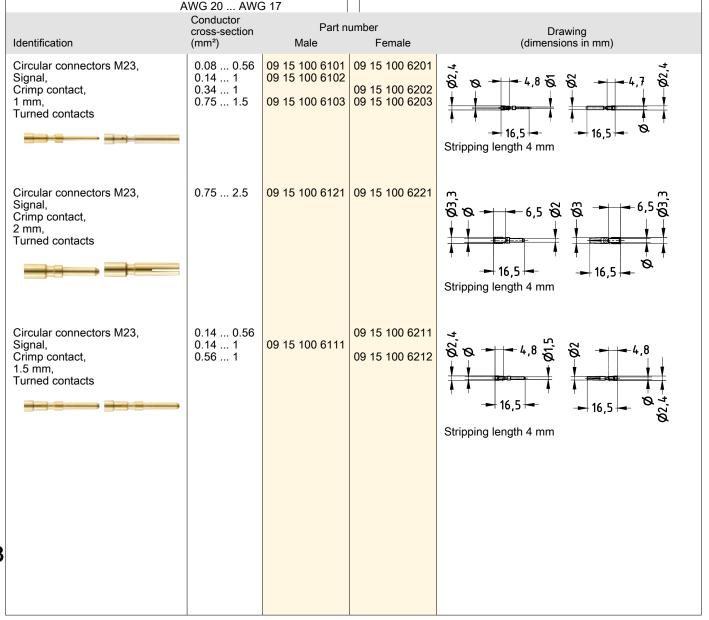
Technical characteristics

Material (contacts) Copper alloy Surface (contacts) Gold plated

RoHS compliant with exemption

Specifications and approvals

EN 60664-1 IEC 61984



23

M23



Features

- · Screw locking
- · ComLock rapid locking
- ComLock-S rapid locking (Compatible to Speedtec from TE)

Technical characteristics

Limiting temperature -40 ... +125 °C

Screw locking, ComLock Locking type

rapid locking, ComLock-S rapid

locking

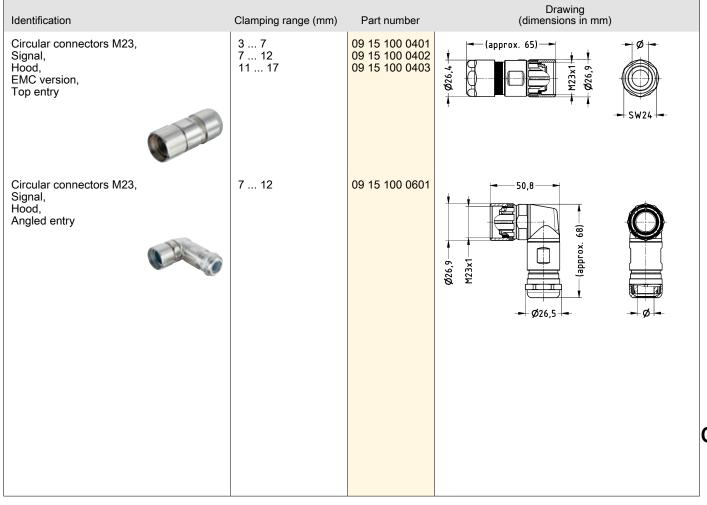
Degree of protection acc. to IEC IP67, in locked position, IP69 / 60529 IPX9K acc. to ISO 20653

Material (hood/housing) Copper-zinc alloy Surface (hood/housing) Nickel plated

Material (seal) Colour (seal) Black

RoHS compliant with exemption

Specifications and approvals



M23 Signal Hoods/Housings



Drawing Identification (dimensions in mm) Clamping range (mm) Part number Circular connectors M23, 7 ... 12 09 15 100 0602 Signal, Hood, EMC version, Angled entry Ø26,4 👆 09 15 100 0603 Circular connectors M23, 7 ... 12 60 Signal, Hood, EMC version, Rotatable, Angled entry (арргох. Ø26 M23x1-🗕 ø26,5 👆 3 ... 7 7 ... 12 Circular connectors M23, 09 15 100 0491 (approx. 68) --Signal, Hood, EMC version, 09 15 100 0492 09 15 100 0493 Top entry, ComLock rapid locking **-** Ø28 • 09 15 100 0481 Circular connectors M23, 3 ... 7 (aprrox. 69) Signal, Hood, 7 ... 12 11 ... 17 09 15 100 0482 09 15 100 0483 EMC version, Top entry, ComLock-S rapid locking SW24-Compatible to Speedtec (TE) 3 ... 7 7 ... 12 11 ... 17 09 15 100 0701 Circular connectors M23, -(approx. 67)-Signal, 09 15 100 0702 Cable to cable housing, 09 15 100 0703 EMC version, Top entry

M23

M23 Signal Hoods/Housings

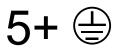


Identification	Clamping range (mm)	Part number	Drawing (dimensions in mm)	
Circular connectors M23, Signal, Cover, for hoods, With chain (100 mm)		09 15 100 9103	- (20,7) - 13,5 - 18 - 18 -	M23
Not compatible to ComLock				
Circular connectors M23, Signal, Cover, for bulkhead mounted housings, for cable to cable housing		09 15 100 9101	12 - XE SZ - 11 - XE SZ - 11 - XE SZ -	
Circular connectors M23,		09 15 100 9102	 12 -	
Signal, Cover, for bulkhead mounted housings, for cable to cable housing, With chain (70 mm)			Ø26,2 (14,7)	
				C03
				° 19
				_ • •

M23 Power inserts

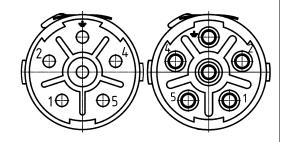


Number of contacts



Crimp termination

Material (insert)



Technical characteristics

Number of contacts 28 A Rated current Rated voltage 600 V Rated impulse voltage 4 kV Pollution degree $>10^{13} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C ≥500 Mating cycles Conductor cross-section 0.14 ... 4 mm²

Polyamide (PA)

Technical characteristics

Colour (insert) Blue Material flammability class acc. V-0

to UL 94 RoHS

RoHS compliant

Specifications and approvals

UL 1977 ECBT2.E235076

Identification	Conductor cross-section (mm²)	Part n Male	umber Female	D (dimen:	rawing sions in mm)
Circular connectors M23, Power, Inserts, Crimp termination	0.14 4	09 15 606 3001	09 15 606 3101	Ø21 —	30,2
Please order crimp contacts separately. 6x 2 mm				8'618	30,2

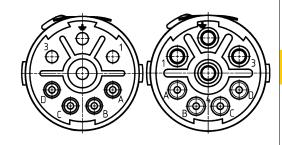
M23



Number of contacts

3+ 😩

+ 4 additional signal contacts Crimp termination



Technical characteristics

Number of contacts 3

Additional contacts + 4 additional signal contacts

Rated current 28 A Rated voltage 600 V Rated impulse voltage 4 kV Pollution degree 3 Rated current (signal) 8 A 300 V Rated voltage (signal) Rated impulse voltage (signal) 2.5 kV Pollution degree (signal) $>10^{13} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C

Technical characteristics

Mating cycles ≥500

Conductor cross-section 0.14 ... 4 mm²
Material (insert) Polyamide (PA)

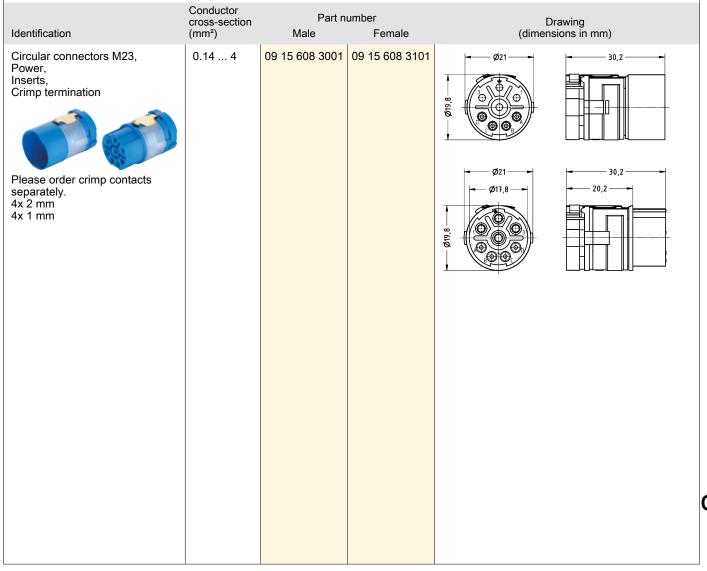
Colour (insert) Blue Material flammability class acc. V-0

to UL 94

RoHS compliant

Specifications and approvals

UL 1977 ECBT2.E235076



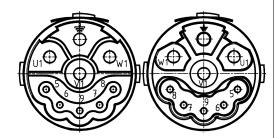
M23 Power inserts



Number of contacts



+ 5 additional signal contacts Crimp termination



≥500

Blue

V-0

compliant

0.14 ... 4 mm²

Polyamide (PA)

Technical characteristics

Number of contacts

+ 5 additional signal contacts Additional contacts

Rated current 28 A Rated voltage 630 V Rated impulse voltage 4 kV Pollution degree 3 Rated current (signal) 10 A 250 V Rated voltage (signal) Rated impulse voltage (signal) 2.5 kV Pollution degree (signal) $>10^{13} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C

Technical characteristics

UL 1977 ECBT2.E235076

Conductor cross-section

Material flammability class acc.

