# CONNECTORS CABLED ON SENSORS



This section presents sensors already cabled to male connectors for particular appliartions. Specific cable lengths are available upon request on all the products.

BDC versions with rotating nut allow the direct connection to the connection boxes getting down the costs and improving the reliability of the plant. Other solutions with different products are possible according to the customer specification.

The suggested connectors have to be matched to the sensors according to the cable activation in the cost of the cost of the sensors.

sections, indicated on the ordering references tables inside the catalogue.

# HOW TO COMPOSE THE ORDERING REFERENCES

**Type** 

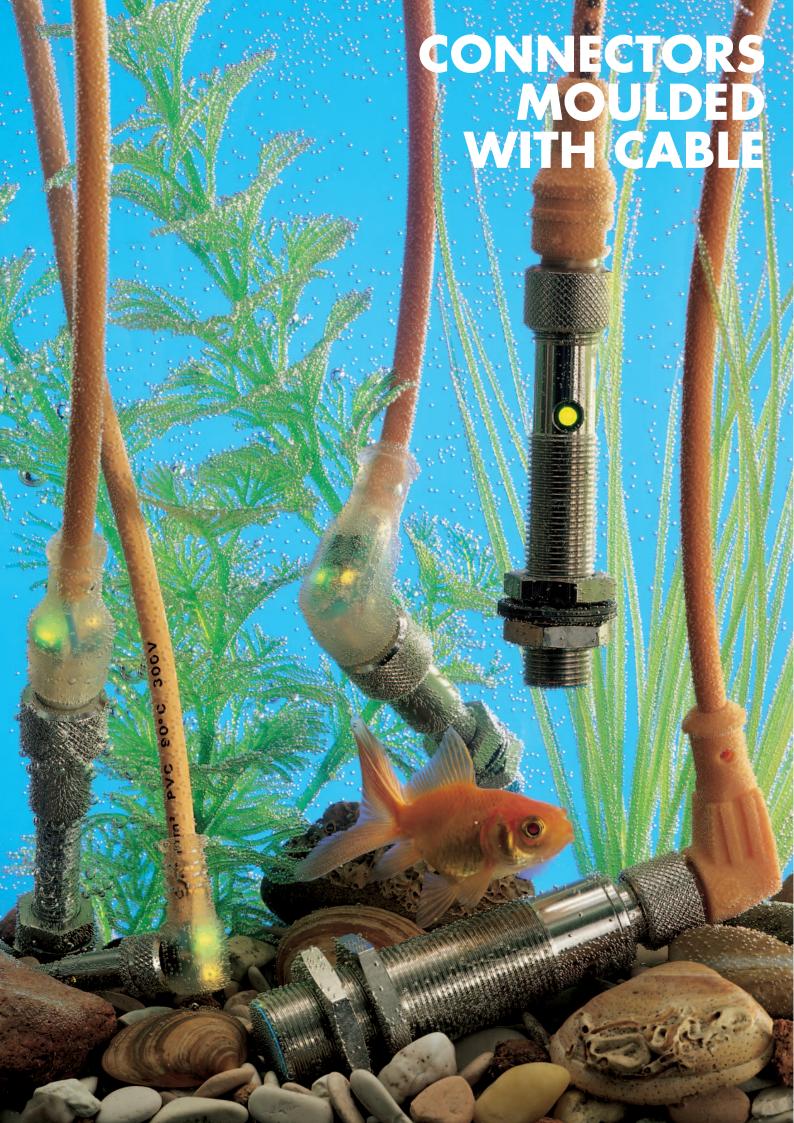
8 KS 4

#### Cable length (m)

Туре	Dimensions	Manufacturer	Series	Degree of protection	Suitable for cables diameter (mm)
F	35,2 Ø 7,9 ☐ ☐ ☐ M8 x 1 1 1 3	BDC	M8 x 1 fixed nut	IP67	3 - 3,5 - 4 - 5
R	41,5 8 6 8 7,9 Μ8 x 1 1 3 1 3 3	BDC	M8 x 1 rotating nut	IP67	3 - 3,5 - 4 - 5
н	Ø 10,5	BDC	M12 x 1 rotating nut	IP68	4-5
М	42 14 26 3 • 26	Тусо-АМР	Superseal	IP67	4-5-6
D	43 16 21 21	Deutsch	DTM	IP67	4-5-6
DT	45 25 21 8 • c 21	Deutsch	DT	IP67	5-6

Note: more detailed technical data are available on specific manufacturers data sheets.





# HOW TO INTERPRETE THE ORDERING REFERENCES

	N° Connect	eor: 8B 8M 9 9B 10 11 12 15 16 17	= straight = straight = angled   = straight = angled   = straight = angled	temale M12 x 1	d.c. sensors or d.c. sensors or d.c. sensors for d.c. sensors or d.c. sensors	. sensors		
			0 2	= without LEI = with 2 LED				
С	10	/	2	Р	3	2	PV	A
		0 P N	= witho = PNP v = NPN					
N° conduct	ors:	3 4 5	= 3 wire = 4 wire = 5 wire	es				
Cable leng	th m.	2 5 10	= 2 m. = 5 m. = 10 m.					
Cable mate	erial:	PV PR VS T	= PVC ( = PUR ( = PVC s = Therm	orange) hielded	(-40° ÷ + 140° C	:)		
Atex Version	ons:	A 3GD	= 1G - = 3G - 3	1D Category 3D Category				

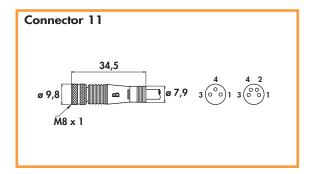
# Note:

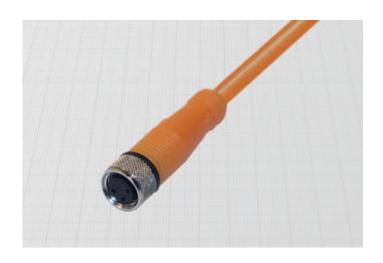
Using female connectors, please consider an insertion length inside the sensor, which is:

M12 connectors = 8 mm M8 connectors = 4 mm

I.e. Sensor DSA8/4909KS total lenght = 35 mm Connector C12/0032PV total lenght = 17,5 mm Overall dimension sensor + connector = (35 + 17,5) - 4 = 48,5 mm.

- Straight in d.c. •
- Moulded with cable •
- According to EN 60947-5-2 •





Female connectors of this section can be matched to the proximity sensors as indicated on the ordering references tables of the products. They must be separately ordered.

These models offer a high degree of protection even in small dimensions. They are infact suitable for the smaller models of d.c. sensors. The self securing locking nut assures the resistance to vibrations.

Grey moulding and cable are available upon request.

