

Photo-electric sensors

XU application, for very dark object detection
Miniature, sub-miniature and compact design, plastic



XUM8ABAYP015



XUM7ABPXM8,
XUM8ABAYM8

XUM7ABPXL2



XUT7ABPXL2,
XUT8ABAYL2

XUT7ABPXP02,
XUT8ABAYP02



XUK8ABPXM12

Background suppression sensors IO-Link

Max./operating sensing distance (Sn)	Function	Output	Connection	Reference	Weight kg
Adjustable blue light					
200 mm/200 mm (miniature format)	NO/NC configuration via teach-in or IO-Link	Autodetect PNP/NPN	M8 connector (4-pin)	XUM8ABAYM8	0 014
		Autodetect PNP/NPN	Pigtail M12 (L= 0.15 m)	XUM8ABAYP015	0 027
100 mm/100 mm sub-miniature format	NO/NC configuration via teach-in or IO-Link	Autodetect PNP/NPN	Pre-cabled (L = 2 m)	XUT8ABAYL2	0 031
		Autodetect PNP/NPN	Pigtail M8 (L= 0.2 m)	XUT8ABAYP02	0 019

Background suppression sensors

Fixed blue light, miniature format					
100 mm/80 mm	NO/NC configuration via teach-in	PNP	Pre-cabled (L = 2 m)	XUM7ABPXL2	0 056
		PNP	M8 connector (4-pin)	XUM7ABPXM8	0 017

Fixed blue light, sub-miniature format

50 mm/50 mm	NO/NC configuration via teach-in	PNP	Pre-cabled (L = 2 m)	XUT7ABPXL2	0 031
		PNP	Pigtail M8 (L= 0.2 m)	XUT7ABPXP02	0 022

Adjustable blue light (potentiometer)

1200 mm/600 mm	NO/NC configuration via teach-in	PNP	M12 connector (4-pin)	XUK8ABPXM12	0 046
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Accessories

IO-Link Master (1)

See page 70 .

Fixing and other accessories

See page 74 .

Cabling accessories

See page 80 .

(1) Available 2nd quarter 2024.

Characteristics				XU●7ABPX●●	XU●8ABAY●●	XUK8ABPXM12	
Sensor type				XU●7ABPX●●	XU●8ABAY●●	XUK8ABPXM12	
Product certifications				CE, UKCA, cULus, Ecolab			
Connection	Connector			M8	M8	M12	
	Pre-cabled			Length = 2 m	Length = 2 m	–	
	Pigtail			Length = 0.2 m	Length = 0.15 m for XUM8 Length = 0.2 m for XUT8	–	
Maximum sensing distance S_{max}	BGS, fixed blue light	XUM7	mm	100	–	–	
		XUT7	mm	50	–	–	
	BGS, adjustable blue light	XUM8	mm	–	200	–	
		XUT8	mm	–	100	–	
		XUK8	mm	–	–	1200	
Detection light beam colour				Blue			
Degree of protection	Conforming to IEC 60529			IP67			
	Conforming to DIN 40050-9			IP69K for XUM7 only	IP69K for XUM8 only	IP69K	
Storage temperature				°C	-20 . +80		
Operating temperature				°C	-20 . +60 for XUM7 -20 . +50 for XUT7	-20 . +60	
Materials	Case			ABS for XUM7 PUR for XUT7	ABS for XUM8 PUR for XUT8	ABS/PC	
	Lens			PMMA			
	Front			PMMA		–	
	Cable			PVC		–	
Rated supply voltage				V	12 . 24 ---	24 --- for XUT8 12 . 24 --- for XUM8	12 . 24 ---
Voltage limits (including ripple)				V	13 . 30 for XUT8		
Current consumption, no-load				mA	≤ 30 for XUM		≤ 30
				mA	≤ 20 for XUT		
Switching capacity				mA	≤ 100 for XUM		≤ 100
				mA	≤ 50 for XUT		
Maximum switching frequency				Hz	1000	700	600
Delays	First-up		ms	< 300			
	Response		µs	500	700 for XUT 500 for XUM	830 max.	
	Recovery		ms	< 300		300 max.	

Wiring schemes

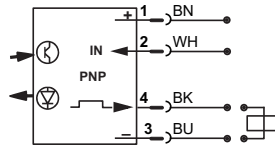
Background suppression system

M8 connector (including pigtail) - 4-pin



Pin	Signal	Definition
1	+	+ 24 V $\overline{\text{---}}$
2	IN	+ = NC - = NO Open = NO
3	-	0 V $\overline{\text{---}}$
4	Q	Switching signal

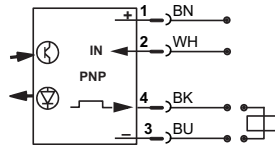
PNP XUM7ABPXM8, XUT7ABPXP02



Pre-cabled - 4-wire

- +BN (Brown)
- IN (input) GY (Grey)
- OUT (output) BK (Black)
- BU (Blue)

PNP XUT7ABPXL2, XUM7ABPXL2



M8/M12 connector - 4-pin IO-Link



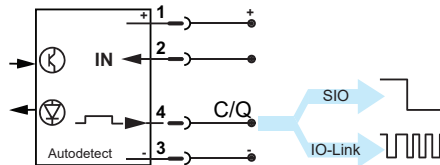
M8

Pin	Signal	Definition
1	+	+ 24 V $\overline{\text{---}}$
2	IN	+ = NO - = NC Open = NO
3	-	0 V $\overline{\text{---}}$
4	C	Communication (IO-Link)



M12

Autodetect PNP/NPN or by IO-Link XUM8ABAYM8, XUM8ABAYP015, XUT8ABAYP02



Note: IO-Link files available on our website www.telemecaniquesensors.com/iolink

Wiring schemes

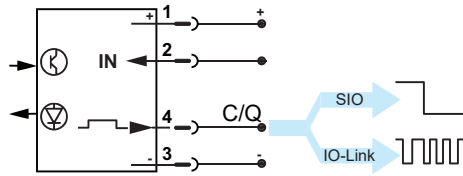
Background suppression system

Pre-cabled - 4-wire IO-Link

	Pin	Signal	Definition
+BN (Brown)	1	+	+ 24 V $\overline{\text{---}}$
IN (input) GY (Grey)	2	IN	+ = NO - = NC Open = NO
OUT (output) BK (Black)	3	-	0 V $\overline{\text{---}}$
-BU (Blue)	4	C	Switching signal (SIO) Communication (IO-Link)


Autodetect PNP/NPN or by IO-Link

XUT8ABAYL2



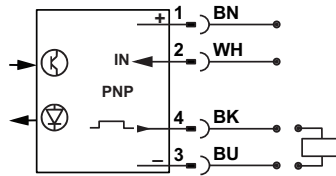
Note: IO-Link files available on our website www.telemecaniquesensors.com/iolink

M12 connector - 4-pin

	Pin	Signal	Definition
	1	+	+ 24 V $\overline{\text{---}}$
	2	IN	+ = NC - = NO Open = NO
	3	-	0 V $\overline{\text{---}}$
	4	C	Switching signal

PNP

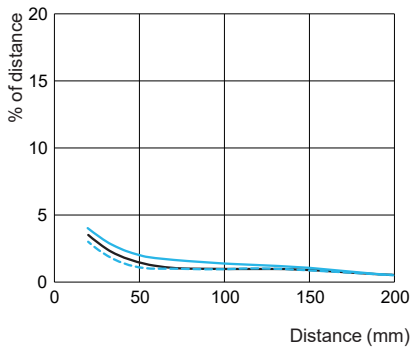
XUK8ABPXM12



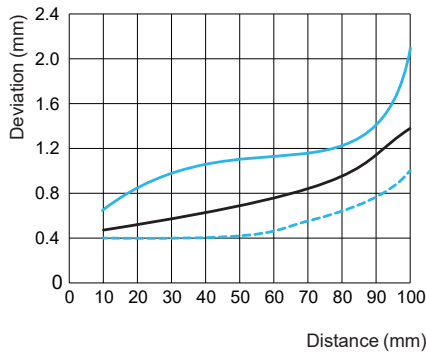
Detection curves

Background suppression system

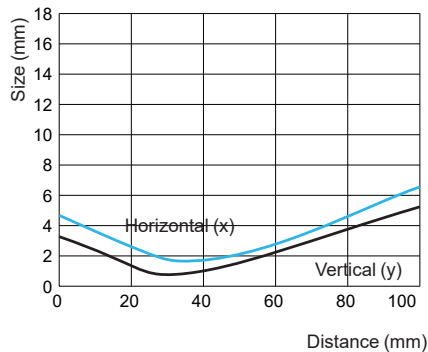
Scanning properties: XUM8ABAY●●



Scanning properties: XUT8ABAY●●

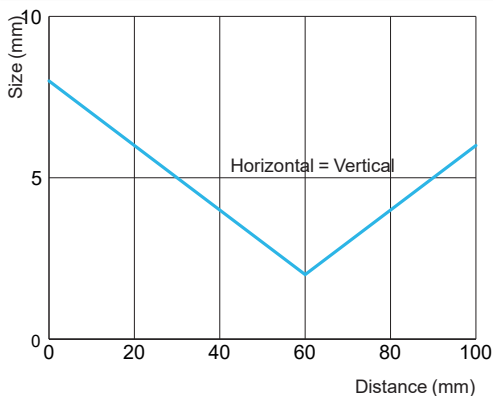


Light spot size: XUT8ABAY●●

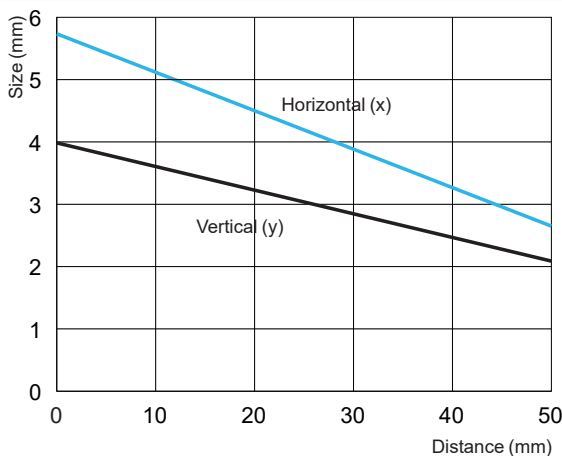


--- Min .distance white object (90%)/white background (90%) (mm)
 — Min .distance grey object (18%)/white background (90%) (mm)
 — Min .distance black object (6%)/white background (90%) (mm)