Mating cycles

Material (insert)

Colour (insert)

to UL 94

RoHS

Specifications and approvals

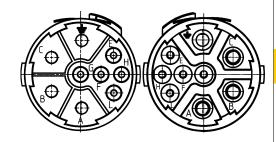
Conductor Part number Drawing cross-section Identification (mm²) Female (dimensions in mm) 09 15 609 3101 Circular connectors M23, 0.14 ... 4 09 15 609 3001 32.4 Power, Inserts, Mating face (A), Crimp termination 32.4 Ø19.7 Please order crimp contacts separately. 4x 2 mm 5x 1 mm



Number of contacts

3+ 😩

+ 5 additional signal contacts Crimp termination



Technical characteristics

Number of contacts 3

Additional contacts + 5 additional signal contacts

Rated current 28 A Rated voltage 630 V Rated impulse voltage 4 kV Pollution degree 3 Rated current (signal) 10 A Rated voltage (signal) 250 V Rated impulse voltage (signal) 2.5 kV Pollution degree (signal) $>10^{13} \Omega$ Insulation resistance Limiting temperature -40 ... +125 °C

Technical characteristics

Mating cycles ≥500

Conductor cross-section 0.14 ... 4 mm² Material (insert) Polyamide (PA)

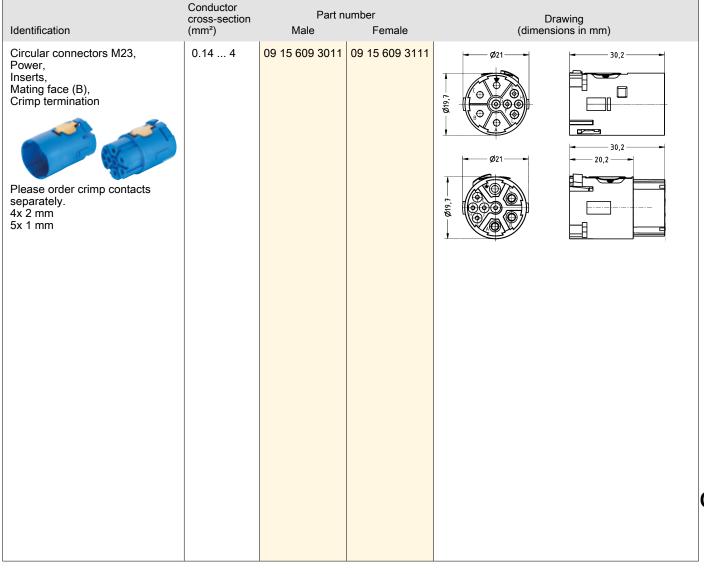
Colour (insert) Blue Material flammability class acc. V-0

to UL 94

RoHS compliant

Specifications and approvals

UL 1977 ECBT2.E235076



M23 Power inserts



Number of contacts

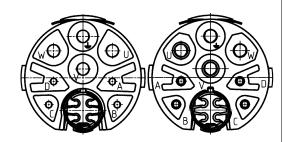
Rated voltage (data)

Rated impulse voltage (data)

3+



+ 4 additional signal contacts + 4 Data Crimp termination



Technical characteristics

Number of contacts + 4 additional signal contacts, Additional contacts + 4 Data Rated current 28 A 630 V Rated voltage Rated impulse voltage 4 kV Pollution degree 3 Rated current (signal) 8 A Rated voltage (signal) 300 V 2.5 kV Rated impulse voltage (signal) Pollution degree (signal) 3 Rated current (data) 2 A

60 V

0.5 kV

Technical characteristics

Pollution degree (data) 3 Limiting temperature -40 ... +125 °C Mating cycles ≥500

Conductor cross-section 0.08 ... 4 mm²
Material (insert) Polyamide (PA)
Colour (insert) Blue

Material flammability class acc. V-0 to UL 94

RoHS compliant

Specifications and approvals

UL 1977 ECBT2.E235076

	Identification	Conductor cross-section (mm²)	Part no Male	umber Female	Drawing (dimensions in mm)
	Circular connectors M23, Hybrid, Inserts, Crimp termination	0.08 4	09 15 612 3001	09 15 612 3101	35,9 Ø21 Ø19,7 Ø19,7
	Please order crimp contacts separately. 4x 2 mm 4x 1 mm 4x 0.6 mm				35,9 30,2 Ø19,7
3					

M23

Technical characteristics

Contact resistance

Conductor cross-section

Material (contacts) Surface (contacts) RoHS

≤3 mΩ

0.08 ... 0.34 mm², 0.14 ... 1 mm², 0.75 ... 2.5 mm², 2.5 ... 4 mm²

Copper alloy

Gold plated compliant, compliant with

exemption

Specifications and approvals

EN 60664-1 IEC 61984

Identification	Conductor cross-section (mm²)	Part n	umber Female	Drawing (dimensions in mm)
Circular connectors M23, Power, Crimp contact, 0.6 mm, Turned contacts	0.08 0.34	09 15 600 6191	09 15 600 6291	4,5 % 4,5 % 4,5 % 4,5 % 4,5 % 6 % 6 % 6 % 6 % 6 % 6 % 6 % 6 % 6 %
Circular connectors M23, Power, Crimp contact, 1 mm, Turned contacts	0.14 1	09 15 600 6101	09 15 600 6201	Stripping length 4 mm
Circular connectors M23, Power, Crimp contact, 2 mm, Turned contacts	0.75 2.5 2.5 4	09 15 600 6121 09 15 600 6122	09 15 600 6221 09 15 600 6222	7,8 7,8 7,8 7,8 7,8 7,8 7,8 7,8 7,8 7,8

M23

Features

- · Screw locking
- ComLock rapid locking
- ComLock-S rapid locking (Compatible to Speedtec from TE)

Technical characteristics

Limiting temperature -40 ... +125 °C

Locking type Screw locking, ComLock

rapid locking, ComLock-S rapid

locking

Degree of protection acc. to IEC

IP67 / IP69 / IPX9K acc. to ISO 20653, in locked position

Copper-zinc alloy

Material (hood/housing) Surface (hood/housing)

Nickel plated **NBR**

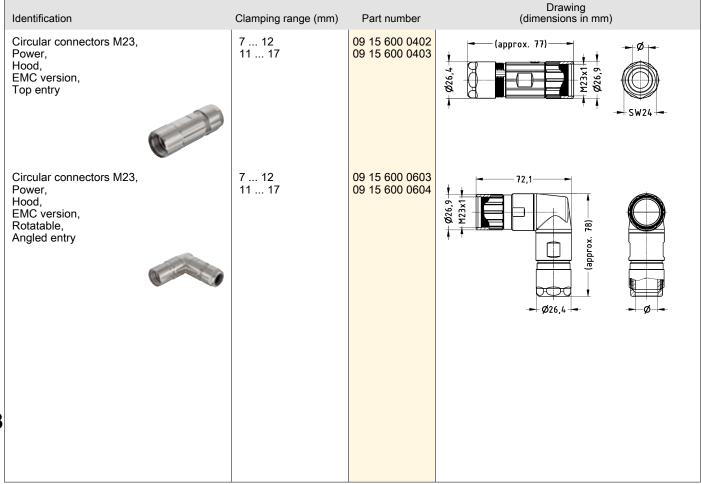
Material (seal) Colour (seal) Black RoHS

compliant with exemption,

compliant

Specifications and approvals

UL 1977 ECBT2.E235076



M23 Power Hoods/Housings



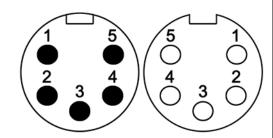
Identification	Clamping range (mm)	Part number	Drawing (dimensions in mm)	
Circular connectors M23, Power, Hood, EMC version, Top entry, ComLock rapid locking	7 12 11 17	09 15 600 0492 09 15 600 0493	(approx. 77) SW24 Ø28	M23
Circular connectors M23, Power, Hood, EMC version, Top entry, ComLock-S rapid locking Compatible to Speedtec (TE)	7 12 11 17	09 15 600 0482 09 15 600 0483	(approx. 80) SW24 Ø28	
Circular connectors M23, Power, Cable to cable housing, EMC version, Top entry	7 12 11 17	09 15 600 0702 09 15 600 0703	(approx. 72)	
Circular connectors M23, Power, Cover, for hoods, With chain (100 mm)		09 15 600 9103	- (22,2) - 15 - 19,5	
Circular connectors M23, Power, Cover, for bulkhead mounted housings, for cable to cable housing, With chain (70 mm)		09 15 600 9102	Ø26 11 XE CE (14,7)	
				C03 23

7/8" HARAX®	HARTING	
Contents	Page	
7/8" HARAX®	C03 35.2	7
		C0 35



Number of contacts

HARAX® connection technology Unshielded



Technical characteristics

Number of contacts Rated current 10 A 230 V Rated voltage conductor-earth Rated voltage conductor-con-400 V ductor 4.8 kV Rated impulse voltage Pollution degree 3 Insulation resistance >108 Ω Contact resistance ≤10 mΩ ≥100 Mating cycles Wire outer diameter ≤2.8 mm Locking type Screw locking

Technical characteristics

Degree of protection acc. to IEC IP65 / IP67, when mated

0.75 ... 1.5 mm² Conductor cross-section Conductor cross-section AWG 18 ... AWG 16 Cable diameter 6.8 ... 12.5 mm Tightening torque 1.5 Nm

Material (insert)

Polyamide (PA), Thermoplastic polyurethane (TPU)

Material (hood/housing) Polyamide (PA), Zinc die-cast,

Thermoplastic polyurethane

(TPU)

Copper alloy Material (contacts) Surface (contacts) Gold plated

RoHS compliant with exemption

	Identification	Conductor cross-section (mm²)	Part no Male	umber Female	Drawing (dimensions in mm)
	Circular connectors 7/8", Cable connector, Straight, HARAX® connection technology, Unshielded	0.75 1.5	21 04 116 1505	21 04 116 2505	Gesomtlange im verschraubten Zustand ca.73mm complete lenght when assembled app. 73mm SW127 SW127 Width across I/als 22
					Gesamtlänge im verschraubten Zustand co.70mm complete length when assembled app. 70mm William SW22/ width across flats 22
3					

Cable assemblies



Contents	Page
M8 system cables	CAB 03.02
M8 system cables D-coding	CAB 03.04
M12 system cables A-coding	CAB 03.06
M12 system cables B-coding	CAB 03.12
M12 system cables D-coding	CAB 03.14
M12 system cables X-coding	CAB 03.22
M12 system cables L-coding	CAB 03.30
7/8" system cables	CAB 03.32
M23 system cables, signal	CAB 03.34
M23 system cables, power	CAB 03.36

