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OsiSense® XZ

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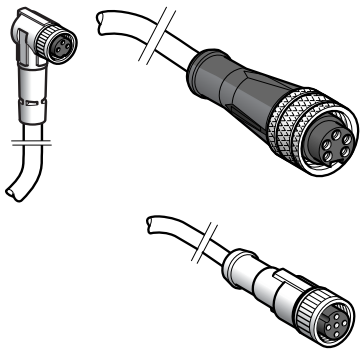
IP 67 passive splitter boxes

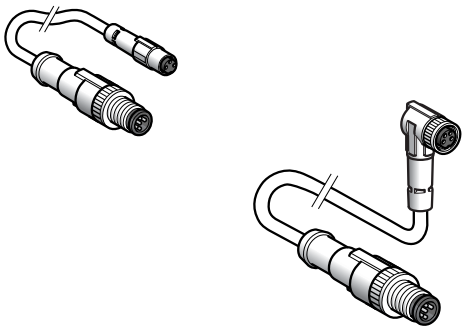
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Machine cabling accessories
OsiSense® XZ





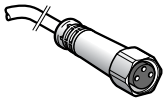
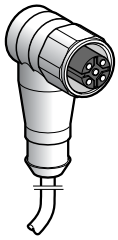
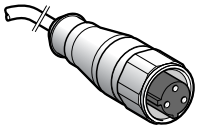
Description		Pre-wired connectors							Jumper cables (female–male)									
Type		**M8 Ø 8**		**M12**		**1/2"-20UNF**		**7/8"-16UN**	**M8 – M8**		**M8 – M12**		**M12 – M8**		**M12 – M12**			**DIN – M12**
	Female	●		● *(1)*		●			● (M8)				● (M12)					● (DIN)
	Male	●		● *(1)*		–			● (M8)		● (M12)		● (M8)		● (M12)			
Connection	Clip	●		–					●						–			
	Screw threaded	●							●									
Model	Straight	●							●									–
	Elbowed	●		● *(3)*		●		–	●									
Number of pins		3	4	3	4	5	3	5	3	4	5	3	4	3	4	5	3	
Signaling	Without LED	●		–	●				●									
	With LED	●	–	●	–				–									
Nominal voltage	⎓ 10…30 V (with LED)	●	–	●	–				–									
	∿ 30, ⎓ 36 V	–				●	–		–						●	–	●	
	∿ 60, ⎓ 75 V	●		–					●						–			
	∿ 125, ⎓ 150 V	–							–									
	∿ 250, ⎓ 300 V	–			●	–	●	–	–						●		–	
	∿ 250 V	–						●	–									
Current (A)		4						6	4									
Cable length	0.5 m	●	–		● *(2)*	–			–									
	1 m	●	–		● *(2)*	–			●									
	2 m	●							●									
	5 m	●			● *(3)*	●			–									
	10 m	●			● *(3)*	●			–									
Catalog numbers		**XZCP**							**XZCR**									
Pages		11/8 to 11/13							11/14 to 11/21									

(1) With 4 or 5 pins.
(2) For male pre-wired connectors.
(3) For female pre-wired connectors.

● Characteristics applicable to the cabling accessory.
– Characteristics not applicable to the cabling accessory.

Pre-wired connectors - Application series

PVC cable, stainless steel clamping ring and IP 69K degree of protection

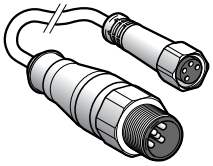
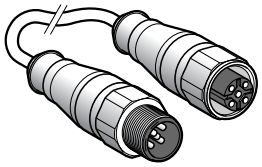




M8	M12	1/2"-20UNF
●	●	●
–	–	–
–		
● *(1)*		
●		
–	●	●
3 4	4 5	3
●		
–		
–		
–		
●	–	
–		
–	●	
–		
4		
–		
–		
–	●	–
●		
●		

XZCPA

11/13 and 11/22

Jumper cables (female–male) - Application series

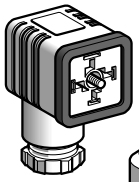
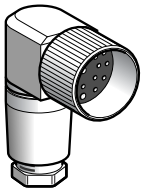
M8 – M12	M12 – M12
● (M8)	● (M12)
● (M12)	● (M12)
–	
● *(1)*	
●	
–	
4 3 4 5	
●	
–	
–	
–	
●	–
–	
–	●
–	
4	
–	
–	
●	
●	
–	

XZCRA

11/24 and 11/25

(1) Tightening by hand recommended.
● Characteristics applicable to the cabling accessory.
– Characteristics not applicable to the cabling accessory.

Machine cabling accessories
OsiSense® XZ

Description		Connectors					
							
							
Type		**M8**	**M12**	**1/2"-20UNF**	**M18**	**DIN 43650**	**M23**
	Female	●					
	Male	●			–		●
Connection	Clip	–					
	Screw threaded	●					
Model	Straight	●				–	●
	Elbowed	●					
Number of pins		3	4	5	3	4	19
Signaling	Without LED	●					
	With LED	–	●	–			
Nominal voltage	⎓ 10…30 V (with LED)	–	●	–			
	∿ 30, ⎓ 36 V	–		●	–		
	∿ 60, ⎓ 75 V	●	–				●
	∿ 125, ⎓ 150 V	–	●	–			
	∿ 250, ⎓ 300 V	–					–
	∿ 250 V	–		●			–
Current (A)		4	3	4	16		7.5
Cable length	0.5 m	–					
	1 m	–					
	2 m	–					
	5 m	–					
	10 m	–					
Catalog numbers		**XZCC**					
Pages		11/26 to 11/35					

● Characteristics applicable to the cabling accessory.
– Characteristics not applicable to the cabling accessory.

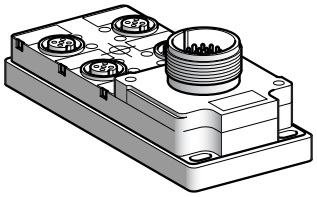
Connector adapters





M12	7/8"-16UN
–	
●	
–	
●	
●	
–	
4	5
●	
–	
–	
–	●
–	
–	
●	–
–	
4	6
Length of wires: 0.10 m	

Passive splitter boxes *(1)*



4 or 8 channel
● (M12)
–
–
–
●
–
19
●
●
⎓ 24 V
–
–
–
–
–
4 per channel
–
–
–
●
●

XZCE

11/36

ABE9

11/38

(1) Other splitter boxes, including Advantys FTB etc. Refer to the "Power supplies, splitter boxes and interfaces" catalog.
● Characteristics applicable to the cabling accessory.
– Characteristics not applicable to the cabling accessory.

Other versions Consult the Sensor Competency Center.

Machine cabling accessories

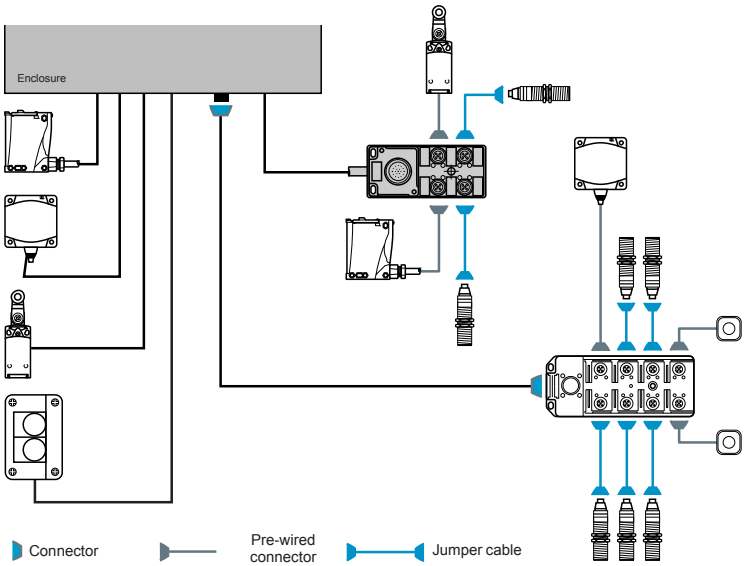
OsiSense® XZ

Cabling systems

11

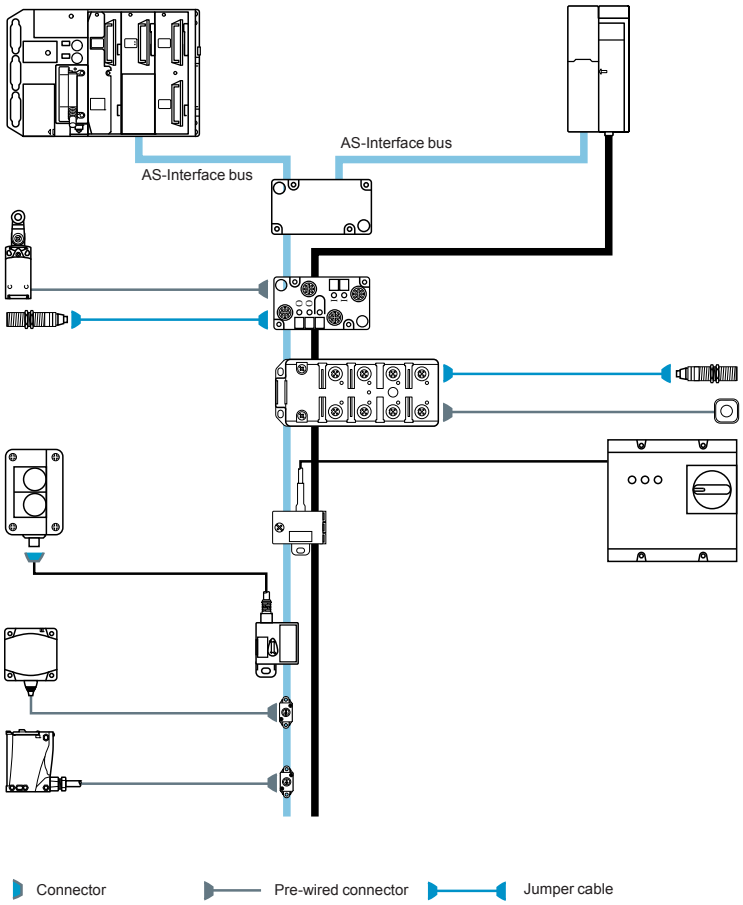
Parallel cabling system

Traditional cabling



Series cabling system

Cabling on AS-Interface bus

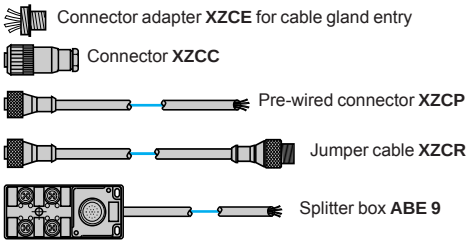


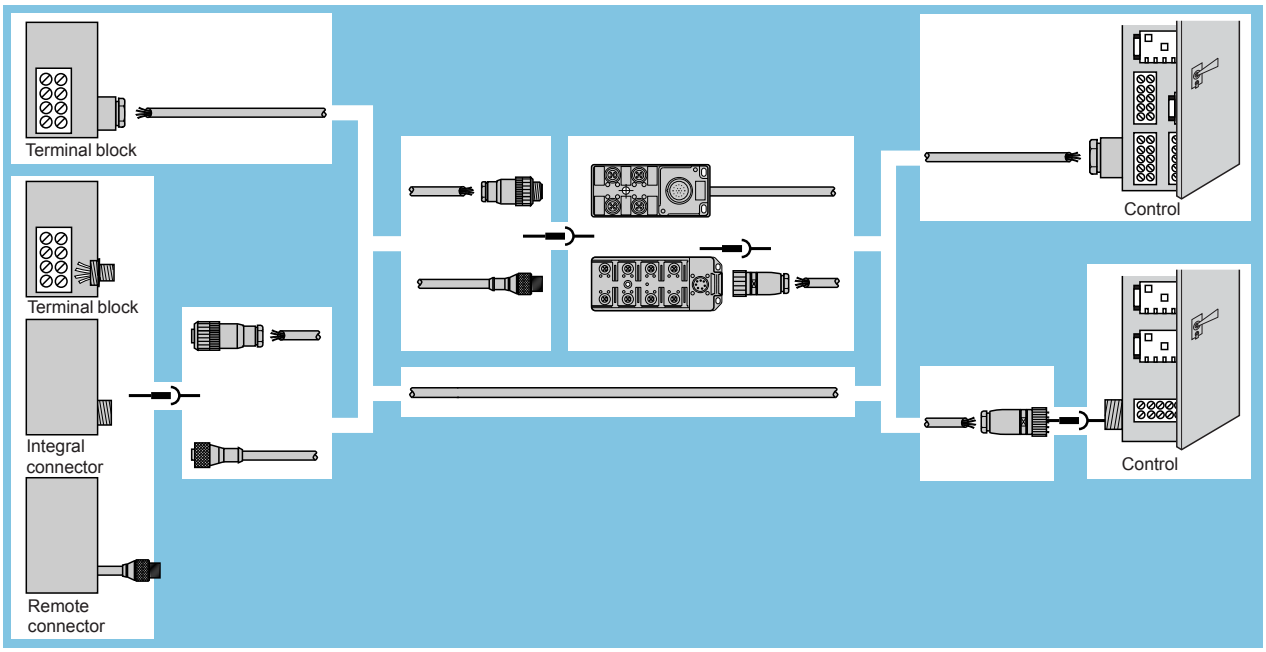
Machine cabling accessories

OsiSense® XZ

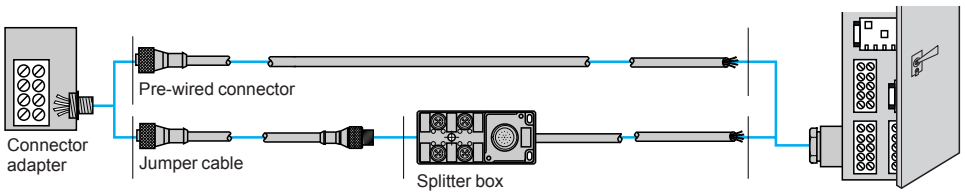
Cabling accessories selection

Cabling accessories





Connection example



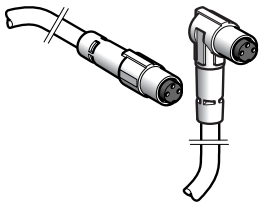
Specifications

Type of cable		Cable for pre-wired connectors and jumper cables	Bare cables XZCB4L●●●●	Application series cables
Ambient air temperature				
For operation	**°C (°F)**	- 35 to + 90 (- 31 to + 194)		- 25 to + 95 (- 13 to + 203)
For storage	**°C (°F)**	- 35 to + 100 (- 31 to + 212)	- 40 to + 100 (- 40 to + 212)	- 25 to + 95 (- 13 to + 203)
Color		Matte black		
Material Sheath		PUR/PVC	PvR (PVC/NBR)	PVC
Conductor insulation		PVC		PVC
Manufacturing method		Without silicone and without unmolding agent		
Nominal voltage	**V**	320 conforming to DIN VDE 0110 (III/3)	300	∼ 250 ⎓ 300
Insulation voltage	**kV**	2.5	2 conforming to NF C 32-201-1	3
Flame resistance		C2 conforming to NF C 32-070	C2 conforming to NF C 32-070	C2 conforming to NF C 32-070
Environmental resistance		Resistant to soluble, mineral or synthetic oils at 90 °C (194 °F)		Resistant to solvents and detergents
Bending radius		Flexing: 15 x external diameter Static: 10 x external diameter	R min. = 3 x external diameter	Static: 10 x external diameter
Tensile strength	**N/mm²**	20 to 45	10 to 35	11
Hardness		80 +/- 5 shore A	70 +/- 5 shore A	80 +/- 5 shore A