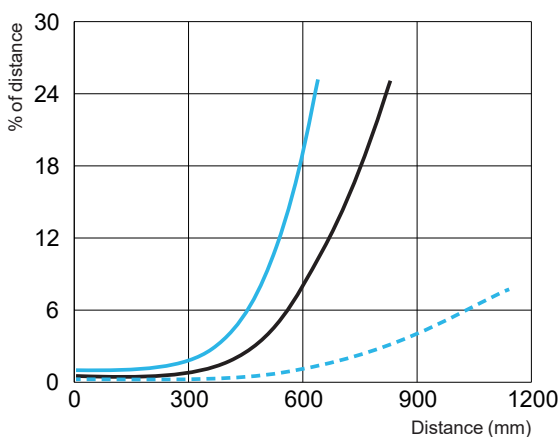
Light spot size: XUM7ABPX●●



Light spot size: XUT7ABPX●●



Scanning properties: XUK8ABPXM12



Light beam diameter: XUK8ABPXM12



--- Min .distance white object (90%)/white background (90%) (mm)
 — Min .distance grey object (18%)/white background (90%) (mm)
 — Min .distance black object (6%)/white background (90%) (mm)

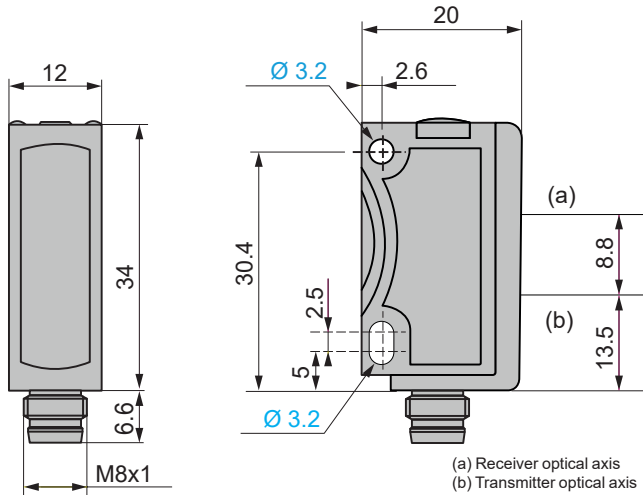
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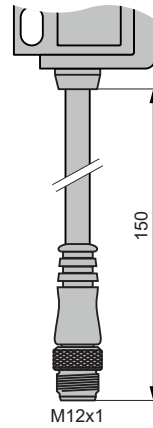
Dimensions

Miniature format: XUM

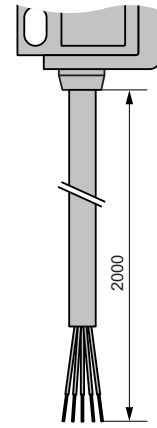
XUM7ABPXL2, XUM8ABAYM8



XUM8ABAYP015

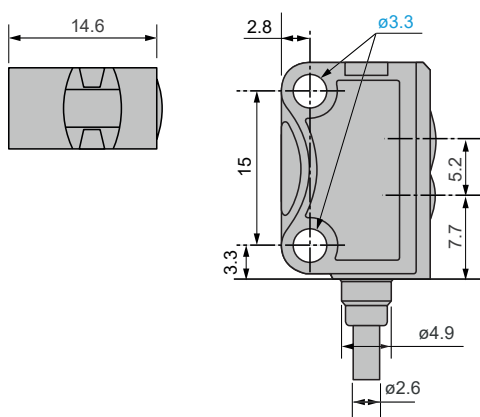


XUM7ABPXL2

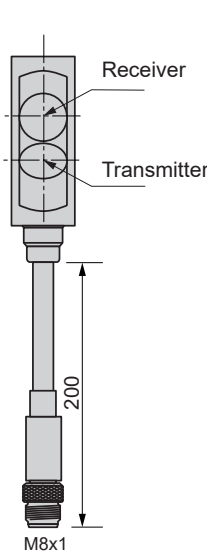


Sub-miniature format: XUT

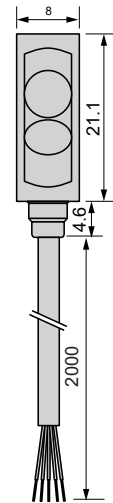
XUT7ABPXP02, XUT7ABPXL2, XUT8ABAYP02, XUT8ABAYL2



XUT●●●●●P02



XUT●●●●●L2



Compact format

XUK8ABPXM12

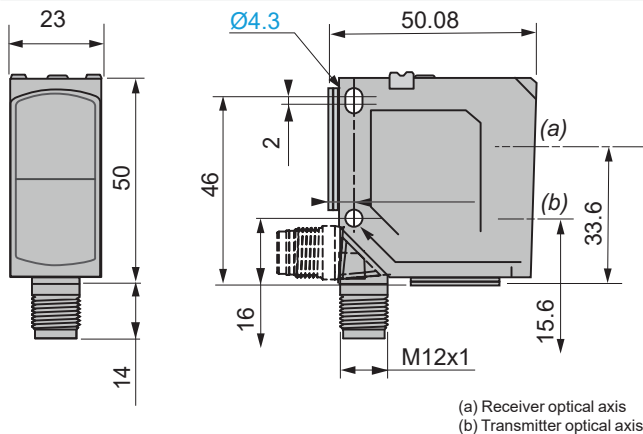


Photo-electric sensors

XU application, for transparent object detection
Miniature, sub-miniature and compact design, plastic



XUMTARAYM8,
XUM7ABPXM8,
XUM8ABAYM8



XUMTARAYL2,
XUMTARAYP015,
XUM7ABPXL2,
XUM8ABAYP015



XUT8ABAYL2,
XUT8ABAYP02,
XUT7ABPXL2,
XUT7ABPXP02



XUK8ABPXM12

Sensors for transparent object detection

Max./operating sensing distance (Sn)	Function	Output	Connection	Reference	Weight kg
Polarised reflex system IO-Link					
2 m/2 m	NO/NC configuration via teach-in or IO-Link	Autodetect PNP/NPN	Pre-cabled (L = 2 m)	XUMTARAYL2	0 056
		Autodetect PNP/NPN	M8 connector (4-pin)	XUMTARAYM8	0 018
		Autodetect PNP/NPN	Pigtail M12 (L = 0.15 m)	XUMTARAYP015	0 027

BGS mode detection, adjustable IO-Link

200 mm/200 mm	NO/NC configuration via teach-in or IO-Link	Autodetect PNP/NPN	M8 connector (4-pin)	XUM8ABAYM8	0 014
		Autodetect PNP/NPN	Pigtail M12 (L = 0.15 m)	XUM8ABAYP015	0 027
100 mm/100 mm	NO/NC configuration via teach-in or IO-Link	Autodetect PNP/NPN	Pigtail M8 (L = 0.2 m)	XUT8ABAYP02	0 019
		Autodetect PNP/NPN	Pre-cabled (L = 2 m)	XUT8ABAYL2	0 031

BGS mode detection, not adjustable

100 mm/80 mm	NO/NC configuration via teach-in	PNP	Pre-cabled (L = 2 m)	XUM7ABPXL2	0 056
		PNP	M8 connector (4-pin)	XUM7ABPXM8	0 017
50 mm/50 mm	NO/NC configuration via teach-in	PNP	Pre-cabled (L = 2 m)	XUT7ABPXL2	0 031
		PNP	Pigtail M8 (L = 0.2 m)	XUT7ABPXP02	0 022

BGS mode detection, compact IO-Link

1200 mm/1200 mm	NO/NC configuration via teach-in or IO-Link	PNP	M12 connector (4-pin)	XUK8ABPXM12	0 046
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Accessories

IO-Link Master (1)

See page 70 .

Fixing and other accessories

See page 74 .

Cabling accessories

See page 80 .

(1) Available 2nd quarter 2024.

Characteristics					
Sensor type		XUMTARAY●●	XU●7ABP●●	XUK8ABP●●	XU●8ABAY●●
Product certifications		CE, UKCA, cULus, Ecolab			
Connection	Connector	M8	M8 (for XUM7)	M12	M8
	Pigtail	Length = 0.15 m	Length = 0.2 m	–	L = 0.15 m (XUM8) L = 0.2 m (XUT8)
	Pre-cabled	Length = 2 m	Length = 2 m	–	Length = 2 m
Maximum sensing distance S_{max}	Polarised reflex system XUMTA	m	0.2	–	–
	BGS system, not adjustable XUM7	mm	–	0.80	–
	BGS system, adjustable XU●8	mm	–	–	White = 3.1200 Grey = 5.750 Black = 10.600
	BGS system, blue light XUT7	mm	–	2.50	–
Detection light beam colour		Red (LED)	Blue (LED)	Blue (LED)	Blue (LED)
Degree of protection	Conforming to IEC 60529	IP67			
	Conforming to DIN 40050-9	IP69K (except XUT)			
Storage temperature		°C	-20 . +80		
Operating temperature		°C	-20 . +60	-20 . +50	-20 . +60
Materials	Case	ABS	ABS for XUM7 PUR for XUT7	ABS/PC	ABS for XUM8 PUR for XUT8
	Lens	PMMA	PMMA	PMMA	PMMA
	Front	PMMA	PMMA	PMMA	PMMA
	Cable	PVC	PVC	–	PVC
Rated supply voltage		V	24 ---	12 . 24 ---	12 . 24 ---
Voltage limits (including ripple)		V	10 . 30		
Current consumption, no-load		mA	≤ 30	≤ 30 for XUM ≤ 20 for XUT	≤ 30
Switching capacity		mA	≤ 100	≤ 100 for XUM ≤ 50 for XUT	≤ 100
Maximum switching frequency		Hz	1000	1000	600
Delays	First-up	ms	< 300		
	Response	µs	500	830	500 for XUM 700 for XUT
	Recovery	ms	< 300		

Wiring schemes

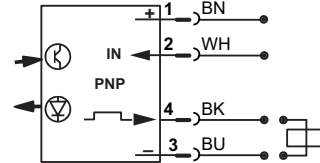
Polarised reflex system

M8/M12 connector - 4-pin - or pre-cabled - 4-wire IO-Link

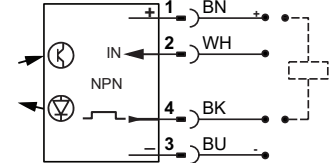
Pin	Signal	Definition
1	+	+ 24 V $\overline{\text{---}}$
2	IN	+ = NO - = NC Open = NO
3	-	0 V $\overline{\text{---}}$
4	Q	Switching signal (SIO)
	C	Communication (IO-Link)

PNP

XUMTARAYL2, XUMTARAYM8, XUMTARAYP015



NPN



Note: IODD IO-Link files available on the website www.telemecaniquesensors.com/iolink

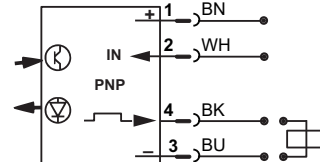
BGS mode detection, adjustable IO-Link

M8/M12 connector - 4-pin - or pre-cabled - 4-wire

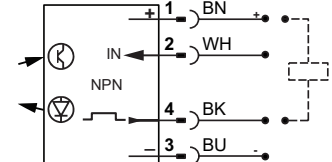
Pin	Signal	Definition
1	+	+ 24 V $\overline{\text{---}}$
2	IN	+ = NO - = NC Open = NO
3	-	0 V $\overline{\text{---}}$
4	Q	Switching signal (SIO)
	C	Communication (IO-Link)