Cable

M8 system cables



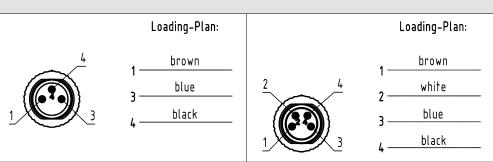
Cable



Technical characteristics

System cables with M8 circular connectors without PE

	3 p	oles	4 p	oles
	PVC	PUR	PVC	PUR
Rated voltage	max. 60 V AC/DC	max. 60 V AC/DC	max. 30 V AC/DC	max. 30 V AC/DC
Rated currrent / contact	max. 3 A @ +40 °C			
Screw locking	M8x1, self securing	M8x1, self securing	M8x1, self securing	M8x1, self securing
Recommended torque	0.4 Nm	0.4 Nm	0.4 Nm	0.4 Nm
Temperature range (working and storage)	-30 °C +80 °C			
Degree of protection	IP67	IP67	IP67	IP67
Number of wires / wire gauge	3 x 0.25 mm ²			
Conductor insulation	PVC (bn, bu, bk)	PVC (bn, bu, bk)	PVC (bn, wh, bu, bk)	PVC (bn, wh, bu, bk)
Arrangement of insulated strands	32 x Ø 0.1 mm			
Sheath	PVC	PUR (UL, CSA)	PVC	PUR (UL, CSA)
Sheath colour	grey	black	grey	black
Outer diameter	Ø 4.40 ± 0.15 mm	Ø 4.40 ± 0.15 mm	Ø 4.70 ± 0.15 mm	Ø 4.40 ± 0.15 mm
Useable as trailing cable	no	yes	no	yes
Halogen free acc. to	_	DIN VDE 0472 part 815	-	DIN VDE 0472 part 815
Flame retardant acc. to	DIN EN 60 332-2-2	cUL20549	DIN EN 60332-2-2	cUL20549
Oil-resistant	_	DIN EN 60811-2-1	_	-

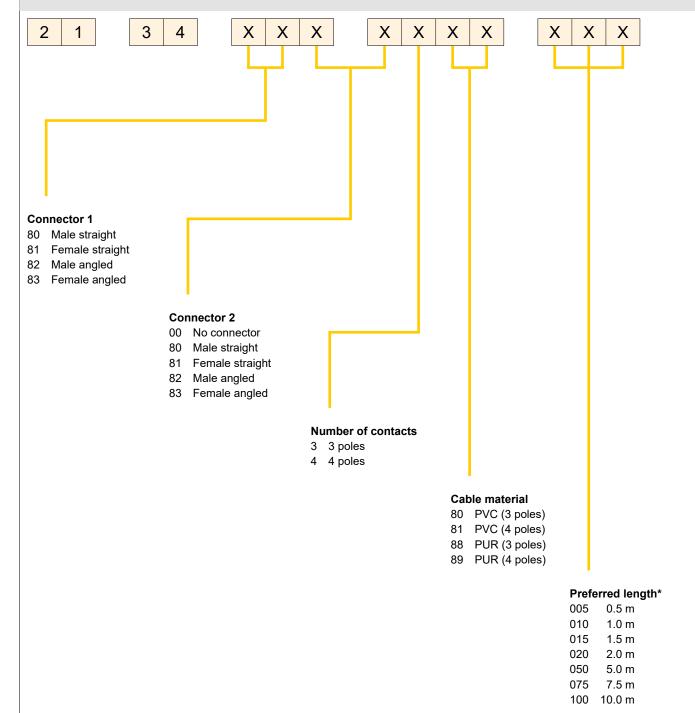


M8 system cables





Part number definition



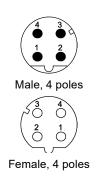
^{*} Other cable lengths on request!

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CAE 03



Cable

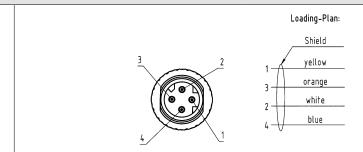




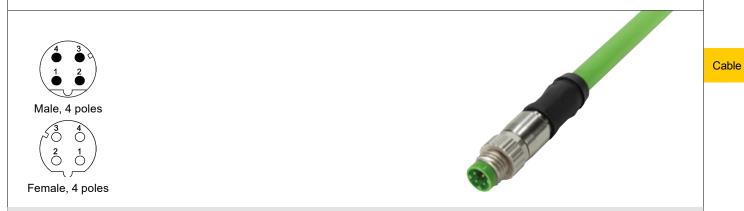
Technical characteristics

System cables with M8 circular connectors shielded, D-coding

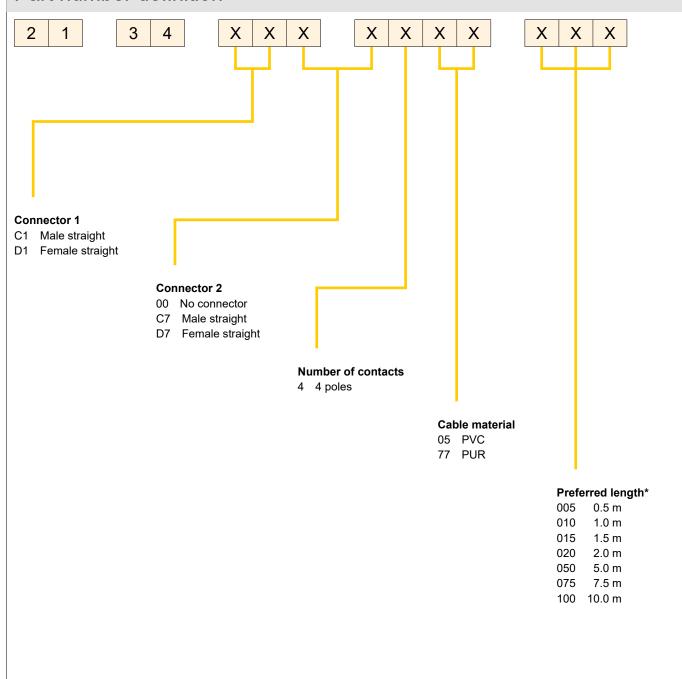
	4 poles	4 poles
	PVC	PUR
Rated voltage	max. 50 V AC/60 V DC	max. 50 V AC/60 V DC
Rated currrent / contact	max. 4 A @ +40 °C	max. 4 A @ +40 °C
Screw locking	M8x1, self securing	M8x1, self securing
Recommended torque	0.4 Nm	0.4 Nm
Temperature range (working and storage)	-30 °C +70 °C	-30 °C +70 °C
Degree of protection	IP67	IP67
Number of wires / wire gauge	4 x AWG22	4 x AWG22
Conductor insulation	PE (wh, ye, bu, or)	PE (wh, ye, bu, or)
Arrangement of insulated strands	7 x Ø 0.25 mm	7 x Ø 0.25 mm
Sheath	PVC	PUR
Sheath colour	green	green
Outer diameter	Ø 6.20 ± 0.20 mm	Ø 6.20 ± 0.20 mm
Useable as trailing cable	no	yes
Halogen free acc. to	-	IEC 60754
Flame retardant acc. to	UL 1685	IEC 60332-1-2 and UL 2556 VW1
Oil-resistant	IEC 60811-2-1	IEC 60811-2-1 and UL13







Part number definition



^{*} Other cable lengths on request!



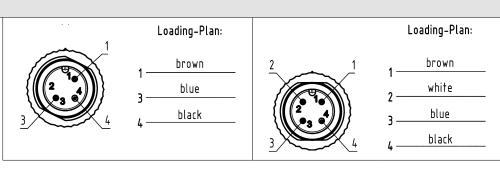
Cable



Technical characteristics

System cables with M12 circular connectors without PE, A-coding

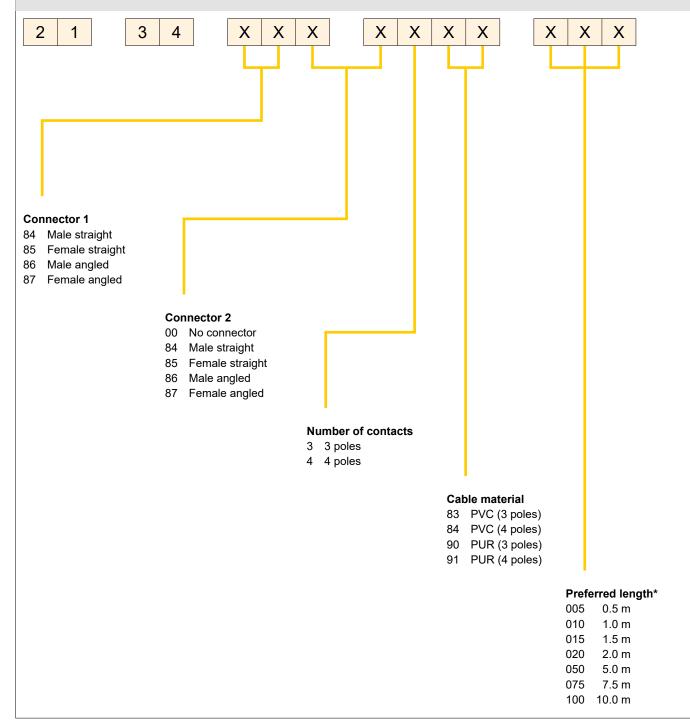
	3 pc	oles	4 poles		
	PVC	PUR	PVC	PUR	
Rated voltage	max. 250 V AC/DC				
Rated currrent / contact	max. 4 A @ +40 °C				
Screw locking	M12x1, self securing	M12x1, self securing	M12x1, self securing	M12x1, self securing	
Recommended torque	0.6 Nm	0.6 Nm	0.6 Nm	0.6 Nm	
Temperature range (working and storage)	-30 °C +80 °C				
Degree of protection	IP67	IP67	IP67	IP67	
Number of wires / wire gauge	3 x 0.34 mm ²	3 x 0.34 mm ²	4 x 0.34 mm ²	4 x 0.34 mm ²	
Conductor insulation	PVC (bn, bu, bk)	PP (bn, bu, bk)	PVC (bn, wh, bu, bk)	PP (bn, wh, bu, bk)	
Arrangement of insulated strands	42 x Ø 0.1 mm				
Sheath	PVC	PUR (UL, CSA)	PVC	PUR (UL, CSA)	
Sheath colour	grey	black	grey	black	
Outer diameter	Ø 4.4 ± 0.15 mm	Ø 4.4 ± 0.15 mm	Ø 4.7 ± 0.15 mm	Ø 4.7 ± 0.15 mm	
Useable as trailing cable	no	yes	no	yes	
Halogen free acc. to	-	DIN VDE 0472 part 815	-	DIN VDE 0472 part 815	
Flame retardant acc. to	DIN EN 60332-2-2	cUL20549	DIN EN 60332-2-2	cUL20549	
Oil-resistant	_	_	_	DIN EN 60811-2-1	







Part number definition



^{*} Other cable lengths on request!



