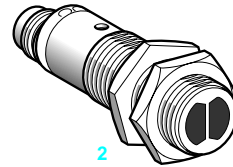
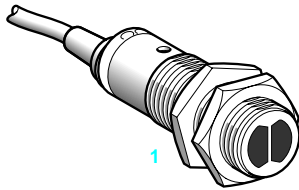


Photo-electric sensors

Osiris® Application, packaging series
For detection of transparent materials
d.c. supply. Solid-state output

Design 18



System	Reflex 1	Reflex 2
Type of transmission	Red	Red
Nominal sensing distance (Sn)	0.8 m (1) 0.6 m (2)	0.8 m (1) 0.6 m (2)

(1) With 50 x 50 mm reflector
(2) With 24 x 21 mm reflector

References

3-wire, PNP	Light or dark programmable switching	XUB H01353	XUB H01353D
3-wire, NPN	Light or dark programmable switching	XUB J01353	XUB J01353D
Weight (kg)		0.075	0.020

Characteristics

Product certifications	CE, UL, CSA	
Ambient air temperature	Operation : + 10...+ 55 °C. Storage : - 30...+ 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	IP 65 conforming to IEC 529
Connection	Pre-cabled, diameter 4 mm, length 2 m, wire c.s.a. : 4 x 0.22 mm ²	Connector (suitable extension cables and female connectors, see page 30210/2)
Materials	Case : PC/ABS ; lens : PMMA ; cable : PVC	
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	≤ 35 mA	
Maximum switching frequency	500 Hz	
Delays	First-up : ≤ 30 ms ; response : ≤ 1 ms ; recovery : ≤ 1 ms	
Hysteresis	< 7 %	

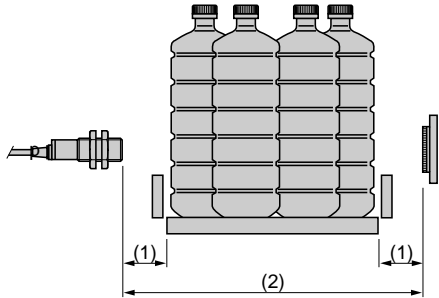
Function table	Function	Reflex system	
		No object present in the beam	Object present in the beam
Output state (PNP or NPN) indicator (illuminated when detector output is ON)	Light switching		
	Dark switching		

Accessories :
page 37012/2

Photo-electric sensors

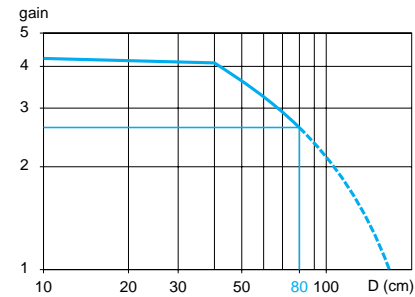
Osiris® Application, packaging series
For detection of transparent materials
d.c. supply. Solid-state output

Recommended distances and application restraints



Recommended approach direction (lens on horizontal plane, horizontal passage of object)

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

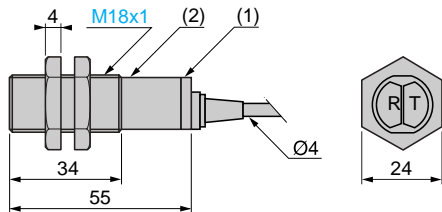


With reflector XUZ-C50

- (1) 5 cm min.
- (2) Detector-reflector distance
(see table below)

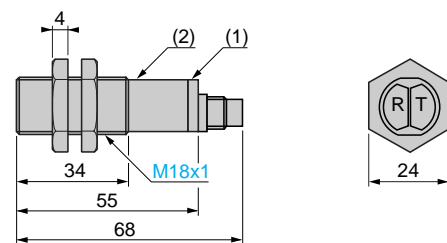
Material	Reflector	Detector-reflector distance			
		0	20 cm	40 cm	60 cm
Tinted glass	XUZ C50	[Bar chart showing detection range from 0 to 80 cm]			
	XUZ C24	[Bar chart showing detection range from 0 to 80 cm]			
PVC bottles	XUZ C50	[Bar chart showing detection range from 0 to 80 cm]			
	XUZ C24	[Bar chart showing detection range from 0 to 80 cm]			
Clear glass	XUZ C50	[Bar chart showing detection range from 0 to 80 cm]			
	XUZ C24	[Bar chart showing detection range from 0 to 80 cm]			
PET bottles	XUZ C50	[Bar chart showing detection range from 0 to 80 cm]			
	XUZ C24	[Bar chart showing detection range from 0 to 80 cm]			
PE film	XUZ C50	[Bar chart showing detection range from 0 to 80 cm]			
	XUZ C24	[Bar chart showing detection range from 0 to 80 cm]			

Dimensions XUB H....., XUB J.....