PNP

XUM8ABAYM8, XUM8ABAYP015, XUT8ABAYP02, XUT8ABAYL2



NPN



Note: IODD IO-Link files available on the website www.telemecaniquesensors.com/iolink

BGS mode detection, not adjustable

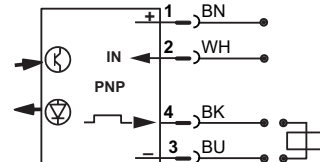
M8 connector - 4-pin - or pre-cabled - 4-wire

Pin	Signal	Definition
1	+	+ 24 V $\overline{\text{---}}$
2	IN	+ = NC - = NO Open = NO
3	-	0 V $\overline{\text{---}}$
4	Q	Switching signal

PNP

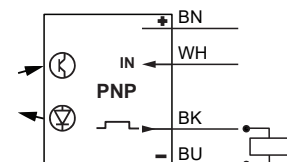
M8 connector

XUM7ABPXM8, XUT7ABPXP02



Pre-cabled

XUM7ABPXL2, XUT7ABPXL2



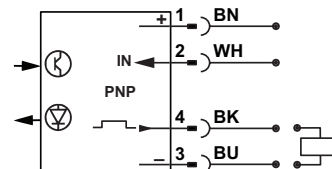
Note: IODD IO-Link files available on the website www.telemecaniquesensors.com/iolink

M12 connector - 4-pin

Pin	Signal	Definition
1	+	+ 24 V $\overline{\text{---}}$
2	IN	+ = NC - = NO Open = NO
3	-	0 V $\overline{\text{---}}$
4	Q	Switching signal

PNP

XUK8ABPXM12



Note: IODD IO-Link files available on the website www.telemecaniquesensors.com/iolink

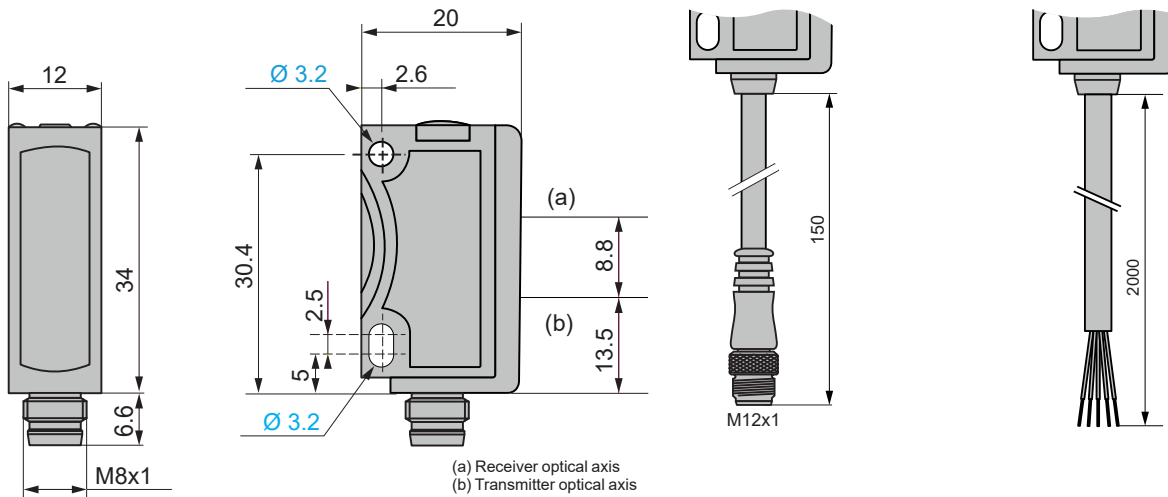
Dimensions

Miniature format: XUM

XUM●A●AYM8, XUM●A●AYL2, XUM●A●AYP015, XUM●ABPX●●

XUM●●●●●●●P015

XUM●●●●●●●L2

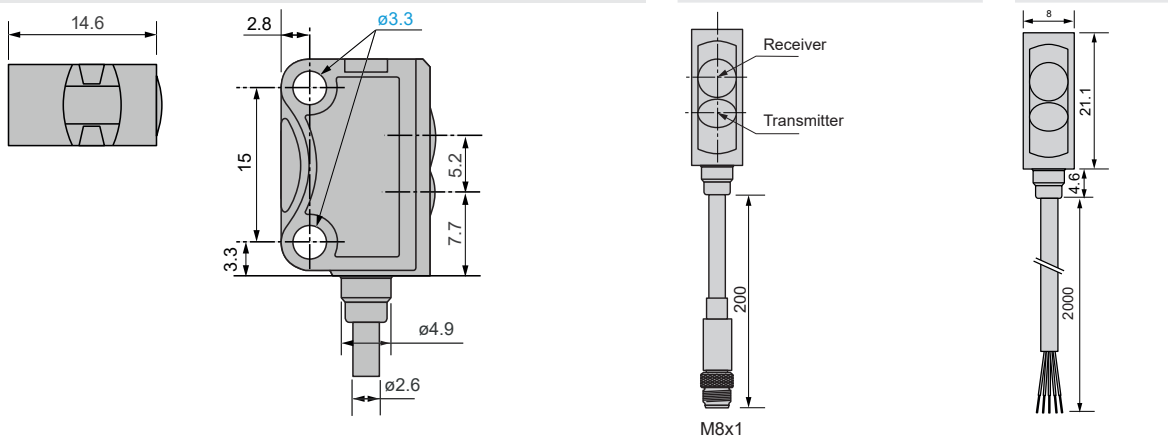


Sub-miniature format: XUT

XUT7ABXP02, XUT7ABPX2, XUT8ABAYL2, XUT8ABAYP02

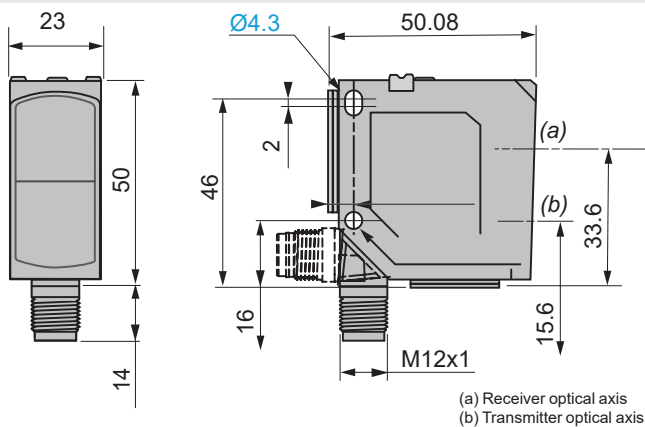
XUT●●●●●●●P02

XUT●●●●●●●L2



Compact format: XUK

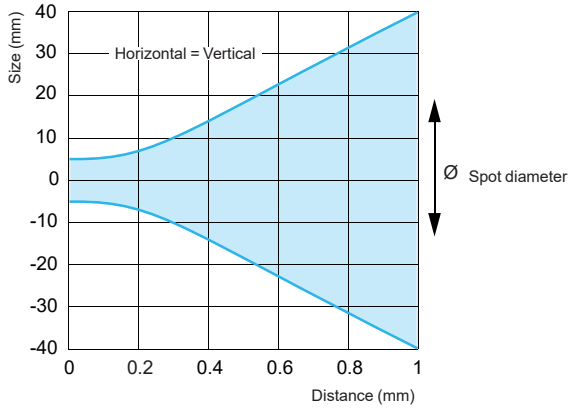
XUK8ABPXM12



Detection curves

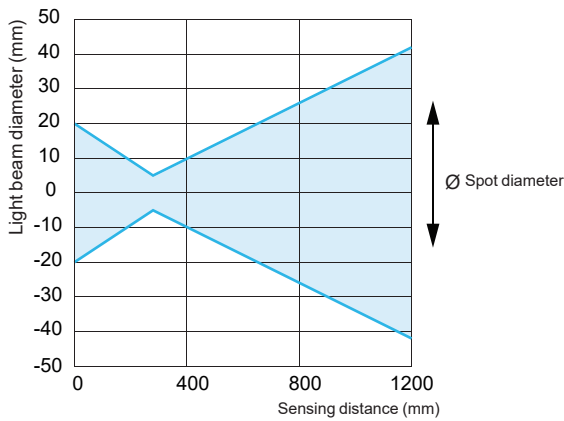
Polarised reflex

Light spot diameter: XUMTARAY●●



Background suppression mode

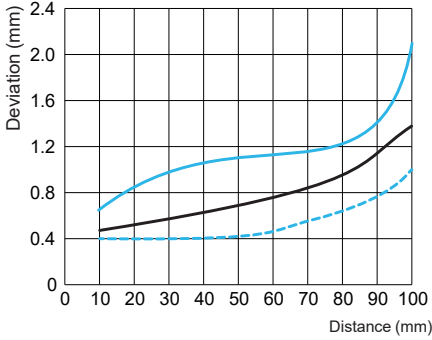
Light spot diameter: XUK8ABPXM12



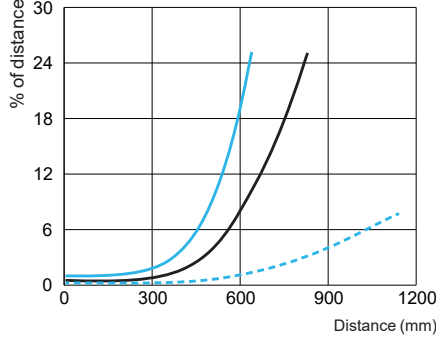
Detection curves

Background suppression mode

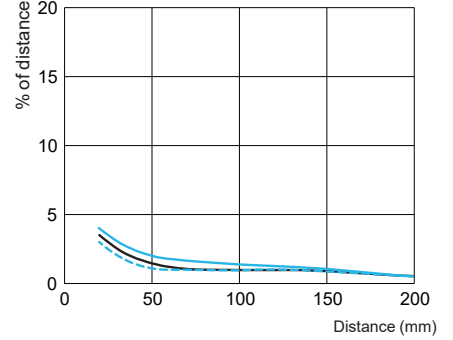
Scanning properties: XUT8ABAY●●



Scanning properties: XUK8ABPXM12

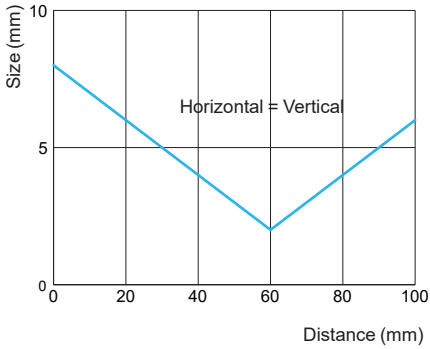


Scanning properties: XUM8ABAY●●

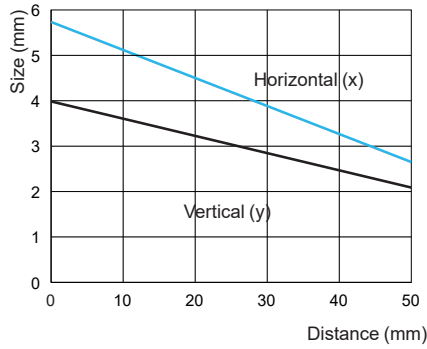


--- Min .distance white object (90%)/white background (90%) (mm)
 — Min .distance grey object (18%)/white background (90%) (mm)
 — Min .distance black object (6%)/white background (90%) (mm)