Machine cabling accessories

OsiSense® XZ

Pre-wired connectors, Ø 8 mm and M8







Connector type		Female, Ø 8 mm, straight	Female, Ø 8 mm, elbowed	Female, Ø 8 mm, elbowed with PNP LED	Female, Ø 8 mm, elbowed with NPN LED
Number of pins		3			

Catalog Numbers

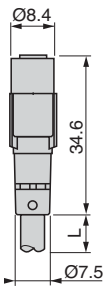
PUR cable (see page 11/7)	2 m	**XZCP0166L2**	**XZCP0266L2**	**XZCP0366L2**	**XZCP0466L2**
	5 m	**XZCP0166L5**	**XZCP0266L5**	**XZCP0366L5**	**XZCP0466L5**
	10 m	**XZCP0166L10**	**XZCP0266L10**	**XZCP0366L10**	**XZCP0466L10**
Weight: kg (lb)		**2 m**: 0.050 (0.110) **5 m**: 0.110 (0.243) **10 m**: 0.215 (0.474)			

Specifications

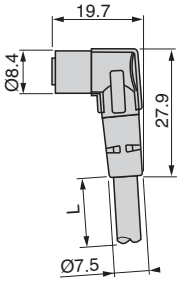
Certification		UL	UL	
Connection type		Clip *(1)*	Clip *(1)*	
Degree of protection		IP 67 (when correctly clipped together)	IP 65 (when correctly clipped together)	
Ambient air temperature	Static cable	- 35 to + 90 °C (- 31 to + 194 °F)	- 35 to + 90 °C (- 31 to + 194 °F)	
	Flexing cable	- 5 to + 90 °C (+ 23 to + 194 °F)	- 5 to + 90 °C (+ 23 to + 194 °F)	
Cabling		Ø 5.2 mm cable, conductor c.s.a.: 3 x 0.34 mm²	Ø 5.2 mm cable, conductor c.s.a.: 3 x 0.34 mm²	
LED indicators		–	2 PNP LEDs	2 NPN LEDs
Nominal voltage		∿ 60 V, ⎓ 75 V	⎓ 10 to 30 V	
Nominal current		4 A	4 A	
Insulation resistance		> 10^9 Ω	> 10^9 Ω	
Contact resistance		≤ 5 mΩ	≤ 5 mΩ	

Dimensions

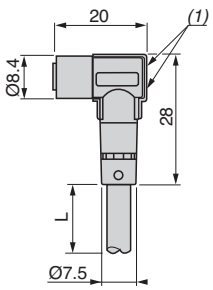
XZCP0166L●



XZCP0266L●



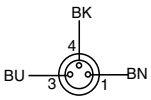
XZCP0366L●, XZCP0466L●



(1) 2 LEDs limited to ⎓ 10 to 30 V max.
L = 2, 5 or 10 m

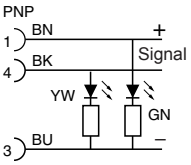
Wiring diagrams

XZCP0●66L●

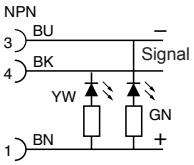


LED connection

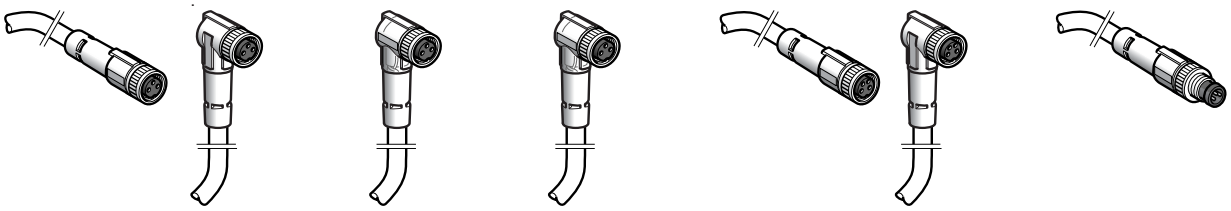
XZCP0366L●



XZCP0466L●

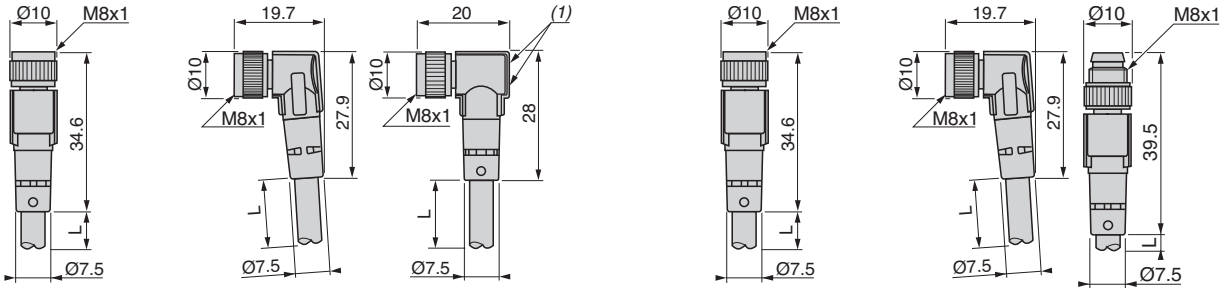


(1) Clip together connectors, without clamping ring.



Female, M8, straight	Female, M8, elbowed	Female, M8, elbowed with PNP LED	Female, M8, elbowed with NPN LED	Female, M8, straight	Female, M8, elbowed	Male, M8, straight
3				4		3
XZCP0566L2	**XZCP0666L2**	**XZCP0766L2**	**XZCP0866L2**	**XZCP0941L2**	**XZCP1041L2**	**XZCP2737L05**
XZCP0566L5	**XZCP0666L5**	**XZCP0766L5**	**XZCP0866L5**	**XZCP0941L5**	**XZCP1041L5**	**XZCP2737L1**
XZCP0566L10	**XZCP0666L10**	**XZCP0766L10**	**XZCP0866L10**	**XZCP0941L10**	**XZCP1041L10**	**XZCP2737L2**
2 m: 0.060 (0.132) **5 m**: 0.120 (0.265) **10 m**: 0.225 (0.496)				**2 m**: 0.080 (0.176) **5 m**: 0.180 (0.397) **10 m**: 0.360 (0.794)		**0.5 m**: 0.030 (0.066) **1 m**: 0.050 (0.110) **2 m**: 0.080 (0.176)
UL	UL			UL		UL
Screw threaded (metal clamping ring)	Screw threaded (metal clamping ring)			Screw threaded (metal clamping ring)		Screw threaded and clip (metal clamping ring)
IP 67 (with clamping ring correctly tightened)	IP 67 (with clamping ring correctly tightened)			IP 67 (with clamping ring correctly tightened)		IP 67 (with clamping ring correctly tightened)
- 35 to + 90 °C (- 31 to + 194 °F)	- 35 to + 90 °C (- 31 to + 194 °F)			- 35 to + 90 °C (- 31 to + 194 °F)		- 35 to + 90 °C (- 31 to + 194 °F)
- 5 to + 90 °C (+ 23 to + 194 °F)	- 5 to + 90 °C (+ 23 to + 194 °F)			- 5 to + 90 °C (+ 23 to + 194 °F)		- 5 to + 90 °C (+ 23 to + 194 °F)
Ø 5.2 mm cable, conductor c.s.a.: 3 x 0.34 mm²	Ø 5.2 mm cable, conductor c.s.a.: 3 x 0.34 mm²			Ø 5.2 mm cable, conductor c.s.a.: 4 x 0.34 mm²		Ø 5.2 mm cable, conductor c.s.a.: 3 x 0.34 mm²
–	2 PNP LEDs	2 NPN LEDs		–		–
∼ 60 V, ⎓ 75 V	⎓ 10 to 30 V			∼ 60 V, ⎓ 75 V		∼ 60 V, ⎓ 75 V
4 A	4 A			4 A		4 A
> 10^9 Ω	> 10^9 Ω			> 10^9 Ω		> 10^9 Ω
≤ 5 mΩ	≤ 5 mΩ			≤ 5 mΩ		≤ 5 mΩ

XZCP0566L● | **XZCP0666L●** | **XZCP0766L●, XZCP0866L●** | **XZCP0941L●** | **XZCP1041L●** | **XZCP2737L●**



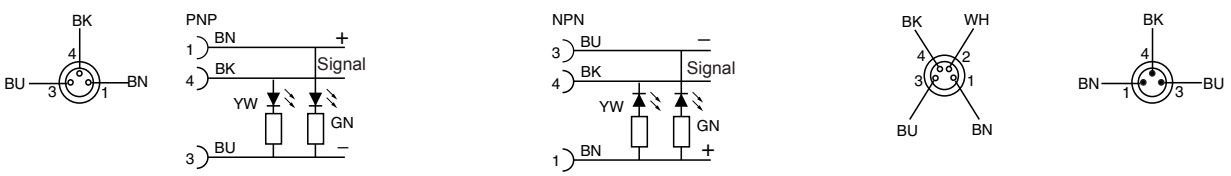
(1) 2 LEDs limited to ⎓ 10 to 30 V max.

L = 2, 5 or 10 m

L = 0.5, 1 or 2 m

LED connection

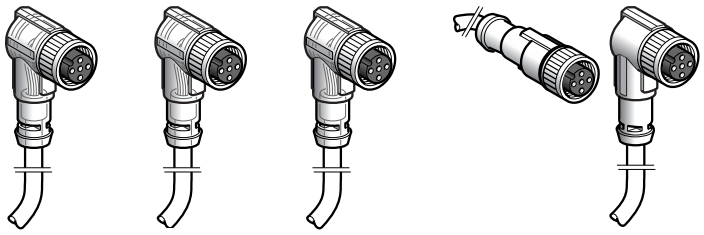
XZCP0●66L● | **XZCP0766L●** | **XZCP0866L●** | **XZCP●●41L●** | **XZCP2737L●**



Machine cabling accessories

OsiSense® XZ

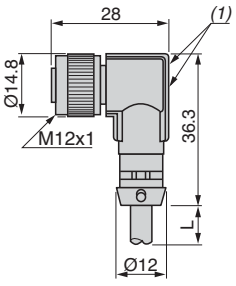
Pre-wired connectors, M12



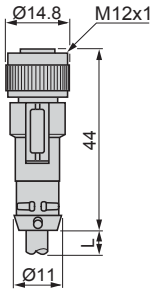
Connector type		Female, M12, elbowed with LED	Female, M12, elbowed with LED	Female, M12, elbowed with LED	Female, M12, straight	Female, M12, elbowed
Number of pins		3			4	
Catalog Numbers						
PUR cable (see page 11/7)	0.5 m	–				
	1 m	–				
	2 m	**XZCP2540L2**	**XZCP1340L2**	**XZCP1440L2**	**XZCP1141L2**	**XZCP1241L2**
	5 m	**XZCP2540L5**	**XZCP1340L5**	**XZCP1440L5**	**XZCP1141L5**	**XZCP1241L5**
	10 m	**XZCP2540L10**	**XZCP1340L10**	**XZCP1440L10**	**XZCP1141L10**	**XZCP1241L10**
Weight: kg (lb)		**2 m**: 0.080 (0.176) **5 m**: 0.180 (0.397) **10 m**: 0.350 (0.772)			**2 m**: 0.090 (0.198) **5 m**: 0.190 (0.419) **10 m**: 0.370 (0.816)	
Specifications						
Certification		UL			UL	
Connection type		Screw threaded (stainless steel clamping ring)	Screw threaded (metal clamping ring)		Screw threaded (metal clamping ring)	
Degree of protection		IP 67 (with clamping ring correctly tightened)			IP 67 (with clamping ring correctly tightened)	
Ambient air temperature	Static cable	- 35 to + 90 °C (- 31 to + 194 °F)			- 35 to + 90 °C (- 31 to + 194 °F)	
	Flexing cable	- 5 to + 90 °C (+ 23 to + 194 °F)			- 5 to + 90 °C (+ 23 to + 194 °F)	
Cabling		Ø 5.2 mm cable, conductor c.s.a.: 3 x 0.34 mm²			Ø 5.2 mm cable, conductor c.s.a.: 4 x 0.34 mm²	
LED indicators		2 PNP LEDs	2 PNP LEDs	2 NPN LEDs	–	
Nominal voltage		⎓ 10 to 30 V			∼ 250 V, ⎓ 300 V	
Nominal current		4 A			4 A	
Insulation resistance		> 10^9 Ω			> 10^9 Ω	
Contact resistance		≤ 5 mΩ			≤ 5 mΩ	

Dimensions

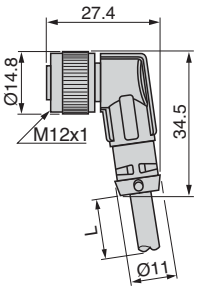
XZCP2540L●, XZCP1340L●, XZCP1440L●



XZCP1141L●



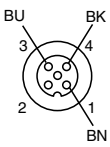
XZCP1241L●



(1) 2 LEDs limited to ⎓ 10 to 30 V max.
L = 2, 5 or 10 m

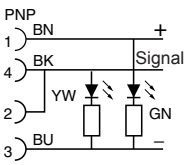
Wiring diagrams

XZCP2540L●, XZCP1●40L●

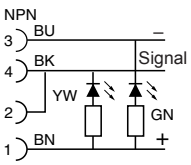


LED connection

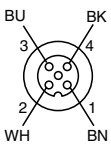
XZCP2540L●, XZCP1340L●

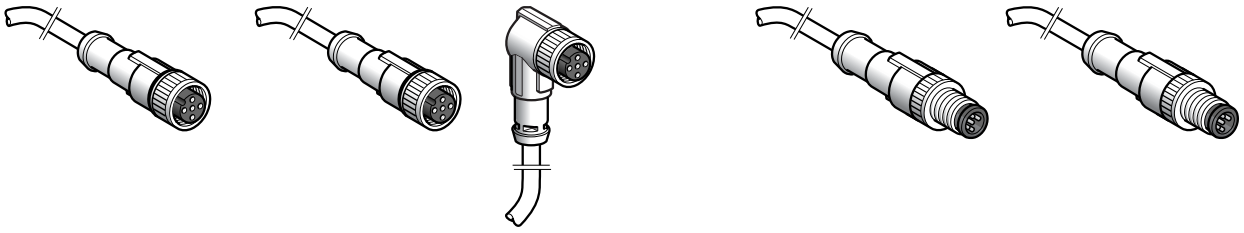


XZCP1440L●



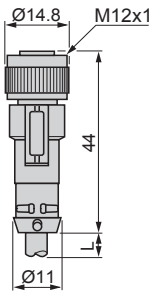
XZCP1●41L●



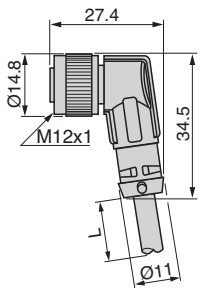


Female, M12, straight	Female, M12, straight	Female, M12, elbowed	Male, M12, straight	Male, M12, straight
4	5	5	4	5
–			**XZCP1541L05**	**XZCP1564L05**
–			**XZCP1541L1**	**XZCP1564L1**
XZCP1169L2	**XZCP1164L2**	**XZCP1264L2**	**XZCP1541L2**	**XZCP1564L2**
XZCP1169L5	**XZCP1164L5**	**XZCP1264L5**	–	
XZCP1169L10	**XZCP1164L10**	**XZCP1264L10**	–	
2 m: 0.105 (0.231) **5 m**: 0.260 (0.573) **10 m**: 0.500 (1.102)	**2 m**: 0.115 (0.254) **5 m**: 0.270 (0.595) **10 m**: 0.520 (1.146)		**0.5 m**: 0.030 (0.066) **1 m**: 0.050 (0.110) **2 m**: 0.085 (0.187)	**0.5 m**: 0.040 (0.088) **1 m**: 0.065 (0.143) **2 m**: 0.115 (0.254)
UL			UL	
Screw threaded (metal clamping ring)			Screw threaded (metal clamping ring)	
IP 67 (with clamping ring correctly tightened)			IP 67 (with clamping ring correctly tightened)	
- 35 to + 90 °C (- 31 to + 194 °F)			- 35 to + 90 °C (- 31 to + 194 °F)	
- 5 to + 90 °C (+ 23 to + 194 °F)			- 5 to + 90 °C (+ 23 to + 194 °F)	
Ø 5.7 mm cable, conductor c.s.a.: 4 x 0.34 mm²	Ø 5.9 mm cable, conductor c.s.a.: 5 x 0.34 mm²		Ø 5.2 mm cable, conductor c.s.a.: 4 x 0.34 mm²	Ø 5.9 mm cable, conductor c.s.a.: 4 x 0.34 mm² + 1 x 0.5 mm²
–	–		–	–
∼ 250 V, ⎓ 300 V	∼ 30 V, ⎓ 36 V		∼ 250 V, ⎓ 300 V	∼ 30 V, ⎓ 36 V
4 A	4 A		4 A	4 A
> 10^9 Ω	> 10^9 Ω		> 10^9 Ω	> 10^9 Ω
≤ 5 mΩ	≤ 5 mΩ		≤ 5 mΩ	≤ 5 mΩ