- (1) LED
 - (2) Adjustment potentiometer
- Note** : Fixing nut tightening torque : < 4 N.m

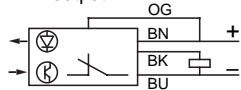
XUB H.....D, XUB J.....D



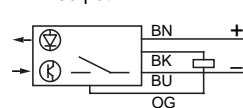
- (1) LED
- (2) Adjustment potentiometer

Wiring schemes (3-wire ---)

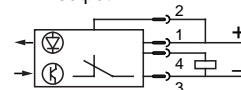
XUB H....., XUB-J..... Light switching (no object present) PNP output



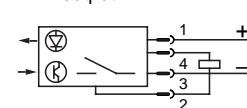
Dark switching (no object present) PNP output



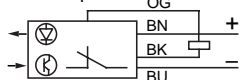
XUB H.....D, XUB J.....D Light switching (no object present) PNP output



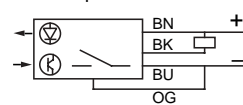
Dark switching (no object present) PNP output



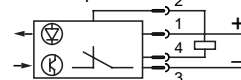
NPN output



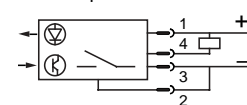
NPN output



NPN output



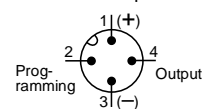
NPN output



Connections XUB H....., XUB J.....

- Solid state output
- (-) BU (Blue)
 - (+) BN (Brown)
 - (OUT) BK (Black)
 - (Prog.) OG (Orange)

XUB H.....D, XUB J.....D Solid state output. Pin view of detector connector



Depending on connector page 30210/2.

Photo-electric sensors

Osiris® Application, packaging series
For detection of transparent materials, with teach mode and automatic compensation for accumulation of dirt (1)
Solid-state output

Compact design



System		Reflex	
Type of transmission		Red	
Nominal sensing distance (Sn)		1.5 m (with 50 x 50 mm reflector)	
References			
3-wire, PNP or NPN	Light or dark programmable switching	XUK T1KSML2 (2)	XUK T1KSMM12 (2)
Weight (kg)		0.280	0.120
Characteristics			
Product certifications		CE, UL, CSA (pending)	
Ambient air temperature	Operation	- 25...+ 55 °C	
	Storage	- 30...+ 70 °C	
Vibration resistance		7 gn (f = 10...55 Hz) conforming to IEC 60068-2-6	
Shock resistance		10 gn, duration 11 ms, conforming to IEC 60068-2-27	
Degree of protection		IP 65 conforming to IEC 529	
Materials	Case	PC	
	Lenses	PMMA	
	Cable	PVC	
Connection		Pre-cabled. Cable diameter 6 mm, length 2 m, wire c.s.a. : 4 x 0.34 mm ²	M12 male connector, adjustable to 2 positions. (for suitable extension cables and pre-wired connectors, see page 30210/2)
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		≤ 2 V	
Current consumption, no-load		≤ 35 mA	
Maximum switching frequency		1500 Hz	
Delays	First-up response	≤ 80 ms	
	recovery	≤ 0.3 ms	
		≤ 0.3 ms	
Time delay		Monostable, on-delay or off-delay (programmable) adjustable from 0.1 to 5 seconds	

Function table	Function	Reflex system	
		No object present in the beam	Object present in the beam
Output state (PNP or NPN) indicator, yellow LED (illuminated when sensor output is ON)	Light switching		
	Dark switching		

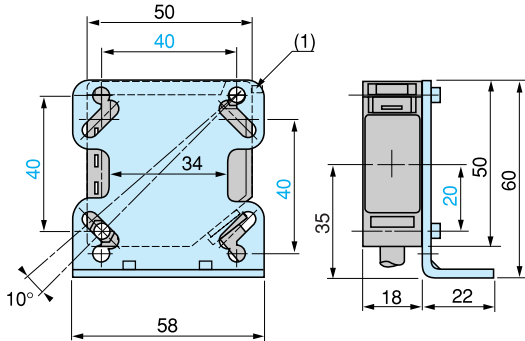
(1) Sensor memorises, in teach mode, the environmental conditions in which the object is to be detected and adapts to any variations.
(2) 50 x 50 mm reflector included with the sensor.

Dimensions, schemes, operation

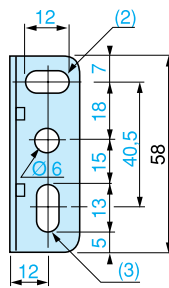
Photo-electric sensors

Osiris® Application, packaging series
For detection of transparent materials, with teach mode and automatic compensation for accumulation of dirt
Solid-state output.