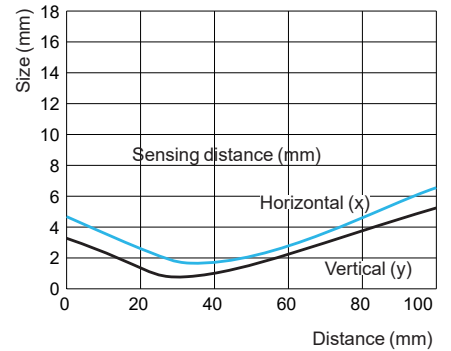
Light spot size: XUM7ABPX●●



Light spot size: XUT7ABPX●●



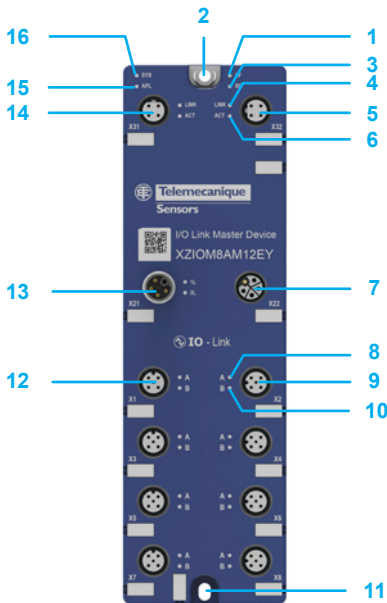
Light spot size: XUT8ABAY●●



IO-Link



XZIO8AM12PY



- 1 For Ethernet, module status LED (MS)
For PROFINET, system error LED (SF)
- 2 Fixing hole and functional earth (FE)
- 3 For Ethernet, network status LED (NS)
For PROFINET, bus failure LED (BF)
- 4 Link LED X32
- 5 Ethernet interface, M12, D-coded, port 2
- 6 Activity LED X32
- 7 Power Out
- 8 IO-Link status LED, port 2, channel A
- 9 IO-Link, port 2, M12, A-coded
- 10 IO-Link status LED, port 2, channel B
- 11 Fixing hole
- 12 IO-Link, port 1, M12, A-coded
- 13 Power In
- 14 Ethernet interface, M12, D-coded, port 1
- 15 Application status LED
- 16 System status LED

Presentation

IO-Link is a point-to-point network communication protocol dedicated to sensors and actuators offering advantages such as increased productivity, simplified integration and reduced inventory .

It enables:

- Simplified connection of sensors and actuators to the upper-level control and monitoring system of an automated line
- Advanced diagnostic functions, through continuous monitoring of critical parameters such as signal quality and sensor status
- Reduced commissioning time due to fewer cables and hot swappable devices
- Integration with third-party devices, thanks to multiple fieldbus protocol support (PROFINET, Ethernet/IP)

Telemecanique Sensors offers a wide choice of IO-Link conformant devices, with various detection systems such as thru-beam, diffuse, polarised reflex, etc.

IO-Link system

An IO-Link system consists of the following components:

- IO-Link Master
- IO-Link devices (sensors, RFID readers, valves, motor starters, I/O modules)
- Cabling
- Engineering tool for integration and configuration of IO-Link devices (Simply Config IO-Link Master software (2))

Description

IO-Link Masters

IO-Link Masters serve to capture digital inputs and outputs being conveyed between the PLC and the IO-Link devices .

Two types of IO-Link Master are available:

- **XZIO8AM12EY** Ethernet Master, for devices connected to an Ethernet/IP network
- **XZIO8AM12PY** PROFINET Master, for devices connected to a PROFINET network

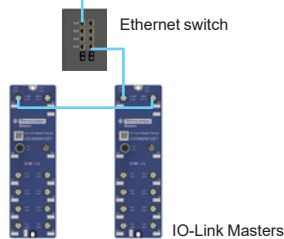
An IO-Link Master enables:

- On the sensor side: IODD file management, sensor configuration, port diagnosis
- On the Master side: Master configuration, firmware update, factory reset, Master diagnosis, MQTT setting

Example of installation in line or star topology

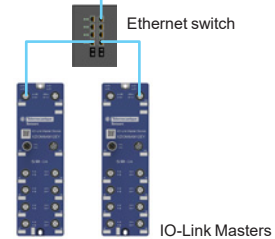
Line topology

Ethernet/IP-Scanner/
PROFINET I/O controller



Star topology

Ethernet/IP-Scanner/
PROFINET I/O controller



(1) Available 2nd quarter 2024.

(2) Simply Config IO-Link software can be downloaded from [our website](#).

IO-Link Master devices

Description	Protocol	Power consumption	Number of ports	Connector	Reference	Weight kg
IO-Link Master	Ethernet/IP	24V $\overline{\text{---}}$	8 class A	M12	XZIOM8AM12EY	0 405
	PROFINET	24V $\overline{\text{---}}$	8 class A	M12	XZIOM8AM12PY	0 405

IO-Link power cables

Description	Type of connector	End fittings	Length m		Reference	Weight kg
Single-ended, pre-wired, L-coded power cable (PUR)	Female	5-pin (4+FE)	2	1 5 mm ²	XZCPK75DL2	0 255
			5	1 5 mm ²	XZCPK75DL5	0 585
			2	1 5 mm ²	XZCPK75CL2	0 255
			5	1 5 mm ²	XZCPK75CL5	0 585
			Jumper power cable (PUR)	Male/ Female	M12 5-pin/M12 5-pin	2
			5	1 5 mm ²	XZCR25K25DL5	0 615
			2	1 5 mm ²	XZCR26K26CL2	0 285
			5	1 5 mm ²	XZCR26K26CL5	0 615

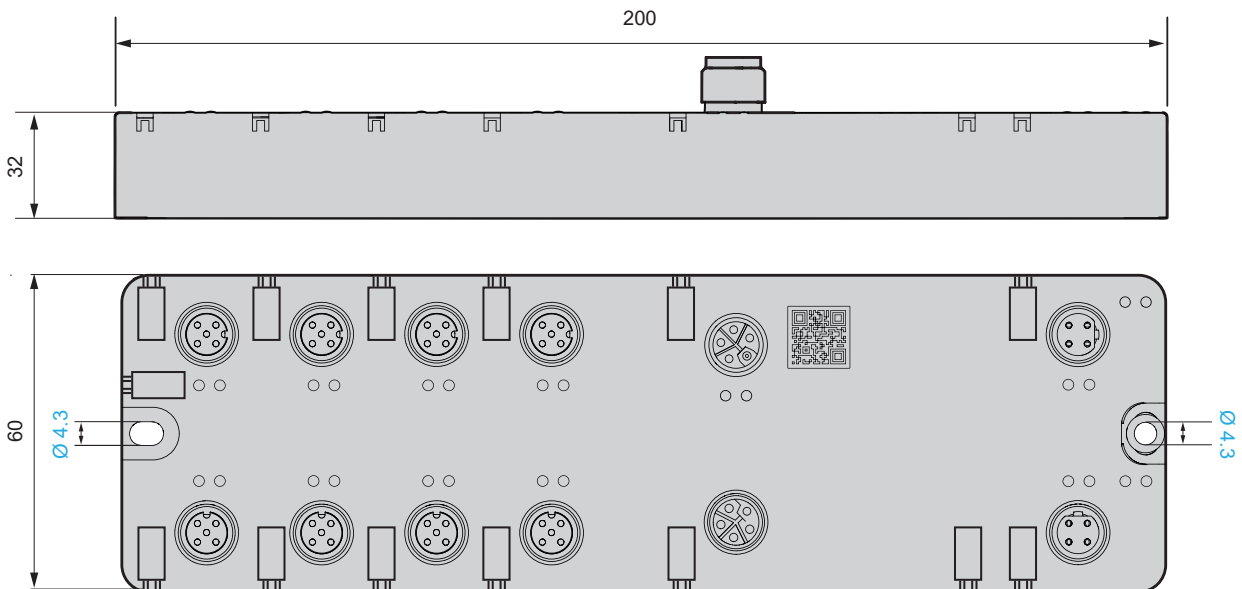


XZCPK75L

XZCR26K26L

Dimensions

XZIOM8AM12Y



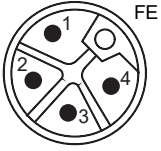
Product specifications					
Reference		XZIOM8AM12EY		XZIOM8AM12PY	
Function		Ethernet/IP IO-Link Master		ProfiNet IO-Link Master	
Power supply 1L, 2L	Supply voltage 1L, 2L	V	24, -25%/+30% (18...31.2)		
	Low voltage warning 1L	V	18.0 (± 5% at 25 °C) notification on, 18.3 (± 5% at 25 °C) notification off		
	Overvoltage warning 1L	V	30.0 (± 5% at 25 °C) notification on, 29.7 (± 5% at 25 °C) notification off		
	Current consumption	A	1L: 0.1 . 16 (at 24 V DC) 2L: 0.01 . 16 (at 24 V DC)		
	Current consumption of supply port	A	Max. 16		
	Conductor cross-section	mm²	0.5...2.5		
	Connector		PWR IN: M12 L-coded, 5-pin, plug PWR OUT: M12 L-coded, 5-pin, socket		
	Torque	Nm	1.0		
	Reverse polarity protection		Yes		
	Power supply	V	24 --- PELV (Protective Extra Low Voltage) or SELV (Safety Extra Low Voltage)		
Total load	Maximum total load current	A	15.7		
Device	Dimensions (L x W x H)	mm	200 x 60 x 32		
	Weight	g	404		
	Housing		Plastic		
	Potting		Solvent-free electro-casting resin system based on 2 K polyurethane		
	Degree of protection		IP67 (EN 60529)		
	Protection class		III (EN 61140)		
	Mounting		Screw mounting on carrier, 2x M4		
Environmental conditions	Location of operation		Indoor		
	Ambient temperature (operation)	°C	-25 . +70		
	Ambient temperature (storage)	°C	-40 . +80		
	Maximum temperature change	K/min	3		
	Relative humidity		5% . 95%		
	Degree of pollution		3 (EN 60664-1)		
	Altitude	m	0...2000		
	Overvoltage category		II (EN 60664-1)		
	Degree of protection		IP67 (EN 60529)		
	Protection class		III (EN 61140)		
Electrical characteristics	Insulation resistance	V	60 ---		
	Test voltage	V	550 ~ RMS		
	Minimal creepage distance	mm	0.7		
Ethernet connector	Communication interface		Ethernet		
	Autonegotiation, autocrossover		Yes		
	Connector		2x M12, D-coded, socket, 4-pin		
	Torque	Nm	1.0		
IO-Link connector	Connector		8x M12, A-coded, plug, 5-pin		
	Torque	Nm	1.0		
	Operating modes		Pin 2: DI or DO Pin 4: IO-Link Master, DI or DO		
LEDs	SYS		System status, green/yellow		
	APL		Application status, red/green		
	MS		Module status (EtherNet/IP), red/green		-
	SF		-		System error (PROFINET), red
	NS		Network status (EtherNet/IP), red/green		-
	BF		-		Bus error (PROFINET), red
	LINK		Link status, green		
	ACT		Activity status, yellow		
	1L, 2L		Supply voltage status, red/green		
	A, B		Port status: red/green/yellow (yellow by simultaneous red and green)		
Compliance	RoHS		Yes		
Compliance with EMC guidelines	CE sign		Yes		
	UKCA sign		Yes		
	Emission		EN 61000-6-4/BS EN 61000-6-4		
	Immunity		EN 61000-6-2/BS EN 61000-6-2		

