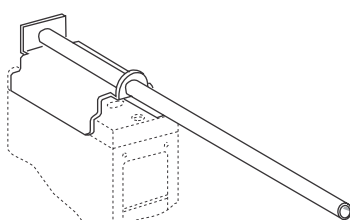
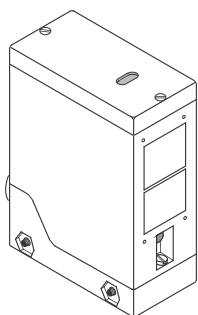


Photoelectric Sensors

XUE Long Range, Plug In AC/DC, DC



Photoelectric Sensors



XUZD09
Alignment Tool

Plug-in rectangular long range self contained photoelectric sensors for demanding industrial applications.

Features:

- Housing: epoxy filled plastic (thermoplastic polyester)
- Selected models are offered in low temperature (-40°F) version
- 0.5" NPT conduit entrance is standard (Metric version available)
- FINGER GUARD™ isolated wiring terminals in "ready-to-wire" position
- Captive gaskets
- Flat lenses
- Corrosion proof
- Double insulated (no grounding required)
- Adjustments protected by top cover
- Infrared modulated LED for high ambient immunity (visible red for polarized models)
- Complimentary PNP/NPN; AC/DC models with relay or solid state outputs
- AC/DC models available with programmable timers
- Reverse polarity protection for DC models
- Noise and transient protection
- Short circuit protection (SCP) standard for DC and solid state output AC/DC models
- 2 LED alignment system
- LED output indication
- Light/Dark selectable output function
- Sensitivity adjustment
- Mounting bracket allows easy alignment in 2 planes (included)
- Glass fiber optic amplifier (see Page 118)
- UL Listed and CSA Certified.

Circuit Type	Voltage range		Load Current Max. ●	Operating Frequency Max.	SCP	Catalog Number
	AC max.	DC max.				
Thru-beam – 203' (62 m) Nominal Sensing Range ★						
Emitter AC/DC						
2 wire	20-264 V	10-58 V	–	–	–	XUEH3000
Receiver DC						
PNP/NPN	–	10-58 V	200 mA	300 Hz	Yes	XUEH307534
Receiver AC/DC, relay output						
N.O.+N.C.	20-264 V	20-58 V	2 A ④	30 Hz	No	XUEF300314
Receiver AC/DC with timer (.03-60 sec), relay output						
N.O.+N.C.	20-264 Vac	20-58 V	2 A ④	30 Hz	No	XUET300314
Retroreflective – 41' (12.5 m) Nominal Sensing Range ① ★ (Reflector sold separately)						
DC model						
PNP/NPN	–	10-58 V	200 mA	300 Hz	Yes	XUEH10753
AC/DC models, relay output						
N.O.+N.C.	20-264 V	20-58 V	2 A ④	30 Hz	No	XUEF10031
AC/DC solid state output						
2 wire	20-264 V	20-58 V	350 mA ④⑥	25 Hz	Yes	XUEA10053
AC/DC with timer (.03-60 sec), relay output						
N.O.+N.C.	20-264 V	20-58 V	2 A ④	30 Hz	No	XUET10031
Polarized Retroreflective – 33' (10 m) Nominal Sensing Range ①						
★ (Reflector sold separately)						
AC/DC model, relay output						
N.O.+N.C.	20-264 V	10-58 V	2 A ④	30 Hz	No	XUEF080319
AC/DC with timer (.03-60 sec), relay output						
N.O.+N.C.	20-264 V	10-58 V	2 A ④	30 Hz	No	XUET080319
Proximity (diffuse) – 6.6' (2 m) Nominal Sensing Range ② ★						
DC model						
PNP/NPN	–	10-58 V	200 mA	300 Hz	Yes	XUEH017535
AC/DC model, relay output						
N.O.+N.C.	20-264 V	20-58 V	2 A ④	30 Hz	No	XUEF010315
AC/DC model with timer (.03-60 sec), relay output						
N.O.+N.C.	20-264 V	20-58 V	2 A ④	30 Hz	No	XUET010315
DC Models With Background Suppression – 20 cm to 6.6' (0.2 to 2 m) ★						
PNP/NPN	–	10-30 V	20 mA	100 Hz	Yes	XUEH753538

★ Excess gain one – in normal ambient conditions, maximum usable sensing distance is 75% of normal.