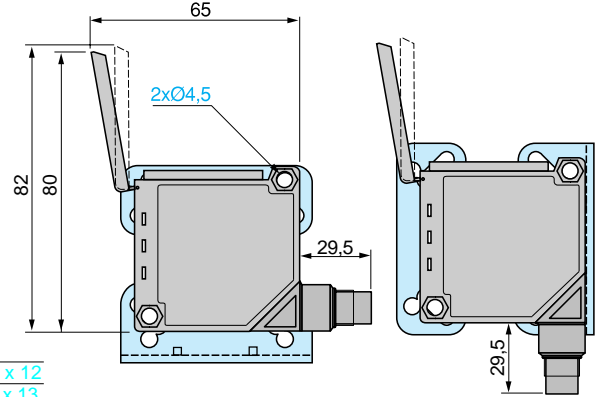
Dimensions XUK T1KSML2



Bracket fixing



XUK T1KSMM12 with cover raised Fixing bracket mounting according to position of connector



- (2) 1 elongated hole Ø 6 x 12
- (3) 1 elongated hole Ø 6 x 13

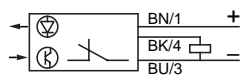
(1) Cover locking tongue

Wiring schemes (3-wire ---)

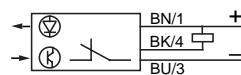
Light switching programmed

(no object present)

PNP output programmed



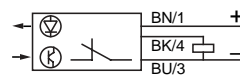
NPN output programmed



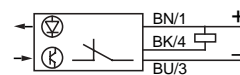
Dark switching programmed

(no object present)

PNP output programmed

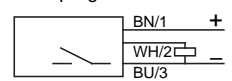


NPN output programmed

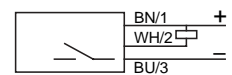


Alarm output

PNP programmed



NPN output programmed



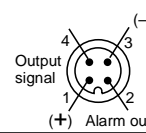
Connections for cable

XUK T1KSML2

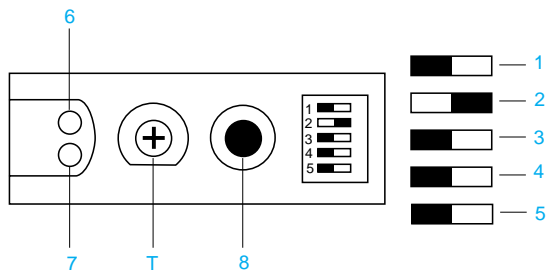
- (-) BU (Blue)
- (+) BN (Brown)
- (OUT) BK (Black)
- Alarm WH (White)

Connections for connector

XUK T1KSMM12



Functions



Switches

- 1 Light/dark switching programming
- 2 Time delay activated or deactivated
- 3 Normal time delay or monostable
- 4 Normal time delay "On-delay" or "Off-delay"
- 5 PNP or NPN output

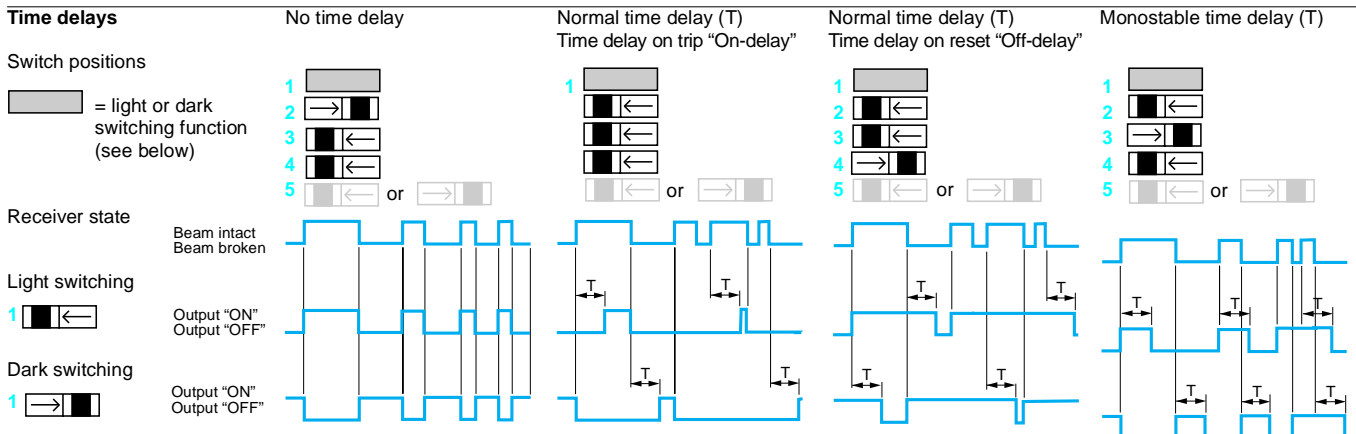
LEDs

- 6 Yellow LED: output and teach mode aid
- 7 Red LED: alignment aid and alarm indicator

Potentiometer and button

- T Time delay adjustment
- 8 Teach mode button

Time delays



Accessories:
page 37012/2