Wiring schemes

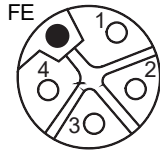
Power supply

M12 connector - 5 pins (4 + FE) - IO-Link

Supply voltage input



Supply voltage input

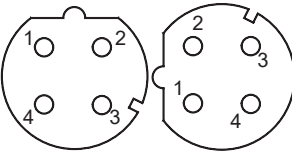


Pin	Signal	Wire colour	Description
1	1L+	Brown	24 V $\overline{\text{DC}}$
2	2L-	White	Reference potential for 2L
3	1L-	Blue	Reference potential for 1L
4	2L+	Black	24 V $\overline{\text{DC}}$ auxiliary/control voltage U2L
FE	FE	Pink	Functional earth

Communication

M12 connector - D-coded - socket - 4 pins

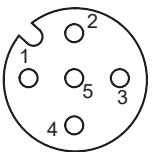
Ethernet



Pin	Signal	Wire colour	Description
1	TX+	Brown	Transmit data positive
2	RX+	White	Receive data positive
3	TX-	Blue	Transmit data negative
4	RX-	Black	Receive data negative

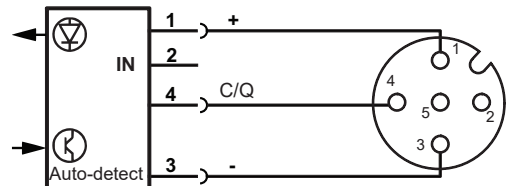
IO-Link ports (Class A)

M12 connector - 4 pins



Pin	Signal	Wire colour	Description
1	+	Brown	+24 V DC supply voltage U 1L for sensor/actuator
2	IN	White	Digital input/output channel B
3	-	Blue	Functional earth for 1L+
4	Q	Black	IO-Link data or Digital input/output channel A
5	-	-	Not connected

Auto-detect PNP/NPN or by IO-Link IO-Link



Derating curves

XZIOM8AM12EY and XZIOM8AM12PY

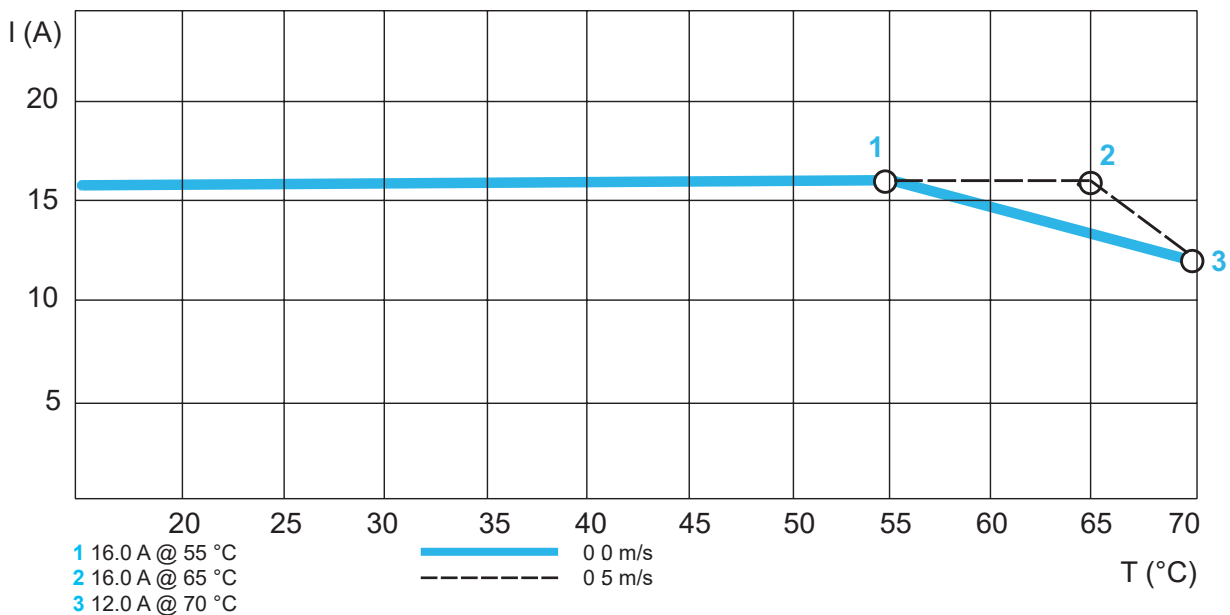


Photo-electric sensors

XU general purpose, single mode function

Accessories

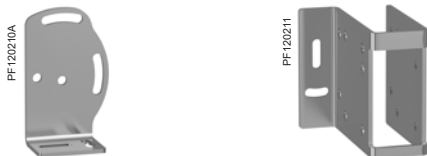
Fixing brackets



XUZASM02 XUZASM03 XUZASM04



XUZASN001 XUZASN002 XUZA50



XUZA51S XUZASK001



XUZASW001 XUZASW002



XUZA118 XUZA218



XUZARS XU_ZASS



XUZARM XU_ZARK



XUZASB001 XUZASB002 XU_ZASB003

Fixing accessories

Fixing brackets

Description	For use with sensors	Reference	Weight kg
Wrap-around horizontal mounting bracket for pre-cabled sensors Supplied with 2 x M3 screws	XUM●A●XBL2	XUZASM02	0 030
Wrap-around vertical mounting bracket for pre-cabled sensors Supplied with 2 x M3 screws	XUM●A●XBL2	XUZASM03	0 062
Rear mounting bracket Supplied with 2 x M3 screws	XUM●A●XBL2, XUM●A●XBM8	XUZASM04	0 030
Stainless steel grade 316 fixing bracket Supplied with 2 x M3 screws	XUN	XUZASN001	0 124
Wrap-around vertical mounting bracket for pre-cabled sensors Supplied with 2 x M3 screws	XUN	XUZASN002	0 133
Metal fixing bracket Supplied with 2 x M3 screws	XUM, XUT, XUK	XUZA50	0 025
Stainless steel grade 316 fixing brackets Supplied with 2 x M3 screws	XUK8ABPXM12	XUZA51S	0 050
Stainless steel grade 304 fixing bracket for compact sensor 50 x 50 mm Supplied with 2 x M3 screws	XUK8ABPXM12	XUZASK001	0 240
Metal dovetail fixing clamp, 1 axis Supplied with 1 x M3 screw	XUK8ABPXM12	XUZASW001	0 014
Simple metal fixing bracket Supplied with 2 x M3 screws	XUK8ABPXM12	XUZASW002	0 017
90° stainless steel fixing brackets	XUB	XUZA118	0 045
Plastic fixing bracket with adjustable ball joint	XUB	XUZA218	0 035
Dovetail clamp Supplied with 2 x M3 screws	XUT7ABPX●●, XUT8A●AY●●, XUT9ABPX●●	XUZARS	0 005
Mounting bracket Supplied with 2 x M3 screws	XUT7ABPX●●, XUT8A●AY●●, XUT9ABPX●●	XUZASS	0 008
Dovetail clamp Supplied with 2 x M3 screws	XUM●A●AYM8, XUM●A●AYP015, XUM●A●AYL2, XUM7ABPX●●	XUZARM	0 017
Dovetail clamp Supplied with 1 x M3 screw	XUKCB●AYM12, XUK8ABPXM12	XUZARK	0 026

Mounting rings

Description	For use with sensors	Reference	Weight kg
Stainless steel flush mounting nut	XUB	XUZASB001	0 018
Plastic mounting ring 27 mm x 16.8 mm	XUB	XUZASB002	0 003
Metal mounting ring 30 mm x 18 mm	XUB	XUZASB003	0 011

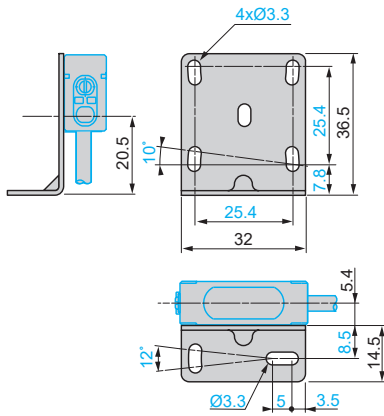
Cabling accessories

See pages 80 to 85 .