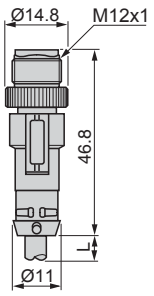
XZCP1169L●, XZCP1164L●



XZCP1264L●



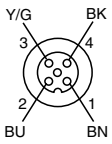
XZCP1541L●, XZCP1564L●



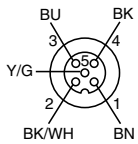
L = 2, 5 or 10 m

L = 0.5, 1 or 2 m

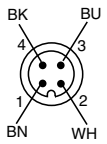
XZCP1169L●



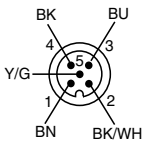
XZCP1●64L●



XZCP1541L●



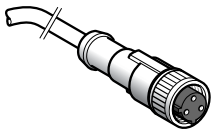
XZCP1564L●

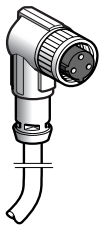


Machine cabling accessories

OsiSense® XZ

Pre-wired connectors, 1/2" 20UNF and 7/8" 16UN

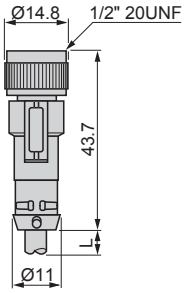




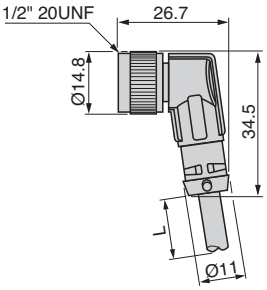
Connector type		Female, 1/2" 20UNF, straight	Female, 1/2" 20UNF, elbowed
Number of pins		3	
Catalog Numbers			
PUR cable (see page 11/7)	2 m	**XZCP1865L2**	**XZCP1965L2**
	5 m	**XZCP1865L5**	**XZCP1965L5**
	10 m	**XZCP1865L10**	**XZCP1965L10**
Weight: kg (lb)		**2 m**: 0.080 (0.176) **5 m**: 0.180 (0.397) **10 m**: 0.350 (0.772)	
Specifications			
Certification		UL	
Connection type		Screw threaded (metal clamping ring)	
Degree of protection		IP 67 (with clamping ring correctly tightened)	
Ambient air temperature		- 35 to + 80 °C (- 31 to + 176 °F)	
Cabling		Ø 5.2 mm cable, conductor c.s.a.: 3 x 0.34 mm²	
LED indicators		–	
Nominal voltage		∼ 250 V, ⎓ 300 V	
Nominal current		4 A	
Insulation resistance		> 10^9 Ω	
Contact resistance		≤ 5 mΩ	

Dimensions

XZCP1865L●



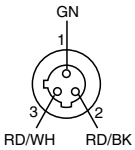
XZCP1965L●

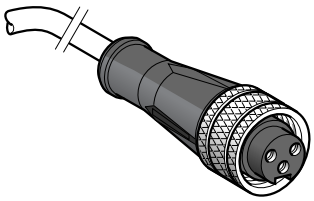
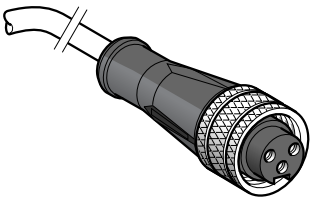
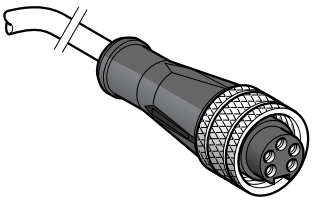
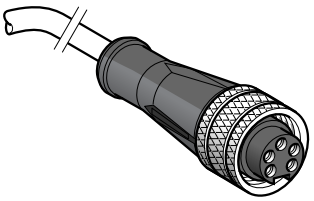


L = 2, 5 or 10 m

Wiring diagrams

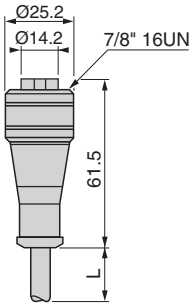
XZCP1●65L●



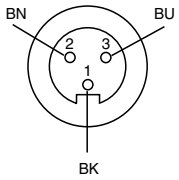
Female, 7/8" 16UN, straight	Female, 7/8" 16UN, straight	Female, 7/8" 16UN, straight	Female, 7/8" 16UN, straight
3		5	
XZCP1662L2	**XZCP1670L2**	**XZCP1764L2**	**XZCP1771L2**
XZCP1662L5	**XZCP1670L5**	**XZCP1764L5**	**XZCP1771L5**
–	**XZCP1670L10**	**XZCP1764L10**	**XZCP1771L10**
2 m: 0.180 (0.397) **5 m**: 0.420 (0.926)	**2 m**: 0.180 (0.397) **5 m**: 0.420 (0.926) **10 m**: 0.820 (1.808)	**2 m**: 0.185 (0.408) **5 m**: 0.460 (1.014) **10 m**: 0.900 (1.984)	**2 m**: 0.190 (0.419) **5 m**: 0.475 (1.047) **10 m**: 0.950 (2.094)
UL		UL	
Screw threaded (metal clamping ring)		Screw threaded (metal clamping ring)	
IP 67 (with clamping ring correctly tightened)		IP 67 (with clamping ring correctly tightened)	
- 35 to + 80 °C (- 31 to + 176 °F)		- 35 to + 80 °C (- 31 to + 176 °F)	
Ø 5 mm cable conductor c.s.a.: 3 x 0.5 mm²	Ø 5 mm cable conductor c.s.a.: 3 x 0.5 mm²	Ø 5.9 mm cable conductor c.s.a.: 5 x 0.34 mm²	Ø 6.7 mm cable conductor c.s.a.: 5 x 0.5 mm²
–	–	–	–
∼ 250 V	∼ 250 V	∼ 250 V	∼ 250 V
6 A	6 A	4 A	6 A
> 10^9 Ω	> 10^9 Ω	> 10^9 Ω	> 10^9 Ω
≤ 5 mΩ	≤ 5 mΩ	≤ 5 mΩ	≤ 5 mΩ

XZCP1662L●, XZCP1670L●, XZCP1764L●, XZCP1771L●

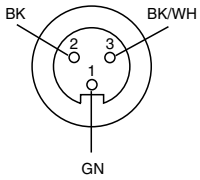


L = 2, 5 or 10 m

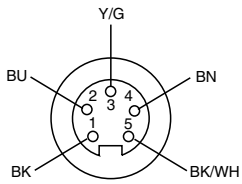
XZCP1662L●



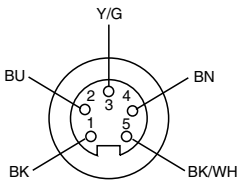
XZCP1670L●



XZCP1764L●



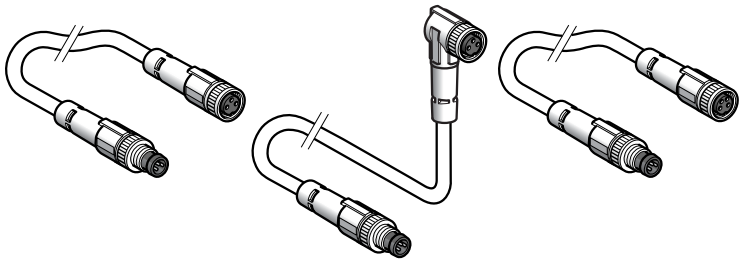
XZCP1771L●



Machine cabling accessories

OsiSense® XZ

Jumper cables, M8-M8 and M8-M12



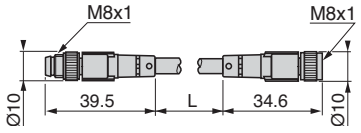
Male connector type		M8, 3-pin, straight		
Female connector type		M8, 3-pin, straight	M8, 3-pin, elbowed	M8, 4-pin, straight
Number of conductors		3	3	3
Catalog Numbers				
PUR cable	1 m	**XZCR2705037R1**	**XZCR2706037R1**	**XZCR2709037S1**
	2 m	**XZCR2705037R2**	**XZCR2706037R2**	**XZCR2709037S2**
Weight: kg (lb)	1 m	0.060 (0.132)		
	2 m	0.090 (0.198)		

Specifications

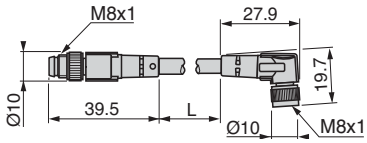
Certification		UL
Connection type		Male: screw threaded and clip. Female: screw threaded. Metal clamping ring.
Degree of protection		IP 67
Ambient air temperature	Static cable	- 35 to + 90 °C (- 31 to + 194 °F)
	Flexing cable	- 5 to + 90 °C (+ 23 to + 194°F)
Conductor c.s.a.		3 x 0.34 mm²
Cable diameter		5.2 mm
Nominal voltage		∼ 60 V, ⎓ 45 V
Nominal current		4 A
Insulation resistance		> 10^9 Ω
Contact resistance		≤ 5 mΩ

Dimensions

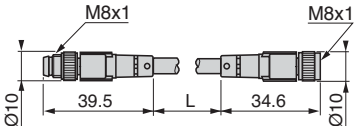
XZCR2705037R●



XZCR2706037R●



XZCR2709037S●

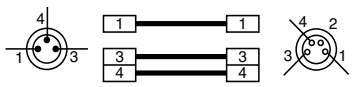


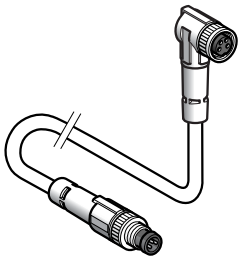
L = 1 or 2 m

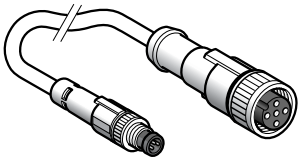
Wiring diagrams

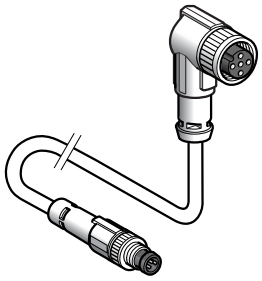








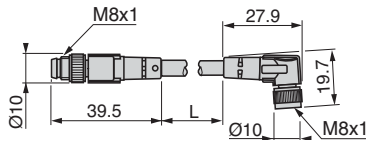




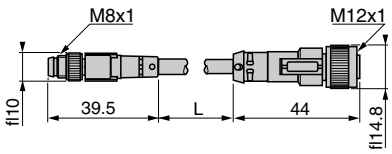
M8, 3-pin, straight		
M8, 4-pin, elbowed	M12, 5-pin, straight	M12, 5-pin, elbowed
3	3	3
XZCR2710037S1	**XZCR2711037T1**	**XZCR2712037T1**
XZCR2710037S2	**XZCR2711037T2**	**XZCR2712037T2**
0.060 (0.132)	0.065 (0.143)	0.065 (0.143)
0.090 (0.198)	0.093 (0.205)	0.093 (0.205)

UL
Male: screw threaded and clip. Female: screw threaded. Metal clamping ring
IP 67
- 35 to + 90 °C (- 31 to + 194 °F)
- 5 to + 90 °C (+ 23 to + 194°F)
3 x 0.34 mm²
5.2 mm
∼ 60 V, ⎓ 45 V
4 A
> 10^9 Ω
≤ 5 mΩ

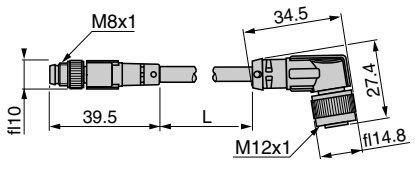
XZCR2710037S●



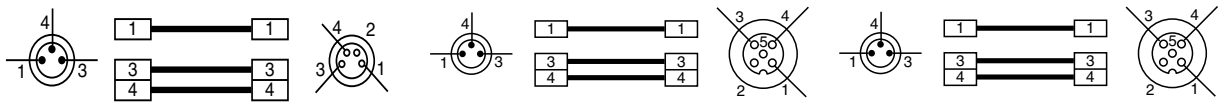
XZCR2711037T●



XZCR2712037T●



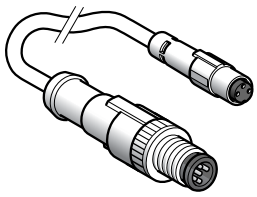
L = 1 or 2 m

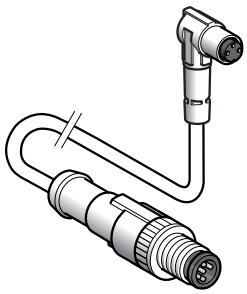


Machine cabling accessories

OsiSense® XZ

Jumper cables, Ø 8 mm-M12 and M8-M12

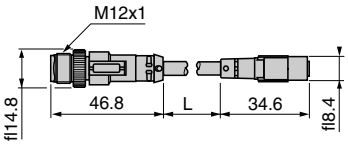




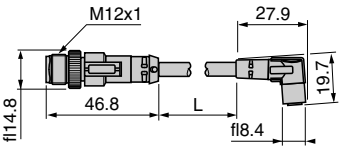
		Clip	
Male connector type		M12, 3-pin, straight	
Female connector type		Ø 8 mm, 3-pin, straight	Ø 8 mm, 3-pin, elbowed
Number of conductors		3	
Catalog Numbers			
PUR cable (see page 11/7)	1 m	**XZCR1501040G1**	**XZCR1502040G1**
	2 m	**XZCR1501040G2**	**XZCR1502040G2**
Weight: kg (lb)		**1 m:** 0.050 (0.110). **2 m:** 0.080 (0.176)	
Specifications			
Certification		UL	
Connection type		Male: screw threaded. Female: clip *(1)*	
Degree of protection		IP 67 (when correctly clipped together or with clamping ring correctly tightened)	
Ambient air temperature	Static cable	- 35 to + 90 °C (- 31 to + 194 °F)	
	Flexing cable	- 5 to + 90 °C (+ 23 to + 194 °F)	
Conductor c.s.a.		3 x 0.34 mm^2	
Cable diameter		5.2 mm	
Nominal voltage		∼ 60 V, ⎓ 75 V	
Nominal current		4 A	
Insulation resistance		> 10^9 Ω	
Contact resistance		≤ 5 mΩ	

Dimensions

XZCR1501040G●



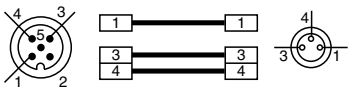
XZCR1502040G●



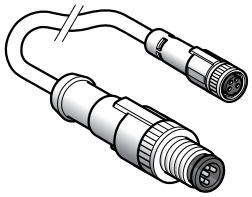
L = 1 or 2 m

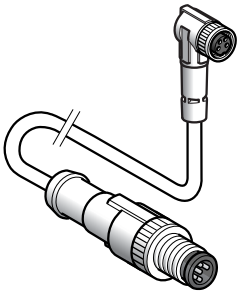
Wiring diagrams

XZCR1501040G●, XZCR1502040G●



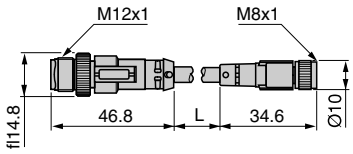
(1) Clip together connector, without clamping ring.



