

# IRB-325

## INFRARED PHOTOCELL

### APPLICATIONS

- Complies with the UL 325 standard when used with steel hoods.
- The IRB-325 photocell is used as an external entrapment protection device type B1 non-contact sensor for use with automatic gate operators.
- Powder coated steel hoods help protect from damage.
- The IRB-325 transmitter and receiver are mounted in line of site at a distance of up to 65 feet.
- When the infrared beam is broken the IRB-325 produces a detection signal.



### TECHNICAL DATA

- Range 6 to 65 feet
- Power 12V to 24V AC or DC  
150mA
- Relay contacts 30V 1A
- Housing: UL and CSA Type 4,4X,  
3, 3R, 12, 13 rating
- Dimensions: H = 5.03" W = 3.06"  
D = 3.02"
- Operating Temperature: -40o F to + 170o F

### ORDERING INFORMATION

- IRB-325 Infrared photocell, includes transmitter and receiver
- IRB-325-HD Set of two powder coated steel protective hoods (required)
- IRB-325-PT Mounting post 2in x 2in x 2 ft.
- IRB-325-SP Water tight strain relief for use with interconnecting cords

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**EMX**  
INDUSTRIES, INC.

**Warning:** Read and comply with all written instructions regarding installation of the IRB-325 provided by the gate operator manufacturer.

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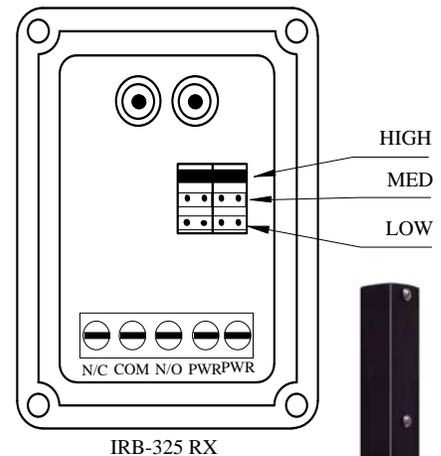
## INSTALLATION INSTRUCTIONS

1. Disconnect the IRB-325 from power before installing or servicing the device.
2. The IRB-325 must be connected to Class 2 circuits only, wiring must be segregated from other circuits or insulation must be provided that is suitable for the highest voltage of those circuits.
3. Always follow the instructions of the gate operator manufacturer regarding installation of type B1 sensors on the gate operator. The instructions of the gate operator manufacturer always supersede any instructions given in this or any other instructions by EMX Industries Inc.
4. The IRB-325 has to be powered by 12V – 24V AC/DC 150mA power supply.
5. Do not connect the IRB-325 output to loads higher than 1A @ 28V AC/DC.
6. Connect power to terminals 1 and 2 on IRB-325 transmitter marked “TX” polarity is not important.
7. Connect power to terminals 4 and 5 marked “power input” on the IRB-325 receiver, marked “RX” polarity is not important.
8. For operators that require normally closed contact for entrapment protection, connect terminals 1 and 2 to the designated terminals in the gate operator.
9. For operators that require normally open contact for entrapment protection, connect terminals 2 and 3 to the designated terminals in the gate operator.
10. Install the IRB-325 according to instructions from the gate operator manufacturer. The intent of External Entrapment Protection Device Type B1 non-contact sensor is to protect a person from being accidentally injured by the moving gate.
11. The IRB-325 is housed in a NEMA 4X enclosure. To insure the integrity of the enclosure make sure the covers are attached and closed tight with the help of four plastic screws provided. The wiring to the IRB-325 Enclosure has to enter via watertight strain relief or watertight conduit connector.

## OPERATING INSTRUCTIONS

**WARNING:** To reduce the risk of sever injury or death

1. Read and follow all operation instructions.
2. Always follow gate operator manufacturer operation instructions.
3. Disable the gate so it is unable to move.
4. With the IRB-325 mounted in place and powered, make sure the transmitter “TX” is in line of sight of the receiver “RX”.
5. Introduce an obstruction in form of a hand between the IRB-325 transmitter and receiver. Two Red LED’s on the receiver have to turn on. Check the operator control board that the safety input is actuated.
6. Remove the obstruction and the Red LED’s in receiver will turn off.
7. Should the IRB-325 fail to recognize the obstruction lower the sensitivity by moving jumpers J1 and J2 to lower position.
8. Should the two Red LED’s be turned on while there is no obstruction increase the sensitivity by moving jumpers J1 and J2 to a higher position.



## ACCESSORIES



IRB-325-SP

IRB-325-PT



**WARNING ... Not to be used for Personnel Protection**

Never use product as sensing devices for personnel protection. Doing so could cause serious injury or death.

These sensors do NOT include the self-checking redundant circuitry necessary to allow their use in personnel safety applications. A sensor failure or malfunction can cause either an energized or de-energized sensor output condition. This unit may malfunction on reflective surfaces including metallic and pearl coat paints.