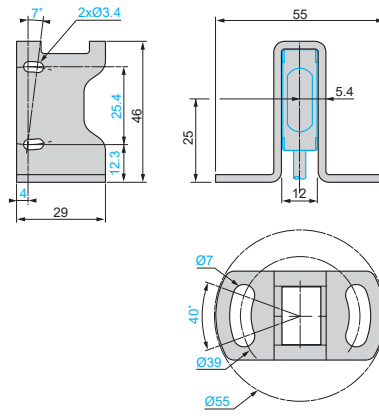
Fixing accessories

Fixing brackets

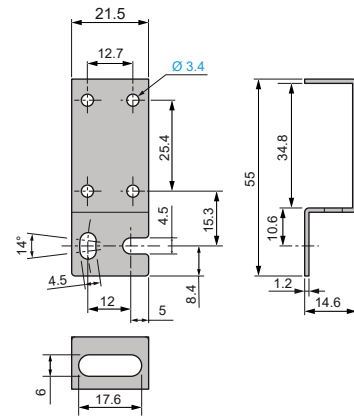
XUZASM04



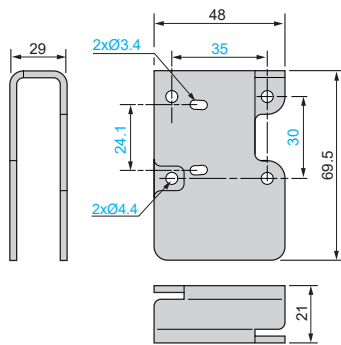
XUZASM03



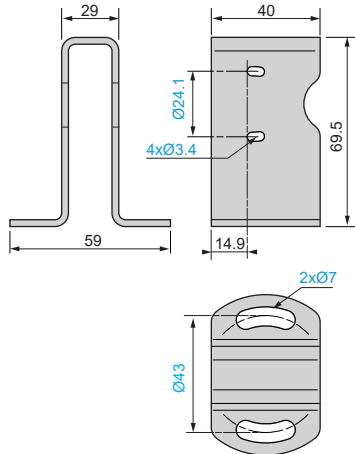
XUZASM02



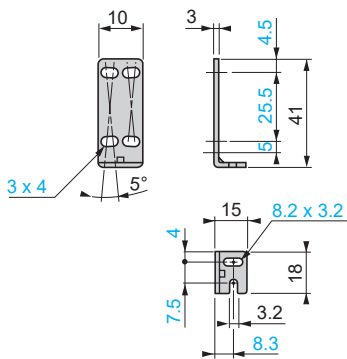
XUZASN001



XUZASN002



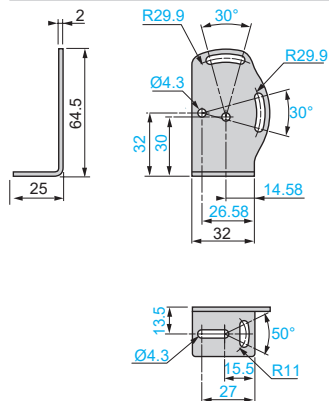
XUZA50



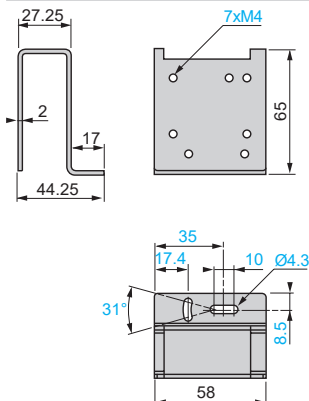
Fixing accessories

Fixing brackets

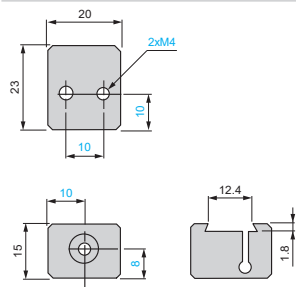
XUZA51S



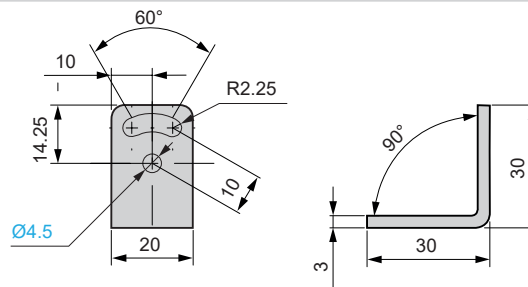
XUZASK001



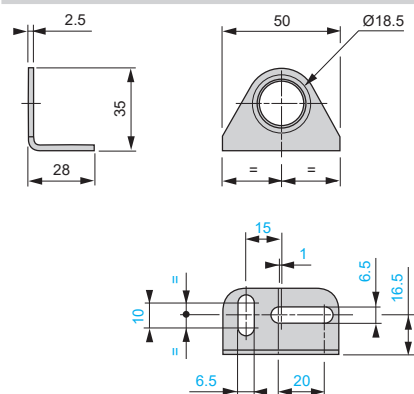
XUZASW001



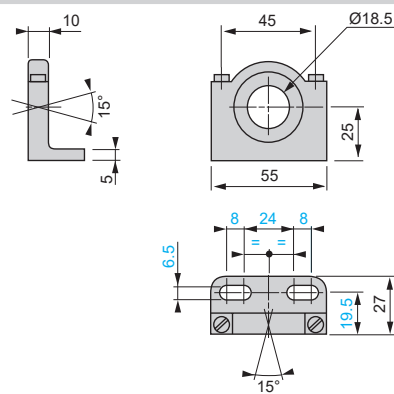
XUZASW002



XUZA118



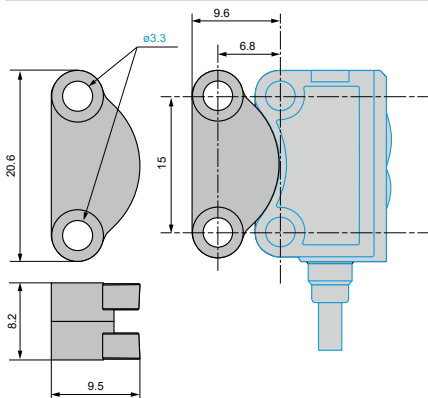
XUZA218



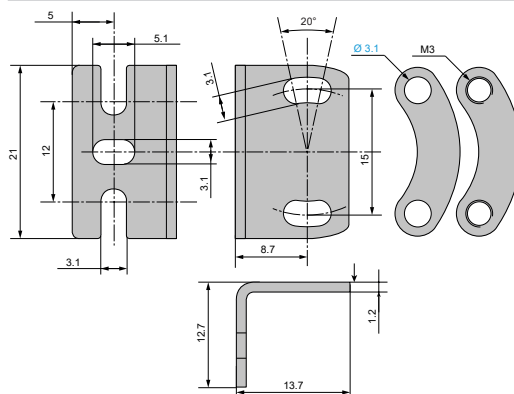
Fixing accessories

Fixing brackets

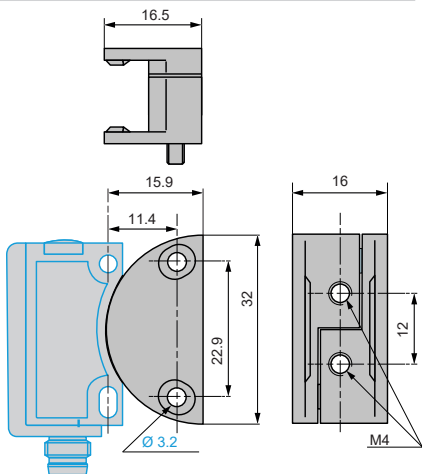
XUZARS



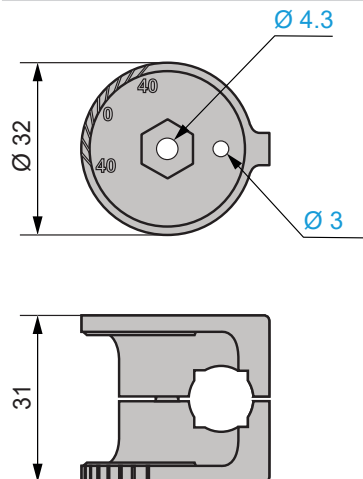
XUZASS



XUZARM

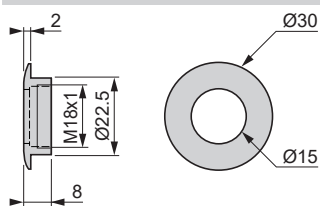


XUZARK

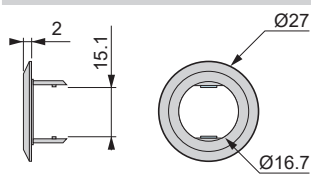


Mounting rings

XUZASB001



XUZASB002



XUZASB003

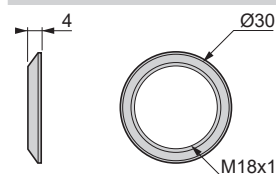


Photo-electric sensors

XU general purpose, single mode function

Accessories

Reflectors



XUZC50_30

XUZC50



XU_511_FFJR18019

XUZC60S11



XU_511_FFJR18005

XUZC39

Reflectors

References

Description	Size	Fixing mode	Reference	Weight kg
Rigid square reflectors	100 mm x 100 mm	2 brackets (not provided)	XUZC100	0 035
	51.5 mm x 69 mm	6 holes	XUZC50	0 020
Rigid rectangle reflectors	45 mm x 29 mm	2 holes	XUZC24	0 010
	40 mm x 60 mm	2 holes	XUZC60S11	0 022
Rigid circular reflectors	Ø 39 mm	Adhesive	XUZC39	0 008

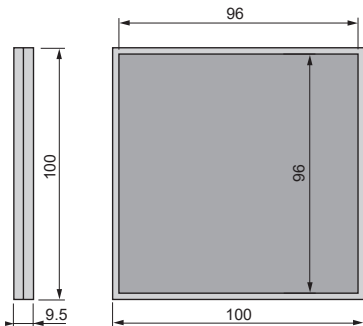
Cabling accessories

See pages 80 to 85 .

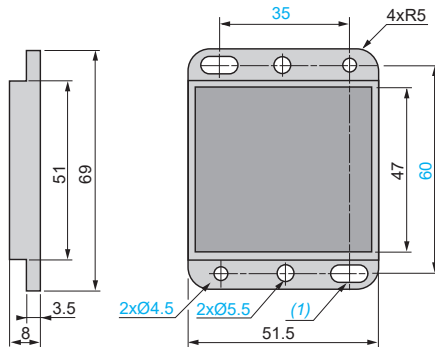
Reflectors

Dimensions

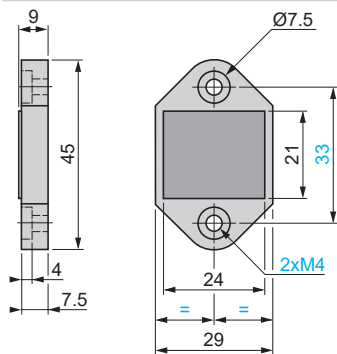
XUZC100



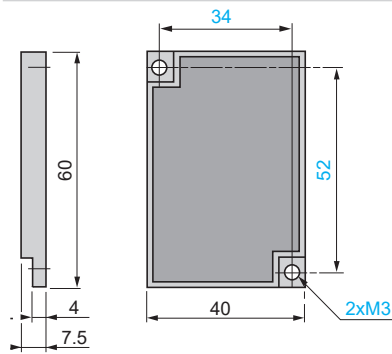
XUZC50



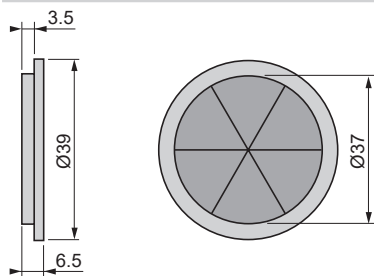
XUZC24



XUZC60S11



XUZC39



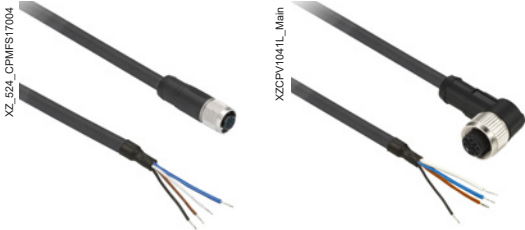
(1) 2 elongated holes Ø 4.5 x 8

Note: All reflectors are IP 67 and IP 69K.

