

Specifications

Supply Voltage

- 10 to 30 VDC
- Polarity Protected

Current Requirements

- <25mA

Output Transistors* (CURRENT LIMITED)

- NPN: Sink up to 100mA
- PNP: Source up to 100mA
- All outputs are continuously short-circuit protected

Response Time*

- Light State response = 200 μ s
- Dark State response = 200 μ s
- Switching Frequency = 2.5kHz

Laser Light Source**

- Red = 650 nm
- Protection Class I
- Pulse Modulated, pulse width = 5 μ s
- Spot size = 3mm @ 3m

Excess Gain Adjustment*

- Sensitivity controlled by a screwdriver adjustment to prevent tampering

Light/Dark "ON" Operation*

- Light "ON" achieved by connecting white wire to negative lead
- Dark "ON" achieved by connecting white wire to positive lead

Range*

- <60m

Hysteresis*

- Approximately 7% of signal

Light Immunity*

- Responds to light sources' pulse-modulated light source, resulting in high immunity to most ambient light, including high intensity strobes.

Diagnostic Indicators

- Red LED* = Output Status
- Green LED = Power "ON"
- Yellow LED** = Laser Enabled

Ambient Temperature

- -15° C to 50° C (5° F to 122° F)*
- -10° C to 50° C (14° F to 122° F)**

Rugged Construction

- Chemical resistant, high impact polycarbonate housing
- PMMA optics
- Waterproof ratings: NEMA 4X, IP66

Product subject to change without notice

* - Applies to Laser Receivers Only

** - Applies to Laser Light Sources Only

P.O. Box 25135, Tampa, FL 33622-5135
Tel (813) 886-4000 / Fax (813) 884-8818
info@ttco.com
ttco.com



TRI-TRONICS®



RoHS Compliant

070-0172 Rev 2

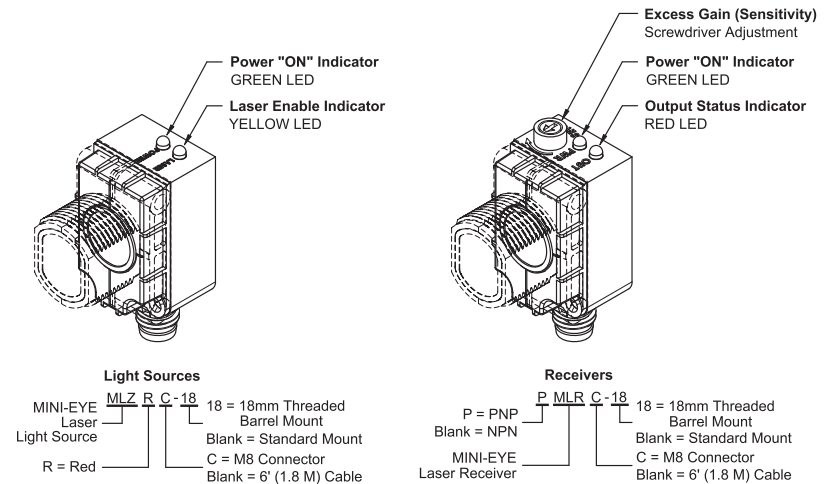
MINI-EYE™ LASER

by



TRI-TRONICS®

The Tri-Tronics' MINI-EYE™ laser light sources and receivers are designed to be low in cost and high in value. They are **waterproof** and are enclosed in a **high-impact** plastic housing. The laser receivers are equipped with an excess gain (sensitivity) screwdriver adjustment. The screwdriver adjustment provides additional security to prevent tampering.



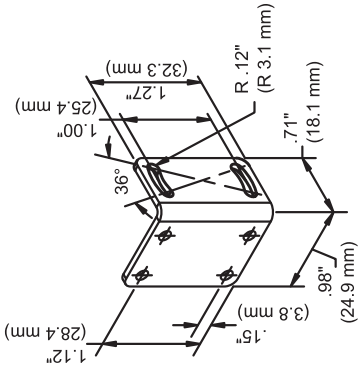
Features & Benefits:

- Excess gain (sensitivity) controlled by a screwdriver adjustment to prevent tampering
- Ultra long range
- Precision edge detection
- High speed - 200 μ s
- Light "ON" or dark "ON" selectable by wire
- Laser enable selectable by wire
- Narrow light beam
- Laser emission Class I
- Waterproof with high impact plastic housing
- Potted 6' cable or M8 4-pin connector
- Power supply requirements: 10 to 30 VDC

