

## SPECIFICATIONS

Light source	NIR
Operating range	Up to 33ft.
Response time	10mS
Relay output configuration	Form C (SPDT)
Relay contact rating	1A @ 24VDC...120VAC
Power indicator	Green LED
Obstruction indicator	Flashing Green led
Supply Voltage	12...24 VDC/VAC
Operating current	60mA
Dimensions	2.0"(51mm) x 2.4"(61mm) x 1.0"(25mm)
Weight	0.21 lbs. (95 g)
Housing	ABS (plastic)
Connection	40" (1m) cable
Mechanical protection	NEMA4X

## CAUTIONS AND WARNINGS

### CAUTION:



#### 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. UL 325 Non-compliant

### WARRANTY

EMX Industries Incorporated warrants all products to be free of defects in materials and workmanship for a period of two years under normal use and service from the date of sale to our customer. This warranty does not cover normal wear and tear, abuse, misuse, overloading, altered products, damage caused by incorrect connections, lightning damage, or use other than intended design.

There is no warranty of merchantability. There are no warranties expressed or implied or any affirmation of fact or representation except as set forth herein.

EMX Industries Inc. sole responsibility and liability, and the purchaser's exclusive remedy shall be limited to the repair or replacement at EMX Industries option of a part or parts found not conforming to the warranty. In no event shall EMX Industries Inc. be liable for damages of any nature, including incidental or consequential damages, including but not limited to damages resulting from non-conformity, defect in material or workmanship.



effective date January 1, 2002



4564 Johnston Parkway  
Cleveland, Ohio 44128  
United States of America  
WEB <http://www.emxinc.com>  
E-mail [salesupport@emxinc.com](mailto:salesupport@emxinc.com)  
Telephone (216) 518-9888  
Fax (216) 518-9884



# NIR-100

## THRU-BEAM PHOTOEYE



## OPERATING INSTRUCTIONS

### MATERIALS SUPPLIED

- Operating Instructions
- NIR-100-RX
- NIR-100-TX
- 130-10221062 Mounting bracket kit

### GENERAL DESCRIPTION

The NIR-100 is a thru-beam photo eye that can be used as a presence sensor in a wide variety of applications such as a reversing sensor for commercial gates, overhead doors and parking barriers. Unlike retro-reflective types of photo eyes that can provide false indication when encountering highly reflective surfaces on a vehicle, the NIR-100 provides the highly reliable operation associated with a thru-beam configuration. The relay is operated in fail-safe mode (de-activates during beam obstruction or any error condition).

A green alignment indicator on the receiver provides status information at a glance, making set-up and alignment easy.

The NIR-100 operates over a wide range of 12-24VDC/VAC and provides a fail-safe set of relay contacts for external connection. A 40" (1m) cable is provided for connection to site wiring.

### OPERATION

Green status indicator:

NIR-100-TX	ON	Power
NIR-100-RX	Flashing	Blocked beam or not aligned
NIR-100-RX	ON	Aligned

## INSTALLATION

Disconnect power from the operator before connecting the photo eyes. See wiring information below for connections.

Mount the transmitter on one set of brackets and the receiver on the other set. Position at 6" off of the floor on opposite ends of the door or gate.

Align at up to 33' transmitter to receiver distance.



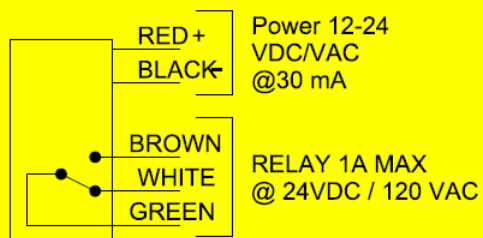
## CLEANING

Isopropyl alcohol with a soft cloth may be used to clean the optics area.

## WIRING

### NIR- I OO-RX

Thru-beam Photo eye Receiver



Power 12-24  
VDC/VAC  
@30 mA

RELAY 1A MAX  
@ 24VDC / 120 VAC

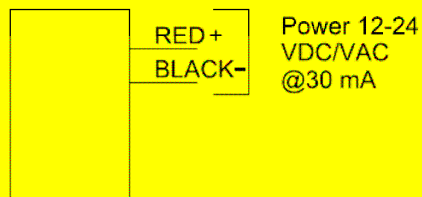
Outputs shown with unit powered  
and aligned with transmitter

Max ambient temp: 55°C

**EMX**  
MADE IN U.S.A.

### NIR- I OO-TX

Thru-beam Photo eye transmitter



Power 12-24  
VDC/VAC  
@30 mA

Max ambient temp: 55°C

**EMX**  
MADE IN U.S.A.