Photo-electric sensors

Cables for sensors

Pre-wired connectors



Pre-wired M8 connector, 4 conductors



Pre-wired M12 connector, straight, 4 conductors (left) and 5 conductors (right)



Pre-wired M12 connector, elbowed, 4 conductors (left) and 5 conductors (right)

PVC cables with pre-wired connector

Description	Connector type	End fittings	Length (m)	For use with sensor	Reference	Weight kg
M8 connector						
Pre-wired M8 connectors	Female, straight	4-pin	2	XUM●●●●M8,	XZCPV0941L2	0 090
			5	XUT●●●●M8	XZCPV0941L5	0 200
			10		XZCPV0941L10	0 380
	Female, elbowed	2			XZCPV1041L2	0 090
			5		XZCPV1041L5	0 200
			10		XZCPV1041L10	0 380

M12 connector

Pre-wired M12 connectors	Female, straight	4-pin	2	XUM●●●●M12,	XZCPV1141L2	0 090
			5	XUM●●●●P015,	XZCPV1141L5	0 200
			10	XUN●●●●M12,	XZCPV1141L10	0 380
	Female, elbowed	2		XUB●●●●M12,	XZCPV1241L2	0 090
			5	XUT●●●●M12	XZCPV1241L5	0 200
			10		XZCPV1241L10	0 380

PUR cables with pre-wired connector

Description	Connector type	End fittings	Length (m)	For use with sensor	Reference	Weight kg
M8 connector						
Pre-wired M8 connectors	Female, straight	4-pin	2	XUM●●●●M8,	XZCP0941L2	0 080
			5	XUT●●●●M8	XZCP0941L5	0 180
			10		XZCP0941L10	0 360
	Female, elbowed	2			XZCP1041L2	0 080
			5		XZCP1041L5	0 180
			10		XZCP1041L10	0 360

M12 connector

Pre-wired M12 connectors	Female, straight	4-pin	2	XUM●●●●M12,	XZCP1141L2	0 090
			5	XUM●●●●P0●,	XZCP1141L5	0 190
			10	XUN●●●●M12,	XZCP1141L10	0 370
	Female, elbowed	2		XUB●●●●M12,	XZCP1241L2	0 090
			5	XUK●●●●M12	XZCP1241L5	0 190
			10		XZCP1241L10	0 370

M12 connector, shielded

Shielded pre-wired connectors M12	Female, straight	4-pin	2	XUM●●●●M12,	XZCPB1141L2	0 200
			5	XUM●●●●P0●,	XZCPB1141L5	0 350
				XUN●●●●M12,		
	Female, elbowed	2		XUB●●●●M12,		
			5	XUK●●●●M12		
			5-pin	2	XUKC●●●●	XZCPB1151L2
	5		XZCPB1151L5	0 259		
	2		XZCPB1251L2	0 113		
	5		XZCPB1251L5	0 258		



Jumper cables, M12-M12 connectors, 4-pin/4-pin



Shielded jumper cables, M12-M12 connectors, 5-pin/5-pin



Jumper cables, M8-M8 connectors, 3-pin/3-pin



Jumper cables, M8-M8 connectors, 3-pin/4-pin



Jumper cables, M8-M12 connectors, 3-pin/5-pin

PVC jumper cables

Description	Connector type		End fittings	Length (m)	For use with sensor	Reference	Weight kg
	Male	Female					
M12-M12 connectors							
PVC jumper cable XZ	M12, straight	M12, straight	4-pin/4-pin	1	XUM●●●●M12,	XZCRV1511041C1	0 070
				2	XUM●●●●P015,	XZCRV1511041C2	0 110
				5	XUN●●●●M12,	XZCRV1511041C5	0 230
	M12, elbowed			1	XUT●●●●M12	XZCRV1512041C1	0 070
				2		XZCRV1512041C2	0 110
				5		XZCRV1512041C5	0 230

PUR jumper cables

Description	Connector type		End fittings	Length (m)	For use with sensor	Reference	Weight kg
	Male	Female					
Shielded, M12-M12 connectors							
PUR jumper cable XZ	M12, straight	M12, straight	5-pin/5-pin	2	XUCK●●●●	XZCRB151151C2	0 123
				5		XZCRB151151C5	0 267

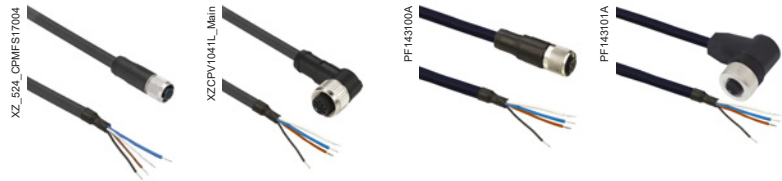
M8-M8 connectors

PUR jumper cable XZ	M8, straight	M8, straight	3-pin/3-pin	1	XUM●●●●M8,	XZCR2705037R1	0 065
				2	XUT●●●●M8	XZCR2705037R2	0 090
				M8, elbowed	1		XZCR2706037R1

PUR jumper cable XZ	M8, straight	M8, straight	3-pin/4-pin	2	XUM●●●●M8,	XZCR2709037S2	0 090
				XUT●●●●M8		XZCR2710037S1	0 065
				M8, elbowed	1		XZCR2710037S2

M8-M12 connectors

PUR jumper cable XZ	M8, straight	M12, straight	3-pin/5-pin	1	XUM●●●●M8,	XZCR2711037T1	0 065
				XUT●●●●M8		XZCR2711037T2	0 093
	M12, elbowed			1		XZCR2712037T1	0 065
				2		XZCR2712037T2	0 093



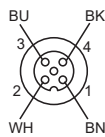
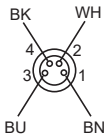
Connector type	Female, M8, straight	Female, M8, elbowed	Female, M12, straight	Female, M12, elbowed	
Number of conductors	4				
References					
PVC cable	L = 2 m	XZCPV0941L2	XZCPV1041L2	XZCPV1141L2	XZCPV1241L2
	L = 5 m	XZCPV0941L5	XZCPV1041L5	XZCPV1141L5	XZCPV1241L5
	L = 10 m	XZCPV0941L10	XZCPV1041L10	XZCPV1141L10	XZCPV1241L10
Weight (kg)	0 090 (L = 2 m) 0 200 (L = 5 m) 0 380 (L = 10 m)				

Characteristics		
Certifications	cULus	
Connection type	Screw threaded (metal clamping ring)	
Cable material	Sheath	PVC
	Conductor insulation	PP
Degree of protection	IP65, IP67	
Ambient air temperature	Static cable	-25...+80 °C
	Flexing cable	-5...+80 °C
Conductor c.s.a	4 x 0.25 mm ²	
Cable diameter	4.6 mm	
Nominal voltage	60 V ~, 75 V ~	250 V ~, 300 V ~
Nominal current	3 A	
Insulation resistance	> 10 ⁹ Ω	
Contact resistance	≤ 5 m Ω	

Connections

XZCPV0941L●,
XZCPV1041L●

XZCPV1141L●,
XZCPV1241L●



BN: Brown
WH: White
BU: Blue
BK: Black

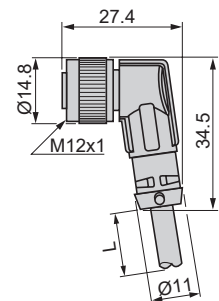
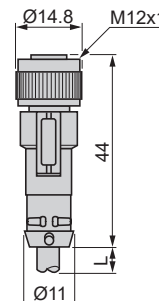
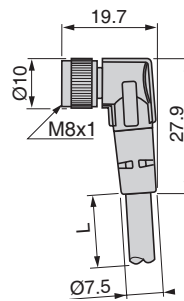
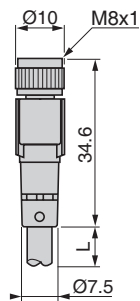
Dimensions

XZCPV0941L●

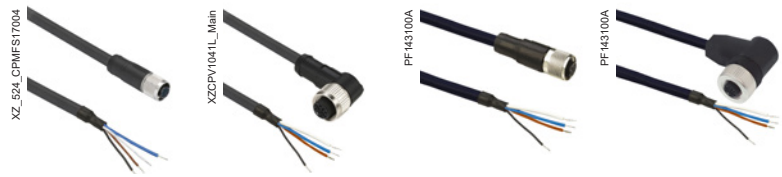
XZCPV1041L●

XZCPV1141L●

XZCPV1241L●



L = 2, 5 or 10 m

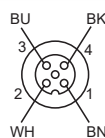
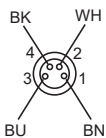


Connector type	Female, M8, straight	Female, M8, elbowed	Female, M12, straight	Female, M12, elbowed	
Number of conductors	4				
References					
PUR cable	L = 2 m	XZCP0941L2	XZCP1041L2	XZCP1141L2	XZCP1241L2
	L = 5 m	XZCP0941L5	XZCP1041L5	XZCP1141L5	XZCP1241L5
	L = 10 m	XZCP0941L10	XZCP1041L10	XZCP1141L10	XZCP1241L10
Weight (kg)	0 080 (L = 2 m) 0 180 (L = 5 m) 0 360 (L = 10 m)		0 090 (L = 2 m) 0 190 (L = 5 m) 0 370 (L = 10 m)		
Characteristics					
Certifications	cULus				
Connection type	Screw threaded (metal clamping ring)				
Cable material	Sheath	PUR			
	Conductor insulation	PP			
Degree of protection	IP65, IP67, IP69K				
Ambient air temperature	Static cable	-40...+80 °C			
	Flexing cable	-5...+80 °C			
Conductor c.s.a.	4 x 0.34 mm ²				
Cable diameter	5.2 mm				
Nominal voltage	60 V ~, 75 V -		250 V ~, 300 V -		
Nominal current	4 A				
Insulation resistance	> 10 ⁹ Ω				
Contact resistance	≤ 5 m Ω				

Connections

**XZCP0941L●,
XZCP1041L●**

**XZCP1141L●,
XZCP1241L●**



BN: Brown
WH: White
BU: Blue
BK: Black

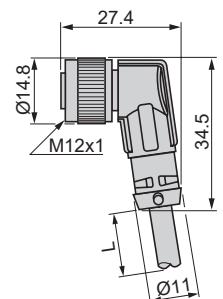
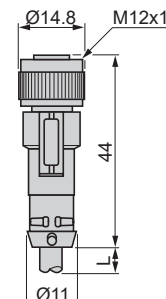
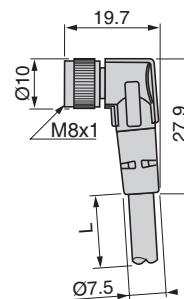
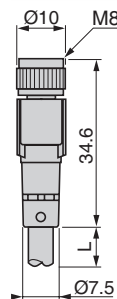
Dimensions