① Range when used with reflector RF30. For other reflectors see Page 156.

② With 90% white Kodak paper 20x20 cm (8"x 8").

④ Max. 240 Vac rating. 100mA DC

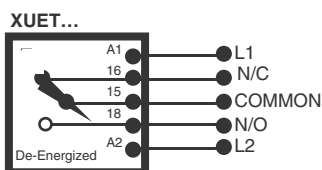
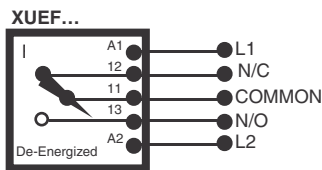
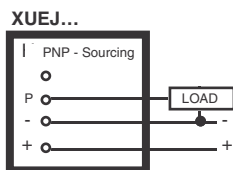
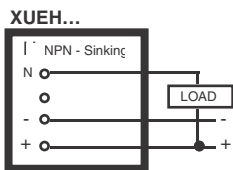
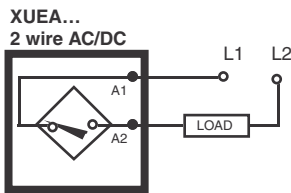
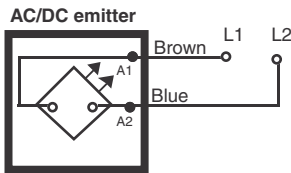
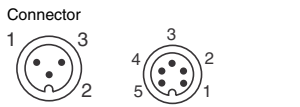
⑥ 1.7mA leakage - Programmable control compatible.

- 20 ≤ Vdc ≤ 58 IEC 60947-5-2 Utilization category DC-13
Vdc ≥ 58 IEC 60947-5-2 Utilization category DC-12.



Photoelectric Sensors XUE Long Range, Plug In AC/DC, DC

Wiring



Specifications

Mechanical		AC Models		DC Model	
For usable sensing range, see excess gain curve charts					
Temperature range		-13° F to 158° F (-25° C to 70° C)		-13° F to 131° F (-25° C to 55° C)	
Enclosure rating	NEMA Type	1, 3, 4, 13		1, 3, 4, 13	
	IEC Type	IP67		IP67 conforming to IEC 60529 and IP673 conforming to NFC 20-010	
Vibration resistance		7 G @ 0.6 mm Amplitude		7 G @ 0.6 mm Amplitude	
Shock resistance	XUEH and XUEA	30 G for 11 ms		10 G for 11 ms	
	XUEF and XUET	20 G for 11 ms			
Electrical					
Minimum switching current		5mA (XUEA); 15mA for relay output			
		Thru-Beam	Reflex/Prox	Thru-Beam	Reflex/Prox
Power supply current (no load)		45 mA		35mA	
On delay (max)		25 ms	25 ms	2.5ms	1.5ms
Off delay (max)		30 ms	30 ms	2ms	1ms
Power up delay		120 ms	80 ms	70ms	27ms
Wavelength		880 nm	880 nm	880nm	880nm
	Polarized	–	660 nm	–	660nm
Protective Circuitry	Radio frequency immunity (RFI)		IEC 61000-4-3, L3★ (10 V/M)		
	Electrostatic discharges		DC 2 wire: IEC 61000-4-2, L3★ (8 kV)		
			DC 3 wire: IEC 61000-4-2, L2★ (4 kV)		
	Fast transients (motor start/stop interference)		AC/DC: IEC 61000-4-2, L3★ (8 kV)		
	Impulse voltages (lightning, etc.)		IEC 61000-4-4, L3★ (1 kV)		
				IEC 60947-5-2, L3★ (2.5 kV)	
Agency Listings	 E164353 CCN NKCR		LR44087 Class 3211 03		

★ L3 indicates level number.