#### Technical data:

- Operating voltage:
- Maximum current:
- Contact resistance:
- Contacts:
- Moulding:
- Locking nut:
- O-Ring:
- Temperature range:
- Degree of protection:

 $10 \div 30 \ \text{Vdc}$  types with LED max 50 Vac/75 Vdc types without LED

4 A

CuZn, brass pre-nickeled and gold plated (0,8 µm) PUR

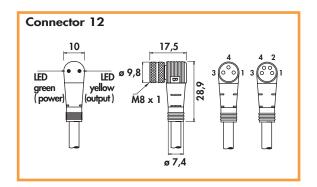
self-locking in CuZn, nickel plated brass NBR

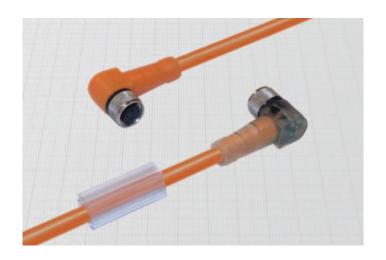
 $-25^{\circ} \div + 90^{\circ}$ C IP68 with plug in fully locked position

	Cal	ala		0	RDERING REFERENC	ES .		
dor n°	Cui	JIE	3 wires	3 wires	with LED	4 wires	3 wires + shield	
Connector	Sect	ion	$3 \times 0.35 \text{ mm}^2$ - ø ext. 4	3 x 0,35 mi	m <sup>2</sup> - ø ext. 4	$4 \times 0.25 \text{ mm}^2$ - ø ext. 4	3 x 0,22 mm <sup>2</sup> + sch ø ext. 4	
	Material	Length m.	1 > brown + 4 > black output 3 > blue -	brown    Disck output	NPN brown  1) LED LED yellow Rignen Block output 3) blue -	1 > brown 4 > block - output NO 2 > white output NC 3 > blue output NC	1 ) brown + 4 ) black output 3 ) blue - 2 ) shield	
11 11 11 11 11	PVC PVC PVC PUR PUR PUR	2 5 10 2 5 10	C11/0032PV C11/0035PV C11/00310PV C11/0032PR C11/0035PR C11/00310PR	C11/2P32PV C11/2P35PV C11/2P310PV C11/2P32PR C11/2P35PR C11/2P310PR	C11/2N32PV C11/2N35PV C11/2N310PV C11/2N32PR C11/2N35PR C11/2N310PR	C11/0042PV C11/0045PV C11/00410PV C11/0042PR C11/0045PR C11/00410PR	C11/0042VS C11/0045VS C11/00410VS - - -	

# FEMALE CONNECTORS M8 x 1

- Angled in d.c.
- Moulded with cable
- According to EN 60947-5-2





#### **General Features:**

Female connectors of this section can be matched to the proximity sensors as indicated on the ordering references tables of the products. They must be separately ordered.

These models offer a high degree of protection even in small dimensions. They are infact suitable for the smaller models of d.c. sensors. The self securing locking nut assures the resistance to vibrations. Grey moulding and cable are available upon request.

#### Technical data:

Operating voltage:

 $10 \div 30~Vdc$  types with LED max 50 Vac/75 Vdc types without LED

Maximum current:

Contact resistance:

Contacts:

CuZn, brass pre-nickeled and gold plated (0,8  $\mu$ m) PUR

Moulding:

self-locking in CuZn, nickel plated brass

Locking nut:

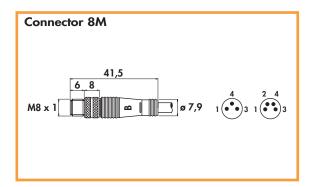
O-Ring:

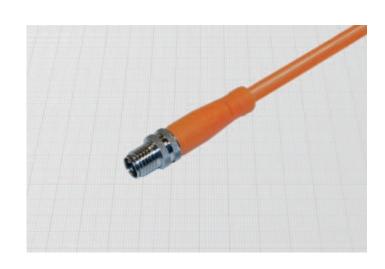
- 25° ÷ + 90°C

Temperature range: Degree of protection:

	Ca	ıble		0	ES		
or n°			3 wires	3 wires	with LED	4 wires	3 wires + shield
Connector n°	Sec	tion	3 x 0,35 mm <sup>2</sup> - ø ext. 4	3 x 0,35 m	m <sup>2</sup> - ø ext. 4	4 x 0,25 mm <sup>2</sup> - ø ext. 4	3 x 0,22 mm <sup>2</sup> + sch ø ext. 4
3	Material	Length m.	1 > brown + 4 > black - output 3 > blue -	PNP	NPN brown    LED   LED   LED	1 ) brown + 4 ) black - output NO 2 ) white output NC 3 ) blue - output NC	1 brown 4 block output 3 bloue - shield
12 12 12 12 12 12	PVC PVC PVC PUR PUR PUR	2 5 10 2 5 10	C12/0032PV C12/0035PV C12/00310PV C12/0032PR C12/0035PR C12/00310PR	C12/2P32PV C12/2P35PV C12/2P310PV C12/2P32PR C12/2P35PR C12/2P310PR	C12/2N32PV C12/2N35PV C12/2N310PV C12/2N32PR C12/2N35PR C12/2N310PR	C12/0042PV C12/0045PV C12/00410PV C12/0042PR C12/0045PR C12/00410PR	C12/0042VS C12/0045VS C12/00410VS - - -

- Straight in d.c. Moulded with cable •
- According to EN 60947-5-2 •





#### Technical data:

Operating voltage: Maximum current:

Contact resistance:

Contacts:

Moulding:

Locking nut: Temperature range:

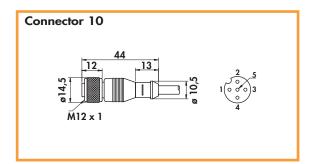
Degree of protection:

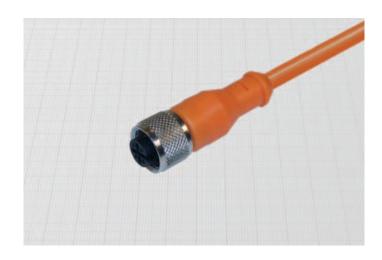
max 50 Vac/75 Vdc

≤ 3 ms2 CuZn, brass pre-nickeled and gold plated (0,8 µm) orange PUR CuZn, nickel plated brass - 25° ÷ + 90°C IP67 with plug in fully locked position

	Ca	hla		ORDERING REFERENCES	
dor n°	Ca	DIE	3 wires	4 wires	3 wires + shield
Connedor n°	Sec	tion	$3 \times 0.35 \text{ mm}^2$ - ø ext. 4	4 x 0,25 mm <sup>2</sup> - ø ext. 4	3 x 0,22 mm <sup>2</sup> + shield - ø ext. 4
O	Material	Length m.	1 > brown + 4 > black output 3 > blue -	1 ) brown +  4 ) black - output NO 2 ) white - output NC 3 ) blue - output NC	1 D brown + 4 Olbick output 3 Shield
8M 8M 8M 8M 8M	PVC PVC PVC PUR PUR PUR	2 5 10 2 5 10	C8M/0032PV C8M/0035PV C8M/00310PV C8M/0032PR C8M/0035PR C8M/00310PR	C8M/0042PV C8M/0045PV C8M/00410PV C8M/0042PR C8M/0045PR C8M/00410PR	C8M/0042VS C8M/0045VS C8M/00410VS - - -

- STRAIGHT in d.c.
- Moulded with cable
- According to EN 60947-5-2





Female connectors of this section can be matched to the proximity sensors as indicated on the ordering references tables of the products. They must be separately ordered. Particular moulding processes assure the maximum sealing, making these products suitable even for heavy applications. The self securing locking nut assures the resistance to vibrations. The two wires version can be used with all the two wires d.c. sensors either in N.O. or N.C. versions.

The shielded version offers a complete 360° shielding connected to the external nut. Grey moulding and cable are available upon request.

