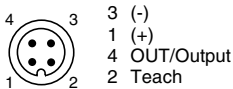


Characteristics

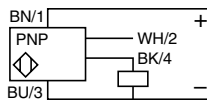
Sensor type		XUN0***M12; XUN0***M12T		
Product certifications		UL (pending), CSA (pending), CE		
Connection		M12 connector		
Sensing distance (Sn)	Line of sight along case axis	Nominal	Maximum	Required accessories
	Diffuse system with adjustable background suppression	0.12 m (4.68 in.)	0.12 m (4.68 in.)	None
	Diffuse system	0.3 m (11.8 in.)	0.4 m (1.31 ft)	None
	Polarized reflex	2 m (6.56 ft)	3 m (9.84 ft)	Reflector
	Thru-beam	15 m (49.21 ft)	20 m (65.62 ft)	Thru-beam accessory
Type of transmission		Infrared, except for polarized reflex (visible red)		
Degree of protection	Conforming to IEC 60529	IP67, double insulation □		
Temperature range		Operation: -25 to +55 °C (-13 to +131 °F); Storage: -40 to +70 °C (-40 to +158 °F)		
Materials		Case: Valox®; Lens: PMMA		
Vibration resistance	Conforming to IEC 60068-2-6	7 gn, amplitude ± 1.5 mm (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 XUN0****T)		
	Supply on	Green LED		
	Instability	Red LED (except for XUN0****T)		
Rated supply voltage		12 to 24 V _{DC} with protection against reverse polarity		
Voltage limits (including ripple)		10 to 36 V _{DC}		
Current consumption, no-load		35 mA (20 mA for XUN0****T)		
Switching capacity		≤ 100 mA with overload and short-circuit protection, DC-13		
Voltage drop, on state		1.5 V		
Maximum switching frequency		250 Hz		
Delays		First-up: < 200 ms; Response: < 2 ms; Recovery: < 2 ms		

Connections (1)

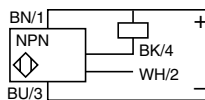
M12 connector



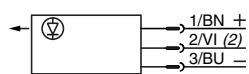
PNP



NPN



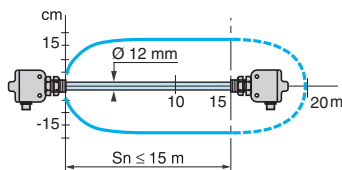
Thru-beam accessory



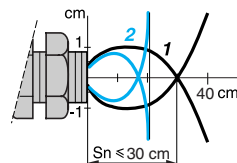
2/VI input:
 - not connected: *beam made*
 - connected to -: *beam broken*

Detection curves (Line of sight along case axis) (1 in. = 25.4 mm)

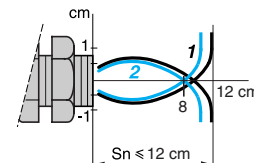
With thru-beam accessory (thru-beam)



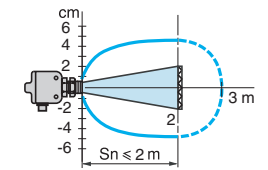
Without accessory (diffuse system)



Without accessory (diffuse system with adjustable background suppression)



With reflector (polarized reflex)

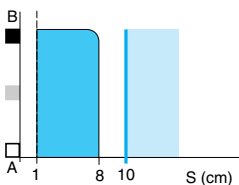


Object: 10 x 10 cm, 1: White 90%, 2 Gray 18%

With reflector XUZC50

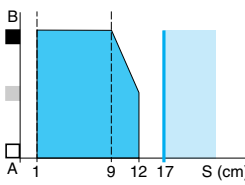
Variation of usable sensing distance Su (without accessory, with adjustable background suppression)

Teach mode at minimum



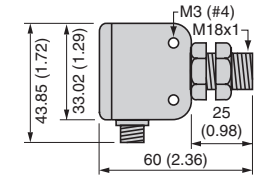
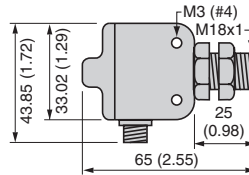
A-B: object reflection coefficient
 ■ Black 6%
 ■ Gray 18%
 ■ White 90%
 ■ Sensing range
 ■ Non sensing zone (matte surfaces)

Teach mode at maximum



Dimensions, mm (in.)

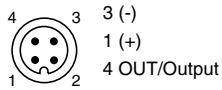
XUN



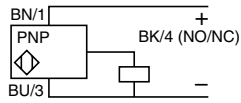
(1) For more information on connections, refer to the Sensors catalog, 9006CT0101.
 (2) Beam break input on thru-beam transmitter only.

Connections

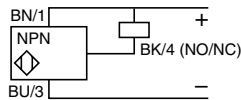
M12 connector (1)



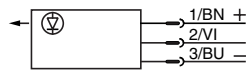
PNP



NPN



Transmitter



2/VI input:
 - not connected:
 beam made
 - connected to -:
 beam broken

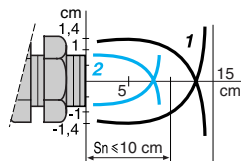
Characteristics

Sensor type	XUN4, XUN5, XUN9	
Product certifications	UL (pending), CSA (pending), CE	
Connection	M12 connector	
Sensing distance, Sn	Nominal, excess gain = 2	Maximum, excess gain = 1
	Diffuse system	0.1 m (3.9 in.) / 0.15 m (5.9 in.)
	Diffuse system with adjustable sensitivity	0.6 m (2.0 ft) / 0.8 m (2.6 ft)
	Polarized reflex	2 m (6.6 ft) / 3 m (9.8 ft) maximum
Type of transmission	Infrared, except for polarized reflex (visible red)	
Degree of protection	IP67 double insulation	
Temperature range	Operation	-25 to +55 °C (-13 to +131 °F)
	Storage	-40 to +70 °C (-40 to +158 °F)
Materials	Case: Valox®; Lens: PMMA	
Vibration resistance	7 gn, amplitude ± 1.5 mm (10 to 55 Hz), conforming to IEC 60068-2-6	
Shock resistance	30 gn, duration 11 ms, conforming to IEC 60068-2-27	
Indicator lights	Output state: Yellow LED	
	Supply on: Green LED	
Rated supply voltage	12 to 24 V _{DC} with protection against reverse polarity	
Voltage limits (including ripple)	10 to 36 V _{DC}	
Current consumption, no-load	35 mA	
Switching capacity	≤ 100 mA with overload and short-circuit protection (DC-13)	
Voltage drop, on state	1.5 V	
Maximum switching frequency	500 Hz	
Delays	First-up: < 15 ms; Response: < 1 ms; Recovery: < 1 ms	

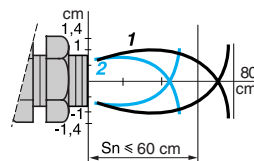
(1) For more information on connections, refer to the Sensors catalog, 9006CT0101.

Detection curves (1 in. = 25.4 mm)

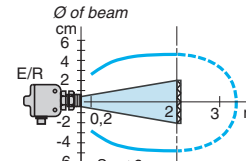
Short range diffuse system



Long range diffuse system



Polarized reflex system

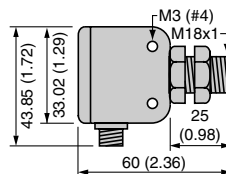
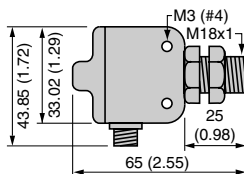


Object 10 x 10 cm; 1 White 90%; 2 Gray 18%

With reflector XU2C50

Dimensions, mm (in.)

XUN



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