Options

Description	Matching Connector Cables	Suffix
Receptacle mini style 3 pin* (DC and 2 wire AC/DC models)	XSZCA901Y	R3
Receptacle mini style 5 pin (Relay output models)	XSZCA1501Y	R5
Metric threaded cable entry		Metric

For additional cable options and lengths see p. 518

Example: XUEF10031 R5

* PNP, N.O. for DC and N.O. for AC. Light mode. Standard. For other configurations or connector types contact Square D Company

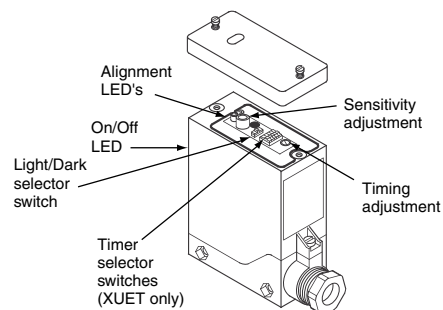
Accessories

Description	Suffix	Min. Quantity
Mounting bracket (included)	XUZA44	1
Glass lens cover and sun shade	XUZD02	1
Alignment tool	XUZD09	1
Fuse 0.8A fast blow - for XUEA	XUZE08	10

Timing Features

XUET models (including the fiber optic model) feature a sophisticated timing circuit (0.03-60 sec.) which can be programmed via the selector switches located under the top cover. In conjunction with the light-dark switch, the following functions can be implemented:

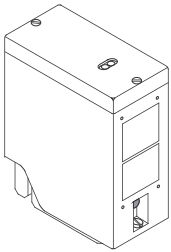
- ON Delay - on beam reception
- on beam interruption
- OFF Delay - on beam reception
- on beam interruption
- Monostable (one shot)
- on beam reception
- on beam interruption



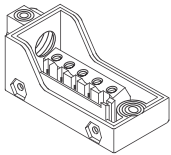
Photoelectric Sensors XUE Long Range, Plug-In AC/DC, DC



Photoelectric Sensors



Switch Body



Wiring Receptacle

Thru-beam Emitter + 2 Wire AC/DC Solid State Retroreflective

Description	Catalog Number
Wiring receptacle, 0.5" NPT cable entry	ZUEZ04H7
Wiring receptacle, metric (CM12) cable entry	ZUEZ04
Switch body emitter	ZUEH3000H7
Retroreflective solid state switch body	ZUEA10053