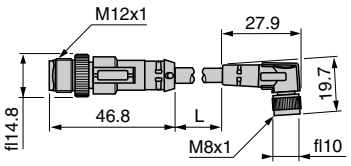


Screw threaded			
M12, 3-pin, straight		M12, 4-pin, straight	
M8, 3-pin, straight	M8, 3-pin, elbowed	M8, 4-pin, straight	M8, 4-pin, elbowed
3		4	
XZCR1509040H1	**XZCR1510040H1**	**XZCR1509041J1**	**XZCR1510041J1**
XZCR1509040H2	**XZCR1510040H2**	**XZCR1509041J2**	**XZCR1510041J2**
1 m: 0.050 (0.110). **2 m**: 0.080 (0.176)		**1 m**: 0.055 (0.121). **2 m:** 0.090 (0.198)	
UL			
Male and female: screw threaded			
IP 67 (with clamping ring correctly tightened)			
- 35 to + 90 °C (- 31 to + 194 °F)			
- 5 to + 90 °C (+ 23 to + 194 °F)			
3 x 0.34 mm²		4 x 0.34 mm²	
5.2 mm			
∼ 60 V, ⎓ 75 V			
4 A			
> 10^9 Ω			
≤ 5 mΩ			

XZCR1509040H●, XZCR1509041J●

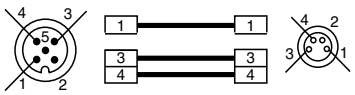


XZCR1510040H●, XZCR1510041J●

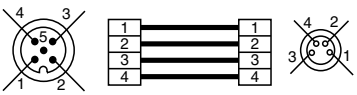


L = 1 or 2 m

XZCR1509040H●, XZCR1510040H●



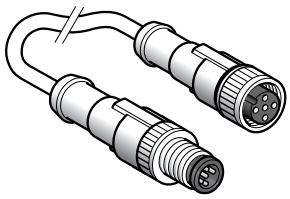
XZCR1509041J●, XZCR1510041J●

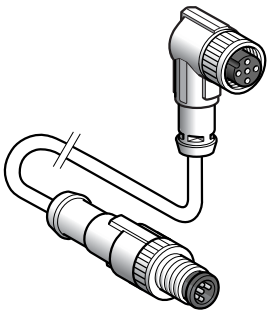


Machine cabling accessories

OsiSense® XZ

Jumper cables, M12-M12 and DIN 43650 A-M12

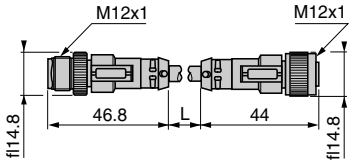




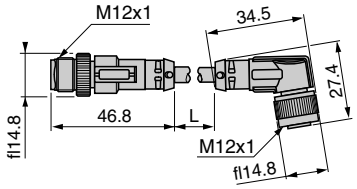
Male connector type		M12, 3-pin, straight			
Female connector type		M12, 3-pin, straight	M12, 3-pin, elbowed	M12, 3-pin, straight	M12, 3-pin, elbowed
Number of conductors		3			
Catalog Numbers					
PUR cable (see page 11/7)	1 m	**XZCR1511040A1**	**XZCR1512040A1**	**XZCR1511040E1**	**XZCR1512040E1**
	2 m	**XZCR1511040A2**	**XZCR1512040A2**	**XZCR1511040E2**	**XZCR1512040E2**
Weight: kg (lb)		**1 m**: 0.065 (0.143). **2 m**: 0.095 (0.209)			
Specifications					
Certification		UL			
Connection type		Male and female: screw threaded			
Degree of protection		IP 67 (with clamping ring correctly tightened)			
Ambient air temperature	Static cable	- 35 to + 90 °C (- 31 to + 194°F)			
	Flexing cable	- 5 to + 90 °C (+ 23 to + 194 °F)			
Conductor c.s.a.		3 x 0.34 mm^2			
Cable diameter		5.2 mm			
Nominal voltage		~ 250 V, ⎓ 300 V			
Nominal current		4 A			
Insulation resistance		> 10^9 Ω			
Contact resistance		≤ 5 mΩ			

Dimensions

XZCR1511040A●, XZCR1511040E●



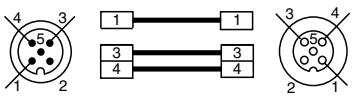
XZCR1512040A●, XZCR1512040E●



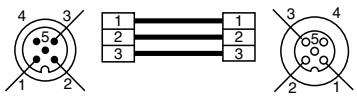
L = 1 or 2 m

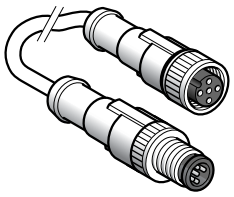
Wiring diagrams

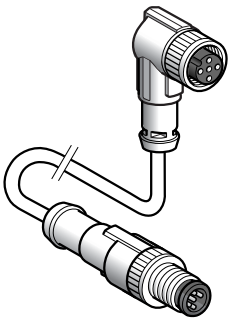
XZCR1511040A●, XZCR1512040A●

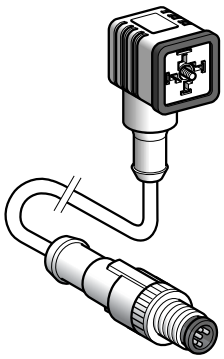


XZCR1511040E●, XZCR1512040E●



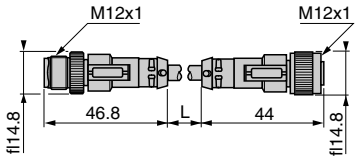




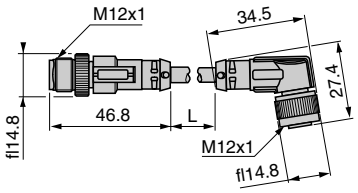


M12, 3-pin, straight				
M12, 3-pin, straight	M12, 3-pin, elbowed	M12, 3-pin, straight	M12, 3-pin, elbowed	DIN 43650 A, elbowed
3				
XZCR1511062B1	**XZCR1512062B1**	**XZCR1511062F1**	**XZCR1512062F1**	**XZCR1523062K1**
XZCR1511062B2	**XZCR1512062B2**	**XZCR1511062F2**	**XZCR1512062F2**	**XZCR1523062K2**
1 m: 0.065 (0.143). **2 m**: 0.095 (0.209)				**1 m**: 0.110 (0.243) **2 m**: 0.140 (0.309)
UL				–
Male and female: screw threaded				
IP 67 (with clamping ring correctly tightened)				
- 35 to + 90 °C (- 31 to + 194°F)				
- 5 to + 90 °C (+ 23 to + 194 °F)				
3 x 0.5 mm^2				3 x 0.50 mm^2
5.2 mm				4.5 mm
∼ 30 V, ⎓ 36 V				
4 A				
> 10^9 Ω				
≤ 5 mΩ				

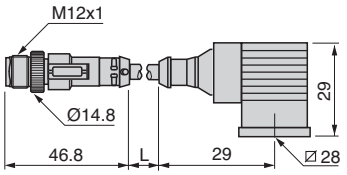
XZCR1511062B●, XZCR1511062F●



XZCR1512062B●, XZCR1512062F●

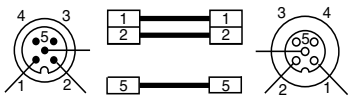


XZCR1523062K●

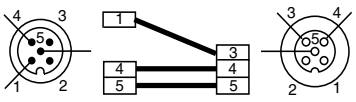


L = 1 or 2 m

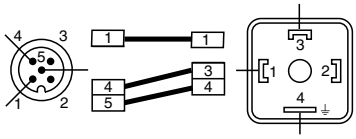
XZCR1511062B●, XZCR1512062B●



XZCR1511062F●, XZCR1512062F●



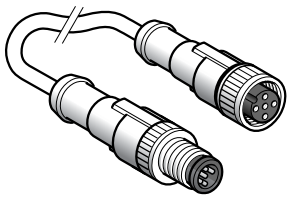
XZCR1523062K●

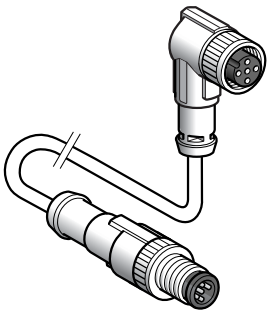


Machine cabling accessories

OsiSense® XZ

Jumper cables, M12-M12

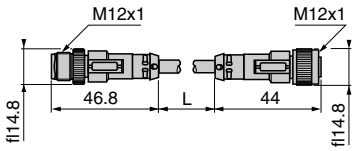




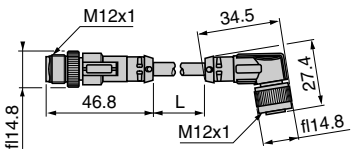
Male connector type		M12, 4-pin, straight	
Female connector type		M12, 4-pin, straight	M12, 4-pin, elbowed
Number of conductors		4	
Catalog Numbers			
PUR cable (see page 11/7)	1 m	**XZCR1511041C1**	**XZCR1512041C1**
	2 m	**XZCR1511041C2**	**XZCR1512041C2**
Weight: kg (lb)		**1 m**: 0.065 (0.143). **2 m**: 0.095 (0.209)	
Specifications			
Certification		UL	
Connection type		Male and female: screw threaded	
Degree of protection		IP 67 (with clamping ring correctly tightened)	
Ambient air temperature	Static cable	- 35 to + 90 °C (- 31 to + 194 °F)	
	Flexing cable	- 5 to + 90 °C (+ 23 to + 194 °F)	
Conductor c.s.a.		4 x 0.34 mm^2	
Cable diameter		5.2 mm	
Nominal voltage		∼ 250 V, ⎓ 300 V	
Nominal current		4 A	
Insulation resistance		> 10^9 Ω	
Contact resistance		≤ 5 mΩ	

Dimensions

XZCR1511041C●



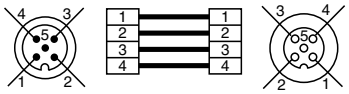
XZCR1512041C●

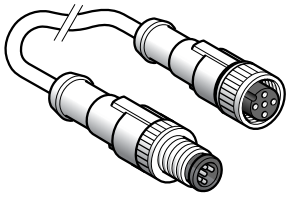


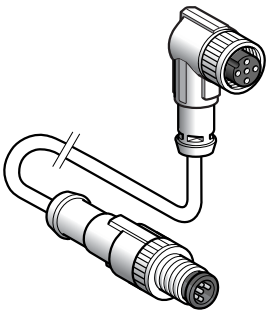
L = 1 or 2 m

Wiring diagrams

XZCR1511041C●, XZCR1512041C●

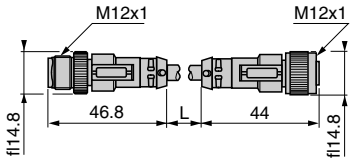




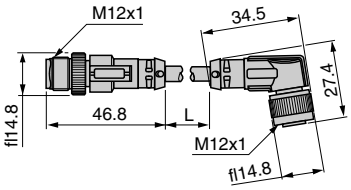


M12, 5-pin, straight	
M12, 5-pin, straight	M12, 5-pin, elbowed
5	
XZCR1511064D1	**XZCR1512064D1**
XZCR1511064D2	**XZCR1512064D2**
1 m: 0.080 (0.176). **2 m**: 0.130 (0.287)	
UL	
Male and female: screw threaded	
IP 67 (with clamping ring correctly tightened)	
- 35 to + 90 °C (- 31 to + 194 °F)	
- 5 to + 90 °C (+ 23 to + 194 °F)	
4 x 0.34 mm^2 + 1 x 0.5 mm^2	
5.9 mm	
∼ 30 V, ⎓ 36 V	
4 A	
> 10^9 Ω	
≤ 5 mΩ	

XZCR1511064D●

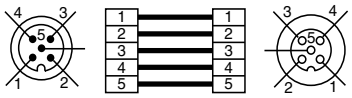


XZCR1512064D●



L = 1 or 2 m

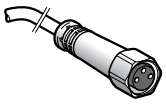
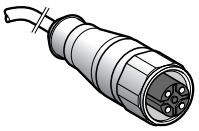
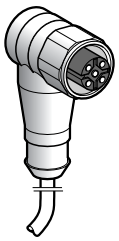
XZCR1511064D●, XZCR1512064D●



Machine cabling accessories

OsiSense® XZ

Pre-wired connectors, Application series
M8, M12 and 1/2" 20UNF

Connector type		Female, M8, straight	Female, M8, straight	Female, M12, straight	Female, M12, elbowed	Female, M12, elbowed
Number of pins		3	4	4	4	5
Catalog Numbers						
PVC cable (see page 11/7)	2 m	–	–	**XZCPA1141L2**	**XZCPA1241L2**	**XZCPA1164L2**
	5 m	**XZCPA0566L5**	**XZCPA0941L5**	**XZCPA1141L5**	**XZCPA1241L5**	**XZCPA1164L5**
	10 m	**XZCPA0566L10**	**XZCPA0941L10**	**XZCPA1141L10**	**XZCPA1241L10**	**XZCPA1164L10**
Weight: kg (lb)	2 m	–	–	0.090 (0.198)	0.090 (0.198)	0.110 (0.243)
	5 m	0.175 (0.386)	0.200 (0.441)	0.210 (0.463)	0.210 (0.463)	0.250 (0.551)
	10 m	0.340 (0.750)	0.400 (0.882)	0.410 (0.904)	0.410 (0.904)	0.485 (1.069)

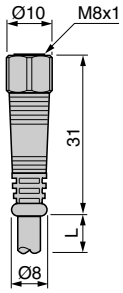
Specifications

Connection type		Screw threaded, smooth, hexagonal, stainless steel 316L clamping ring *(1)*				
Clamping ring dimension		9 mm		14 mm		
Degree of protection		IP 68		IP 69K		
Ambient air temperature	Static cable usage	- 25 to + 85 °C (- 13 to + 185 °F)				
Cabling	Cable	Ø 5.0 mm	Ø 5.3 mm	Ø 5.3 mm	Ø 5.3 mm	Ø 5.7 mm
	Conductor c.s.a.	3 x 0.34 mm²	4 x 0.34 mm²	4 x 0.34 mm²		5 x 0.34 mm²
Nominal voltage		∼ 60 V, ⎓ 75 V		∼ 250 V, ⎓ 300 V		
Nominal current		4 A		4 A		
Insulation resistance		> 10^9 Ω		> 10^9 Ω		
Contact resistance		≤ 5 mΩ		≤ 5 mΩ		

