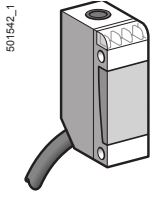
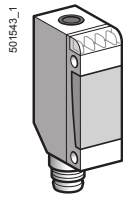


Photo-electric sensors

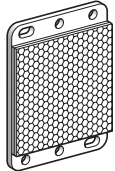
OsiSense XU, general purpose
Multimode function
Miniature design
Three-wire DC, solid-state output



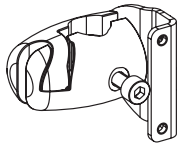
XUM0A●●●L2



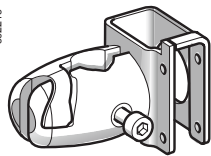
XUM0A●●●M8



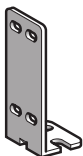
XUZC50



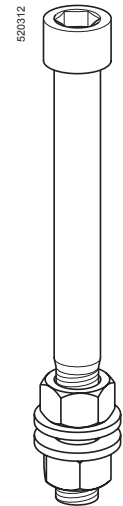
XUZM2003



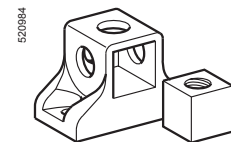
XUZM2004



XUZA50



XUZ2001



XUZ2003

Miniature design, DC

Sensing distance (Sn) m	Function	Output	Connection	Reference	Weight kg
0...10 depending on whether accessories are used	NO or NC, by programming	PNP	Pre-cabled (L = 2 m) (1)	XUM0APSAL2	0.050
			M8 connector	XUM0APSAM8	0.035
		NPN	Pre-cabled (L = 2 m) (1)	XUM0ANSAL2	0.050
			M8 connector	XUM0ANSAM8	0.035

Accessories

Description	Connection	Reference	Weight kg
Thru-beam transmitter	Pre-cabled (L = 2 m) (1)	XUM0AKSAL2T	0.050
	M8 connector	XUM0AKSAM8T	0.035
Reflector 50 x 50 mm	-	XUZC50	0.020

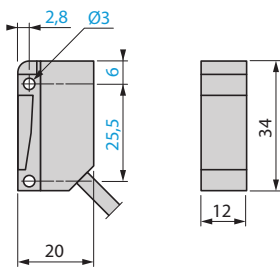
Fixing accessories (2)

Description	Reference	Weight kg
3D fixing kit for use on M12 rod, for XUM or XUZC50	XUZM2003	0.140
3D fixing kit for use on M12 rod and with protective cover for XUM	XUZM2004	0.155
M12 rod	XUZ2001	0.050
Support for M12 rod	XUZ2003	0.150
Fixing bracket	XUZA50	0.025

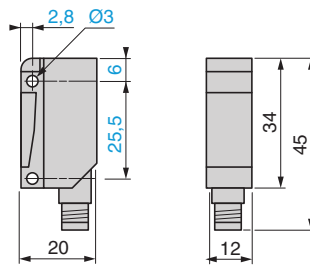
(1) For a 5 m long cable, replace L2 by L5.
Example: XUM0APSAL2 becomes XUM0APSAL5.
(2) For further information, see page 164.

Dimensions (mm)

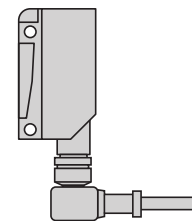
XUM0A●●●L2



XUM0A●●●M8


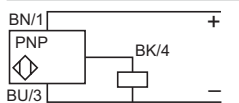
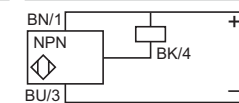
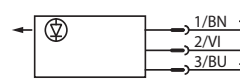