#### Technical data:

Operating voltage:

Maximum current:

Contact resistance:

Contacts: Moulding:

Locking nut:

O-Ring:

Temperature range:

Degree of protection:

max 50 Vac/75 Vdc

4 A

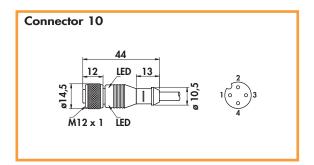
CuZn, brass pre-nickeled and gold plated (0,8 µm)

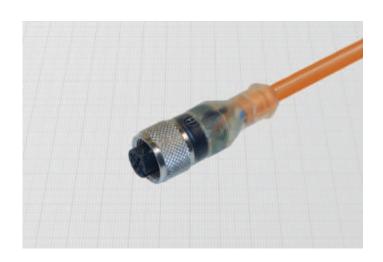
orange PUR self-locking in CuZn, nickel plated brass

- 25° ÷ + 90°C

	Ca	مام	ORDERING REFERENCES					
dor n°	Ca	ble	2 wires	3 wires	4 wires	5 wires + shield		
Connector n°	Sec	tion	2 x 0,75 mm <sup>2</sup> - ø ext. 5 (blu)	3 x 0,50 mm <sup>2</sup> - ø ext. 5	4 x 0,35 mm <sup>2</sup> - ø ext. 5	5 x 0,22 mm <sup>2</sup> - ø ext. 5		
	Material	Length m.	1) brown + + 2) blue - 4)	1 > brown + black - output 3 > blue -	1 > brown + black   4 > black   output NO   2 > blue   output NC   3 > blue   output NC	1 Drown + block - output NO 2D white output NC 5 J blue - signal		
10 10 10 10 10 10	PVC PVC PVC PUR PUR PUR	2 5 10 2 5 10	C10/0022PV C10/0025PV C10/00210PV C10/0022PR C10/0025PR C10/00210PR	C10/0032PV C10/0035PV C10/00310PV C10/0032PR C10/0035PR C10/00310PR	C10/0042PV C10/0045PV C10/00410PV C10/0042PR C10/0045PR C10/00410PR	C10/0052VS C10/0055VS C10/00510VS - - -		

- Straight in d.c. with LED
  - Moulded with cable •
- According to EN 60947-5-2 •





Female connectors of this section can be matched to the proximity sensors as indicated on the ordering references tables of the products. They must be separately

Particular moulding processes assure the maximum sealing, making these products suitable even for heavy applications. The self securing locking nut assures the resistance to vibrations.

Grey moulding and cable are available upon request.

#### Technical data:

Operating voltage:

Maximum current:

Contact resistance:

Contacts:

Moulding: Locking nut:

O-Ring:

Temperature range:

Degree of protection:

10 ÷ 30 Vdc

4 A

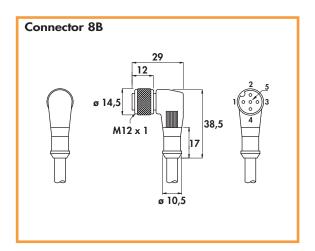
≤ 5 mΩCuZn, brass pre-nickeled and gold plated (0,8 µm) transparent PUR

self-locking in CuZn, nickel plated brass

- 25° ÷ + 90°C

	Cable		ORDERING REFERENCES				
or n°			3 wires	with LED	4 wires	with LED	
Connector n°	Sec	tion	3 x 0,50 m	m <sup>2</sup> - ø ext. 5	4 x 0,35 m	m <sup>2</sup> - ø ext. 5	
S	Material	Length m.	PNP  brown +  black - output	NPN brown,+ block-output 3)	PNP  1 black 4 black 2 white output NO 2 blue output NC 3)	NPN  1) brown +  1 block output NO 2) white output NC 3) blue -	
10 10 10 10 10 10	PVC PVC PVC PUR PUR PUR	2 5 10 2 5 10	C10/2P32PV C10/2P35PV C10/2P310PV C10/2P32PR C10/2P35PR C10/2P310PR	C10/2N32PV C10/2N35PV C10/2N310PV C10/2N32PR C10/2N35PR C10/2N310PR	C10/2P42PV C10/2P45PV C10/2P410PV C10/2P42PR C10/2P45PR C10/2P410PR	C10/2N42PV C10/2N45PV C10/2N410PV C10/2N42PR C10/2N45PR C10/2N410PR	

- Angled in d.c.
- Moulded with cable
- According to EN 60947-5-2





Female connectors of this section can be matched to the proximity sensors as indicated on the ordering references tables of the products. They must be separately ordered.

Particular moulding processes assure the maximum sealing, making these products suitable even for heavy applications. The self securing locking nut assures the resistance to vibrations.

The two wires version can be used with all the two wires d.c. sensors either in N.O. or N.C. versions. The shielded version offers a shielding connected to the external nut. Grey moulding and cable are available upon request.

# Technical data:

Operating voltage:

Maximum current:

Contact resistance:

• Contacts:

• Moulding:

Locking nut:O-Ring:

Temperature range:

Degree of protection:

max 50 Vac/75 Vdc

 $\begin{array}{c} 4~\text{A} \\ \leq 5~\text{m}\Omega \end{array}$ 

CuZn, brass pre-nickeled and gold plated (0,8 µm)

orange PUR

self-locking in CuZn, nickel plated brass

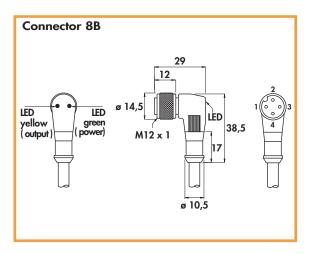
IP68 with plug in fully locked position

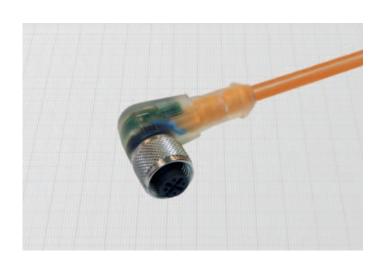
NBR

- 25° ÷ + 90° C

**ORDERING REFERENCES** Cable 2 wires 3 wires 4 wires 5 wires + shield Connector n°  $3 \times 0,50 \text{ mm}^2 - \emptyset \text{ ext. } 5$  $4 \times 0.35 \text{ mm}^2 - \emptyset \text{ ext. } 5$ Section  $2 \times 0.75 \text{ mm}^2 - \emptyset \text{ ext. 5 (blue)}$  $5 \times 0.22 \text{ mm}^2 - \text{ø ext. } 5$ C8B/0022PV C8B/0032PV C8B/0042PV C8B/0052VS **PVC** 8B 2 C8B/0035PV 5 PVC C8B/0025PV C8B/0055VS 8B C8B/0045PV **PVC** 10 8B C8B/00210PV C8B/00310PV C8B/00410PV C8B/00510VS 8B **PUR** 2 C8B/0022PR C8B/0032PR C8B/0042PR 8B **PUR** 5 C8B/0025PR C8B/0035PR C8B/0045PR 8B **PUR** 10 C8B/00210PR C8B/00310PR C8B/00410PR

- Angled in d.c. with LED
  - Moulded with cable •
- According to EN 60947-5-2 •





Female connectors of this section can be matched to the proximity sensors as indicated on the ordering references tables of the products. They must be separately ordered. Thank to the implemented circuit, they allow to use the whole range of power supply of BDC sensors from 5 to 60 Vdc.

Particular moulding processes assure the maximum sealing, making these products suitable even for heavy applications. The self securing locking nut assures the resistance to vibrations.

Grey moulding and cable are available upon request.

