

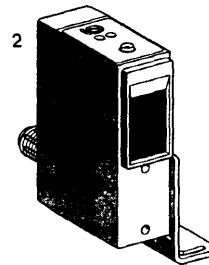
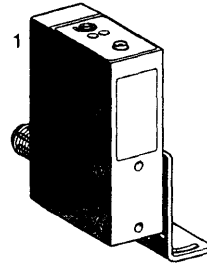
Photo-electric detectors

Osiris® universal detectors
d.c. supply. Solid state output
Connector

Accessories
pages 2/118 to 2/123

References, characteristics

Compact design



System	Thru-beam 1	Reflex 1	Polarised reflex 2	Diffuse with adjustable background suppression 1	
Type of transmission	Infra-red	Infra-red	Red	Infra-red	
Nominal sensing distance (Sn)	15 m	8 m (with Ø 80 mm reflector)	6 m (with Ø 80 mm reflector)	0.7 m	1.2 m
Connector position (1)	Rear	Rear	Rear	Rear	Rear

References

3-wire, PNP & NPN	Light or dark programmable switching	XUJ-K103534D1	XUJ-K06353D1	XUJ-K063539D1	XUJ-K703538D1	XUJ-K123538D1
Transmitter		XUJ-M1000D1	-	-	-	-
Weight (kg)		0.200	0.200	0.200	0.200	0.200

Characteristics

Product certifications	CE, CSA, UL	
Ambient air temperature	Operation : - 25...+ 60 °C. Storage : - 40...+ 80 °C	
Vibration resistance	7 gn, amplitude ± 1.5 mm (f = 10...55 Hz), conforming to IEC 68-2-6	
Shock resistance	30 gn, duration 11 ms, conforming to IEC 68-2-27	
Degree of protection	IP 67 conforming to IEC 529 and IP 671 conforming to NF C 20-010 / □ double insulated	
Connection	Connector (suitable female connectors and extension cables types 3, 4 and 5, see page 2/124)	
Materials	Case : PEI (2) ; window (polarised models) : PMMA	
Rated supply voltage	12...24 V with protection against reverse polarity	
Voltage limits	10...38 V (including ripple)	
Switching capacity (sealed)	200 mA with overload and short-circuit protection	
Voltage drop, closed state	≤ 1.5 V	≤ 2.2 V
Current consumption, no-load	≤ 45 mA	
Maximum switching frequency	200 Hz	
Delays	First-up : ≤ 15 ms ; response : ≤ 2 ms ; recovery : ≤ 2 ms	

Function table

Function	Thru-beam and reflex systems				Diffuse system				
	No object present in the beam		Object present in the beam		No object present in the beam		Object present in the beam		
Light switching									
Dark switching									

Output state (PNP and NPN) indicators : yellow LED (illuminated when detector output is ON), green LED (verification of correct operation)

(1) Detectors with connector at bottom : in the references stated above, replace the suffix D1 (indicating rear position) by the figures D2

Example : detector XUJ-K103534D1 with connector at bottom, becomes XUJ-K103534D2

(2) PEI : high quality synthetic resin providing excellent withstand to shocks, vibration and the effects of external agents frequently encountered in industry alcohol, salts, petroleum, oils, grease, washing agents (diluted sodium carbonate 4 %, nitric acid 2 %), formaldehyde vapour, splashing lactic acid, etc

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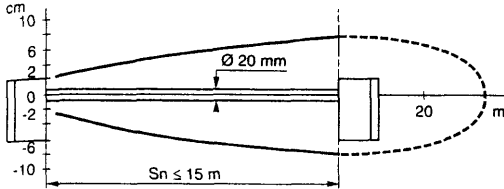
Accessories
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Curves, dimensions, schemes

Detection curves

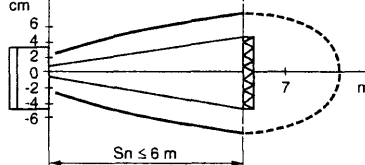
Thru-beam system

Ø of beam



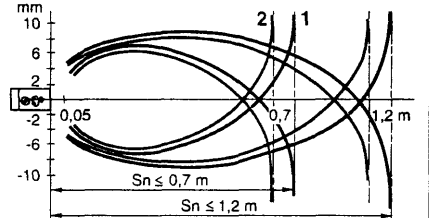
Infra-red reflex system/polarised reflex system

Ø of beam



Diffuse system (side approach recommended)

Ø of beam

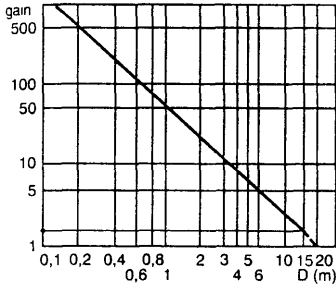


Sn ≤ 8 m : infra-red
 Sn ≤ 6 m : polarised

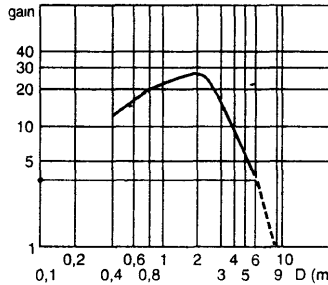
Object 20 x 20 cm
 1 White 90 % 2 Black 6 %