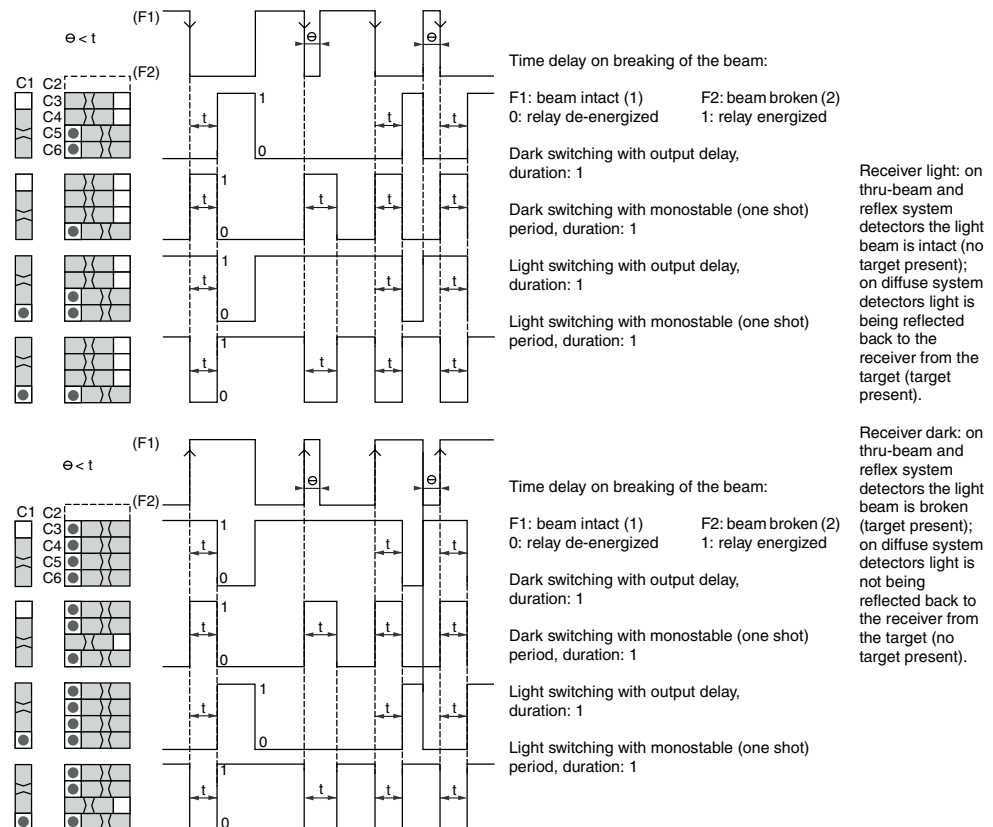
Relay Output Sensors

Description	Catalog Number
Wiring receptacle, 0.5" NPT cable entry	ZUEZ02H7
Wiring receptacle, Metric (CM12) cable entry	ZUEZ02
Switch body proximity, AC/DC	ZUEF010315H7
Switch body polarized retroreflective AC/DC	ZUEF080319
Switch body retroreflective, AC/DC	ZUEF10031H7
Switch body thru-beam receiver, AC/DC	ZUEF300314H7

DC Output Sensors

Description	Catalog Number
Wiring receptacle, 0.5" NPT cable entry	ZUEZ03H7
Wiring receptacle, metric (CM12) cable entry	ZUEZ03
Switch body proximity, PNP/NPN	ZUEH017535H7
Switch body retroreflective, PNP/NPN	ZUEH10753H7
Switch body proximity with background suppression PNP/NPN	ZUEH753538
Switch body thru-beam receiver PNP/NPN	ZUEHB07534

Programming time delay output



Relay Output With Timer

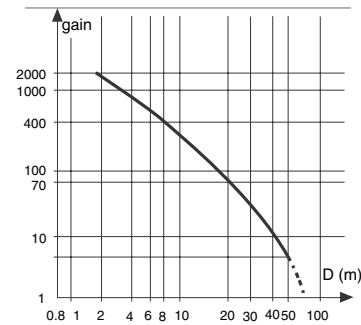
Description	Catalog Number
Wiring receptacle, 0.5" NPT cable entry	ZUEZ05H7
Wiring receptacle, Metric (CMR) cable entry	ZUEZ05
Switch Body Proximity AC/DC	ZUET010315H7
Switch Body Retroreflective AC/DC	ZUET10031H7
Switch Body Polarized retroreflective AC/DC	ZUET080319
Switch Body Receiver AC/DC	ZUET300314

AC/DC Solid State Output

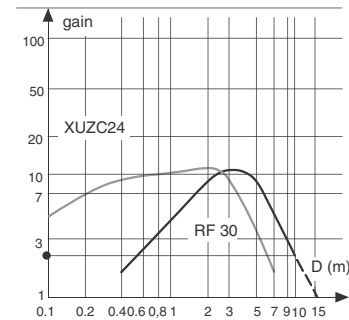
Description	Catalog Number
Wiring receptacle, 0.5" NPT cable entry	ZUEZ01H7
Wiring receptacle, Metric (CM12) cable entry	ZUEZ01
Switch Body Retroreflective	ZUEA10053H7

Excess Gain Curves

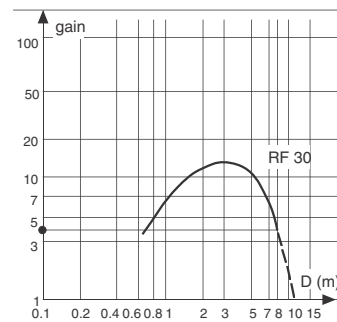
Thru-beam (Temp : 25 °C)



Infrared reflex (Temp : 25 °C)



Polarized reflex (Temp : 25 °C)



Diffuse (Temp : 25 °C)