#### Technical data:

Operating voltage:

Maximum current:

Power consumption:

Contact resistance:

Contacts:

Moulding:

Locking nut:

O-Ring:

Temperature range:

Degree of protection:

5 ÷ 60 Vdc

CuZn, brass pre-nickeled and gold plated (0,8 µm) ransparent PUR

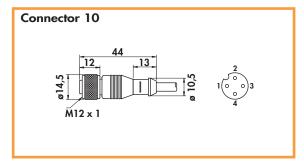
self-locking in CuZn, nickel plated brass

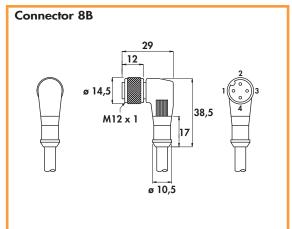
- 25° ÷ + 90° C

	Ca	Cable ORDERING			REFERENCES	
or n°			3 w	rires	4 w	ires
Connector n°	Sec	tion	3 x 0,50 m	m <sup>2</sup> - ø ext. 5	4 x 0,35 m	m <sup>2</sup> - ø ext. 5
S	Material	Length m.	NPN  brown + block output  as we blue	brown +    black output     blue	PNP  1 black 4 black 2 white output NO 2) output NC 3)	NPN  1) brown +  1. brown +  1
8B 8B 8B 8B 8B 8B	PVC PVC PVC PUR PUR PUR	2 5 10 2 5 10	C8B/2P32PV C8B/2P35PV C8B/2P310PV C8B/2P32PR C8B/2P35PR C8B/2P310PR	C8B/2N32PV C8B/2N35PV C8B/2N310PV C8B/2N32PR C8B/2N35PR C8B/2N310PR	C8B/2P42PV C8B/2P45PV C8B/2P410PV C8B/2P42PR C8B/2P45PR C8B/2P410PR	C8B/2N42PV C8B/2N45PV C8B/2N410PV C8B/2N42PR C8B/2N45PR C8B/2N410PR

# FEMALE CONNECTORS M12 x 1

- For high temperatures: (-40° ÷ +120°C)
- Straight and angled in d.c.
- Moulded with cable
- According to EN 60947-5-2







# **General Features:**

These female connectors are suitable for the use with BDC high temperature proximity sensors. They must be separately ordered.

Particular moulding processes assure the maximum sealing, making these products suitable even for heavy applications. The self securing locking nut assures the resistance to vibrations.

#### Technical data:

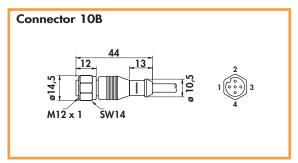
- Operating voltage:
- Maximum current:
- Contact resistance:
- Contacts:
- Locking nut:
- Temperature range:
- Degree of protection:

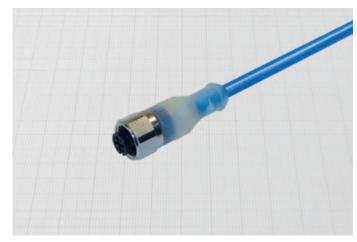
max 50 Vac/75 Vdc

≤ 5 mΩ CuZn, brass pre-nickeled and gold plated (0,8 µm) self-locking in CuZn, nickel plated brass - 40° ÷ + 120°C

	Cable	ORDERING	REFERENCES
dor n°	Cuble	3 wires	4 wires
Connector n°	Section	3 x 0,50 mm² - ø ext. 5	4 x 0,35 mm² - ø ext. 5
	Length m.	1 > brown + 4 > block - output 3 >	1
10 10 10	2 5 10	C10/0032T C10/0035T C10/00310T	C10/0042T C10/0045T C10/00410T
8B 8B 8B	2 5 10	C8B/0032T C8B/0035T C8B/00310T	C8B/0042T C8B/0045T C8B/00410T

- For ATEX sensors
- Straight in d.c. Moulded with cable •
- According to 94/9/CE EN60079-0 EN 60947-5-2 •





Female connectors of this section can be matched to the BDC ATEX proximity sensors according to the category as indicated on the table below. They must be separately

The 2 wires model is suitable for NAMUR sensors either on N.O. or N.C. version. It is possible to use it in zone 0 or 20 without additional protections against electrostatic charges.

Particular moulding processes assure the maximum sealing, making these products suitable even for heavy applications.

Note: use in hazardous area according to the instructions manual supplied together the sensors.

#### Technical data:

- Operating voltage:
- Maximum current:
- Contact resistance:
- Contacts:
- Locking nut:
- Temperature range:
- Degree of protection:

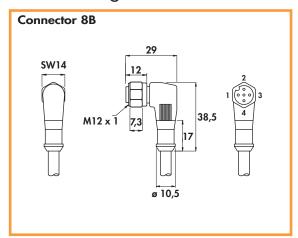
max 50 Vac/75 Vdc

4 A

CuZn, pre-nickel plated brass (0,8 µm) self-locking in CuZn, nickel plated brass  $-25^{\circ} \div +90^{\circ}\text{C}$ 

				ORDERING REFERENCES		
	Cate	gory	1G-1D	3G-3D	3G-3D	
	Zo	ne	0-20	2 - 22	2 - 22	
o_	Cap.	cable /m	140	170	170	
Connector n°	Induct. cable µH/m		0,4	0,8	0,8	
Con	Cable		2 wires (blue)	3 wires (grey)	4 wires (grey)	
	Section		$2 \times 0.75 \text{ mm}^2$ - ø ext. 5	3 x 0,50 mm <sup>2</sup> - ø ext. 5	4 x 0,35 mm <sup>2</sup> - ø ext. 5	
	Material	Length m.	1) brown, + 2) blue, - 4)	1 ) brown + + 4 ) black output 3 ) blue -	1 > brown + 4 > black output NO 2 > white output NC 3 > -	
10B 10B 10B 10B 10B 10B	PVC PVC PVC PUR PUR PUR	2 5 10 2 5 10	C10/0022PVA C10/0025PVA C10/00210PVA C10/0022PRA C10/0025PRA C10/00210PRA	C10/0032PV3GD C10/0035PV3GD C10/00310PV3GD C10/0032PR3GD C10/0035PR3GD C10/00310PR3GD	C10/0042PV3GD C10/0045PV3GD C10/00410PV3GD C10/0042PR3GD C10/0045PR3GD C10/00410PR3GD	

- For ATEX sensors
- Angled in d.c.
- Moulded with cable
- According to 94/9/CE EN60079-0 EN60947-5-2





Female connectors of this section can be matched to the BDC ATEX proximity sensors according to the category as indicated on the table below.

They must be separately ordered. The 2 wires model is suitable for NAMUR sensors either on N.O. or N.C. version. It is possible to use it in zone 1 or 21 without additional protections against electrostatic charges.

Particular moulding processes assure the maximum sealing, making these products suitable even for heavy applications.

Note: use in hazardous area according to the instructions manual supplied together the sensors.

#### Technical data:

Operating voltage:

Maximum current:

Contact resistance:Contacts:

Locking nut:

• Temperature range:

Degree of protection:

max 50 Vac/75 Vdc

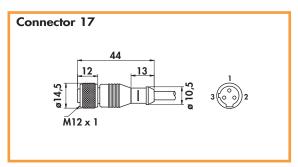
4 A

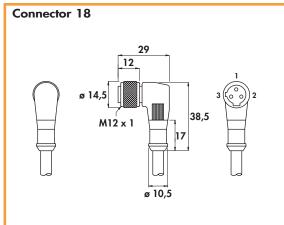
 $\leq 5 \text{ m}\Omega$ 

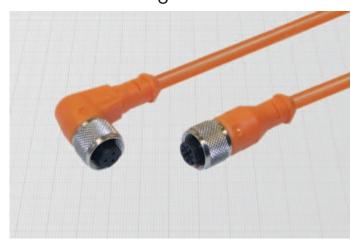
CuZn, brass pre-nickeled and gold plated (0,8 µm) self-locking in CuZn, nickel plated brass - 25° ÷ + 90°C