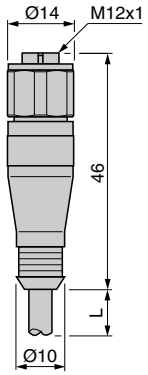
(1) Tightening by hand recommended

Dimensions

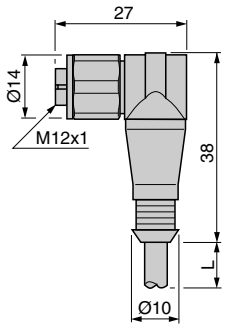
XZCPA0566L●, XZCPA0941L●



XZCPA1141L●



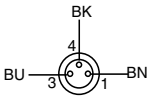
XZCPA1241L●, XZCPA1164L●



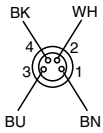
L = 2, 5 or 10 m

Wiring diagrams

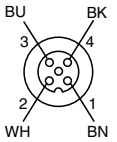
XZCPA0566L●



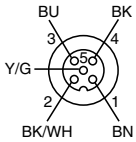
XZCPA0941L●

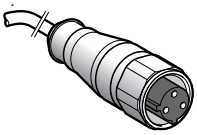


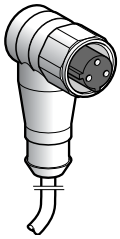
XZCPA1141L●, XZCPA1241L●



XZCPA1164L●



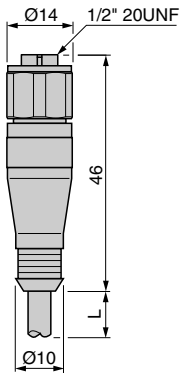




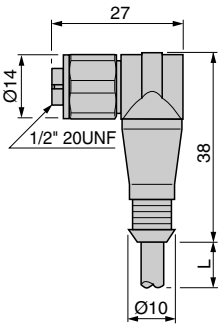
Female, 1/2" 20UNF, straight	Female, 1/2" 20UNF, elbowed
3	3
–	–
XZCPA1865L5	**XZCPA1965L5**
XZCPA1865L10	**XZCPA1965L10**
–	–
0.210 (0.463)	0.250 (0.551)
0.410 (0.904)	0.485 (1.069)
Screw threaded, smooth, hexagonal, stainless steel 316L clamping ring *(1)*	
14 mm	
IP 69K	
- 25 to + 85 °C (- 13 to + 185 °F)	
Ø 5.0 mm	
3 x 0.34 mm^2	3 x 0.34 mm^2
∼ 250 V, ⎓ 300 V	∼ 250 V, ⎓ 300 V
4 A	4 A
> 10^9 Ω	> 10^9 Ω
≤ 5 mΩ	≤ 5 mΩ

(1) Tightening by hand recommended

XZCPA1865L●

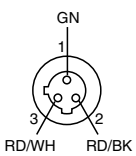


XZCPA1965L●



L = 5 or 10 m

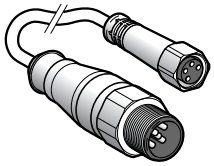
XZCPA1865L●, XZCPA1965L●

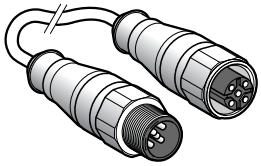


Machine cabling accessories

OsiSense® XZ

Jumper cables, Application series
M8-M12 and M12-M12





Male connector type		M12, 4-pin, straight	M12, 3-pin, straight
Female connector type		M8, 4-pin, straight	M12, 3-pin, straight
Number of conductors		4	3

Catalog Numbers

PVC cable (see page 11/7)	2 m	**XZCRA150941J2**	**XZCRA151140A2**
	5 m	**XZCRA150941J5**	**XZCRA151140A5**
Weight: kg (lb)	2 m	0.100 (0.220)	0.095 (0.209)
	5 m	0.210 (0.463)	0.200 (0.440)

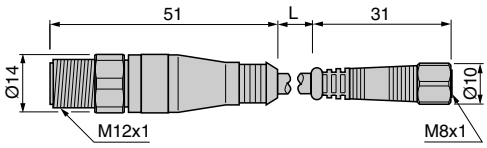
Specifications

Connection type		Screw threaded, smooth, hexagonal, stainless steel 316L clamping ring *(1)*	
Clamping ring dimension		14/9 mm	14 mm
Degree of protection		IP 68	IP 69K
Ambient air temperature	Static cable usage	- 25 to + 85 °C (- 13 to + 185 °F)	
Cabling	Cable	Ø 5.3 mm	Ø 5.0 mm
	Conductor c.s.a.	4 x 0.34 mm^2	3 x 0.34 mm^2
Nominal voltage		∼ 60 V, ⎓ 75 V	∼ 250 V, ⎓ 300 V
Nominal current		4 A	
Insulation resistance		> 10^9 Ω	
Contact resistance		≤ 5 mΩ	

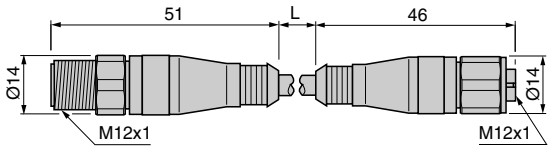
(1) Tightening by hand recommended

Dimensions

XZCRA150941J●



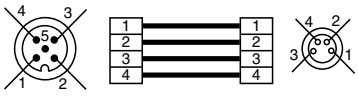
XZCRA151140A●



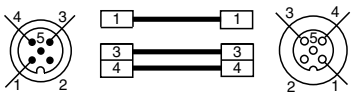
L = 2 or 5 m

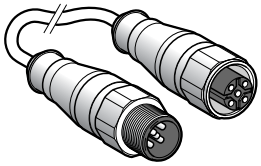
Wiring diagrams

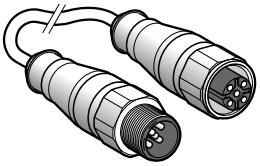
XZCRA150941J●



XZCRA151140A●



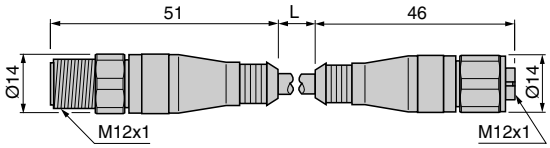




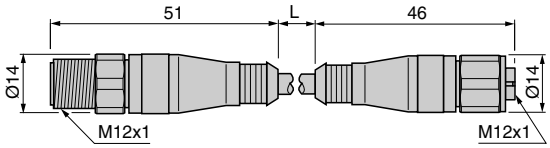
M12, 4-pin, straight	M12, 5-pin, straight
M12, 4-pin, straight	M12, 5-pin, straight
4	5
XZCRA151141C2	**XZCRA151164D2**
XZCRA151141C5	**XZCRA151164D5**
0.105 (0.231)	0.120 (0.265)
0.220 (0.485)	0.260 (0.573)
Screw threaded, smooth, hexagonal, stainless steel 316L clamping ring *(1)*	
14 mm	
IP 69K	
- 25 to + 85 °C (- 13 to + 185 °F)	
Ø 5.3 mm	Ø 5.7 mm
4 x 0.34 mm^2	5 x 0.34 mm^2
∼ 250 V, ⎓ 300 V	
4 A	
> 10^9 Ω	
≤ 5 mΩ	

(1) Tightening by hand recommended

XZCRA151141C●

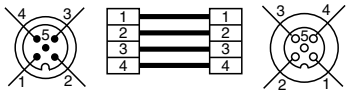


XZCRA151164D●

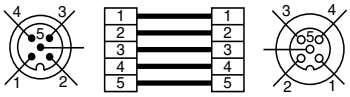


L = 2 or 5 m

XZCRA151141C●



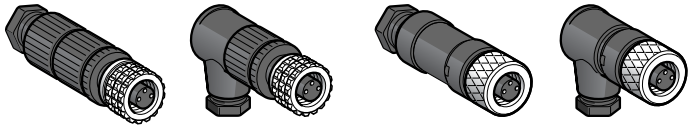
XZCRA151164D●



Machine cabling accessories

OsiSense® XZ

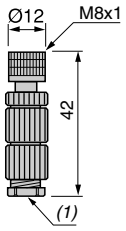
Connectors, M8



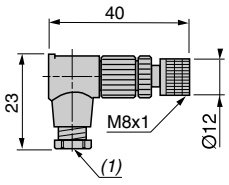
Connector type		Female, M8, straight	Female, M8, elbowed	Female, M8, straight	Female, M8, elbowed
Number of pins		3			
Cable connection		By axial IDC (insulation displacement connector)		To solder terminals	
Catalog Numbers					
Plastic body	Metal clamping ring	**XZCC8FDM30V**	**XZCC8FCM30V**	**XZCC8FDM30S**	**XZCC8FCM30S**
	Plastic clamping ring	–			
Weight: kg (lb)		0.010 (0.022)			
Specifications					
Connection type		Screw threaded (metal clamping ring)		Screw threaded (metal clamping ring)	
Degree of protection		IP 67 (with clamping ring correctly tightened)		IP 67 (with clamping ring correctly tightened)	
Ambient air temperature		- 25 to + 70 °C (- 13 to + 158 °F)		- 40 to + 85 °C (- 40 to + 185 °F)	
Cabling		By IDC. Conductor diameter: 1 to 1.55 mm (18 to 14 AWG) Cable gland: M9.5 x 1. Maximum clamping capacity: 5 mm		To solder terminals. Maximum conductor c.s.a.: 0.25 mm² (23 AWG) Cable gland: M9.5 x 1. Maximum clamping capacity: 5 mm	
LED indicators		–		–	
Nominal voltage		∼ 60 V, ⎓ 75 V		∼ 60 V, ⎓ 75 V	
Nominal current		4 A		4 A	
Insulation resistance		> 10^9 Ω		> 10^9 Ω	
Contact resistance		≤ 10 mΩ		≤ 5 mΩ	

Dimensions

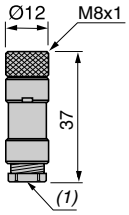
XZCC8FDM30V



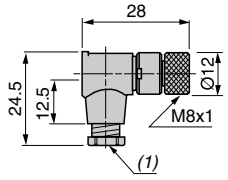
XZCC8FCM30V



XZCC8FDM30S



XZCC8FCM30S

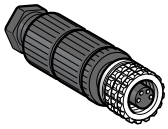
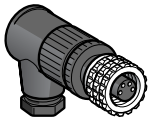


(1) Cable gland: M9.5 x 1

Wiring diagrams

XZCC8FDM30●, XZCC8FCM30●

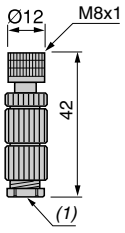


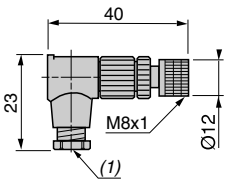



Female, M8, straight	Female, M8, elbowed	Female, M8, straight	Female, M8, elbowed	Male, M8, straight
4				3
By axial IDC insulation displacement connector)		To solder terminals		
XZCC8FDM40V	**XZCC8FCM40V**	**XZCC8FDM40S**	**XZCC8FCM40S**	**XZCC8MDM30V**
–				
0.010 (0.022)				
Screw threaded (metal clamping ring)		Screw threaded (metal clamping ring)		Screw threaded (metal clamping ring)
IP 67 (with clamping ring correctly tightened)		IP 67 (with clamping ring correctly tightened)		IP 67 (with clamping ring correctly tightened)
- 25 to + 70 °C (- 13 to + 158 °F)		- 40 to + 85 °C (- 40 to + 185 °F)		- 40 to + 85 °C (- 40 to + 185 °F)
By IDC. Conductor diameter: 1 to 1.55 mm (18 to 14 AWG) Cable gland: M9.5 x 1. Maximum clamping capacity: 5 mm		To solder terminals. Maximum conductor c.s.a.: 0.25 mm^2 (23 AWG) Cable gland: M9.5 x 1. Maximum clamping capacity: 5 mm		By IDC. Maximum conductor c.s.a.: 0.25 mm^2 (23 AWG) Cable gland: M9.5 x 1. Maximum clamping capacity: 5 mm
–		–		–
∼ 60 V, ⎓ 75 V		∼ 60 V, ⎓ 75 V		∼ 60 V, ⎓ 75 V
4 A		4 A		4 A
> 10^9 Ω		> 10^9 Ω		> 10^9 Ω
≤ 10 mΩ		≤ 5 mΩ		≤ 5 mΩ

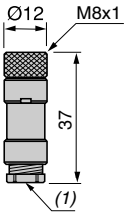
XZCC8FDM40V



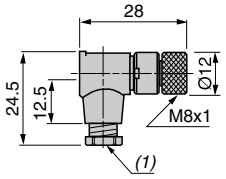
XZCC8FCM40V



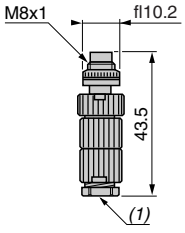
XZCC8FDM40S



XZCC8FCM40S



XZCC8MDM30V



(1) Cable gland: M9.5 x 1

XZCC8FDM40●, XZCC8FCM40●



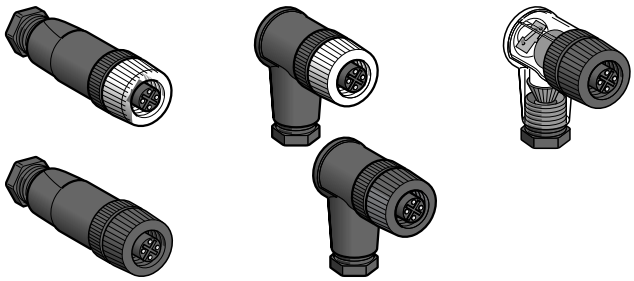
XZCC8MDM30V



Machine cabling accessories

OsiSense® XZ

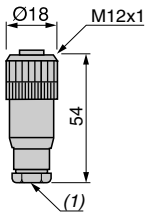
Connectors, M12 and 1/2" 20UNF



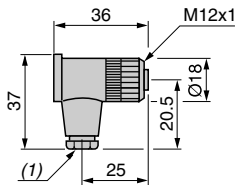
Connector type		Female, M12, straight	Female, M12, elbowed	Female, M12, elbowed
Number of pins		4		
Cable connection		To screw terminals		
Catalog Numbers				
Plastic body	Metal clamping ring	**XZCC12FDM40B**	**XZCC12FCM40B**	–
	Plastic clamping ring	**XZCC12FDP40B**	**XZCC12FCP40B**	**XZCC12FCP42B**
Weight: kg (lb)		0.020 (0.044)		
Specifications				
Connection type		Screw threaded (plastic or metal clamping ring, depending on model)		
Degree of protection		IP 67 (with clamping ring correctly tightened)		
Ambient air temperature		- 40 to + 85 °C (- 40 to + 185 °F)		
Cabling		To screw terminals. Maximum conductor c.s.a.: 0.75 mm². (19 AWG) Cable gland: n° 7 plastic (Pg 7). Clamping capacity: 3 to 6 mm		
LED indicators		–		2 PNP LEDs
Nominal voltage		∼ 125 V, ⎓ 150 V		⎓ 10 to 30 V
Nominal current		3 A		3 A
Insulation resistance		> 10^{12} Ω		> 10^{12} Ω
Contact resistance		≤ 8 mΩ		≤ 8 mΩ

Dimensions

XZCC12FD●40B



XZCC12FC●40B, XZCC12FCP42B



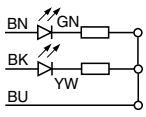
(1) Cable gland: n° 7 plastic (Pg 7)

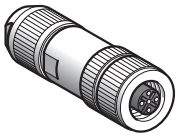
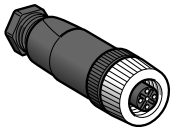
Wiring diagrams

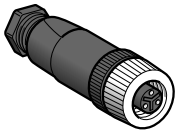
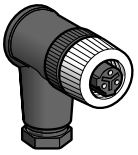
XZCC12FD●40B, XZCC12FC●40B, XZCC12FCP42B