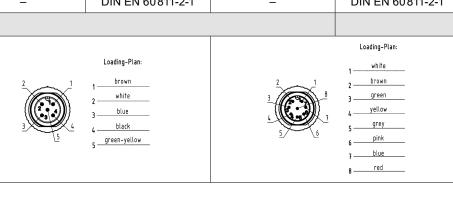
Cable



Technical characteristics

System cables with M12 circular connectors without PE, A-coding

	5 poles	5 poles	8 poles	8 poles
	PVC	PUR	PVC	PUR
Rated voltage	max. 60 V AC/DC	max. 60 V AC/DC	max. 30 V AC/DC	max. 30 V AC/DC
Rated currrent / contact	max. 4 A @ +40 °C	max. 4 A @ +40 °C	max. 2 A @ +40 °C	max. 2 A @ +40 °C
Screw locking	M12x1, self securing	M12x1, self securing	M12x1, self securing	M12x1, self securing
Recommended torque	0.6 Nm	0.6 Nm	0.6 Nm	0.6 Nm
Temperature range (working and storage)	-30 °C +80 °C	-30 °C +80 °C	-30 °C +80 °C	-30 °C +80 °C
Degree of protection	IP67	IP67	IP67	IP67
Number of wires / wire gauge	5 x 0.34 mm ²	5 x 0.34 mm ²	8 x 0.25 mm ²	8 x 0.25 mm ²
Conductor insulation	PVC (bn, wh, bu, bk, gn/ye)	PP (bn, wh, bu, bk, gn/ye)	PVC (wh, bn, gn, ye, gy, pk, bu, rd)	PP (wh, bn, gn, ye, gy, pk, bu, rd)
Arrangement of insulated strands	42 x Ø 0.1 mm	42 x Ø 0.1 mm	32 x Ø 0.1 mm	32 x Ø 0.1 mm
Sheath	PVC	PUR	PVC	PUR
Sheath colour	grey	black	grey	black
Outer diameter	Ø 5.2 ± 0.15 mm	Ø 5.1 ± 0.15 mm	Ø 6.2 ± 0.2 mm	Ø 6.0 ± 0.2 mm
Useable as trailing cable	no	yes	no	yes
Halogen free acc. to	_	DIN VDE 0472 part 815	_	DIN VDE 0472 part 815
Flame retardant acc. to	DIN EN 60 332-2-2	cULus 20549	DIN EN 60332-2-2	cULus 20549
Oil-resistant	_	DIN EN 60811-2-1	-	DIN EN 60811-2-1
		,		

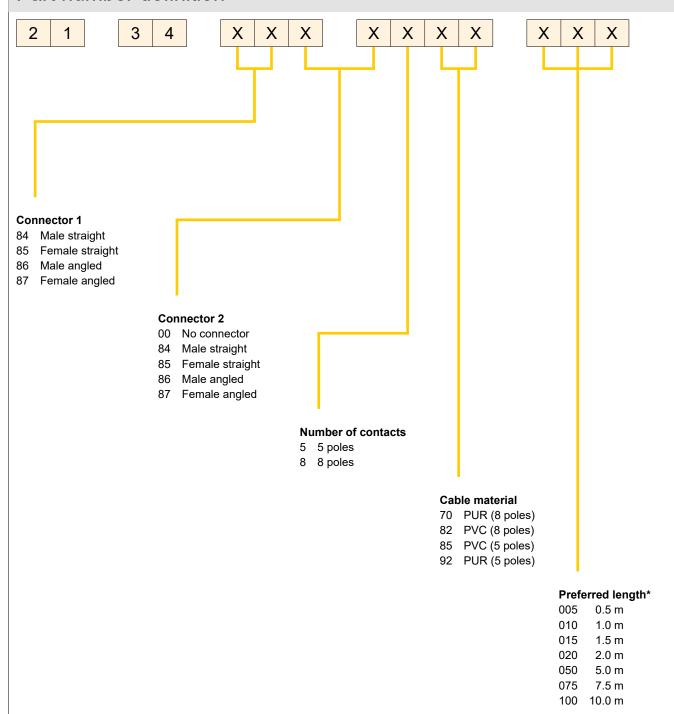








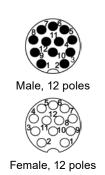
Part number definition



^{*} Other cable lengths on request!



Cable

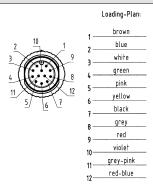




Technical characteristics

System cables with M12 circular connectors without PE, A-coding

	12 poles		
	PVC	PUR	
Rated voltage	max. 30 V AC/DC	max. 30 V AC/DC	
Rated currrent / contact	max. 1.5 A @ +40 °C	max. 1.5 A @ +40 °C	
Screw locking	M12x1, self securing	M12x1, self securing	
Recommended torque	0.6 Nm	0.6 Nm	
Temperature range (working and storage)	-30 °C +80 °C	-30 °C +80 °C	
Degree of protection	IP67	IP67	
Number of wires / wire gauge	12 x 0.14 mm ²	12 x 0.14 mm ²	
Conductor insulation	PVC (wh, bu, bn, gy, rd, bk, ye, pk, gn, vt, rd/bu, gy/pk)	PP (wh, bu, bn, gy, rd, bk, ye, pk, gn, vt rd/bu, gy/pk)	
Arrangement of insulated strands	18 x Ø 0.1 mm	18 x Ø 0.1 mm	
Sheath	PVC	PUR (UL, CSA)	
Sheath colour	grey	black	
Outer diameter	Ø 6.2 ± 0.2 mm	Ø 6.1 ± 0.2 mm	
Useable as trailing cable	no	yes	
Halogen free acc. to	-	DIN VDE 0472 part 815	
Flame retardant acc. to	DIN EN 60332-1-2	cUL20549	
Oil-resistant	DIN EN 60811-2-1	_	

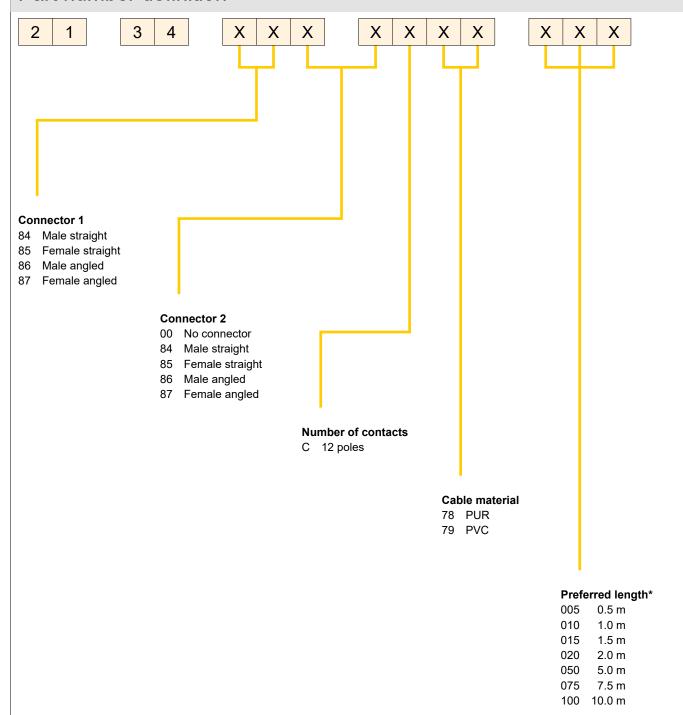






Female, 12 poles

Part number definition



^{*} Other cable lengths on request!

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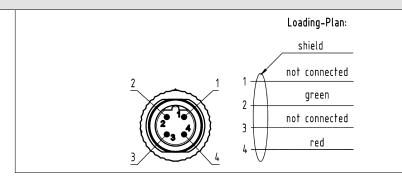
Cable



Technical characteristics

System cables with M12 circular connectors shielded, B-coding

	4 poles		
	PVC	PUR	
Rated voltage	max. 160 V AC/DC	max. 160 V AC/DC	
Rated currrent / contact	max. 4 A @ +40 °C	max. 4 A @ +40 °C	
Screw locking	M12x1, self securing	M12x1, self securing	
Recommended torque	0.6 Nm	0.6 Nm	
Temperature range (working and storage)	-30 °C +80 °C	-30 °C +80 °C	
Degree of protection	IP67	IP67	
Number of wires / wire gauge	2 x AWG 22	2 x AWG 24 PE (rd, gn)	
Conductor insulation	PVC (rd, gn)		
Arrangement of insulated strands	1 x Ø 0.65 mm	19 x Ø 0.14 mm	
Sheath	PVC	PUR (UL, CSA)	
Sheath colour	violet	violet	
Outer diameter	Ø 8.0 ± 0.4 mm Ø 8		
Useable as trailing cable	no	yes	
Halogen free acc. to	-	DIN VDE 0472 part 815	
Flame retardant acc. to	DIN EN 60 332-1-2	DIN EN 60332-1-2	
Oil-resistant	IEC 80811-2-1 (4h/60°C)	DIN EN 60811-2-1	

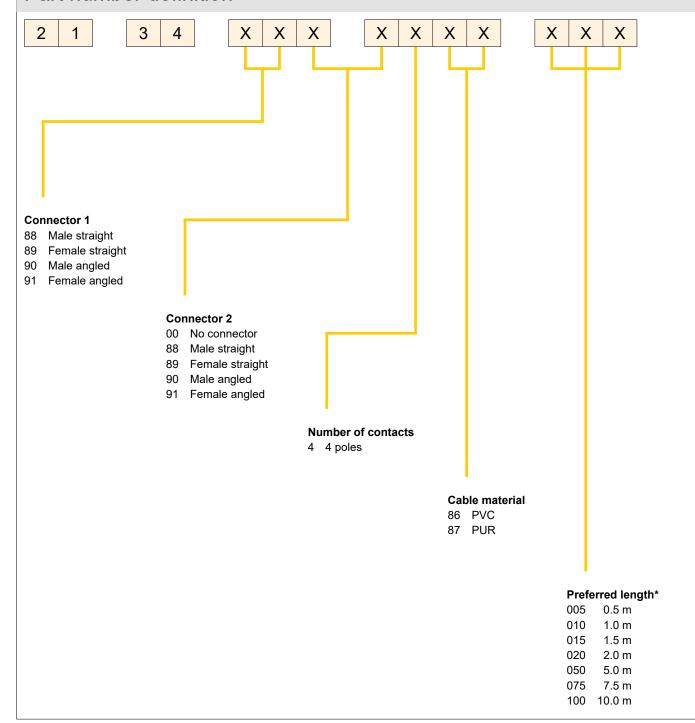


CAB 03 .