				ORDERING REFERENCES	
	Category		2G -2D	3G - 3D	3G-3D
	Zo	ne	1 - 21	2 - 22	2 - 22
	Cap.	cable /m	140	170	170
Connector n°	Induct. cable µH/m		0,4	0,8	0,8
Conn	Cable		2 wires (blue)	3 wires (grey)	4 wires (grey)
	Section		$2 \times 0.75 \text{ mm}^2$ - ø ext. 5	3 x 0,50 mm <sup>2</sup> - ø ext. 5	4 x 0,35 mm <sup>2</sup> - ø ext. 5
	Material	Length m.	1)brown, + 2)blue, - 4)	1 > brown + 4 > block - output 3 > blue -	1 ) block + 4 ) block output NO 2 ) white output NC 3 ) blue -
8B 8B 8B 8B 8B	PVC PVC PVC PUR PUR PUR	2 5 10 2 5 10	C8B/0022PVA C8B/0025PVA C8B/00210PVA C8B/0022PRA C8B/0025PRA C8B/00210PRA	C8B/0032PV3GD C8B/0035PV3GD C8B/00310PV3GD C8B/0032PR3GD C8B/0035PR3GD C8B/00310PR3GD	C8B/0042PV3GD C8B/0045PV3GD C8B/00410PV3GD C8B/0042PR3GD C8B/0045PR3GD C8B/00410PR3GD

- For a.c. sensors •
- Straight and angled with double reference key
  - Moulded with cable •
  - According to EN 60947-5-2 •







Female connectors of this section can be matched to the proximity sensors as indicated on the ordering references tables of the products. They must be separately ordered. These models are suitable for all the a.c. sensors with M12x1 double reference key exit.

Particular moulding processes assure the maximum sealing, making these products suitable even for heavy applications. The self securing locking nut assures the resistance to vibrations.

# Technical data:

- Operating voltage:
- Maximum current:
- Contact resistance:
- Contacts:
- Moulding:
- Locking nut:
- O-Ring:
- Temperature range:
- Degree of protection:

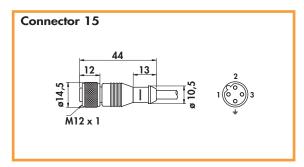
max 250 Vac/Vdc

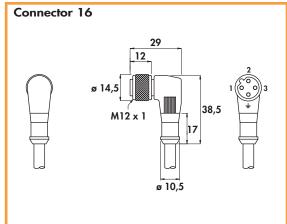
 $5~\mathrm{m}\Omega$ CuZn, brass pre-nickeled and gold plated (0,8 µm)

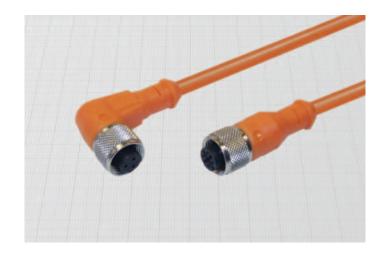
orange PUR self-locking in CuZn, nickel plated brass

	Cable		ORDERING REFERENCES
ctor n <sup>c</sup>	Sect	tion	3 x 0,35 mm² - ø ext. 5
Connector n°	Material	Length m.	3 >blue ~ 2 >brown ~ 1 > <u>yellow/green</u> =
17 17 17 17 17 17	PVC PVC PVC PUR PUR PUR	2 5 10 2 5 10	C17/0032PV C17/0035PV C17/00310PV C17/0032PR C17/0035PR C17/00310PR
18 18 18 18 18	PVC PVC PVC PUR PUR PUR	2 5 10 2 5 10	C18/0032PV C18/0035PV C18/00310PV C18/0032PR C18/0035PR C18/00310PR

- For a.c. sensors
- Straight and angled single key
- Moulded with cable







Female connectors of this section can be matched to the proximity sensors as indicated on the ordering references tables of the products. They must be separately ordered. These models are suitable for all the a.c. sensors with M12x1, 4 pin, single key exit.

Particular moulding processes assure the maximum sealing, making these products suitable even for heavy applications. The self securing locking nut assures the resistance to vibrations.

# Technical data:

- Operating voltage:
- Maximum current:
   Contact resistance:
- Contact resistance:
- Contacts:
- Moulding:
- Locking nut:
- O-Ring:
- Temperature range:
- Degree of protection:

max 250 Vac/Vdc

≤ 5 mΩ

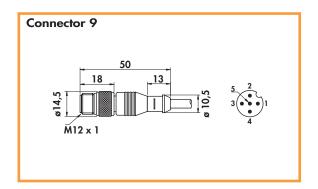
CuZn, brass pre-nickeled and gold plated (0,8 µm) orange PUR

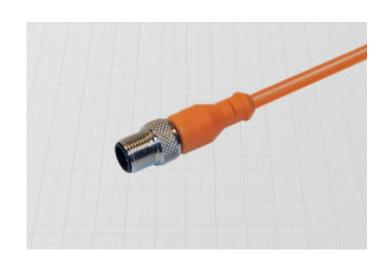
self-locking in CuZn, nickel plated brass

- 25° ÷ + 90°C

0	Cable		ORDERING REFERENCES
ctor n°	Sec	tion	3 x 0,35 mm <sup>2</sup> - ø ext. 5
Connector n°	Material	Length m.	1 > brown \chin \c
15 15 15 15 15 15	PVC PVC PVC PUR PUR PUR	2 5 10 2 5 10	C15/0032PV C15/0035PV C15/00310PV C15/0032PR C15/0035PR C15/00310PR
16 16 16 16 16	PVC PVC PVC PUR PUR PUR	2 5 10 2 5 10	C16/0032PV C16/0035PV C16/00310PV C16/0032PR C16/0035PR C16/00310PR

- Straight in d.c. •
- Moulded with cable •
- According to EN 60947-5-2 •





Particular moulding processes assure the maximum sealing, making these products suitable even for heavy applications. The self securing locking nut assures the resistance to vibrations.

The shielded version offers a complete 360° shielding connected to the external nut. Grey moulding and cable are available upon request.

#### Technical data:

Operating voltage:

Maximum current:

Contact resistance:

Contacts:

Moulding:

Locking nut:

Temperature range:

Degree of protection:

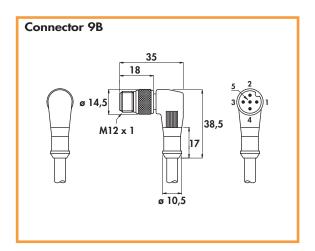
max 50 Vac/75 Vdc 4 A

CuZn, brass pre-nickeled and gold plated (0,8 µm) orange PUR self-locking in CuZn, nickel plated brass - 25° ÷ + 90°C IP68 with plug in fully locked position

or n°	Ca	blo	ORDERING REFERENCES		
	Cable		3 wires	4 wires	5 wires + shield
Connector n°	Section		3 x 0,50 mm <sup>2</sup> - ø ext. 5	4 x 0,35 mm <sup>2</sup> - ø ext. 5	5 x 0,22 mm <sup>2</sup> - ø ext. 5
0	Material	Length m.	1 > brown + 4 > black output 3 > blue -	1 > brown + A > black output NO 2 > white output NC 3 > blue output NC	brown + output NO while output NC grey signal
9 9 9 9	PVC PVC PVC PUR PUR PUR	2 5 10 2 5 10	C9/0032PV C9/0035PV C9/00310PV C9/0032PR C9/0035PR C9/00310PR	C9/0042PV C9/0045PV C9/00410PV C9/0042PR C9/0045PR C9/00410PR	C9/0052VS C9/0055VS C9/00510VS - - -

# MALE CONNECTORS M12 x 1

- Angled in d.c.
- Moulded with cable
- According to EN 60947-5-2





#### **General Features:**

Particular moulding processes assure the maximum sealing, making these products suitable even for heavy applications. The self securing locking nut assures the resistance to vibrations.

The shielded version offers a shielding connected to the external nut. Grey moulding and cable are available upon request.