LED connection for XZCC12FCP42B

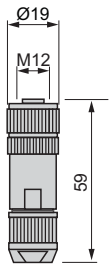


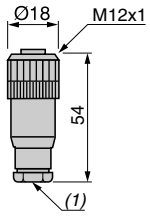



Female, M12, straight, shielded	Female, M12, straight	Female, M12, elbowed	Female, 1/2" 20UNF, straight	Female, 1/2" 20UNF, elbowed
5	5		3	
To spring terminals	To screw terminals			
XZCC12FDB50R	**XZCC12FDM50B**	**XZCC12FCM50B**	**XZCC20FDM30B**	**XZCC20FCM30B**
–	–			
0.050 (0.110)	0.020 (0.044)			
Screw threaded (metal clamping ring)				
IP 67 (with clamping ring correctly tightened)			IP 67 (with clamping ring correctly tightened)	
- 40 to + 85 °C (- 40 to + 185 °F)			- 40 to + 85 °C (- 40 to + 185 °F)	
To spring terminals Maximum conductor c.s.a.: 0.5 mm².(20 AWG) Clamping capacity: 4 to 8 mm	To screw terminals. Maximum conductor c.s.a.: 0.75 mm². (19 AWG) Cable gland: n° 7 plastic (Pg 7). Clamping capacity: 3 to 6 mm			
–	–		–	
∼ 30 V, ⎓ 36 V	∼ 30 V, ⎓ 36 V		∼ 250 V	
4 A	3 A		4 A	
> 10^{12} Ω	> 10^{12} Ω		> 10^{12} Ω	
≤ 8 mΩ	≤ 8 mΩ		≤ 8 mΩ	

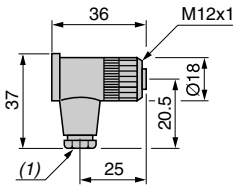
XZCC12FDB50R



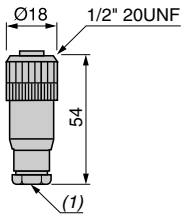
XZCC12FDM50B



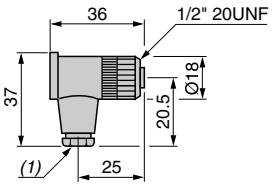
XZCC12FCM50B



XZCC20FDM30B



XZCC20FCM30B

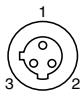


(1) Cable gland: n° 7 plastic (Pg 7)

XZCC12FDB50R, XZCC12F●M50B



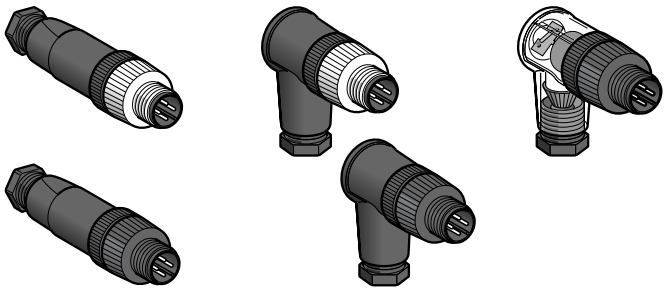
XZCC20F●M30B



Machine cabling accessories

OsiSense® XZ

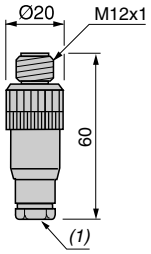
Connectors, M12 and 1/2" 20UNF



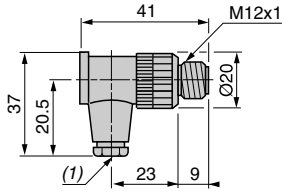
Connector type		Male, M12, straight	Male, M12, elbowed	Male, M12, elbowed
Number of pins		4		
Cable connection		To screw terminals		
Catalog Numbers				
Plastic body	Metal clamping ring	**XZCC12MDM40B**	**XZCC12MCM40B**	–
	Plastic clamping ring	**XZCC12MDP40B**	**XZCC12MCP40B**	**XZCC12MCP42B**
Weight: kg (lb)		0.025 (0.055)		
Specifications				
Connection type		Screw threaded (plastic or metal clamping ring, depending on model)		
Degree of protection		IP 67 (with clamping ring correctly tightened)		
Ambient air temperature		- 40 to + 85 °C (- 40 to + 185 °F)		
Cabling		To screw terminals. Maximum conductor c.s.a.: 0.75 mm².(19 AWG) Cable gland: n° 7 plastic (Pg 7). Clamping capacity: 3 to 6 mm		
LED indicators		–		2 PNP LEDs
Nominal voltage		∼ 125 V, ⎓ 150 V		⎓ 10 to 30 V
Nominal current		3 A		3 A
Insulation resistance		> 10^{12} Ω		> 10^{12} Ω
Contact resistance		≤ 8 mΩ		≤ 8 mΩ

Dimensions

XZCC12MD●40B



XZCC12MC●40B, XZCC12MCP42B



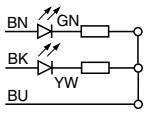
(1) Cable gland: n° 7 plastic (Pg 7)

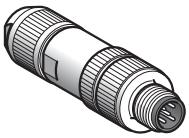
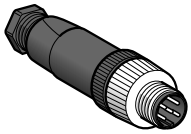
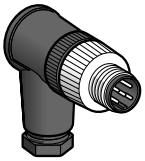
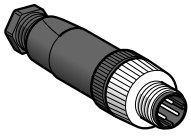
Wiring diagrams

XZCC12MD●40B, XZCC12MC●40B, XZCC12MCP42B



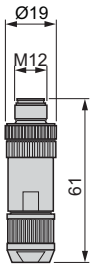
LED connection for XZCC12MCP42B



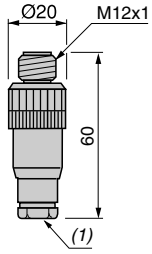






Male, M12, straight	Male, M12, straight	Male, M12, elbowed	Male, 1/2" 20UNF, straight	Male, 1/2" 20UNF, elbowed
5	5		3	
To spring terminals	To screw terminals			
XZCC12MDB50R	**XZCC12MDM50B**	**XZCC12MCM50B**	**XZCC20MDM30B**	**XZCC20MCM30B**
	–			
0.050 (0.110)	0.025 (0.055)			
Screw threaded (metal clamping ring)				
IP 67 (with clamping ring correctly tightened)				
- 40 to + 85 °C (- 40 to + 185 °F)				
To spring terminals Maximum conductor c.s.a.: 0.5 mm². (20 AWG) Clamping capacity: 4 to 8 mm	To screw terminals. Maximum conductor c.s.a.: 0.75 mm². (19 AWG) Cable gland: n° 7 plastic (Pg 7). Clamping capacity: 3 to 6 mm			
–	–		–	
∼ 30 V, ⎓ 36 V	∼ 30 V, ⎓ 36 V		∼ 250 V	
4 A	3 A		4 A	
> 10^{12} Ω	> 10^{12} Ω		> 10^{12} Ω	
≤ 8 mΩ	≤ 8 mΩ		≤ 8 mΩ	

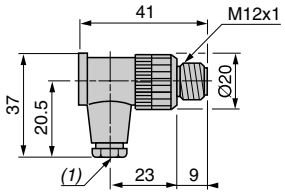
XZCC12MDB50R



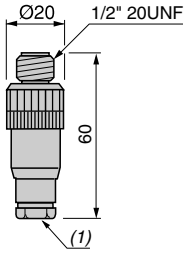
XZCC12MDM50B



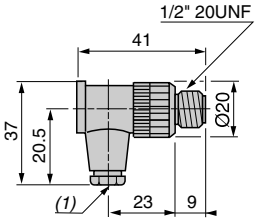
XZCC12MCM50B



XZCC20MDM30B



XZCC20FCM30B



(1) Cable gland: n° 7 plastic (Pg 7)

XZCC12MDB50R, XZCC12M●M50B



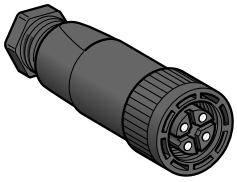
XZCC20M●M30B

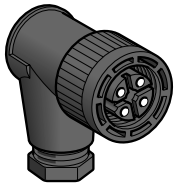


Machine cabling accessories

OsiSense® XZ

Connecters, M18 and DIN 43650 A

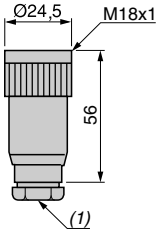




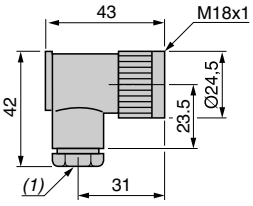
Connector type		Female, M18, straight	Female, M18, elbowed
Number of pins		4	
Cable connection		To screw terminals	
Catalog Numbers			
Plastic body	Metal clamping ring	–	
	Plastic clamping ring	**XZCC18FDP40B**	**XZCC18FCP40B**
Weight: kg (lb)		0.035 (0.077)	
Specifications			
Connection type		Screw threaded (plastic clamping ring)	
Degree of protection		IP 65 (with clamping ring correctly tightened)	
Ambient air temperature		- 40 to + 85 °C (- 40 to + 185 °F)	
Cabling		To screw terminals. Maximum conductor c.s.a.: 1.5 mm^2. (15 AWG) Cable gland: n° 9 plastic (Pg 9). Clamping capacity: 5 to 8 mm	
LED indicators		–	
Nominal voltage		∼ 250 V	
Nominal current		16 A	
Insulation resistance		> 10^{12} Ω	
Contact resistance		≤ 10 mΩ	

Dimensions

XZCC18FDP40B



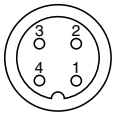
XZCC18FCP40B

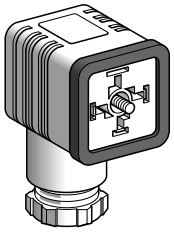


(1) Cable gland: n° 9 plastic (Pg 9)

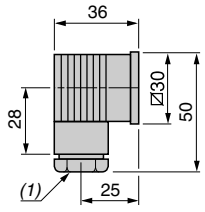
Wiring diagrams

XZCC18F●P40B



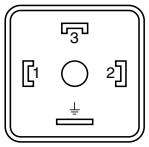


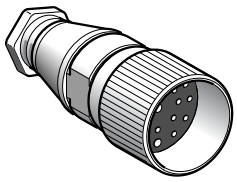
Female, DIN 43650 A, elbowed
4
To screw terminals
XZCC43FCP40B
–
0.035 (0.077)
With locking screw
IP 65 (with connector correctly locked)
- 40 to + 125 °C (- 40 to + 257 °F)
To screw terminals. Maximum conductor c.s.a.: 1.5 mm^2. (15 AWG) Cable gland: n° 11 plastic (Pg 11). Clamping capacity: 7 to 10 mm
–
∼ 250 V
16 A
> 10^8 Ω
≤ 4 mΩ
XZCC43FCP40B

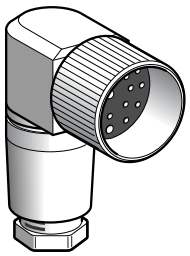


(1) Cable gland: n° 11 plastic (Pg 11)

XZCC43FCP40B



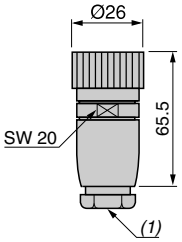




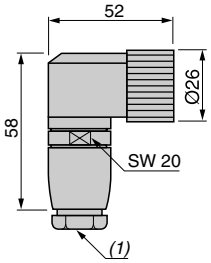
Connector type		Female, M23, straight	Female, M23, elbowed
Number of pins		19	
Cable connection		To solder terminals	
Catalog Numbers			
Metal body and metal clamping ring	Contacts numbered anti-clockwise	**XZCC23FDM190S**	**XZCC23FCM190S**
Weight: kg (lb)		0.080 (0.176)	0.150 (0.331)
Specifications			
Connection type		Screw threaded (metal clamping ring)	
Degree of protection		IP 65 (with clamping ring correctly tightened)	
Ambient air temperature		- 25 to + 110 °C (- 13 to + 230 °F)	
Cabling		To solder terminals. Maximum conductor c.s.a.: 1 mm^2 (17 AWG) Cable gland: n° 13 metal (Pg 13.5). Clamping capacity: 9 to 12 mm	
LED indicators		–	
Nominal voltage		∼ 60 V, ⎓ 75 V	
Nominal current		7.5 A	
Insulation resistance		> 10^{16} Ω	
Contact resistance		≤ 5 mΩ	

Dimensions

XZCC23FDM190S



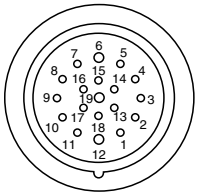
XZCC23FCM190S

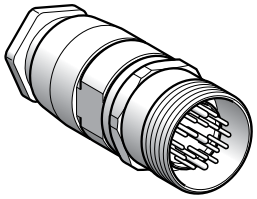


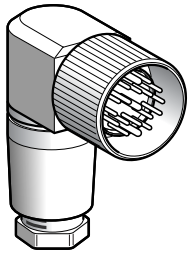
(1) Cable gland: n° 13 metal (Pg 13.5)

Wiring diagrams

XZCC23F●M190S

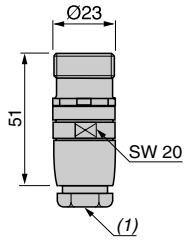




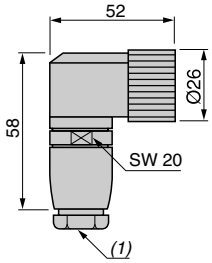


Male, M23, straight	Male, M23, elbowed (compatible with enclosure feed-throughs ABE 7ACC82)
19	
To solder terminals	
XZCC23MDM190S	**XZCC23MCM190S**
0.080 (0.176)	0.150 (0.331)
Screw threaded (metal clamping ring)	
IP 65 (with clamping ring correctly tightened)	
- 25 to + 110 °C (- 13 to + 230 °F)	
To solder terminals. Maximum conductor c.s.a.: 1 mm^2.(17 AWG) Cable gland: n° 13 metal (Pg 13.5). Clamping capacity: 9 to 12 mm	
–	
∼ 60 V, ⎓ 75 V	
7.5 A	
> 10^{16} Ω	
≤ 5 mΩ	

XZCC23MDM190S

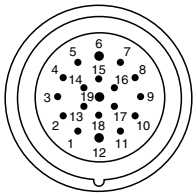


XZCC23MCM190S



(1) Cable gland: n° 13 metal (Pg 13.5)

