# **Specifications**

# SUPPLY VOLTAGE

- 12 to 24Vdc
- · Polarity Protected

#### CURRENT REQUIREMENTS

85 mA (exclusive of load)

# **OUTPUT TRANSISTORS**

- (1) NPN and (1) PNP output transistor: NPN: Sink up to 150mA PNP: Source up to 150mA
- · Momentary short circuit protected
- · Outputs protected from pulsing during power up
- · Light/Dark switch determines output status: Light = Light ON operate Dark = Dark ON operate

#### **RESPONSE TIME**

- · Minimum duration of input event: Light state response = 50 microseconds Dark state response = 140 microseconds
- · Leading edge variation less than 20 microseconds

#### LIGHT IMMUNITY

· Responds to sensor's pulsed modulated light source - resulting in high immunity to most ambient light, including sunlight

#### **HYSTERESIS**

· Less than 400 millivolts for maximum sensitivity and resolution

#### LED LIGHT SOURCE

- · Pulse modulation rate 36 KHZ.
- Choice of color: A. Infrared = 880nm B. Red = 660 nm C. Blue = 480nm
- D. White = Broadband Spectrum

### **INDICATORS**

- OUTPUT INDICATOR RED LED illuminates when the output transistors are in the ON state as determined by the position of the Light/Dark switch
- BEAM STATUS INDICATOR RED LED illuminates when returned light level exceeds "5" on the CONTRAST INDICATOR
- EDR<sup>®</sup> INDICATOR Intensity of GREEN LED provides indication of where in the dynamic operating range the offset/EDR® adjustment has been set
- CONTRAST INDICATOR<sup>™</sup> Displays scaled reading of sensor's response to contrasting light levels (light vs. dark) on a 10 bar LED display





#### OFFSET/EDR ADJUSTMENT

- · Sets initial level on the CONTRAST INDICATOR<sup>™</sup> in relation to mid-scale switch point of 5 - functions as sensitivity adjustment
- Controls Enhanced Dynamic Range circuit (EDR®) which functions to avoid saturation

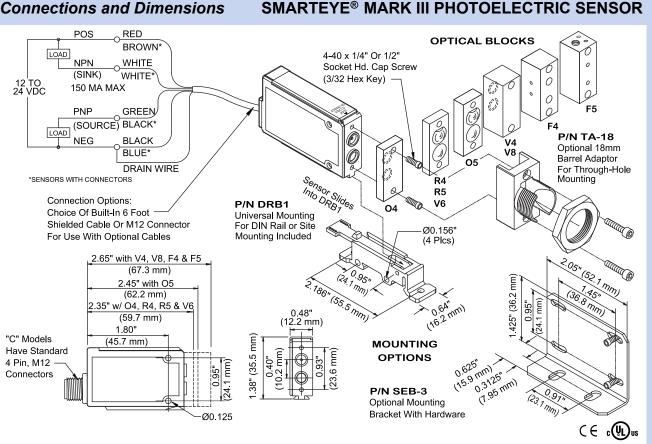
#### AMBIENT TEMPERATURE

-40°C to +70°C (-40°F to 158°F)

# **RUGGED CONSTRUCTION**

- · Chemical resistant housing
- · Rated NEMA 4X, 6P and IP67
- · Epoxy encapsulated for mechanical strength.

Product subject to change without notice. Consult Factory for RoHS Compliance.



TRI-TRONICS Co., Tampa, FL

ttco.com • 813-886-4000

Rev. 3 070-0099

# SMARTEYE® MARK III PHOTOELECTRIC SENSOR