#### Technical data:

Operating voltage:

Maximum current:

Contact resistance:

Contacts:

Moulding:

Locking nut:

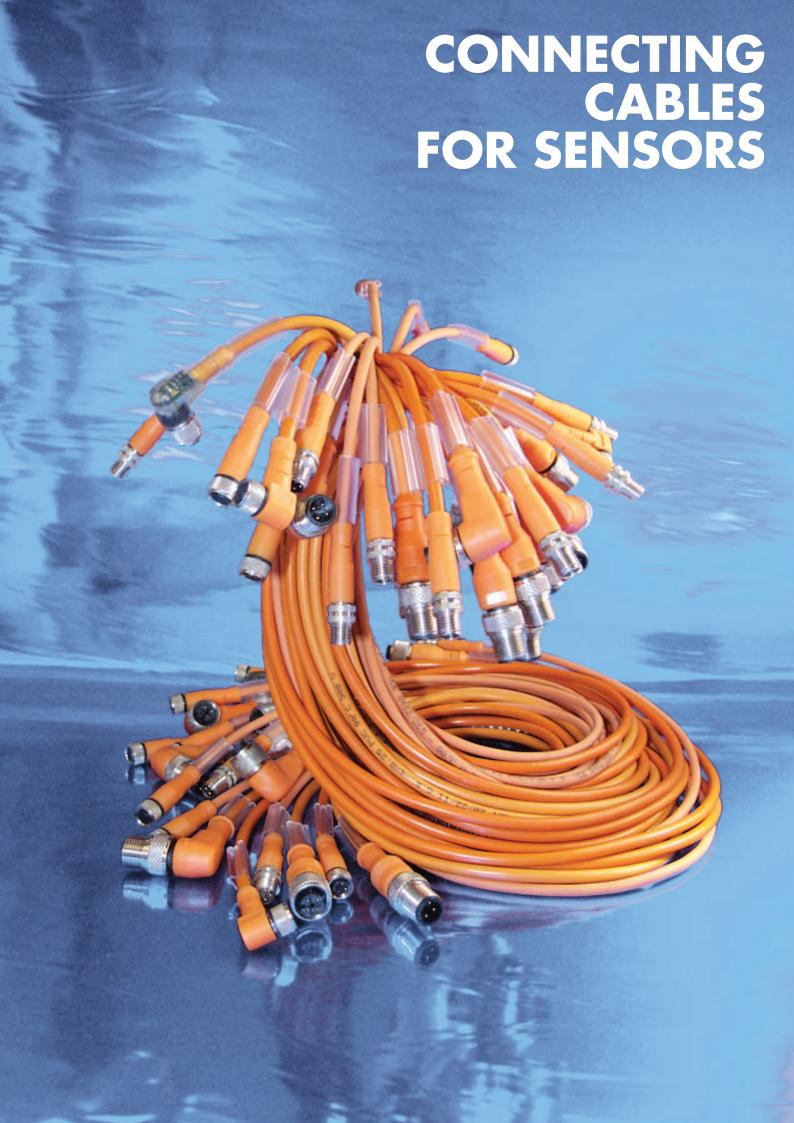
Temperature range:

Degree of protection:

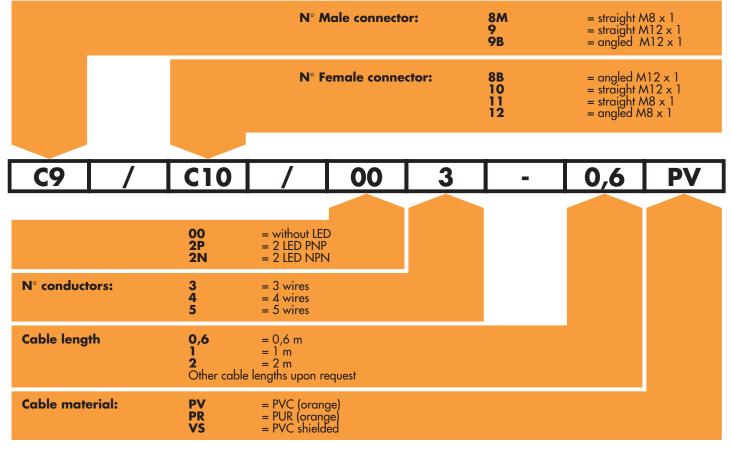
max 50 Vac / 75 Vdc

CuZn, brass pre-nickeled and gold plated (0,8 µm) orange PUR self-locking in CuZn, nickel plated brass - 25° ÷ + 90°C IP68 with plug in fully locked position

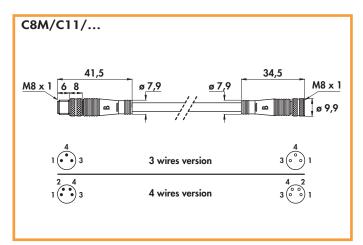
	Ca	blo		ORDERING REFERENCES		
dor n°	Cable		3 wires	4 wires	5 wires + shield	
Connector n°	Section		3 x 0,50 mm <sup>2</sup> - ø ext. 5	4 x 0,35 mm <sup>2</sup> - ø ext. 5	5 x 0,22 mm <sup>2</sup> - ø ext. 5	
0	Material	Length m.	1 > brown + 4 > black output 3 > blue -	1 ) brown + black - output NO 2 ) white - output NC 3 ) blue - output NC	block output NO white couput NC block output NC crey signal	
9B 9B 9B 9B 9B 9B	PVC PVC PVC PUR PUR PUR	2 5 10 2 5 10	C9B/0032PV C9B/0035PV C9B/00310PV C9B/0032PR C9B/0035PR C9B/00310PR	C9B/0042PV C9B/0045PV C9B/00410PV C9B/0042PR C9B/0045PR C9B/00410PR	C9B/0052VS C9B/0055VS C9B/00510VS - - -	

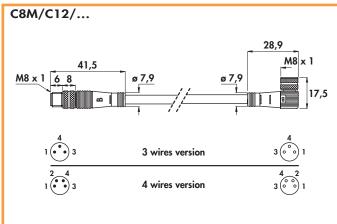


# **CONNECTING CABLES**



- **MALE M8 x 1**
- FEMALE M8 x 1 •
- According to EN 60947-5-2 •









# Technical data:

Operating voltage

10 ÷ 30 Vdc types with LED max 50 Vac/75 Vdc types without LED

Maximum current:

• Contact resistance:

• Contacts: Moulding: e: CuZn, brass pre-nickeled and gold plated (0,8 μm) PUR

self-locking in CuZn, nickel plated brass  $-25 \div +90^{\circ}\text{C}$ 

Locking nut:Temperature range: Degree of protection:

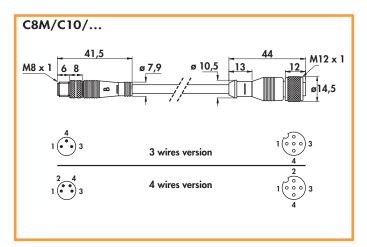
IP68 with plug in fully locked position

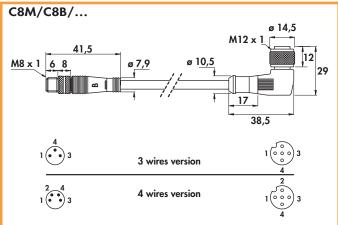
Ca	ble	ORDERING REFERENCES			
Material	Length m.	3 wires		4 wires	
		Straight male     Straight female	Straight male     Angled female (*)	Straight male     Straight female	<ul><li>Straight male</li><li>Angled female</li></ul>
PVC PVC PVC PUR PUR PUR	0,6 1 2 0,6 1 2	C8M/C11/003-0,6PV C8M/C11/003-1PV C8M/C11/003-2PV C8M/C11/003-0,6PR C8M/C11/003-1PR C8M/C11/003-2PR	C8M/C12/003-0,6PV C8M/C12/003-1PV C8M/C12/003-2PV C8M/C12/003-0,6PR C8M/C12/003-1PR C8M/C12/003-2PR	C8M/C11/004-0,6PV C8M/C11/004-1PV C8M/C11/004-2PV C8M/C11/004-0,6PR C8M/C11/004-1PR C8M/C11/004-2PR	C8M/C12/004-0,6PV C8M/C12/004-1PV C8M/C12/004-2PV C8M/C12/004-0,6PR C8M/C12/004-1PR C8M/C12/004-2PR

for LED PNP option on female part substitute the part of the code .../00... with .../2P... i.e. C8M/C12/2P3-0,6PV for LED NPN option on female part substitute the part of the code .../00... with .../2N... i.e. C8M/C12/2N3-0,6PV

# **CONNECTING CABLES FOR SENSORS**

- MALE M8 x 1
- FEMALE M12 x 1
- According to EN 60947-5-2









### Technical data:

Operating voltage

10 ÷ 30 Vdc straight types with LED 5 ÷ 60 Vdc angled types with LED max 50 Vac/75 Vdc types without LED

Maximum current:

• Contact resistance:

• Contacts: Moulding: e: CuZn, brass pre-nickeled and gold plated (0,8 µm) PUR

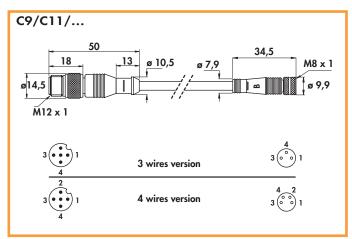
self-locking in CuZn, nickel plated brass -  $25 \div + 90^{\circ}\text{C}$  IP67 with plug in fully locked position

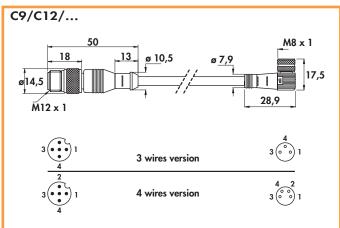
Locking nut:Temperature range: • Degree of protection:

Со	ıble	ORDERING REFERENCES			
Material	Length m.	3 wires		4 wires	
		Straight male     Straight female (*)	Straight male     Angled female (*)	Straight male     Straight female (*)	<ul><li>Straight male</li><li>Angled female (*)</li></ul>
PVC PVC PVC PUR PUR PUR	0,6 1 2 0,6 1 2	C8M/C10/003-0,6PV C8M/C10/003-1PV C8M/C10/003-2PV C8M/C10/003-0,6PR C8M/C10/003-1PR C8M/C10/003-2PR	C8M/C8B/003-0,6PV C8M/C8B/003-1PV C8M/C8B/003-2PV C8M/C8B/003-0,6PR C8M/C8B/003-1PR C8M/C8B/003-2PR	C8M/C10/004-0,6PV C8M/C10/004-1PV C8M/C10/004-2PV C8M/C10/004-0,6PR C8M/C10/004-1PR C8M/C10/004-2PR	C8M/C8B/004-0,6PV C8M/C8B/004-1PV C8M/C8B/004-2PV C8M/C8B/004-0,6PR C8M/C8B/004-1PR C8M/C8B/004-2PR

for LED PNP option on female part substitute the part of the code .../00... with .../2P... i.e. C8M/C10/2P3-0,6PV for LED NPN option on female part substitute the part of the code .../00... with .../2N... i.e. C8M/C10/2N3-0,6PV (\*) Note:

- MALE M12 x 1 straight
  - FEMALE M8 x 1 •
- According to EN 60947-5-2 •









# Technical data:

Maximum current:Contact resistance: ≤ 5

Contacts: CuZn, brass pre-nickeled and gold plated (0,8 µm)
Moulding: PUR

Locking nut: self-locking in CuZn, nickel plated brass
 Temperature range: -25 ÷ +90°C

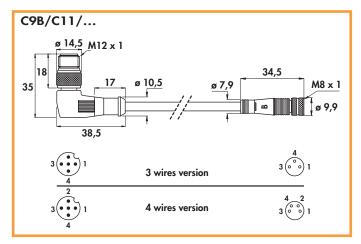
Degree of protection:	IP68 with plug in fully locked position

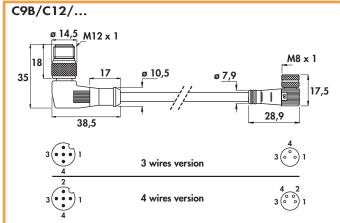
Со	ıble	ORDERING REFERENCES			
Material	Length m.	3 wires		4 wires	
		<ul><li> Straight male</li><li> Straight female</li></ul>	Straight male     Angled female (*)	<ul><li> Straight male</li><li> Straight female</li></ul>	<ul><li>Straight male</li><li>Angled female</li></ul>
PVC PVC PVC PUR PUR PUR	0,6 1 2 0,6 1 2	C9/C11/003-0,6PV C9/C11/003-1PV C9/C11/003-2PV C9/C11/003-0,6PR C9/C11/003-1PR C9/C11/003-2PR	C9/C12/003-0,6PV C9/C12/003-1PV C9/C12/003-2PV C9/C12/003-0,6PR C9/C12/003-1PR C9/C12/003-2PR	C9/C11/004-0,6PV C9/C11/004-1PV C9/C11/004-2PV C9/C11/004-0,6PR C9/C11/004-1PR C9/C11/004-2PR	C9/C12/004-0,6PV C9/C12/004-1PV C9/C12/004-2PV C9/C12/004-0,6PR C9/C12/004-1PR C9/C12/004-2PR

(\*) Note: for LED PNP option on female part substitute the part of the code .../00... with .../2P... i.e. C9/C12/2P3-0,6PV for LED NPN option on female part substitute the part of the code .../00... with .../2N... i.e. C9/C12/2N3-0,6PV

# **CONNECTING CABLES FOR SENSORS**

- MALE M12 x 1 angled
- FEMALE M8 x 1
- According to EN 60947-5-2









# Technical data:

10 ÷ 30 Vdc types with LED Operating voltage max 50 Vac/75 Vdc types without LED

Maximum current:

• Contact resistance:  $5~\mathrm{m}\Omega$ 

e: CuZn, brass pre-nickeled and gold plated (0,8 µm) PUR • Contacts: Moulding:

• Locking nut:

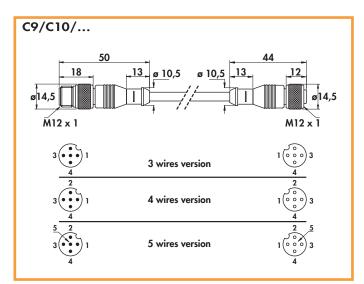
self-locking in CuZn, nickel plated brass  $-25 \div +90^{\circ}\text{C}$ • Temperature range:

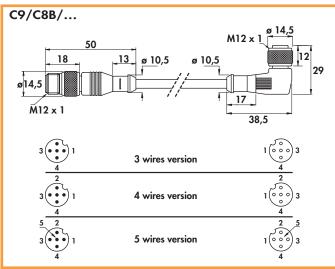
• Degree of protection: IP68 with plug in fully locked position