XZCP0941L●

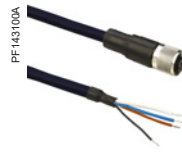
XZCP1041L●

XZCP1141L●

XZCP1241L●



L = 2, 5 or 10 m

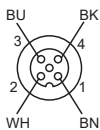


Connector type	Female, M12, straight	
Number of conductors	4	
References		
PUR cable	L = 2 m	XZCPB1141L2
	L = 5 m	XZCPB1141L5
Weight (kg)	0 200 (L = 2 m) 0 350 (L = 5 m)	

Characteristics		
Certifications	cULus	
Connection type	Screw threaded (metal clamping ring)	
Cable material	Sheath	PUR, shielded
	Conductor insulation	PP
Degree of protection	IP65, IP67	
Ambient air temperature	Static cable	-25...+80 °C
	Flexing cable	-5...+80 °C
Conductor c.s.a.	4 x 0.34 mm ²	
Cable diameter	5.9 mm	
Nominal voltage	250 V ~, 300 V ---	
Nominal current	4 A	
Insulation resistance	1 GΩ	
Contact resistance	5000 μOhm	

Connections

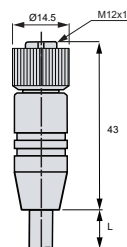
XZCPB1141L●



BN: Brown
WH: White
BU: Blue
BK: Black

Dimensions

XZCPB1141L●



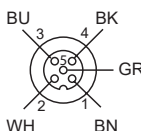
L = 2 or 5 m



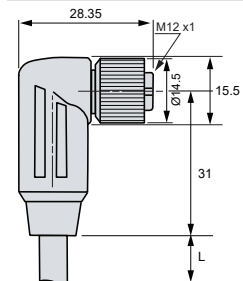
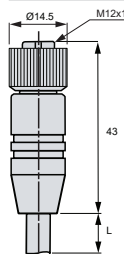
Connector type	Female, M12, straight	Female, M12, elbowed	
Number of conductors	5		
References			
PUR cable	L = 2 m	XZCPB1151L2	XZCPB1251L2
	L = 5 m	XZCPB1151L5	XZCPB1251L5
Weight (kg)	0.114 (L = 2 m) 0.259 (L = 5 m)	0.113 (L = 2 m) 0.258 (L = 5 m)	

Characteristics		
Certifications	cULus	
Connection type	Screw threaded (nickel clamping ring)	
Cable material	Sheath	PUR, shielded
	Conductor insulation	PP
Degree of protection	IP65, IP67, IP69K	
Ambient air temperature	Static cable	-40...+90 °C
	Flexing cable	-25...+80 °C
Conductor c.s.a.	5 x 0.34 mm ²	
Cable diameter	5.85 mm	
Nominal voltage	250 V ~, 60 V ☰	
Nominal current	4 A	
Insulation resistance	> 10 ⁹ Ω	
Contact resistance	≤ 10 m Ω	

Connections	Dimensions
XZCPB1151L●	XZCPB1151L● XZCPB1251L●



BN: Brown
WH: White
BU: Blue
BK: Black
GR: Grey



L = 2 or 5 m



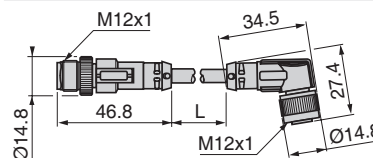
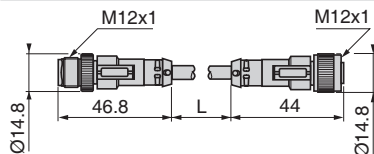
Male connector type	M12, 4-pin, straight		
Female connector type	M12, 4-pin, straight	M12, 4-pin, elbowed	
Number of conductors	4		
References			
PVC cable	L = 1 m	XZCRV1511041C1	XZCRV1512041C1
	L = 2 m	XZCRV1511041C2	XZCRV1512041C2
	L = 5 m	XZCRV1511041C5	XZCRV1512041C5
Weight (kg)	0 070 (L = 1 m) 0 110 (L = 2 m) 0 230 (L = 5 m)		

Characteristics			
Certifications	cULus		
Connection type	Male and female: screw threaded		
Cable material	Sheath	PVC	
	Conductor insulation	PP	
Degree of protection	IP65, IP67		
Ambient air temperature	Static cable	-25...+80 °C	
	Flexing cable	-5...+80 °C	
Conductor c.s.a	4 x 0.25 mm ²		
Cable diameter	4 6 mm		
Nominal voltage	250 V ~, 300 V ≍		
Nominal current	3 A		
Insulation resistance	> 10 ⁹ Ω		
Contact resistance	≤ 5 m Ω		

Dimensions

XZCRV1511041C1, XZCRV1511041C2, XZCRV1511041C5

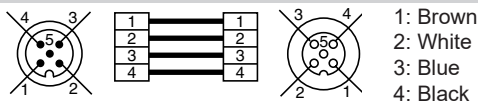
XZCRV1512041C1, XZCRV1512041C2, XZCRV1512041C5



L = 2, 5 or 10 m

Connections

XZCRV1511041C●, XZCRV1512041C●

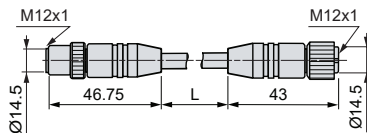




Male connector type	M12, 5-pin, straight
Female connector type	M12, 5-pin, straight
Number of conductors	5
References	
PUR cable	L = 2 m XZCRB151151C2
	L = 5 m XZCRB151151C5
Weight (kg)	0 123 (L = 2 m) 0 267 (L = 5 m)

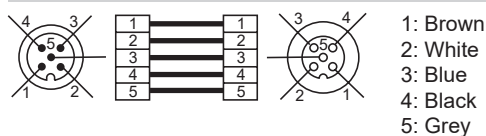
Characteristics	
Certifications	cULus
Connection type	Male and female: screw threaded
Cable material	Sheath: PUR, shielded Conductor insulation: PP
Degree of protection	IP65, IP67, IP69K
Ambient air temperature	Static cable: -40...+90 °C Flexing cable: -25...+80 °C
Conductor c.s.a	5 x 0.34 mm ²
Cable diameter	5.85 mm ± 0.15 mm
Nominal voltage	250 V ~, 60 V -
Nominal current	4 A
Insulation resistance	> 10 ⁹ Ω
Contact resistance	≤ 10 m Ω

Dimensions
XZCRB151151C2, XZCRB151151C5



L = 2 or 5 m

Connections





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		

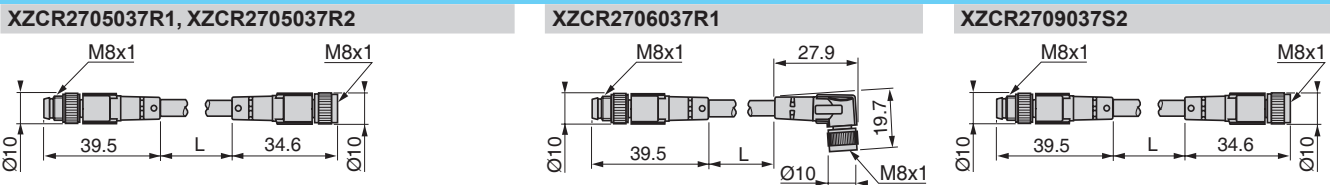
References

PUR cable	L = 1 m	XZCR2705037R1	XZCR2706037R1	-
	L = 2 m	XZCR2705037R2	-	XZCR2709037S2
Weight (kg)	L = 1 m	0 065		
	L = 2 m	0 090		

Characteristics

Certifications	cULus	
Connection type	Male: screw threaded and clip .Female: screw threaded .Metal clamping ring .	
Cable material	Sheath	PUR
	Conductor insulation	PP
Degree of protection	IP65, IP67, IP69K	
Ambient air temperature	Static cable	-35...+90 °C
	Flexing cable	-5...+90 °C
Conductor c.s.a.	3 x 0.34 mm ²	
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



L = 1 or 2 m

Connections

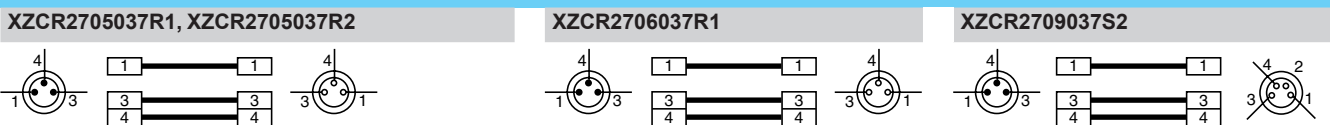


Photo-electric sensors

Cables for sensors, PUR

Jumper cables M8-M8 and M8-M12, 3-pin/4-pin or 3-pin/5-pin



Male connector type	M8, 3-pin, straight		
Female connector type	M8, 4-pin, elbowed	M12, 5-pin, straight	M12, 5-pin, elbowed
Number of conductors	3		

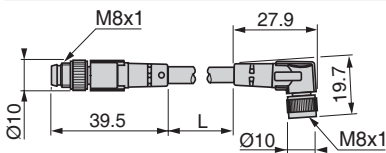
References

PUR cable	L = 1 m	XZCR2710037S1	XZCR2711037T1	XZCR2712037T1
	L = 2 m	XZCR2710037S2	XZCR2711037T2	XZCR2712037T2
Weight (kg)	L = 1 m	0 065		
	L = 2 m	0 090	0 093	

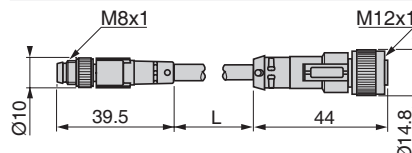
Characteristics

Certifications	cULus		
Connection type	Male: screw threaded and clip .Female: screw threaded .Metal clamping ring		
Cable material	Sheath	PUR	
	Conductor insulation	PP	
Degree of protection	IP65, IP67, IP69K		
Ambient air temperature	Static cable	-35...+90 °C	
	Flexing cable	-5...+90 °C	
Conductor c.s.a.	3 x 0.34 mm ²		
Cable diameter	5.2 mm		
Nominal voltage	60 V ~, 45 V ---		
Nominal current	4 A		
Insulation resistance	> 10 ⁹ Ω		
Contact resistance	≤ 5 m Ω		

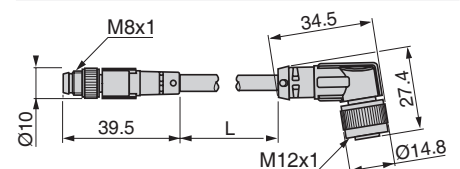
XZCR2710037S1, XZCR2710037S2



XZCR2711037T1, XZCR2711037T2



XZCR2712037T1, XZCR2712037T2

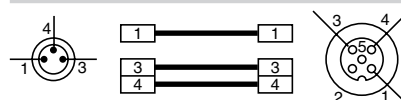


L = 1 or 2 m

XZCR2710037S1, XZCR2710037S2



XZCR2711037T1, XZCR2711037T2



XZCR2712037T1, XZCR2712037T2