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

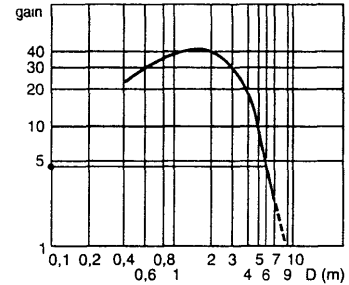
Thru-beam system



Infra-red reflex system



Polarised reflex system



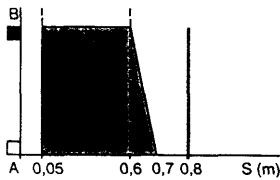
With reflector XUZ-C80

With reflector XUZ-C80

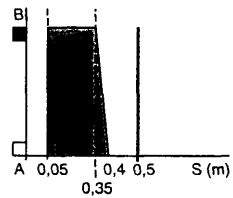
Variation of usable sensing distance S (Diffuse system)

XUJ-K703538D

Potentiometer at maximum

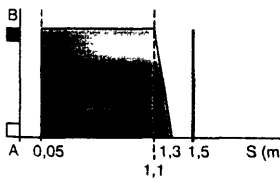


Potentiometer at minimum

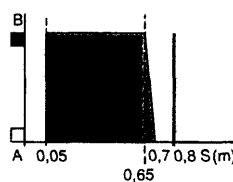


XUJ-K123538D

Potentiometer at maximum



Potentiometer at minimum

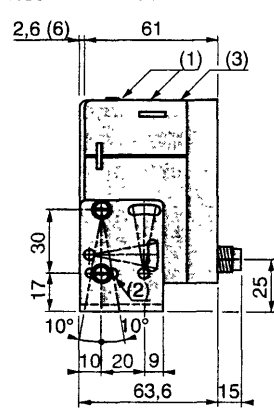


A-B : Object reflection coefficient

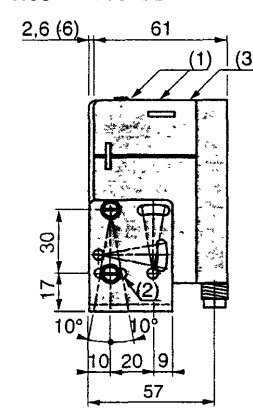
■ Black 6 %, □ Grey 18 %, □ White 90 %
 ■ Sensing range, □ Non detection zone

Dimensions

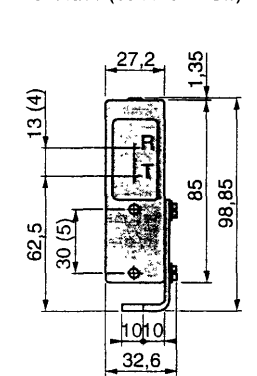
XUJ-.....D1



XUJ-.....D2



Front face (common view)

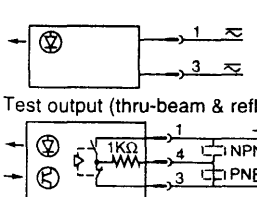


- (1) LED
- (2) 1 elongated hole Ø 4.2 x 14
- (3) Sensitivity potentiometer

- (4) Receiver (R) and Transmitter (T) are reversed on diffuse system detectors with background suppression
- (5) Front fixing (Ø 4 screws and inserts supplied)
- (6) Applicable only to polarised reflex system detectors

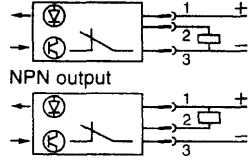
Wiring schemes (3-wire ...)

Transmitter

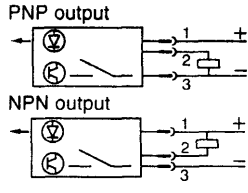


Light switching (no object present)

Thru-beam receiver & reflex PNP output

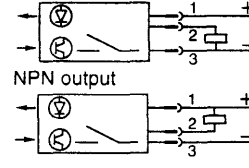


Diffuse PNP output

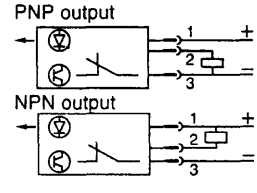


Dark switching (no object present)

Thru-beam receiver & reflex PNP output

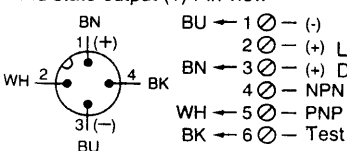


Diffuse PNP output



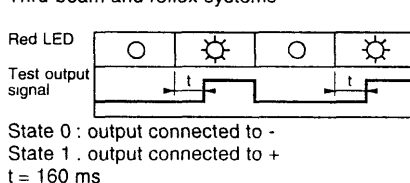
Connector scheme

Solid state output (1) Pin view



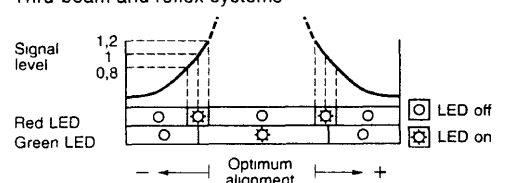
Test output

Thru-beam and reflex systems



Verification of correct operation

Thru-beam and reflex systems



(1) Connections as supplied
 Programming may be modified by user