Cable		ORDERING REFERENCES			
Material	Length m.	3 wires		4 wires	
		<ul><li>Angled male</li><li>Straight female</li></ul>	<ul><li>Angled male</li><li>Angled female (*)</li></ul>	<ul><li>Angled male</li><li>Straight female</li></ul>	<ul><li>Angled male</li><li>Angled female</li></ul>
PVC PVC PVC PUR PUR PUR	0,6 1 2 0,6 1 2	C9B/C11/003-0,6PV C9B/C11/003-1PV C9B/C11/003-2PV C9B/C11/003-0,6PR C9B/C11/003-1PR C9B/C11/003-2PR	C9B/C12/003-0,6PV C9B/C12/003-1PV C9B/C12/003-2PV C9B/C12/003-0,6PR C9B/C12/003-1PR C9B/C12/003-2PR	C9B/C11/004-0,6PV C9B/C11/004-1PV C9B/C11/004-2PV C9B/C11/004-0,6PR C9B/C11/004-1PR C9B/C11/004-2PR	C9B/C12/004-0,6PV C9B/C12/004-1PV C9B/C12/004-2PV C9B/C12/004-0,6PR C9B/C12/004-1PR C9B/C12/004-2PR

for LED PNP option on female part substitute the part of the code .../00... with .../2P... i.e. C9B/C12/2P3-0,6PV for LED NPN option on female part substitute the part of the code .../00... with .../2N... i.e. C9B/C12/2N3-0,6PV (\*) Note:

- MALE M12 x 1 straight
  - FEMALE M12 x 1 •
- According to EN 60947-5-2 •









#### Technical data:

Operating voltage
 10 ÷ 30 Vdc straight types with LED
 5 ÷ 60 Vdc angled types with LED
 max 50 Vac/75 Vdc types without LED

• Maximum current: 4 A • Contact resistance:  $\leq 5 \text{ m}\Omega$ 

Contacts: CuZn, brass pre-nickeled and gold plated (0,8 µm)
 Manualding:

Moulding:
 Locking nut:
 Temperature range:
 PUR
 self-locking in CuZn, nickel plated brass
 -25 ÷ +90°C

Degree of protection:
 IP68 with plug in fully locked position

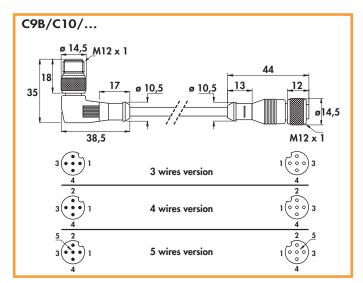
Cable		ORDERING REFERENCES			
Material	Length m.	3 wires		4 wires	
		Straight male     Straight female (*)	Straight male     Angled female (*)	Straight male     Straight female (*)	Straight male     Angled female (*)
PVC PVC PVC PUR PUR PUR	0,6 1 2 0,6 1 2	C9/C10/003-0,6PV C9/C10/003-1PV C9/C10/003-2PV C9/C10/003-0,6PR C9/C10/003-1PR C9/C10/003-2PR	C9/C8B/003-0,6PV C9/C8B/003-1PV C9/C8B/003-2PV C9/C8B/003-0,6PR C9/C8B/003-1PR C9/C8B/003-2PR	C9/C10/004-0,6PV C9/C10/004-1PV C9/C10/004-2PV C9/C10/004-0,6PR C9/C10/004-1PR C9/C10/004-2PR	C9/C8B/004-0,6PV C9/C8B/004-1PV C9/C8B/004-2PV C9/C8B/004-0,6PR C9/C8B/004-1PR C9/C8B/004-2PR

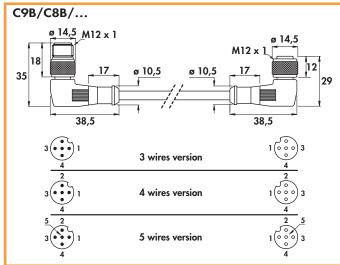
Note: For 5 wires version substitute the number before the cable length with 5. i.e. **C9/C10/005-0,6PV**(\*) for LFD PNP option on female part substitute the part of the code. /00 with /2P i.e. **C9/C10/**2

(\*) for LED PNP option on female part substitute the part of the code .../00... with .../2P... i.e. C9/C10/2P3-0,6PV for LED NPN option on female part substitute the part of the code .../00... with .../2N... i.e. C9/C10/2N3-0,6PV

# **CONNECTING CABLES FOR SENSORS**

- MALE M12 x 1 angled
- FEMALE M12 x 1
- According to EN 60947-5-2









#### Technical data:

 $\begin{array}{c} 10 \div 30 \text{ Vdc straight types with LED} \\ 5 \div 60 \text{ Vdc types angled with LED} \\ \text{max } 50 \text{ Vac} / 75 \text{ Vdc types without LED} \end{array}$ Operating voltage

Maximum current:

• Contact resistance: ≤ 5 mΩ • Contacts: CuZn, brass pre-nickeled and gold plated (0,8 µm)

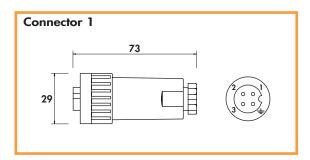
Moulding: self-locking in CuZn, nickel plated brass -  $25 \div + 90^{\circ}\text{C}$  IP68 with plug in fully locked position Locking nut: • Temperature range:

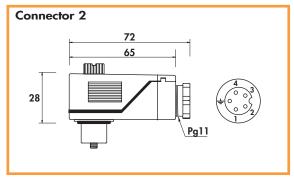
• Degree of protection:

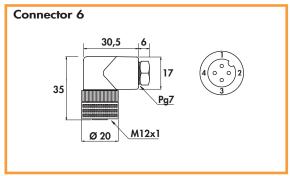
Cable		ORDERING REFERENCES			
Material	Length m.	3 wires		4 wires	
		Angled male     Straight female (*)	Angled male     Angled female (*)	Angled male     Straight female (*)	Angled male     Angled female (*)
PVC PVC PVC PUR PUR PUR	0,6 1 2 0,6 1 2	C9B/C10/003-0,6PV C9B/C10/003-1PV C9B/C10/003-2PV C9B/C10/003-0,6PR C9B/C10/003-1PR C9B/C10/003-2PR	C9B/C8B/003-0,6PV C9B/C8B/003-1PV C9B/C8B/003-2PV C9B/C8B/003-0,6PR C9B/C8B/003-1PR C9B/C8B/003-2PR	C9B/C10/004-0,6PV C9B/C10/004-1PV C9B/C10/004-2PV C9B/C10/004-0,6PR C9B/C10/004-1PR C9B/C10/004-2PR	C9B/C8B/004-0,6PV C9B/C8B/004-1PV C9B/C8B/004-2PV C9B/C8B/004-0,6PR C9B/C8B/004-1PR C9B/C8B/004-2PR

Note: For 5 wires version substitute the number before the cable length with 5. i.e. C9B/C10/005-0,6PV

(\*) for LED PNP option on female part substitute the part of the code .../00... with .../2P... i.e. C9B/C10/2P3-0,6PV for LED NPN option on female part substitute the part of the code .../00... with .../2N... i.e. C9B/C10/2N3-0,6PV







- Straight for housings M-1/M-2/M-4/M-5
  - Angled for housings M/M-3/M-6 •

Angled M12x1 • according to EN60947-5-2 •

# **General features:**

Female connectors of this section can be matched to the proximity sensors as indicated on the ordering references tables of the products. They must be separately ordered. These models are without cable. They all have screw clamps for

an easy assembling on the field.

CONNECTOR N°	MODEL	TYPE	DEGREE OF PROTECTION	ORDERING REFERENCES
1	Amphenol	T3109 - 000	IP 65	C1/00
2	Amphenol	C 164	IP 65	C2/00
6	Hirschmann	ELWIKA 4012	IP 65	C6/00