Part number definition



^{*} Other cable lengths on request!



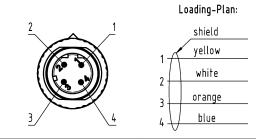
Cable



Technical characteristics

System cables with M12 circular connectors shielded, D-coding

	4 poles		
	PVC	PUR max. 160 V AC/DC max. 4 A @ +40 °C	
Rated voltage	max. 160 V AC/DC		
Rated currrent / contact	max. 4 A @ +40 °C		
Screw locking	M12x1, self securing	M12x1, self securing	
Recommended torque	0.6 Nm	0.6 Nm	
Temperature range (working and storage)	-30 °C +80 °C	-30 °C +80 °C	
Degree of protection	IP67	IP67	
Number of wires / wire gauge	4 x AWG 22	4 x AWG 22 PE (ye, wh, og, bu) 7 x Ø 0.25 mm (AWG 22)	
Conductor insulation	PE (ye, wh, og, bu)		
Arrangement of insulated strands	7 x Ø 0.25 mm (AWG 22)		
Sheath	PVC	PUR (UL, CSA)	
Sheath colour	green	green	
Outer diameter	Ø 6.5 ± 0.2 mm	Ø 6.5 ± 0.2 mm	
Useable as trailing cable	no	yes	
Halogen free acc. to	-	IEC 60754	
Flame retardant acc. to	UL 1685 (CSA FT4)	IEC 60332-1-2 und UL 2556 VW1	
Oil-resistant	IEC 80811-2-1 (4h/70°C)	IEC 60811-2-1 und UL13	



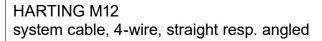


M12 system cables D-coding Cable Male, 4 poles Female, 4 poles Part number definition 2 1 3 4 Χ Χ Χ Χ Χ Χ Χ Χ Χ Χ **Connector 1** 92 Male straight 93 Female straight 94 Male angled 95 Female angled **Connector 2** 00 No connector 92 Male straight 93 Female straight 94 Male angled 95 Female angled **Number of contacts** 4 4 poles Cable material 05 PVC 77 PUR Preferred length* 005 0.5 m 1.0 m 010 015 1.5 m 020 2.0 m CAB 050 5.0 m 075 7.5 m 100 10.0 m

^{*} Other cable lengths on request!



Cable



Technical characteristics **Features**

 Connector types M12 D-coding, connector straight resp. angled Category Cat. 5

 Number of wires Wiring 1:1

• Sheath material Elastomer,

electron beam cross-linked

Application

- · For harsh industrial environments
- · For installation in railway applications

Benefits

- · Robust design
- Protection degree IP65/IP67
- Fire protection acc. to EN 45545-1, -2 and -5

HARTING M12 D-coding, Connector types

overmoulded

4 x AWG 22/7, stranded Railway cords type

Sheath material Elastomer,

electron beam cross-linked

Wiring 4 pole, 1:1

Transmission performance Class D up to 100 MHz acc. to ISO/IEC 11801,

EN 50173-1

Transmission rate 10/100 Mbit/s

Shielding Fully shielded,

360° shielding contact

Operating temperature range

-40 °C ... +85 °C fix operation

Colour Black or blue





HARTING M12 system cable, 4-wire, straight resp. angled

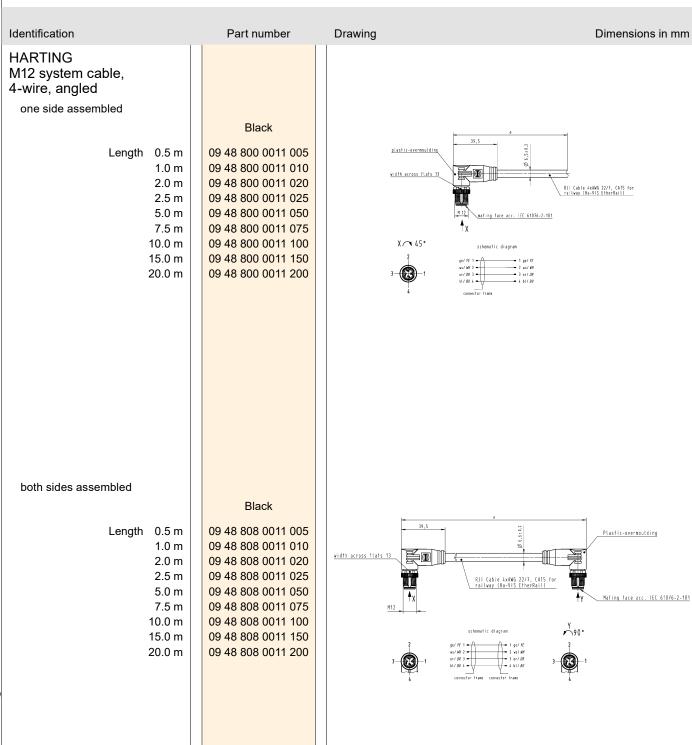


Identification	Part number	Drawing Dimensions in mm	ı
HARTING M12 system cable, 4-wire, straight			
one side assembled			
	Black		
Longth O.F. ma			
Length 0.5 m	09 48 220 0011 005		
1.0 m 2.0 m	09 48 220 0011 010 09 48 220 0011 020		
2.0 m	09 48 220 0011 025	48,7 ~ ~ ~	
5.0 m	09 48 220 0011 023	mating face acc. IEC 61076-2-101	
7.5 m	09 48 220 0011 075	X = I I I I I I I I I I I I I I I I I I	
10.0 m	09 48 220 0011 100	plastic-overnoulding RJI Cable 4xANG 22/7, CATS for relively (Ha-WIS EtherBail)	
15.0 m	09 48 220 0011 150	\	
20.0 m	09 48 220 0011 200		
		X schematic diagram	
		9e/ H: 1	
	Blue	SO W 1 - 4 SI F 80 CONNECTOR Travel	
Length 0.5 m	21 33 390 0413 005		
1.0 m	21 33 390 0413 003		
2.0 m	21 33 390 0413 010		
2.5 m	21 33 390 0413 025		
5.0 m	21 33 390 0413 050		
7.5 m	21 33 390 0413 075		
10.0 m	21 33 390 0413 100		
15.0 m	21 33 390 0413 150		
20.0 m	21 33 390 0413 200		
both sides assembled			
	Black		
Length 0.5 m	09 48 222 2011 005	48,7	
1.0 m	09 48 222 2011 005	Plastic-overmoulding	
2.0 m	09 48 222 2011 010	≅ X ► CONTRACTOR OF THE STATE	
2.5 m	09 48 222 2011 025	width across flats 13 Mating face acc. IEC 61076-2-10	,
5.0 m	09 48 222 2011 050	RJI Cable AwAMG 22/7,CAT 5 for railway,(Ha-VIS EtherRail)	
7.5 m	09 48 222 2011 075		
10.0 m	09 48 222 2011 100	schenatic diagram	
15.0 m	09 48 222 2011 150	2 get 7E 1 - 1 get 7E vst 80 1 - 2 vst 80	
20.0 m	09 48 222 2011 200	3 (3) -1 or / or 3	
		4 connector frame connector frame	
			-



Cable

HARTING M12 system cable, 4-wire, straight resp. angled



03 18

Other cable lengths on request!





HARTING M12/RJ45 system cable, 4-wire, straight

Identification Part number Drawing Dimensions in mm **HARTING** M12/RJ45 system cable, 4-wire both sides assembled Black Length 1.0 m 09 48 022 2011 010 1.5 m 09 48 022 2011 015 2.0 m 09 48 022 2011 020 3.0 m 09 48 022 2011 030 Mating face RJ45 acc. to IEC 60603-7 5.0 m 09 48 022 2011 050 7.5 m 09 48 022 2011 075 10.0 m 09 48 022 2011 100 15.0 m 09 48 022 2011 150 20.0 m 09 48 022 2011 200 CAB

Other cable lengths on request!

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Cable



HARTING M12 system cable, 4-wire, straight, PushPull Press & Go

Features Technical characteristics

Connector types M12 D-coding PushPull

• Category Cat. 5

• Number of wires 4

• Wiring 1:1

• Sheath material Elastomer,

electron beam cross-linked

Application

- For harsh industrial environments
- For installation in railway applications

Benefits

- · Robust design
- Protection degree IP65/IP67
- Fire protection acc. to EN 45545-1, -2 and -5
- M12 PushPull for a fast and vibration-free connection

Connector types HARTING M12 D-coding PushPull

Railway cords type 4 x AWG 22/7, stranded

Sheath material Elastomer,

electron beam cross-linked

Wiring 4 pole, 1:1

Transmission performance Class D up to 100 MHz

acc. to ISO/IEC 11801,

EN 50 173-1

Transmission rate 10/100 Mbit/s

Shielding Fully shielded,

360° shielding contact

Operating temperature range

fix operation -40 °C ... +85 °C

Colour Black

	Identification	Part number	Drawing	Dimensions in mm
	HARTING M12 system cable, 4-wire both sides assembled			
		Black		
	Length 1.0 m 1.5 m 2.0 m 3.0 m 5.0 m	21 33 232 3401 010 21 33 232 3401 015 21 33 232 3401 020 21 33 232 3401 030 21 33 232 3401 050	78 G	
3	10.0 m	21 33 232 3401 100	Mating face acc. to IEC 61076-2-101	M12 PushPull.crimp male 4-pale D-coded/

