IRB-RET

UNIVERSAL UL325-2016 RETROREFLECTIVE PHOTOEYE

Applications

The IRB-RET provides a universal solution for entrapment protection. One photoeye covers the entire spectrum of possible requirements for monitored and non-monitored photoeyes, simplifying inventory management and product training.

The IRB-RET is an external entrapment protection device type B1, non-contact sensor for use with automatic gates and doors. The device is a UL325-2016 recognized component suitable for use with both operators that require monitored entrapment protection and those that do not require monitored operation.

There are five monitoring interfaces:
1. Normally closed: Cycle power to the transmitter while monitoring the receiver contacts for proper operation
2. Two-wire pulsed (2 freq): Provides 300Hz "heartbeat" unobstructed, 0Hz obstructed over power supply lines
3. Two-wire pulsed (3 freq): Provides 300Hz "heartbeat" unobstructed, 2Hz obstructed and 0Hz failure over power supply lines
4. Four-wire pulsed: Provides 300Hz "heartbeat" unobstructed, 0Hz obstructed over separate connection
5. Resistive termination: Provides a 10k Ohm resistance when unobstructed

The long range and retroreflective features combined with the installer mode switch settings provide a flexible solution to all external entrapment protection needs. A robust, NEMA 4X enclosure provides the durability required for high-reliability entrapment protection applications. The design minimizes fogging and false triggering caused by small objects and provides for easy alignment.

IRB-RET

EMX   IRB-RET
Retroreflective

EMX
INDUSTRIES

Competitive Advantage

The major advantage of the IRB-RET is its flexibility. This photoeye covers the whole spectrum of UL situations.

• Monitored application per UL325-2016 as applied to overhead door and gate operators
• Non-monitored UL325 for gate operators prior to new 2016 requirements
• Non-UL installation

Distributors and dealers need only one photoeye to cover all these applications.

Accessories

MOUNTING BRACKET

REFLECTOR-O-EX

REFLECTOR-O-HD

Technical Data

Operating range	Up to 60 ft. (18.3 m)
Sensitivity adjustment	Potentiometer
Power indicator	Green LED
Detect indicator	Red LED
Mode selection switch	3 modes, relay output, pulsed (3 frequency), pulsed (2 frequency)
Pulse output	2 wire/4 wire
Relay output operation	Light on/dark on selection
Relay output	Form C contacts (NO, COM, NC)
Resistive termination	10k Ohm across NO contact
Power protection	Thermal fuse
Transmitter power cycle	>300mS (for use in configuration 0 Monitored)
Power supply	6…40 VDC, 12...24VAC @60Hz (configuration 0-relay only)
Current (config. 1 and 2)	15mA (12VDC, includes TX and RX wired in parallel)
Current (config. 0)	60mA (relay activated)
Operating temperature	-40ºF...140ºF (-40ºC...60ºC)
Environmental	NEMA 4X
Dimensions (L x W x H)	3.1"W 2.7"D 6.6"H
Weight	0.7 lbs.
Connections	7 terminal

Ordering Information

• IRB-RET Retroreflective photoeye, includes REFLECTOR-O-EX and mounting bracket with hardware
• REFLECTOR-O-HD Gray protective hood for reflectors