Specifications

Supply Voltage
- 10 to 24 VDC
- Polarity Protected

Current Requirements
- 50 mA (exclusive of load)

Output Transistors
- (1) NPN and (1) PNP sensor output transistor
- Sensor's output can sink or source up to 150 mA (current limited)
- All outputs are continuously short-circuit protected

Response Time
- Light State response = 500 µs (microseconds)
- Dark State response = 500 µs (microseconds)

LED Light Source
- Red = 660 NM
- Infrared = 880 NM
- Pulse Modulated

Push Button Control
- AUTOSET Routine: Push and release with sensor in "light" state
- Excess Gain Adjustment: Tap twice to step to higher excess gain
- Push and hold to activate flash rate alignment indicator
- Light /Dark "ON" selection: Tap 5 times to toggle

Range
- Dependant on optical block (Visit ttco.com for details)

Hysteresis
- Approximately 15% of signal

Light Immunity
- Responds to sensor's pulse-modulated light source, resulting in high immunity to most ambient light, including high intensity strobes.

Diagnostic Indicators
- Dual Red/Green LED:
  Red = Output Status
  NOTE: If Output LED flashes, a short circuit condition exists.
  Green = Flash Rate Alignment Indicator
- Dual Green/Amber LED:
  Green = "ON" After Autoset Routine
  Amber = "ON" After Excess Gain Adjustment

Ambient Temperature
- -40°C to 70°C (-40°F to 158°F)

Rugged Construction
- Chemical resistant, high impact polycarbonate housing
- Waterproof ratings: NEMA 4, IP67

Model Numbers

PZR	Red LED Light Source w/ 6' Cable
*PZRC	Red LED Light Source w/ Connector
PZI	IR LED Light Source w/ 6' Cable
*PZIC	IR LED Light Source w/ Connector

*M8 Nano Connectors
Use GEC or RGEC Series Cables

P.O. Box 25135, Tampa, FL 33622-5135
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info@ttco.com
ttco.com

CE c(UL)us
RoHS Compliant
Product subject to change without notice

TRI-TRONICS®

070-0167 Rev 12

4

EZ EYE™ by TRI-TRONICS®
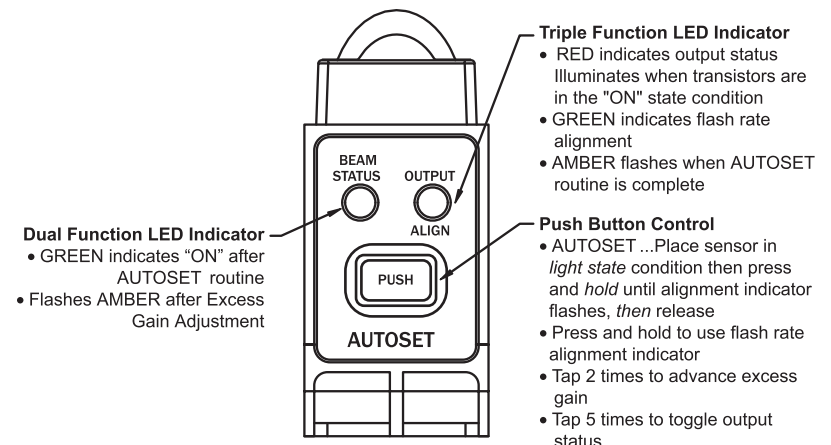
The EZ-EYE™ photoelectric sensor by TRI-TRONICS® fulfills the need for an affordable push button sensor that is EZ to align and EZ to adjust.

Features and Benefits:
- EZ to adjust...AUTOSET routine requires a single push of a button.
- EZ to align...Flash Rate Indicator monitors received light intensity.
- EZ to select higher excess gain...Tap the button twice to increase excess gain (sensitivity).
  (Note: Initiating the AUTOSET routine followed by tapping the button emulates a screw driver adjustment.)
- EZ to select sensing mode...Choose from ten completely interchangable optical blocks.
- EZ-EYE™ sensors are available with either infrared (IR) or red LED light sources.
- All EZ-EYE™ sensors are equipped with both NPN an PNP output transitors.
- Power supply requirements: 10 to 24 VDC
- Responds to sensor's pulsed modulated light source...immune to most ambient light.