Notes	HARTING	
		Cabl
		CAE
		CAE 03 21



Cable

Press & Go M12 system cable, 8-wire, Cat. 6_A

M12 X-coding

Cat. 6_A

PVC/PUR

1:1

Technical characteristics

Connector types Press & Go M12 connector X coding acc. to IEC 61076-2-109

Cable types PVC: 4 x 2 x AWG 26/7, cat. 6_A,

S/FTP, shielded

The same

PUR: 4 x 2 x AWG 26/7, cat. 7,

S/FTP, shielded

Sheath material PVC/PUR

Wiring 8 pole, 1:1

Transmission performance Category 6_A,

Class E_A up to 500 MHz acc. to ISO/IEC 11801,

EN 50 173-1

Transmission rate 10/100 Mbit/s

1/ 10 Gbit/s

Shielding Fully shielded,

360° shielding contact

Operating

temperature range -40 °C ... +70 °C

Colour Yellow

Application

Features

Connector types

· Number of wires

· Sheath material

Category

Wiring

- Industrial cabling IP65/IP67
- Transmission up to 10 Gbit/s
- · Camera systems

Benefits

- Very robust metal housing M12 with degree of protection IP65/IP67
- Vibration proof crimp connection
- Maximum data rates through the configuration of the contacts in conformance with Ethernet technology
- Minimal interaction and perfect shielding through paired shielding of the contacts
- Fault proof connection through coding of the connector face. A connection error with other 8 pole M12's is impossible
- PROFINET compliant Type X mating face
- Oil proof acc. to EN 60811-2-1 (PUR)

03 22



Cable

Press & Go M12 system cable, 8-wire, Cat. 6_A



Identification		Part n PUR	number PVC	
Press & Go M12 system cable, 8-wire one side assembled				
Le	ength 1.0 m 2.0 m 3.0 m 5.0 m 10.0 m	21 33 050 0850 010 21 33 050 0850 020 21 33 050 0850 030 21 33 050 0850 050 21 33 050 0850 100	21 33 050 0855 010 21 33 050 0855 020 21 33 050 0855 030 21 33 050 0855 050 21 33 050 0855 100	
both sides assembled	ength 1.0 m 2.0 m 3.0 m 5.0 m 10.0 m	21 33 050 5850 010 21 33 050 5850 020 21 33 050 5850 030 21 33 050 5850 050 21 33 050 5850 100	21 33 050 5855 010 21 33 050 5855 020 21 33 050 5855 030 21 33 050 5855 050 21 33 050 5855 100	



Cable



M12/RJ45 system cable, 8-wire, Cat. 6_A

Features

Connector types M12 X-coding to RJ45
 Category Cat. 6_A

Number of wiresWiring1:1

• Sheath material PVC/PUR

Application

- Industrial cabling IP65/IP67
- Transmission up to 10 Gbit/s
- · Camera systems

Benefits

- Very robust metal housing M12 with degree of protection IP65
- Vibration proof crimp connection
- Maximum data rates through the configuration of the contacts in conformance with Ethernet technology
- Minimal interaction and perfect shielding through paired shielding of the contacts
- Fault proof connection through coding of the connector face.
 A connection error with other 8 pole M12's is impossible
- PROFINET compliant Type X mating face

Technical characteristics

Connector types har-speed M12 connector

X coding acc. to IEC 61076-2-109

and RJ45 Gigalink

Cable types 4 x 2 x AWG 26/7, cat. 6_A,

S/FTP, shielded

Sheath material PVC/PUR

Wiring 8 pole, 1:1

Transmission performance Category 6_A,

Class E_A up to 500 MHz acc. to ISO/IEC 11 801,

EN 50173-1

Transmission rate 10/100 Mbit/s

1/ 10 Gbit/s

Shielding Fully shielded,

360° shielding contact

Operating

temperature range

-40 °C ... +70 °C

Colour Yellow

Part number Identification PUR PVC							
M12/RJ45 system cable, 8-wire	Yellow	Yellow					
Length 0.5 m 1.0 m 1.5 m 2.0 m 2.5 m 5.0 m 7.5 m 10.0 m	09 48 932 3756 005 09 48 932 3756 010 09 48 932 3756 015 09 48 932 3756 020 09 48 932 3756 025 09 48 932 3756 050 09 48 932 3756 075 09 48 932 3756 100	09 48 932 3757 005 09 48 932 3757 010 09 48 932 3757 015 09 48 932 3757 020 09 48 932 3757 025 09 48 932 3757 050 09 48 932 3757 075 09 48 932 3757 100					

CAB 03 ...





Female, 8 poles

har-speed M12 Panel feed-throughs with cable



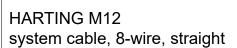
Identification	Part number	Drawing	Dimensions in mm
har-speed M12 PFT with cable		vidth across flats 16 vidth across	
with 0.3 m cable "Cat. 7 _A (2 x AWG 27/7) PIMF". Other lengths on request	21 33 080 0850 003		
with 0.3 m cable "HA-VIS EtherRail Cat. 7 4 x (2 x AWG 24/7)". Other lengths on request	21 33 070 0853 003		

Other cable lengths on request!

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Cable



Features

• Connector type M12 X-coding

Category 6_ANumber of wires 8

• Wire design AWG 24/7

• Wire diameter (8.1 ± 0.4) mm

• Sheath material Elastomer,

electron beam cross-linked

Application

- For harsh industrial environments
- · For installation in railway applications

Benefits

- Transmission of Gigabit and 10 Gigabit Ethernet acc. IEEE 802.3 and multimedia services
- Fire protection acc. EN 45545-1, -2 and -5, flame retardant and heat resistant acc. DIN 5510 (1-4) and EN 50264-1
- UV resistant, RoHS conform, halogen free LSZH

Technical characteristics

Connector types HARTING M12 X-coding

Cable structure 4 x 2, Twisted Pair, shielded, PIMF

Railway cords type 4 x 2 x AWG 24/7

Category 7, Class F up to 600 MHz acc. to ISO/IEC 11801 and EN 50173-1

Sheath material Elastomer, electron beam,

cross-linked

Cable sheath diameter (8.1 ± 0.4) mm

Transmission performance Category 6A, Class EA

up to 500 MHz acc. to ISO/IEC 11801 and EN 50173-1

Transmission rate 1/10 Gbit/s

Shielding Paired shielded with additional

cable shield

Operating

temperature range -40 °C ... +80 °C

Colour Black







HARTING M12 system cable, 8-wire, straight



Identification	Part number	Drawing Dimensions in mm
		Drawing Dimensions in thin
HARTING M12 system cable,		
8-wire, Slim Design		a
both sides assembled		46
	Black	
Length 0.5 m	21 33 010 1853 005	
1.0 m	21 33 010 1853 010	
2.0 m	21 33 010 1853 020	Mating face acc. to IEC 61076-2-109 M12 X-coded Slim Design, / crimp male straight 8-pole
2.5 m	21 33 010 1853 025	Climp mate straight o-pute
5.0 m	21 33 010 1853 050	
7.5 m	21 33 010 1853 075	Loading-Plan Y
10.0 m	21 33 010 1853 100	Shield
15.0 m	21 33 010 1853 150	White/orange
20.0 m	21 33 010 1853 200	2 Orange 2 2 P
		Green 4 White/brown 5
		Brown 6 3 3 6 6
HADTING M12 avetem cable		4) \S 7 \ Blue 7 4/\S
HARTING M12 system cable,		
8-wire, Press & Go		
one side assembled		
	Black	45,A
Longth 0.5 m	21 22 050 0052 005	Midth across flats 17
Length 0.5 m 1.0 m	21 33 050 0853 005 21 33 050 0853 010	
2.0 m 2.5 m	21 33 050 0853 020	Making face acc. to IEC 61076-2-109 HARTING M12 X-coded straight male Press and Go
2.5 m 5.0 m	21 33 050 0853 025 21 33 050 0853 050	
5.0 m 7.5 m		
	21 33 050 0853 075	X Leading-Plan
10.0 m 15.0 m	21 33 050 0853 100 21 33 050 0853 150	Shield
20.0 m	21 33 050 0853 150	1 g vhile for range orange
20.0 M	21 33 030 0033 200	green A green A white Arrevan
		S trom white folion blue
both sides assembled		• • • • • • • • • • • • • • • • • • • •
	Black	
Length 0.5 m	21 33 050 5853 005	45,6 Midth across flats 17
1.0 m	21 33 050 5853 003	
2.0 m	21 33 050 5853 010	X → X X X X X X X X X
2.5 m	21 33 050 5853 025	
5.0 m	21 33 050 5853 025	Malting face acc. to EC 5076-2-199 HARTING MY2 X-coded straight male Press and Go
7.5 m	21 33 050 5853 050	Loading-Plan X
7.5 m 10.0 m	21 33 050 5853 075	Shield 1 8 , white orange , 1 8
15.0 m	21 33 050 5853 100	2 orange / 2
	21 33 050 5853 150	(of state)) is white/brown is (of state)
20.0 m	21 33 030 3033 200	3 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

03 27



Cable

HARTING M12 system cable, 8-wire, straight, PushPull Press & Go

Features

Category 6_ANumber of wires 8

• Wire design AWG 24/7

• Wire diameter $(8.1 \pm 0.4) \text{ mm}$

• Sheath material Elastomer,

electron beam cross-linked

Application

- For harsh industrial environments
- · For installation in railway applications

Benefits

- Transmission of Gigabit and 10 Gigabit Ethernet acc. IEEE 802.3 and multimedia services
- Fire protection acc. EN 45545-1, -2 and -5, flame retardant and heat resistant acc. DIN 5510 (1-4) and EN 50264-1
- UV resistant, RoHS conform, halogen free LSZH
- M12 PushPull for a fast and vibration-free connection

