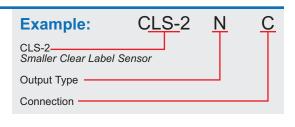# CLS-2
Instruction Manual

Features and Options:

• One button AUTOSET (Gap Set)

• Adjustable Threshold

• Cable and Connector (M12 & M8) Versions

• Removable Stainless Steel Gap Plate

• Durable and Robust Anodized Aluminum Housing

• Bottom or side mounting configurations

How To Specify

1. **Select Sensor: CLS-2**
   Smaller Clear Label Sensor

2. **Select Output Type**
   N = NPN
   P = PNP
   L = NPN/PNP

3. **Select Connection Type:**
   Blank = 4-wire 6.5ft cable (2.0m)
   C = 4-pin M12 connector
   M8 = 4-pin M8 connector

Example: CLS-2   N   C

CLS-2
Smaller Clear Label Sensor

Output Type

Connection

Features

AUTOSET INDICATOR
Flashes GREEN during AUTOSET.

OUTPUT INDICATOR
Illuminates RED when outputs are ON.
Flashes when short circuit or overload detected.

ALIGNMENT MARKS
Indicates location of sensing machinism.

AUTOSET △ BUTTON
1. Push and hold with gap in view for two seconds for AUTOSET.
2. Tap UP (△) to reduce threshold.

LT/DK ▽ BUTTON
1. Push and hold to toggle between light on or dark on
2. Tap DOWN (▽) to increase threshold.

Quick Start

Simple Setup Start ⇨ Put the Gap in view, press and hold the AUTOSET. This will result in a perfect setup 99% of the time. If you have any false triggers, tap UP (△) to reduce threshold, or tap DOWN (▽) to increase threshold.

Specifications

SUPPLY VOLTAGE
- 12 to 30Vdc
- Polarity Protected
  Note: For use in Class 2 Circuits

CURRENT REQUIREMENTS
- 70mA @ 12Vdc, 35mA @ 30Vdc

DIGITAL OUTPUTS
- (1) NPN and/or (1) PNP *(depending on model)* open collector output 150mA Max; <2V Residual Voltage
- All outputs are continuously short circuit protected

REMOTE AUTOSET INPUT
- Active high (PNP) or active low (NPN), depending on model (1mA)
  Note: Input not available on "L" models

DIAGNOSTIC INDICATORS
- Green LED AUTOSET Indicator- Illuminates when sensor is powered "ON"; flashes upon AUTOSET adjustment
- Red LED Output Indicator– Illuminates when the sensor's output transistors are "ON".
  Note: If output LED flashes on power up, a short circuit condition exists.

PUSH BUTTON CONTROL
- Two (2) push button controls
- AUTOSET (for Gap AUTOSET)
- LT/DK (toggles between light on or dark on)
- Manual threshold adjustment

HYSTERESIS
- Dynamic – adjusted by AUTOSET

RESPONSE TIME
- 225µs

REPEATABILITY
- 75µs

AMBIENT TEMPERATURE
- 4°C to 50°C (39°F to 122°F)

RUGGED CONSTRUCTION
- Chemical resistant, high impact Aluminum housing
- Conforms to heavy industry grade CE requirements
- Waterproof ratings: IP65*
  *Presence of water on transducers will prevent sensor from functioning. Full functionality will be restored once transducers are dry.
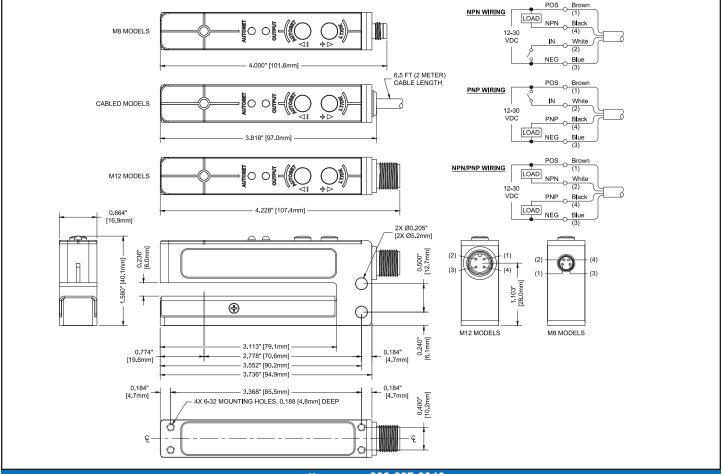
CONNECTIONS
- 4-Wire 6.5ft cable (2.0m)
- 4-Pin M12
- 4-Pin M8 connector

RoHS Compliant
Product subject to change without notice

Connections and Dimensions   *CLS-2 Smaller Clear Label Sensor*