Triple Function LED Indicator
- RED indicates output status Illuminates when transistors are in the "ON" state condition
- GREEN indicates flash rate alignment
- AMBER flashes when AUTOSET routine is complete

Dual Function LED Indicator
- GREEN indicates "ON" after AUTOSET routine
- Flashes AMBER after Excess Gain Adjustment

Push Button Control
- AUTOSET ...Place sensor in *light state* condition then press and *hold* until alignment indicator flashes, *then* release
- Press and hold to use flash rate alignment indicator
- Tap 2 times to advance excess gain
- Tap 5 times to toggle output status

EZ™ EYE

by TRI-TRONICS®

Push-Button Control
Setup Routines & Features

BEAM STATUS OUTPUT
ALIGN
PUSH
AUTOSET™
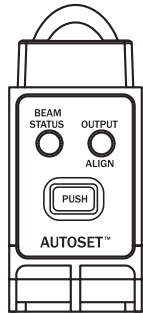
AUTOSET Adjustment & Flash Rate Alignment Indicator

START

Place Sensor Into Light State Condition

Press And Hold Button Until Alignment Indicator (Green LED) Begins To Flash

Align Sensor By Monitoring Flash Rate Of Green LED Indicator

Release Button When Max Flash Rate Occurs [Beam Status Indicator (Green LED) Will Illuminate]

Alignment Indicator Flashes Amber When AUTOSET™ Routine Is Complete

END
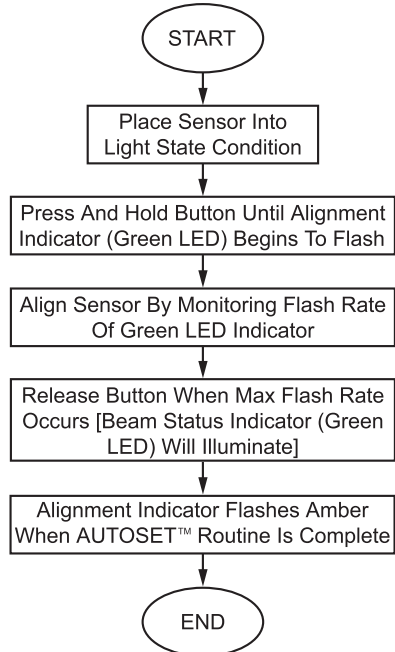
Excess Gain Adjustment (Sensitivity)

(This *Optional* Adjustment Is To Be Initiated After Performing the AUTOSET Routine)

START

Tap Button Twice

When Status Indicator (Amber LED) Flashes, Excess Gain Has Been Increased. [Note: Procedure Can Be Repeated Until Max Excess Gain Is Achieved (Amber LED Will Cease To Flash At Max Excess Gain)]

END
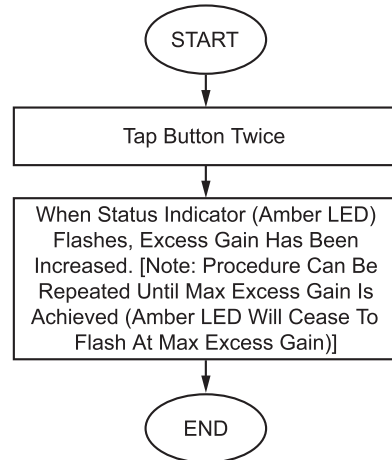
Toggle Light "ON"/Dark "ON" Output Status

START

Tap Button Five Times

Output Status Indicator (Red LED) Will Toggle To Opposite State

END

Optional Mounting Brackets With Hardware

.600" (15.2 mm)
1.200" (30.5 mm)
.600" (15.2 mm)
.930" (23.6 mm)
32°
.256" (6.5 mm)
R.075" (R1.9 mm)
EEB-2

Ø.120" (Ø3.0 mm)
2.745" (69.7 mm)
2.540" (64.5 mm)
29°
R.060" (R1.5 mm)
R.950" (R24.1 mm)
R.088" (R2.2 mm)
27°
Ø.800" (Ø20.3 mm)
1.250" (31.8 mm)
.650" (16.5 mm)
EEB-1

.930" (23.62 mm)
.551" (14 mm)
.400" (10.2 mm)
1.687" (47.4 mm)

EZ™ EYE

F5
F4
V4 V8
O5
R4 R5 V6
O4

OPTICAL BLOCKS

1.457" with V4, V4A, V8, F4, & F5 (37.0 mm)
1.303" with O5 (33.1 mm)
1.276" with O4, R4, R5 & V6 (32.4 mm)
.930" (23.6 mm)
1.000" (25.4 mm)
2X Thru Slot R.061" (R1.5 mm)

4 PNP
3 NEG
2 NPN
1 POS
Connector Pin-Out

4-40 x 1/4" Or 1/2" Socket Hd. Cap Screw (3/32 Hex Key)

RED POS
BROWN*
WHITE NPN
WHITE* (SINK)
10 TO 24 VDC
GREEN PNP
BLACK* (SOURCE)
BLACK NEG
BLUE*
LOAD
LOAD

*Sensors With Connectors

Choice Of Built-In 6 FT (1.8 M) Shielded Cable Or M8 Connector For Use With Optional Cables