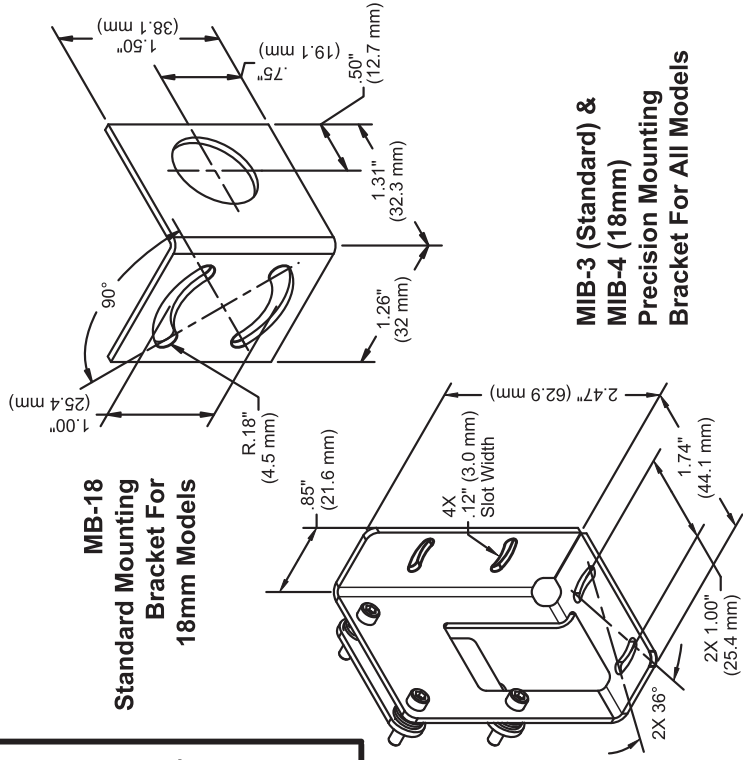
MINI-EYE™ LASER ADJUSTMENT PROCEDURES & MOUNTING BRACKETS

Laser Light Source & Receiver

- Step 1: Point the light beam emitted by the Laser Light Source away from the Laser Receiver.
- Step 2: Turn the Laser Receiver sensitivity adjustment fully clockwise (CW) to its maximum setting.
- Step 3: Monitor the output LED indicator on the Laser Receiver while moving the light beam emitted from the Laser Light Source in a scanning motion, first from left to right and then up and down. Use this technique to locate the mounting position that will ensure the best possible beam alignment with the Laser Receiver.
- Step 4: When acceptable beam alignment has been achieved, turn the Laser Receiver sensitivity adjustment fully counter clockwise (CCW).
- Step 5: Turn the Laser Receiver sensitivity adjustment clockwise (CW) 1/4 turn past the point the output LED indicator toggles to the opposite state.

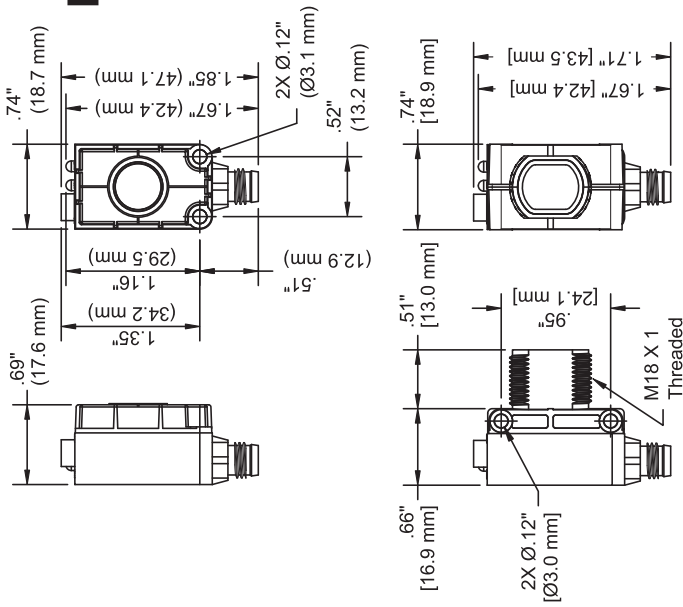


MIB-1
Standard Mounting
Bracket For
Standard Models

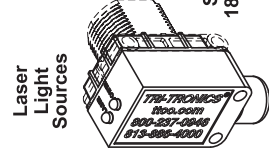
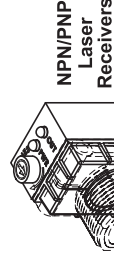


MB-18
Standard Mounting
Bracket For
18mm Models

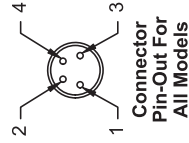
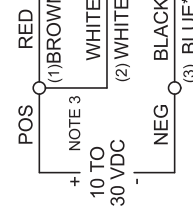
**MIB-3 (Standard) &
MIB-4 (18mm)**
Precision Mounting
Bracket For All Models



MINI-EYE™ LASER



Standard &
18mm Models



* Sensors With Connectors

Note 1: Dark "ON" Operation: Terminate To Positive
Light "ON" Operation: Terminate To Negative

Note 2: NPN (Sink) Output Models: Terminate Load To Positive
PNP (Source) Output Models: Terminate Load To Negative

Note 3: Laser Enable: Terminate To Positive

Choice of: Built-In 6 ft (1.8 m) Cable, or

M8 4-Pin Connector For Use With Optional Cables