Technical characteristics

Connector types HARTING M12 X-coding PushPull

Cable structure 4 x 2, Twisted Pair, shielded, PIMF

Railway cords type 4 x 2 x AWG 24/7

Category 7, Class F up to 600 MHz acc. to ISO/IEC 11801 and EN 50173-1

Sheath material Elastomer, electron beam,

cross-linked

Cable sheath diameter (8.1 ± 0.4) mm

Transmission performance Category 6A, Class EA

up to 500 MHz acc. to ISO/IEC 11801 and EN 50173-1

Transmission rate 1/10 Gbit/s

Shielding Paired shielded with additional

cable shield

Operating

temperature range -40 °C ... +80 °C

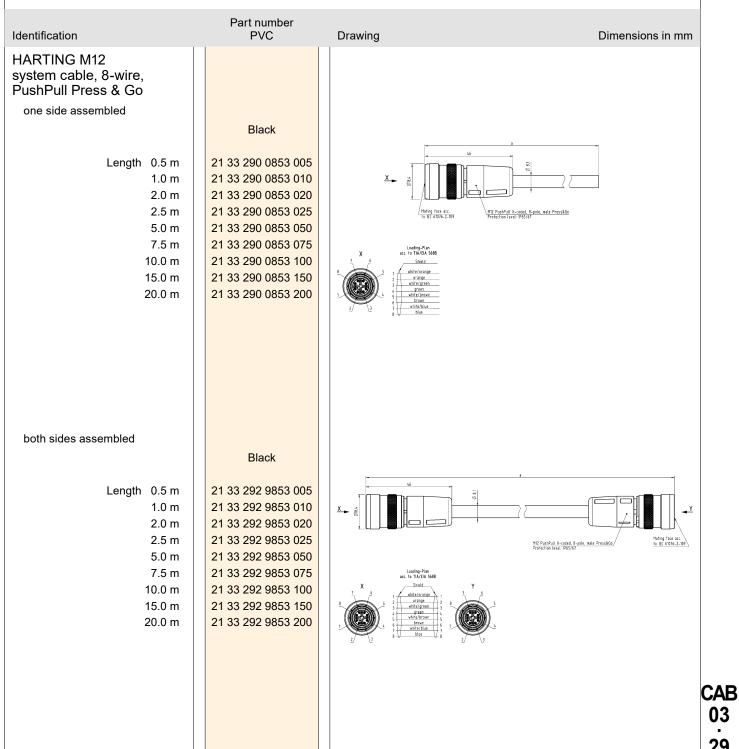
Colour Black

CAB 03



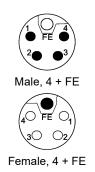
Cable







Cable

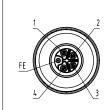


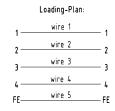


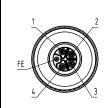
Technical characteristics

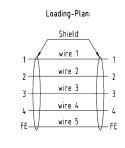
System cables with M12 circular connectors with FE, L-coding

	5 poles	5 poles	5 poles	5 poles
	PVC	PVC	PVC shielded	PVC shielded
Rated voltage	max. 63 V AC/DC			
Rated currrent / contact	max. 16 A	max. 16 A	max. 16 A	max. 16 A
Screw locking	M12x1, self securing	M12x1, self securing	M12x1, self securing	M12x1, self securing
Recommended torque	0.6 Nm	0.6 Nm	0.6 Nm	0.6 Nm
Temperature range connector (working and storage)	-5 °C +50 °C			
Degree of protection	IP67	IP67	IP67	IP67
Number of wires / wire gauge	5 x 1.5 mm ²	5 x 2.5 mm ²	5 x 1.5 mm ²	5 x 2.5 mm ²
Conductor insulation	PVC	PVC	PVC	PVC
Sheath	PVC	PVC	PVC	PVC
Sheath colour	grey	grey	grey	grey
Outer diameter	Ø 8.3 mm	Ø 10.1 mm	Ø 9.2 mm	Ø 11.0 mm
Temperature range cable (flexible / fixed)	-15 °C +80 °C -40 °C +80 °C	-15 °C +80 °C -40 °C +80 °C	-10 °C +80 °C -40 °C +80 °C	-10 °C +80 °C -40 °C +80 °C
Useable as trailing cable	no	no	no	no
Halogen free acc. to	no	no	no	no
Flame retardant acc. to	IEC 60332-1-2	IEC 60332-1-2	IEC 60332-1-2	IEC 60 332-1-2
Oil-resistant	yes	yes	yes	ves









03







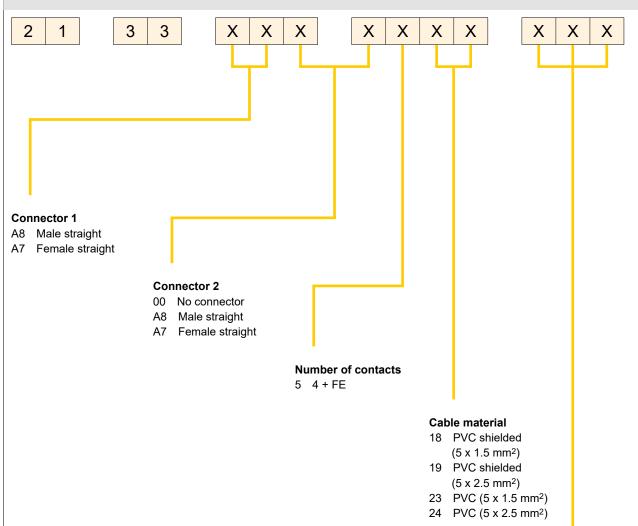
Male, 4 + FE



Female, 4 + FE



Part number definition



Preferred length*

0.5 m 005 010 1.0 m 1.5 m 015 020 2.0 m 050 5.0 m 075 7.5 m 100 10.0 m

CAB

^{*} Other cable lengths on request!

7/8" system cables



Cable



Technical characteristics

7/8" system cables

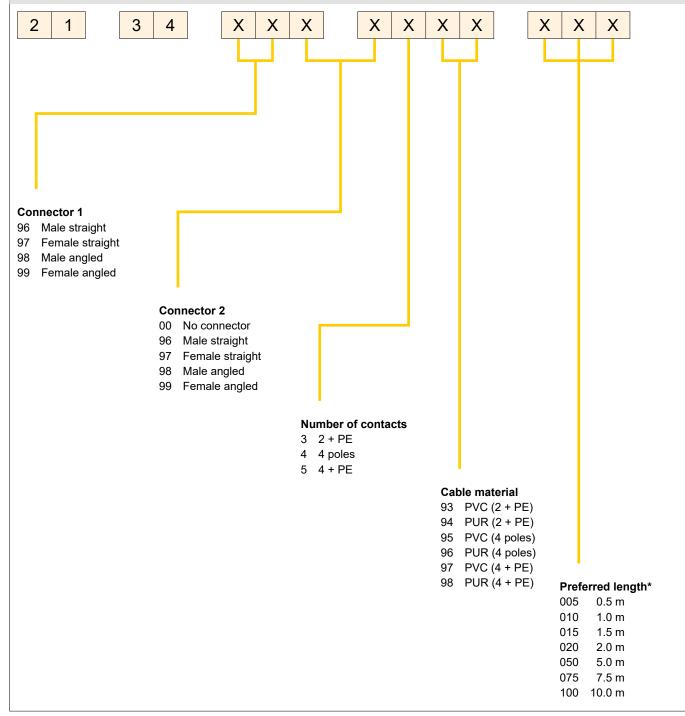
	3 poles (2+PE)		4 poles		5 poles (4+PE)	
	PVC	PUR	PVC	PUR	PVC	PUR
Rated voltage	max. 300 V AC/DC	max. 300 V AC/DC	max. 300 V AC/DC	max. 300 V AC/DC	max. 300 V AC/DC	max. 300 V AC/DC
Rated currrent / contact	max. 10 A @ +40 °C	max. 10 A @ +40 °C	max. 10 A @ +40 °C	max. 10 A @ +40 °C	max. 10 A @ +40 °C	max. 10 A @ +40 °C
Screw locking	7/8", self securing	7/8", self securing	7/8", self securing	7/8", self securing	7/8", self securing	7/8", self securing
Temperature range (working and storage)	-30 °C +80 °C	-30 °C +80 °C	-30 °C +80 °C	-30 °C +80 °C	-30 °C +80 °C	-30 °C +80 °C
Degree of protection	IP67	IP67	IP67	IP67	IP67	IP67
Number of wires / wire gauge	3 x 1.5 mm ²	3 x 1.5 mm ²	4 x 1.5 mm ²	4 x 1.5 mm ²	5 x 1.5 mm ²	5 x 1.5 mm ²
Conductor insulation	PVC (bn, bu, gn/ye)	PP (bn, bu, gn/ye)	PVC (bn, wh, bu, bk)	PP (bn, wh, bu, bk)	PVC (bu, bk, wh, bn, gn/ye)	PP (bu, bk, wh, bn, gn/ye)
Arrangement of insulated strands	84 x Ø 0.15 mm	84 x Ø 0.15 mm	84 x Ø 0.15 mm	84 x Ø 0.15 mm	84 x Ø 0.15 mm	84 x Ø 0.15 mm
Sheath	PVC	PUR (UL, CSA)	PVC	PUR (UL, CSA)	PVC	PUR (UL, CSA)
Sheath colour	grey	black	grey	black	grey	black
Outer diameter	Ø 7.0 ± 0.2 mm	Ø 7.0 ± 0.2 mm	Ø 7.8 ± 0.2 mm	Ø 7.1 ± 0.2 mm	Ø 8.5 ± 0.2 mm	Ø 7.8 ± 0.2 mm
Useable as trailing cable	no	yes	no	yes	no	yes
Halogen free acc. to	-	DIN VDE 0472 part 815	_	DIN VDE 0472 part 815	-	DIN VDE 0472 part 815
Flame retardant acc. to	DIN EN 60332-1-2	DIN EN 60332-1-2	DIN EN 60332-1-2	cUL20549	DIN EN 60332-1-2	cUL20549
Oil-resistant	IEC 60811-2-1	DIN EN 60811-2-1	_	-	-	-
	3 PE	Loading-Plan: PE——green-yellow—— 2 ——brown—— 3 ——blue	2 4	Loading-Plan: 1	5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Loading-Plan:

7/8" system cables





Part number definition



^{*} Other cable lengths on request!