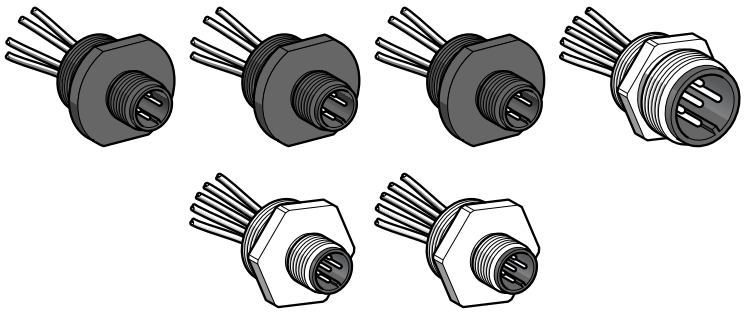
XZCC23M●M190S



Machine cabling accessories

OsiSense® XZ

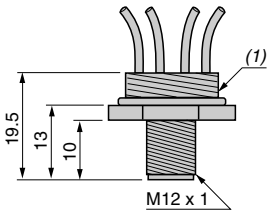
Connector adapters



Type of 5-pin connector	M12, male			7/8"-16UN, male
Size of tapped hole	11 (Pg 11)	13 (Pg 13.5)	M20 x 1.5	13 (Pg 13.5)
Catalog Numbers				
4-wire connector adapters, plastic body	**XZCE11P124M**	**XZCE13P124M**	**XZCE03P124M**	–
5-wire connector adapters, metal body	–	**XZCE13M125M**	**XZCE03M125M**	**XZCE13M785M**
Weight: kg (lb)	0.020 (0.044)	4-wire: 0.020 (0.044) 5-wire: 0.025 (0.055)		0.050 (0.110)
Specifications				
Connection type	Screw threaded			
Degree of protection	IP 67			
Ambient air temperature	- 25 to + 80 °C (- 13 to + 176 °F)			
Cabling	Via 100 mm long wires.			
Conductor c.s.a.	4 x 0.34 mm²	**XZCE●3P124M**: 4 x 0.34 mm² **XZCE●3M125M**: 4 x 0.34 mm² + 1 x 0.5 mm²		5 x 1 mm²
Nominal voltage	∼ 250 V, ⎓ 300 V	**XZCE●3P124M**: ∼ 250 V, ⎓ 300 V **XZCE●3M125M**: ∼ 30 V, ⎓ 36 V		∼ 250 V, ⎓ 300 V
Nominal current	4 A			6 A
Insulation resistance	> 10^9 Ω			
Contact resistance	⩽ 5 mΩ			

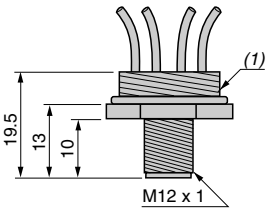
Dimensions

XZCE11P124M



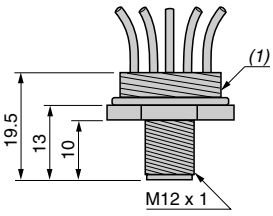
(1) Thread size 11

XZCE●3P124M



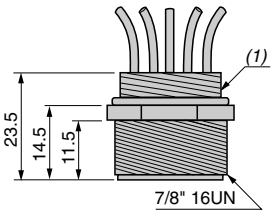
(1) Thread size 13 or M20 x 1.5

XZCE●3M125M



(1) Thread size 13 or M20 x 1.5

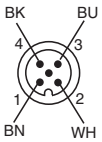
XZCE13M785M



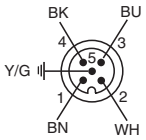
(1) Thread size 13

Wiring diagrams

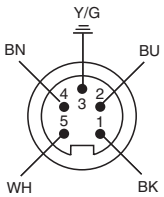
XZCE●●P124M



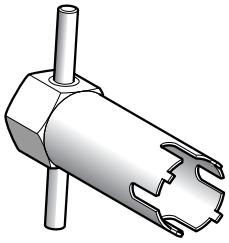
XZCE●●P125M



XZCE13M785M



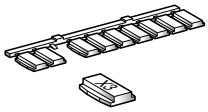
Machine cabling accessories
Accessories



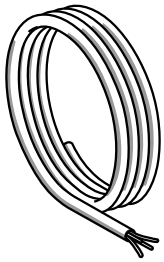
XZCG0223



XZLG102



XZLG101



XZCB4L●●●●

Accessories

Description	Cable length	Unit catalog number	Weight kg (lb)
Mounting tool for M23 connector		**XZCG0223**	0.120 (0.265)
Blanking plugs for M12 female connectors (Sold in lots of 10)		**XZLG102**	0.005 (0.011)
Markers for splitter boxes (Strips of 10 units)		**XZLG101**	0.010 (0.022)
PvR cables, 4 x 0.5 mm² (see Specifications, page 11/7)	25 m	**XZCB4L0025**	1.115 (2.458)
	50 m	**XZCB4L0050**	2.220 (4.894)
	100 m	**XZCB4L0100**	4.490 (9.899)
	500 m	**XZCB4L0500**	25.700 (56.659)
	1000 m	**XZCB4L1000**	46.300 (102.074)

IP 67 passive splitter boxes

Telefast®, ABE9 splitter boxes

Introduction

Passive ABE9 splitter boxes for M12 connectors make it possible to eliminate long and difficult cabling operations. Due their modularity and their dimensions, they are the ideal solution for a wide variety of customer applications.
Connection to the processing unit can either be made by connector or by multicore cable of different lengths.
IP 67 protection allows these products to be used within processes or machines in harsh environments (splashing water, oil, dust, etc.).
The splitter boxes, available in 4 or 8 channel versions, allow connection of up to 16 signals maximum, depending on the version (2 per channel).

The specifications of ABE9 splitter boxes C12 are as follows:
■ Connection of sensors and actuators using M12, 5-pin connectors.
■ Modularity: 4 or 8 channels.
■ Mounting system and connection to the processing unit conforming to market standards:
□ mounting centers,
□ M23, 19-pin connector, enabling the use of pre-formed cables in order to reduce installation time and the risk of error,
□ multicore cable, 5 or 10 meters long. The splitter box comprises a connection cover fitted with plug-in terminals, which provides considerable flexibility for:
- the replacement of damaged parts,
- modification of cable length.
Base units ABE9C12●●L●● enable the use of 2 separate commons which, for example, can be used for the management of an emergency stop. This function is accessible beneath the terminal cover using 2 removable links. If both links are removed, the 2 supplies become independent.

The use of a Y-connector allows 2 signals to be connected to the same M12 channel on the splitter box.
Example: splitter box ABE9C1281 (8 channels) enables the connection of 16 signals to the processing unit.

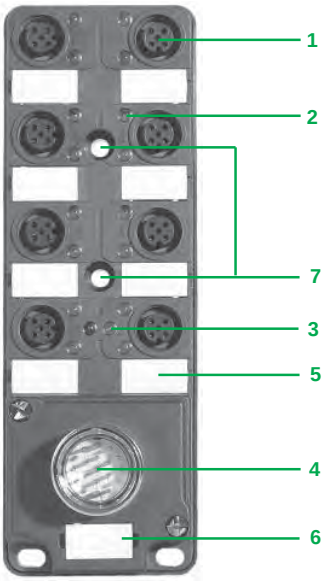
The Y-connector is available in 2 versions:
■ M12-M12 for connection of two M12 connectors to a single M12 channel on the splitter box,
■ M8-M12 for connection of two M8 connectors to a single M12 channel on the splitter box.

Complete catalog number	=	Splitter box only	+	Connector with cable
ABE9C1240L05	=	ABE9C1240M	+	ABE9XCA1405
ABE9C1240L10	=	ABE9C1240M	+	ABE9XCA1410
ABE9C1241L05	=	ABE9C1241M	+	ABE9XCA1405
ABE9C1241L10	=	ABE9C1241M	+	ABE9XCA1410
ABE9C1280L05	=	ABE9C1280M	+	ABE9XCA1805
ABE9C1280L10	=	ABE9C1280M	+	ABE9XCA1810
ABE9C1281L05	=	ABE9C1281M	+	ABE9XCA1805
ABE9C1281L10	=	ABE9C1281M	+	ABE9XCA1810

Connector only
ABE9CM12C

IP 67 passive splitter boxes

Telefast®, ABE9 splitter boxes



Description

Passive ABE9 splitter boxes C12●●C23 have the following on the front face:

1 4 or 8 M12 female connectors (depending on model) for connection of sensors and actuators (2 channels per connector).

2 8 or 16 channel status indicator lights (depending on model).

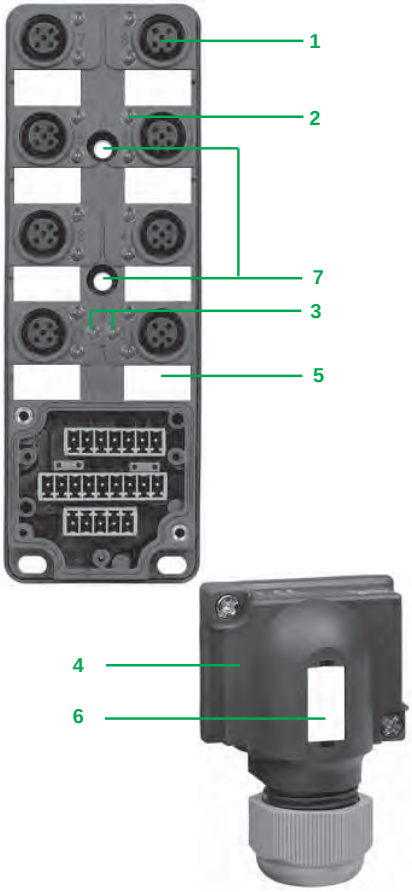
3 1 Power On indicator light on the splitter box (depending on model).

4 1 M23, 19-pin male connector.

5 4 or 8 channel marker labels.

6 1 splitter box marker label.

7 Splitter box mounting holes.



Passive ABE9 splitter boxes C12●●L●● have the following on the front face:

1 4 or 8 M12 female connectors (depending on model) for connection of sensors and actuators (2 channels per connector).

2 8 or 16 channel status indicator lights (depending on model).

3 2 Power On indicator lights on the splitter box (depending on model).

4 1 removable connection cover fitted with plug-in terminals.

5 4 or 8 channel marker labels.

6 1 splitter box marker label.

7 Splitter box mounting holes.

IP 67 passive splitter boxes

Telefast®, ABE9 splitter boxes

Splitter box type			ABE9C12●0C23	ABE9C12●1C23	ABE9C12●0L●●, ABE9C12●0M	ABE9C12●1L●●, ABE9C12●1M
Environmental specifications						
Product certifications			cULus			
Temperature	Operation	**°C (°F)**	- 20 to + 80 (- 4 to + 176)			
	Storage	**°C (°F)**	- 40 to + 85 (- 40 to + 185)			
Degree of protection	Conforming to IEC 529		IP 67			
Vibration resistance	Conforming to IEC 68-2-6, test Fc	**Hz**	10 ≤ f ≤ 57 (constant amplitude = 1.5 mm) 57 ≤ f ≤ 150 (constant acceleration = 0.20 gn)			
Shock resistance	Conforming to IEC/EN 68-2-2		30 gn, 11 ms			
Insulation group	VDE 0110		Category 3			
Mounting			All positions			
Mechanical mounting			M4 screw mounting			
Channel specifications						
Number of channels			4 or 8 (depending on model)			
Type of connection per channel			M12, 5-pin female connectors			
Nominal voltage		**⎓ V**	24			
Current per channel		**A**	4 maximum			
Contact resistance		**m Ω**	5			
Power supply status indication			–	Green LED	–	Green LED
Channel status indication			–	Yellow LED	–	Yellow LED
Connection specifications						
Type of connection			M23, 19-pin male connector		Multicore cable	
Total current in commons	1 mm² supply wire	**A**	16			
	0.75 mm² supply wire	**A**	12			
Separation of commons			Without		Without or with (by removing links BR1 and BR2, see connections on page 14502/7)	

Substitution table

Old range	New range
Splitter boxes with connection by M23 connector	
XZLC1241C3	**ABE9C1241C23**
XZLC1240C3	**ABE9C1240C23**
XZLC1281C3	**ABE9C1281C23**
XZLC1280C3	**ABE9C1280C23**
Splitter boxes with connection by cable	
XZLC1241L5	**ABE9C1241L05**
XZLC1240L5	**ABE9C1240L05**
XZLC1241L10	**ABE9C1241L10**
XZLC1240L10	**ABE9C1240L10**
XZLC1281L5	**ABE9C1281L05**
XZLC1280L5	**ABE9C1280L05**
XZLC1281L10	**ABE9C1281L10**
XZLC1280L10	**ABE9C1280L10**
Accessories	
XZLG102	**FTXCM12B**
XZLC1220C1	**FTXCY1212**

Introduction: page 11/38 | Description: page 11/39 | Catalog Numbers: page 11/41 | Dimensions: page 11/42 | Wiring diagrams: page 11/43

IP 67 passive splitter boxes

Telefast®, ABE9 splitter boxes



ABE9C124●C23



ABE9C128●C23



ABE9C124●L●●



ABE9C128●L●●



ABE9C128●M



ABE9XCA1●●●



Catalog Numbers

Splitter boxes with connection by M23 connector

Number of channels	Connection by	LED indicator	Catalog number	Weight kg (lb)
4	4 x M12 female connectors	With	**ABE9C1241C23**	0.080 (0.200)
		Without	**ABE9C1240C23**	0.080 (0.200)
8	8 x M12 female connectors	With	**ABE9C1281C23**	0.140 (0.300)
		Without	**ABE9C1280C23**	0.140 (0.300)

Splitter boxes with connection by cable

Number of channels	Connection by	Length m	LED indicator	Catalog number	Weight kg (lb)
4	4 x M12 female connectors	5	With	**ABE9C1241L05**	0.680 (1.500)
			Without	**ABE9C1240L05**	0.680 (1.500)
		10	With	**ABE9C1241L10**	1.700 (3.700)
			Without	**ABE9C1240L10**	1.700 (3.700)
8	8 x M12 female connectors	5	With	**ABE9C1281L05**	1.610 (3.500)
			Without	**ABE9C1280L05**	1.610 (3.500)
		10	With	**ABE9C1281L10**	3.060 (6.700)
			Without	**ABE9C1280L10**	3.060 (6.700)

Splitter boxes only, M12

Number of channels	For use with connector terminal	For use with connector with cable	LED indicator	Catalog number	Weight kg (lb)
4	ABE9CM12C	ABE9XCA14●●	With	**ABE9C1241M**	0.060 (0.100)
			Without	**ABE9C1240M**	0.060 (0.100)
8	ABE9CM12C	ABE9XCA18●●	With	**ABE9C1281M**	0.100 (0.200)
			Without	**ABE9C1280M**	0.100 (0.200)

Separate components

Type	No. of channels	For use with splitter box	Length m	Catalog number	Weight kg (lb)
Terminal block connector *(1)*	–	ABE9C124●M ABE9C128●M	–	**ABE9CM12C**	0.040 (0.088)
Connectors with cable	4	ABE9C124●M	5	**ABE9XCA1405**	1.060 (2.300)
			10	**ABE9XCA1410**	2.080 (4.600)
	8	ABE9C128●M	5	**ABE9XCA1805**	1.510 (3.300)
			10	**ABE9XCA1810**	2.240 (4.900)

Accessories

Description	Composition	Catalog number	Weight kg (lb)
Sealing plugs	For M8 connector (lot of 10)	**FTX CM08B**	0.100 (0.200)
	For M12 connector (lot of 10)	**FTX CM12B**	0.100 (0.200)
Y-connectors	Connection of 2 x M8 connectors to M12 connector on splitter box	**FTX CY1208**	0.020 (0.044)
	Connection of 2 x M12 connectors to M12 connector on splitter box	**FTX CY1212**	0.030 (0.066)
Marker labels	Lot of 12	**ABE9XLA10**	–

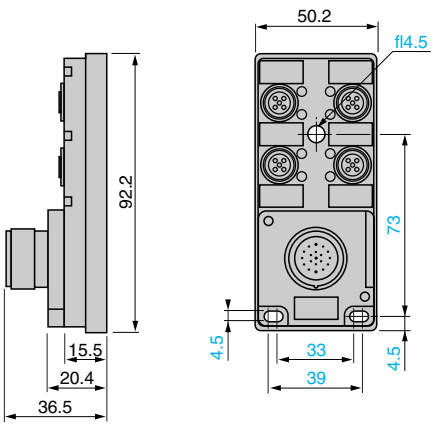
(1) To be cabled by user.

