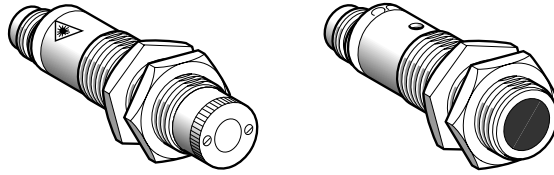


Photo-electric sensors

Osiris® Application, mechanical handling series
Laser transmission. Plastic case, cylindrical, M18 x 1
threaded
d.c. supply. Solid-state output

Design 18



System	Thru-beam
Type of transmission	Red laser
Nominal sensing distance (Sn)	100 m

References

3-wire, PNP	Light or dark programmable switching	XU2-P18PP340DL (transmitter + receiver)
3-wire, NPN	Light or dark programmable switching	XU2-P18NP340DL (transmitter + receiver)
Weight (kg)		0.045

Characteristics

Product certifications	CE, UL, CSA
Transmission characteristics	Red laser, wavelength = 635 nm
Transmission power	Power < 1 mW, class 2 conforming to IEC 825-1
Ambient air temperature	Operation : - 10...+ 45 °C. Storage - 40...+ 70 °C
Vibration resistance	7 gn, amplitude ± 1.5 mm (f = 10...55 Hz), conforming to IEC 60068-2-6
Shock resistance	50 gn, duration 11 ms, conforming to IEC 60068-2-27
Degree of protection	IP 67 conforming to IEC 529
Connection	M12 connector (suitable extension cables and female connectors, page 30210/2)
Materials	Case : PC/ABS ; lens : PMMA
Rated supply voltage	≡ 12...24 V with protection against reverse polarity
Voltage limits	≡ 10...30 V (including ripple)
Switching capacity (sealed)	≤ 100 mA with overload and short-circuit protection
Voltage drop, closed state	≤ 1.5 V
Current consumption, no-load	≤ 50 mA (transmitter + receiver)
Maximum switching frequency	500 Hz
Delays	First-up : ≤ 15 ms ; response : ≤ 1 ms ; recovery ≤ 1 ms

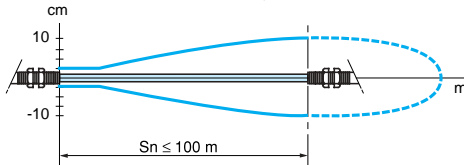
Function table	Function	Thru-beam system	
		No object present in the beam	Object present in the beam
Output state (PNP or NPN) indicator (illuminated when detector output is ON)	Light switching		
	Dark switching		

Accessories:
page 37012/2

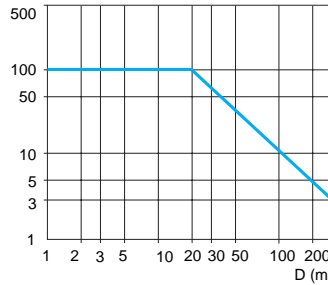
Photo-electric sensors

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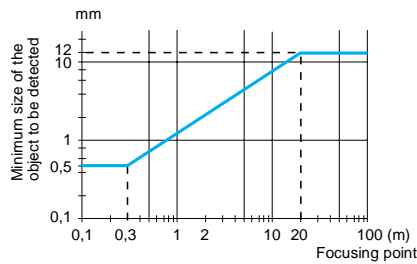
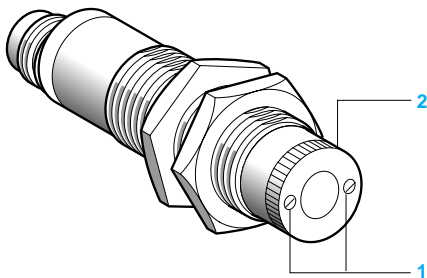
Detection curve (set to infinity)



Excess gain curve (ambient temperature : + 25 °C)



Adjustment

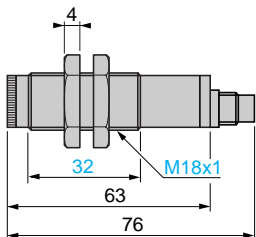


The adjustment of the focusing point enables the detection of objects down to a size of 0.5 mm.
To adjust the focusing point, slacken the fixing screws **1** and rotate the serrated sleeve **2** located on the face of the detector.
Re-tighten fixing screws.

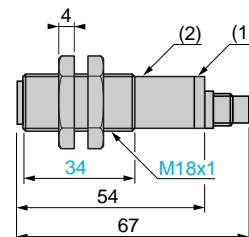
Note : saddle clamp **XUZ A218** with ball joint and, in particular, bracket **XUZ A318** with precise micrometric adjustment and locking by 6 screws, are specially suited for mounting the detector and adjusting beam alignment when the sensing range is several tens of metres (see page 37012/2).

Dimensions

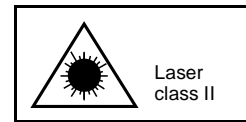
Transmitter



Receiver



Operating precautions



Class II laser, conforming to IEC 825-1
Do not stare into beam.

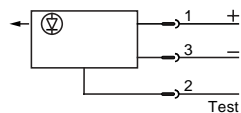
(1) LED

(2) Adjustment potentiometer

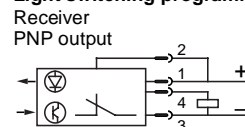
Note : fixing nut tightening torque : < 4 N.m

Wiring schemes (3-wire ---)

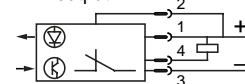
Transmitter



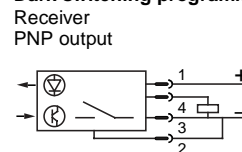
Light switching programmed (no object present)



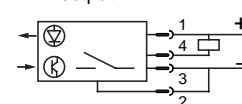
NPN output



Dark switching programmed (no object present)

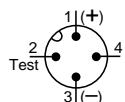


NPN output

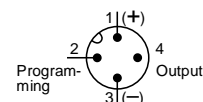


Connector scheme (solid state output). Detector connector pin view

Transmitter



Receiver



Depending on connector page 30210/2.

Verification of correct operation

