

Product data sheet

Characteristics

XUK0AKSAM12

photo-electric sensor - XUK - multi - Sn 0..30m - 12..24VDC - M12

Product availability : Stock - Normally stocked in distribution facility



Price* : 111.00 USD



Main

Range of product	OsiSense XU
Series name	General purpose multimode
Electronic sensor type	Photo-electric sensor
Sensor name	XUK
Sensor design	Compact 50 x 50
Detection system	Multimode
Material	Plastic
Type of output signal	Discrete
Supply circuit type	DC
Wiring technique	3-wire
Discrete output type	PNP or NPN
Discrete output function	1 NO or 1 NC programmable
Electrical connection	1 male connector M12, 4 pins
Product specific application	-
Emission	Infrared diffuse Infrared diffuse with background suppression Infrared thru beam Red polarised reflex
[Sn] nominal sensing distance	0.92 ft (0.28 m) diffuse with background suppression 2.62 ft (0.8 m) diffuse 13.12 ft (4 m) polarised reflex need reflector XUZC50 98.43 ft (30 m) thru beam need a transmitter XUK0AKSAM12T

Complementary

Enclosure material	PBT
Lens material	PMMA
Maximum sensing distance	114.83 ft (35 m) thru beam 0.92 ft (0.28 m) diffuse with background suppression

	3.94 ft (1.2 m) diffuse 18.7 ft (5.7 m) polarised reflex
Output type	Solid state
Add on output	With alarm output, <= 50 mA with overload and short-circuit protection
Status LED	1 LED (green) supply 1 LED (red) instability 1 LED (yellow) output state
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Supply voltage limits	10...36 V DC
Switching capacity in mA	<= 100 mA (overload and short-circuit protection)
Switching frequency	<= 250 Hz
Voltage drop	<= 1.5 V (closed state)
Current consumption	<= 35 mA (no-load)
Delay first up	< 200 ms
Delay response	< 2 ms
Delay recovery	< 2 ms
Setting-up	Self-teaching
Depth	1.97 in (50 mm)
Height	1.97 in (50 mm)
Width	0.71 in (18 mm)
Product weight	0.2 lb(US) (0.09 kg)

Environment

Product certifications	CSA UL CE
Ambient air temperature for operation	-13...131 °F (-25...55 °C)
Ambient air temperature for storage	-40...158 °F (-40...70 °C)
Vibration resistance	7 gn, amplitude = +/- 1.5 mm (f = 10...55 Hz) conforming to IEC 60068-2-6
Shock resistance	30 gn (duration = 11 ms) conforming to IEC 60068-2-27
IP degree of protection	IP65 double insulation conforming to IEC 60529

Ordering and shipping details

Category	22481 - SENSORS, PHOTOELECTRIC
Discount Schedule	DS2
GTIN	00785901840541
Nbr. of units in pkg.	1
Package weight(Lbs)	0.16
Returnability	Y
Country of origin	ID

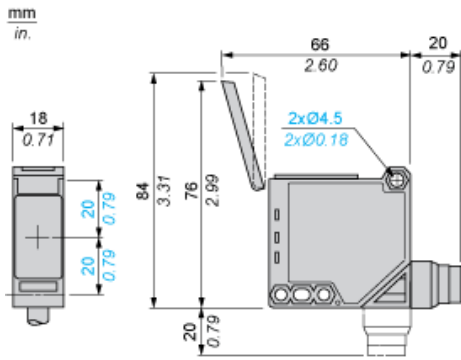
Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0903 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold

Contractual warranty

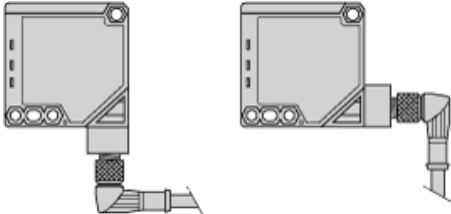
Warranty period	18 months
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Dimensions



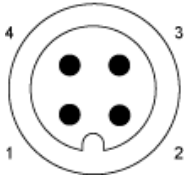
Mounting and Clearance

Possible Orientation of Elbowed Connector



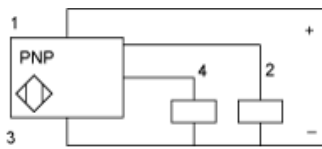
Wiring Schemes

M12 Connector



- 1 : (+)
- 2 : Alarm input
- 3 : (-)
- 4 : OUT/Output

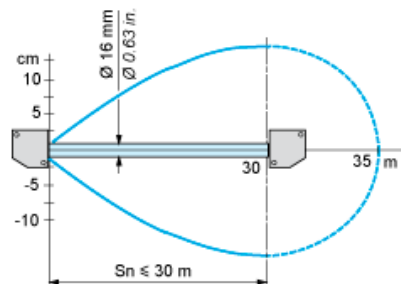
PNP Output



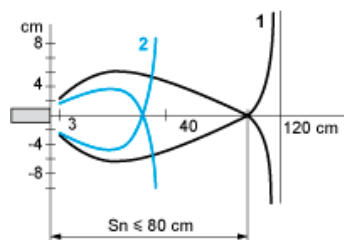
NPN Output

Detection Curves

With Thru-beam Accessory (Thru-beam)



Without Accessory (Diffuse)

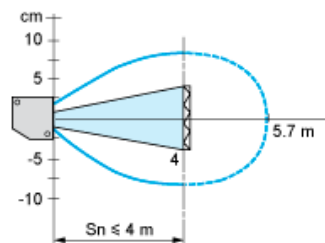


1 : White 90%
2 : Grey 18%
Object 10 x 10 cm

Without Accessory (Diffuse with background suppression)

1 : White 90%
2 : Grey 18%
Object 10 x 10 cm

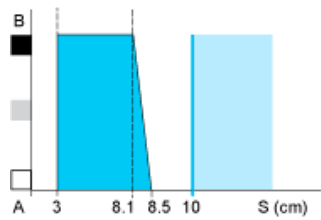
With reflector (Polarised reflex)



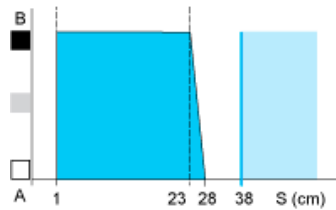
With reflector XUZC50

Variation of Usable Sensing Distance S_u (Without accessory, with adjustable background suppression)

Teach Mode at Minimum



Teach Mode at Maximum



- (1) Black
- (2) Grey
- (3) White
- (4) Sensing range
- (5) Non sensing zone (matt surfaces)

A-B : Object reflection coefficient

- (1) Black 6%
- (2) Grey 18%
- (3) White 90%
- (4) Sensing range
- (5) Non sensing zone (matt surfaces)