IP 67 passive splitter boxes

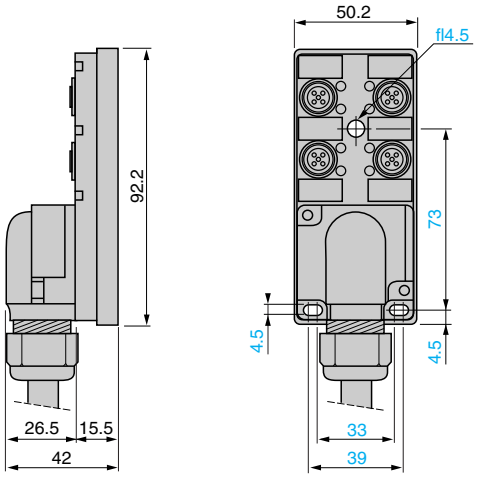
Telefast®, ABE9 splitter boxes

Dimensions

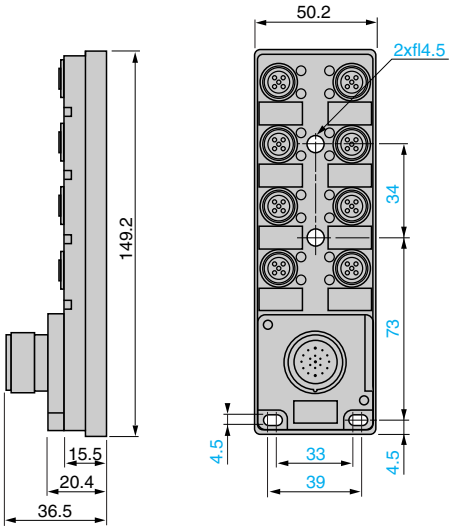
ABE9C124●C23



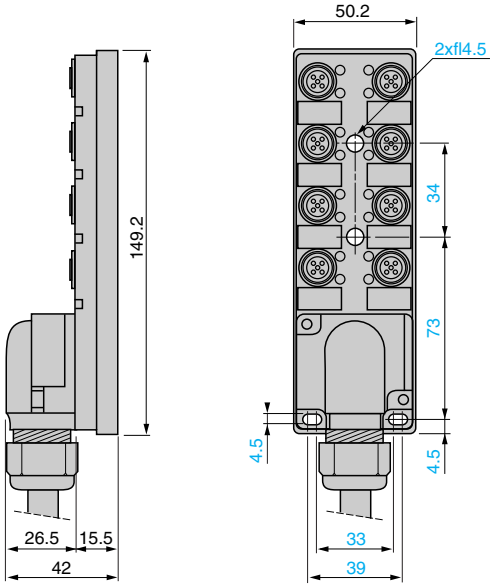
ABE9C124●L●●



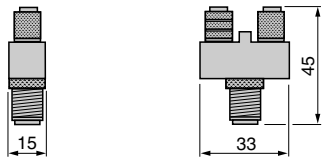
ABE9C128●C23



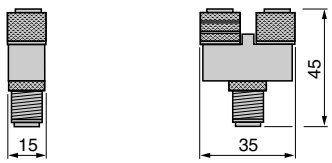
ABE9C128●L●●



FTX CY1208

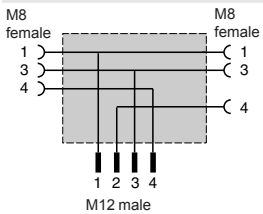


FTX CY1212

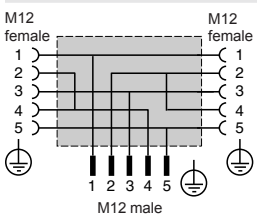


Y-connector connection

FTX CY1208



FTX CY1212

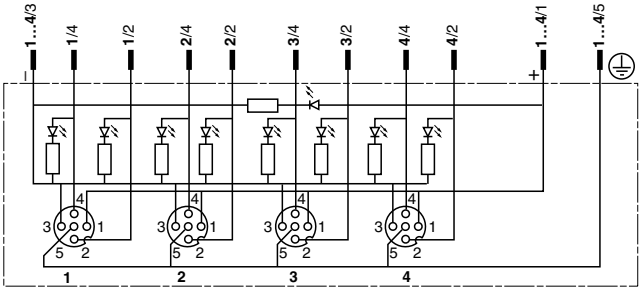


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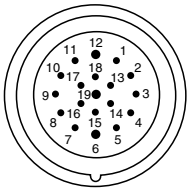
IP 67 passive splitter boxes

Telefast®, ABE9 splitter boxes

ABE9C124●C23

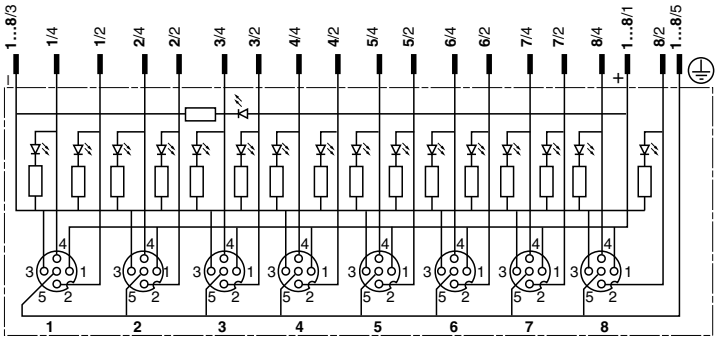


Item	Contact
1/4	15
1/2	7
2/4	5
2/2	4
3/4	16
3/2	8
4/4	3
4/2	14
1 and **3**/1	19
2 and **4**/1	19
1 and **3**/3	6
2 and **4**/3	6
1 to 4/5	12

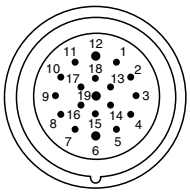


M23 connector

ABE9C128●C23

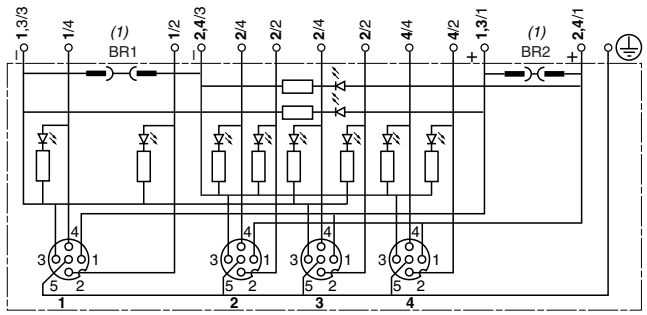


Item	Contact
1/4	15
1/2	7
2/4	5
2/2	4
3/4	16
3/2	8
4/4	3
4/2	14
5/4	17
5/2	9
6/4	2
6/2	13
7/4	11
7/2	10
8/4	1
8/2	18
1, **3**, **5** & **7**/1	19
2, **4**, **6** & **8**/1	19
1, **3**, **5** & **7**/3	6
2, **4**, **6** & **8**/3	6
1 to 8/5	12

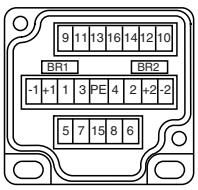


M23 connector

ABE9C124●L●●

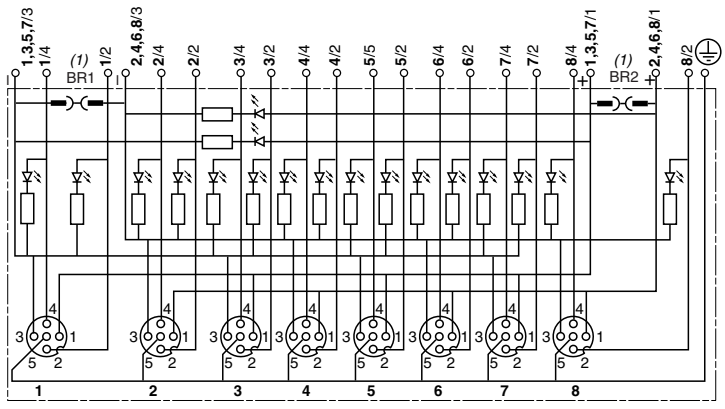


Item	Terminal	Wire
1/4	1	White
1/2	9	Gray/pink
2/4	2	Green
2/2	10	Red/blue
3/4	3	Yellow
3/2	11	White/green
4/4	4	Gray
4/2	12	Brown/green
1 and **3**/1	+ 1	Brown 1
2 and **4**/1	+ 2	Brown 2
1 and **3**/3	– 1	Blue 1
2 and **4**/3	– 2	Blue 2
1 to 4/5	PE	Green/yellow

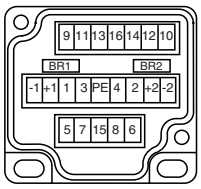


(1) BR1 and BR2: removable link.

ABE9C128●L●●



Item	Terminal	Wire
1/4	1	White
1/2	9	Gray/pink
2/4	2	Green
2/2	10	Red/blue
3/4	3	Yellow
3/2	11	White/green
4/4	4	Gray
4/2	12	Brown/green
5/4	5	Pink
5/2	13	White/yellow
6/4	6	Red
6/2	14	Yellow/brown
7/4	7	Black
7/2	15	White/gray
8/4	8	Violet
8/2	16	Gray/brown
1, **3**, **5** & **7**/1	+ 1	Brown 1
2, **4**, **6** & **8**/1	+ 2	Brown 2
1, **3**, **5** & **7**/3	– 1	Blue 1
2, **4**, **6** & **8**/3	– 2	Blue 2
1 to 8/5	PE	Green/yellow



(1) BR1 and BR2: removable links.

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Machine cabling accessories
OsiSense® XZ
Cabling system for sensors with connector

Photoelectric sensors

Sensor type	Type of connection	Suitable pre-wired connectors		Suitable connectors		Suitable jumper cables	
		Catalog number	Page	Catalog number	Page	Catalog number	Page
XUA●●●●●S	M8, 3-pin	**XZCP0166L●** **XZCP0266L●** **XZCP0566L●** **XZCP0666L●** **XZCP0366L●** *(1)* **XZCP0766L●** *(1)* **XZCP0466L●** *(2)* **XZCP0866L●** *(2)*	11/8 and 11/9	**XZCC8FDM30V** **XZCC8FCM30V** **XZCC8FDM30S** **XZCC8FCM30S**	11/26	**XZCR1501040G●** **XZCR1502040G●**	11/16
XUD●●●●●M8 **XUM●●●●●M8** **XUVK●●●●●S** **XUVF●●M8**	M8, 4-pin	**XZCP0941L●** **XZCP1041L●**	11/9	**XZCC8FDM40V** **XZCC8FCM40V** **XZCC8FDM40S** **XZCC8FCM40S**	11/27	**XZCR1509041J●** **XZCR1510041J●**	11/17
XU●●●●●●●●D **XU●●●●●●M12** **XUR●●●●●D** **XUVF●●●M12**	M12, 4-pin	**XZCP1141L●** **XZCP1241L●**	11/10	**XZCC12FDM40B** **XZCC12FDP40B** **XZCC12FCM40B** **XZCC12FCP40B** **XZCC12FDM40V**	11/28	**XZCR1511041C●** **XZCR1512041C●**	11/20
XU●●●●●●●●●K	1/2"-20UNF, 3-pin	**XZCP1865L●** **XZCP1965L●**	11/12	**XZCC20FDM30B** **XZCC20FCM30B**	11/29	–	

Limit switches

Switch type	Type of connection	Suitable pre-wired connectors		Suitable connectors		Suitable jumper cables	
		Catalog number	Page	Catalog number	Page	Catalog number	Page
XCMD●●●●M12 **ZCMD●●●M12**	M12, 4-pin (1 for ground wire)	**XZCP1169L●**	11/11	**XZCC12FDM40B** **XZCC12FDP40B** **XZCC12FCM40B** **XZCC12FCP40B** **XZCC12FDM40V**	11/28	**XZCR1511041C●** **XZCR1512041C●**	11/20
XCKP●●●●M12 **ZCP●●M12**	M12, 4-pin without ground	**XZCP1141L●** **XZCP1241L●**	11/10	**XZCC12FDM40B** **XZCC12FDP40B** **XZCC12FCM40B** **XZCC12FCP40B** **XZCC12FDM40V**	11/28	**XZCR1511041C●** **XZCR1512041C●**	11/20
ZCMD●●C12 **ZCMD●●L08R12** **XCKD●●●●M12** **ZCD●●M12** **XCKJ●●●●●D**	M12, 5-pin	**XZCP1164L●** **XZCP1264L●**	11/11	**XZCC12FDM50B** **XZCC12FCM50B**	11/29	**XZCR1511064D●** **XZCR1512064D●**	11/21
ZCMD●●L08U78 **XCKJ●●●●●A**	7/8"-16UN, 5-pin	**XZCP1771L●**	11/13	–		–	

Note: *For sensors with relay output or contacts, check that they are compatible with the nominal voltage and nominal current of the cabling accessory.*
(1) With LED for 3-wire ⎓ PNP.
(2) With LED for 3-wire ⎓ NPN.

Machine cabling accessories
OsiSense® XZ
Cabling system for sensors with connector

Proximity sensors

Sensor type	Type of connection	Suitable pre-wired connectors		Suitable connectors		Suitable jumper cables	
		Catalog number	Page	Catalog number	Page	Catalog number	Page
XS● ●●●●●●●●S **XS● ●●●●●●M8** **XS● ●●●●●●L01M8**	M8, 3-pin	**XZCP0166L●** **XZCP0266L●** **XZCP0566L●** **XZCP0666L●** **XZCP0366L●** *(1)* **XZCP0766L●** *(1)* **XZCP0466L●** *(2)* **XZCP0866L●** *(2)*	11/8 and 11/9	**XZCC8FDM30V** **XZCC8FCM30V** **XZCC8FDM30S** **XZCC8FCM30S**	11/26	**XZCR1501040G●** **XZCR1502040G●**	11/16
XS●●●●●●●●●D **XS● ●●●●●●M12** **XS● ●●●●●●L01M12**	M12, 3 or 4-pin	**XZCP1141L●** **XZCP1241L●** **XZCP1340L●** *(1)* **XZCP2540L●** *(1)* **XZCP1440L●** *(2)*	11/10	**XZCC12FDM40B** **XZCC12FDP40B** **XZCC12FCM40B** **XZCC12FCP40B** **XZCC12FDM40V** **XZCC12FCP42B** *(1)*	11/28	**XZCR1511041C●** **XZCR1512041C●**	11/20
XS●●●●●●●U20 **XS●●●●●●●●●K**	1/2"-20UNF, 3-pin	**XZCP1865L●** **XZCP1965L●**	11/12	**XZCC20FDM30B** **XZCC20FCM30B**	11/29		

Pressure switches, vacuum switches and analog pressure sensors

Sensor or switch type	Type of connection	Suitable pre-wired connectors		Suitable connectors		Suitable jumper cables	
		Catalog number	Page	Catalog number	Page	Catalog number	Page
XML●●●●●●C11 **XMLE●●●●●C21**	DIN 43650 A, 4-pin	–		**XZCC43FCP40B**	11/33	**XZCR1523062K●**	11/19
XMLE●●●●●D21	M12, 5-pin	**XZCP1164L●** **XZCP1264L●**	11/11	**XZCC12FDM50B** **XZCC12FCM50B**	11/29	**XZCR1511064D●** **XZCR1512064D●**	11/21
XMLF●●●D●●●●	M12, 4-pin	**XZCP1141L●** **XZCP1241L●**	11/10	**XZCC12FC●40B** **XZCC12FD●40B** **XZCC12FDM40V**	11/28	**XZCR1511041C●** **XZCR1512041C●**	11/20
XMLF●●●E●●●●	7/8"-16UN, 5-pin	**XZCP1764L●**	11/13	–		–	

Note: *For sensors with relay output or contacts, check that they are compatible with the nominal voltage and nominal current of the cabling accessory.*
(1) With LED for 3-wire ⎓ PNP.
(2) With LED for 3-wire ⎓ NPN.