Possible orientation of elbowed connector

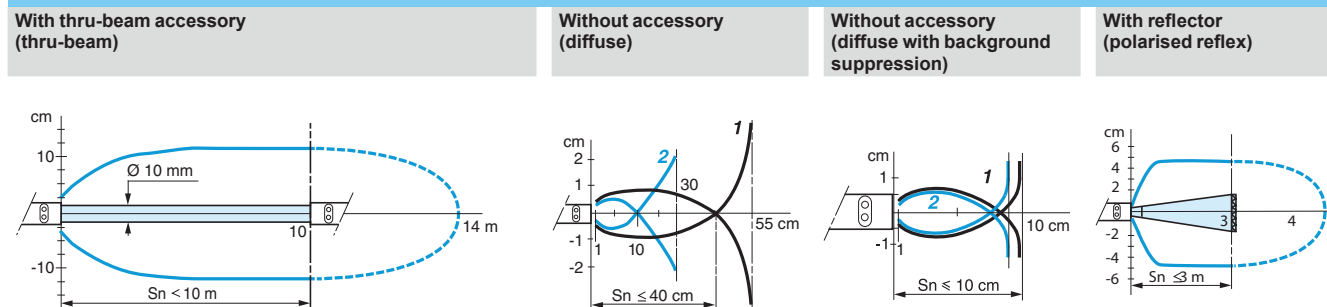


Characteristics		XUM●●●●●M8	XUM●●●●●L2
Sensor type		UL, CSA, CE	
Product certifications		UL, CSA, CE	
Connection	Connector	M8	–
	Pre-cabled	–	Length: 2 m
Nominal sensing distance S_n (excess gain = 2)	m	0.11 / 0.11 without accessory (diffuse with background suppression)	
	m	0.4 / 0.55 without accessory (diffuse)	
	m	3 / 4 with reflector (polarised reflex)	
	m	10 / 14 with transmitter for thru-beam function (thru-beam)	
Type of transmission		Infrared, except polarised reflex (red)	
Degree of protection	Conforming to IEC 60529	IP 65, IP 67	IP 65, IP 67, double insulation □
Storage temperature		°C -40...+70	
Operating temperature		°C -25...+55	
Materials	Case	PBT	
	Lens	PMMA	
	Cable	–	PvR
Vibration resistance	Conforming to IEC 60068-2-6	7 gn, amplitude ± 1.5 mm (f = 10 to 55 Hz)	
Shock resistance	Conforming to IEC 60068-2-27	30 gn, duration 11 ms	
Indicator lights	Output state	Yellow LED (transmission present for XUM0●●●●●T)	
	Supply on	Green LED	
	Optical alignment aid/dirty	Red LED (except for XUM0●●●●●T)	
Rated supply voltage		V --- 12...24 with protection against reverse polarity	
Voltage limits (including ripple)		V --- 10...30	
Current consumption, no-load		mA 35 (20 for XUM0●●●●●T)	
Switching capacity		mA ≤ 100 with overload and short-circuit protection	
Voltage drop, closed state		V ≤ 1.5	
Maximum switching frequency		Hz 250 (200 for diffuse with background suppression)	
Delays	First-up	ms < 200	
	Response	ms < 2 (< 2.5 for diffuse with background suppression)	
	Recovery	ms < 2 (< 2.5 for diffuse with background suppression)	

Wiring schemes

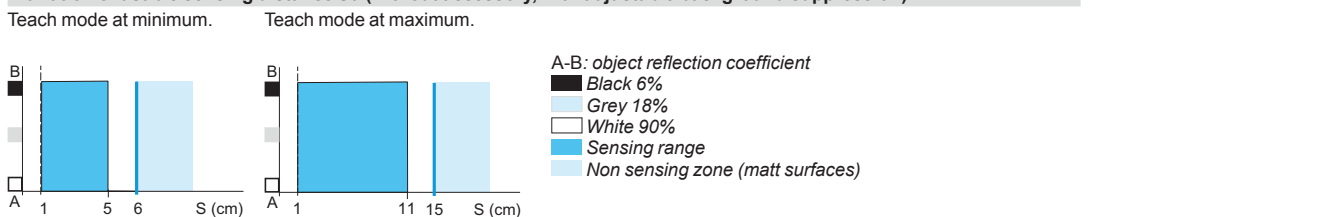
M8 connector	Pre-cabled	Receiver, PNP output	Receiver, NPN output	Thru-beam function transmitter
 <p>3 (-) 1 (+) 4 OUT/Output 2 Beam break input (1)</p>	<p>(-) BU (Blue) (+) BN (Brown) OUT/Output BK (Black) Beam break input VI (Violet) (1)</p>	 <p>BN/1 PNP BU/3 BK/4</p>	 <p>BN/1 NPN BU/3 BK/4</p>	 <p>Transmitter 1/BN + 2/VI + 3/BU =</p> <p>Input 2/VI: - not connected: beam made - connected to -: beam broken</p>

Detection curves



Object: 10 x 10 cm, 1: white 90%, 2: grey 18%

Variation of usable sensing distance S_u (without accessory, with adjustable background suppression)



(1) Beam break input on thru-beam transmitter only.