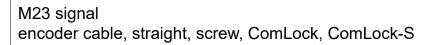
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CAB 03

M23 system cables, signal



Cable



Technical characteristics **Features**

 Connector type M23 signal D-Sub male, angled Screw Locking type ComLock ComLock-S

• Number of contacts M23: 12 D-Sub: 9

• Degree of protection IP65 / IP67 when mated

Application

- For harsh industrial environments
- For servo drives
- Standard in acc. to Lenze

Benefits

- 360° shielding
- · Cables suitable for industry
- Drag chain compatible
- Fast lock technology ComLock-S compatible with Speedtec locking
- EMC conform

Cable structure	Copper conductor in acc. to DIN
	VDE 0205 d. 6

Fine wire BS 6360 cl. 6 IEC 60 228 cl. 6

Core structure 3 x (2 x 0.14) mm² + (2 x 0.5) mm²

Sheath material **PUR**

Cable sheath diameter 9.8 mm

4 shielded pairs Shielding

Temperature range

-30 °C ... +80 °C moved fixed -40 °C ... +80 °C

Bending radius

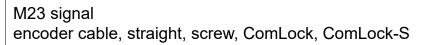
10 x cable diameter moved fixed 6 x cable diameter

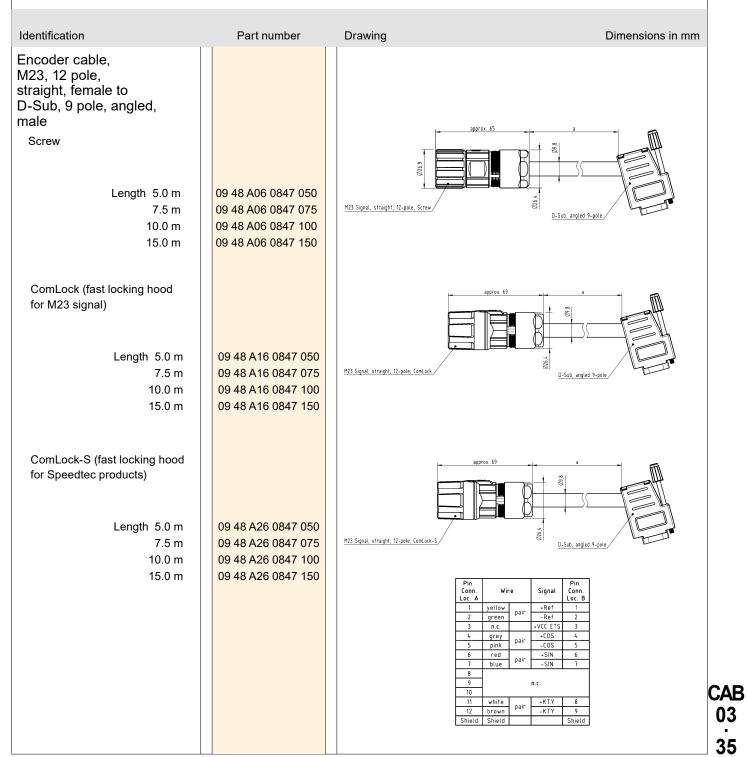
Colour Black

Lenze System



Cable





M23 system cables, power



Cable

Locking type

Application

For servo drives

· Standard in acc. to Lenze

• Drag chain compatible

locking



M23 power motor cable, straight, screw, ComLock, ComLock-S

Technical characteristics **Features**

 Connector type M23 power Cable structure Copper conductor in acc. to DIN VDE 0295 cl. 6

Fine wire Screw IEC 60228 cl. 6 ComLock ComLock-S

 $(4 \times 1.5 + (2 \times 0.5)) \text{ mm}^2$ Core structure · Number of contacts 5 + PE

Sheath material **PUR** • Degree of protection IP65 / IP67 when mated

Cable sheath diameter 11.5 mm

Shielded pair for the control Shielding • For harsh industrial environments

unit and additional overall cable

shielding

Temperature range

-30 °C ... +80 °C -40 °C ... +90 °C moved **Benefits** fixed

• 360° shielding Bending radius

7.5 x cable diameter moved · Cables suitable for industry fixed 6 x cable diameter

Colour Orange • Fast lock technology ComLock-S compatible with Speedtec

• EMC conform Lenze System

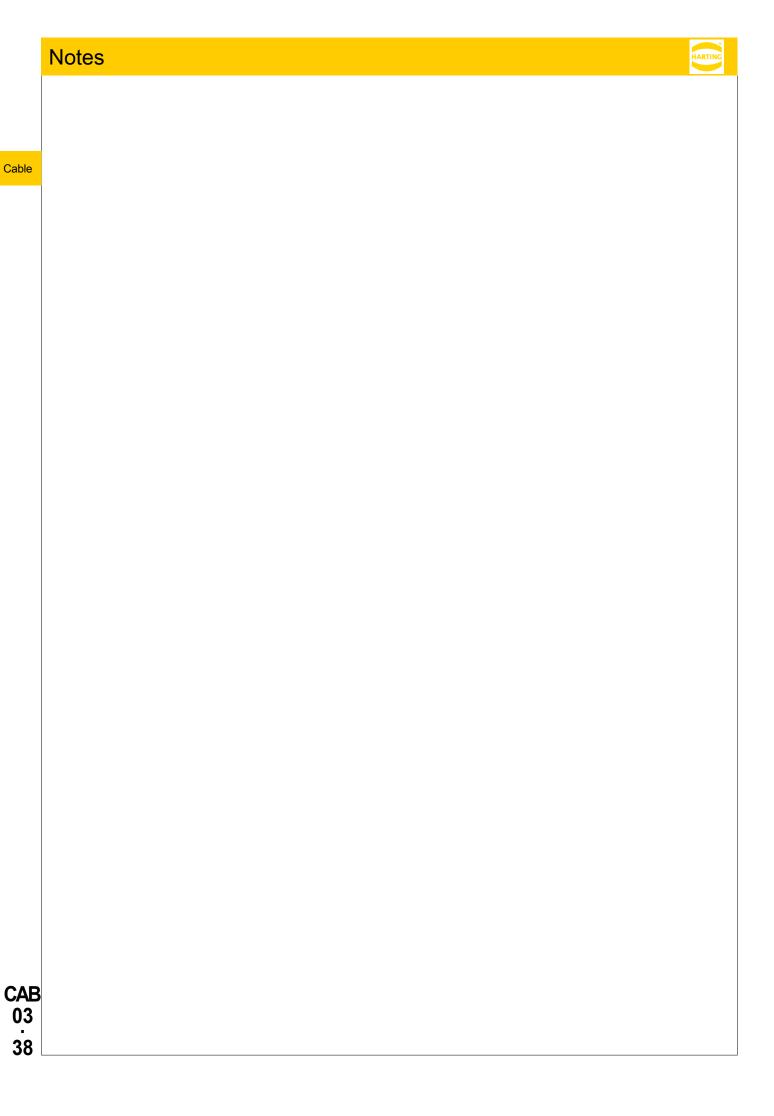






M23 power motor cable, straight, screw, ComLock, ComLock-S

Identification	Part number	Drawing	Dimensions in mm
Motor cable, M23, 5 + PE, straight, female Screw Length 5.0 m 7.5 m 10.0 m 15.0 m	21 37 010 0637 050 21 37 010 0637 075 21 37 010 0637 100 21 37 010 0637 150	approx. 77 a 30 M23 Power straight, 6-pole, Screw	Copper foil
ComLock (fast locking hood for M23 signal) Length 5.0 m 7.5 m 10.0 m 15.0 m	21 37 020 0637 050 21 37 020 0637 075 21 37 020 0637 100 21 37 020 0637 150	approx. 77 approx. 77 a M23 Power straight, 6-pole, ComLock	Copper foil
ComLock-S (fast locking hood for Speedtec products) Length 5.0 m 7.5 m 10.0 m 15.0 m	21 37 030 0637 050 21 37 030 0637 075 21 37 030 0637 100 21 37 030 0637 150	Pin Conn. Loc. A Signat Length b Conn. Loc. A Erminal D Ac228-4. US	nm² N nm² N nm² N nm² N N N N N N N N N N N N N N N N N N N





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		TO 0:
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Tools

Technical characteristics

RoHS compliant

Identification	Conductor cross-section (mm²)	Part number	
Crimping tool, for turned male and female contact, 4 indent crimp in acc. to MIL 22 520/2-01	0.09 0.82	09 99 000 0501	
Locator, for single D-Sub standard contacts		09 99 000 0531	
Locator, for part number 09 99 000 0501 and Data- und Power contacts Y-coding		09 99 000 0618	
Locator, for har-speed M12 male contacts		09 99 000 0525	A STATE OF THE STA
Locator, for har-speed M12 female contacts		09 99 000 0635	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Locator, for M12 male contacts, 21 01 100 9020		61 03 600 0023	
Locator, for M12 female contacts, 21 01 100 9025		09 99 000 0637	

Crimping tool



Identification	Conductor cross-section (mm²)	Part number	
Crimping tool, for power contacts	0.5 2.5	09 99 000 0509	
Locator, for part number 09 99 000 0509		09 99 000 0638	

Crimping tool



Identification	Wrench size	Part number	
Crimping tool, for flange Head openable		09 99 000 0647	
Crimping insert, for part number 09 99 000 0647	6.5 7 7.5 8 8.5 9 9.5 10	09 99 000 0652 09 99 000 0648 09 99 000 0650 09 99 000 0653 09 99 000 0654 09 99 000 0655	

Identification	Conductor cross-section (mm²)	Part number	
Circular connectors M23, Crimping tool, for M23 signal contacts, Pack contents: incl. locator, Handling instruction	0.08 2.5	09 99 000 0890	
Circular connectors M23, Crimping tool, for M23 power contacts, for M23 signal contacts, Pack contents: incl. locator, Handling instruction Not to be used for 0.6 mm contacts.	0.14 4	09 99 000 0896	
Circular connectors M23, Crimping tool, for shielded bushing		09 99 000 0898	
Circular connectors M23, Locator, for 0.6 mm data contacts, for crimping tool 09 99 000 0890		09 99 000 0961	

Assembly tool



Identification	Wrench size	Part number	Drawing (dimensions in mm)
Assembly tool, for flange		09 99 000 0639	9-3
Dynamometric screwdriver, for M12 Power	18	09 99 000 0659	79
Dynamometric screwdriver, for M8	9 13	09 99 000 0380 09 99 000 0660	78
Dynamometric screwdriver, for M12-S	13	09 99 000 0382	
Dynamometric screwdriver, for M12-L	17	09 99 000 0384	
Dynamometric screwdriver, for M12 Slim Design	15	09 99 000 0646	
Dynamometric screwdriver, for 7/8"	22	09 99 000 0395	
Assembly tool, for preLink® terminal module		20 82 000 9901	

Identification	Conductor cross-section (mm²)	Part number	
Stripping tool	0.08 10	09 99 000 0159	
Stripping tool, Pack contents: Stripping blade set, Straight	0.03 16	09 99 000 0980	
Stripping blade set, Straight		09 99 000 0981	Jo Jo
Stripping blade set, Oval	10 16	09 99 000 0982	
Stripping blade set, V-shape		09 99 000 0983	100 500

