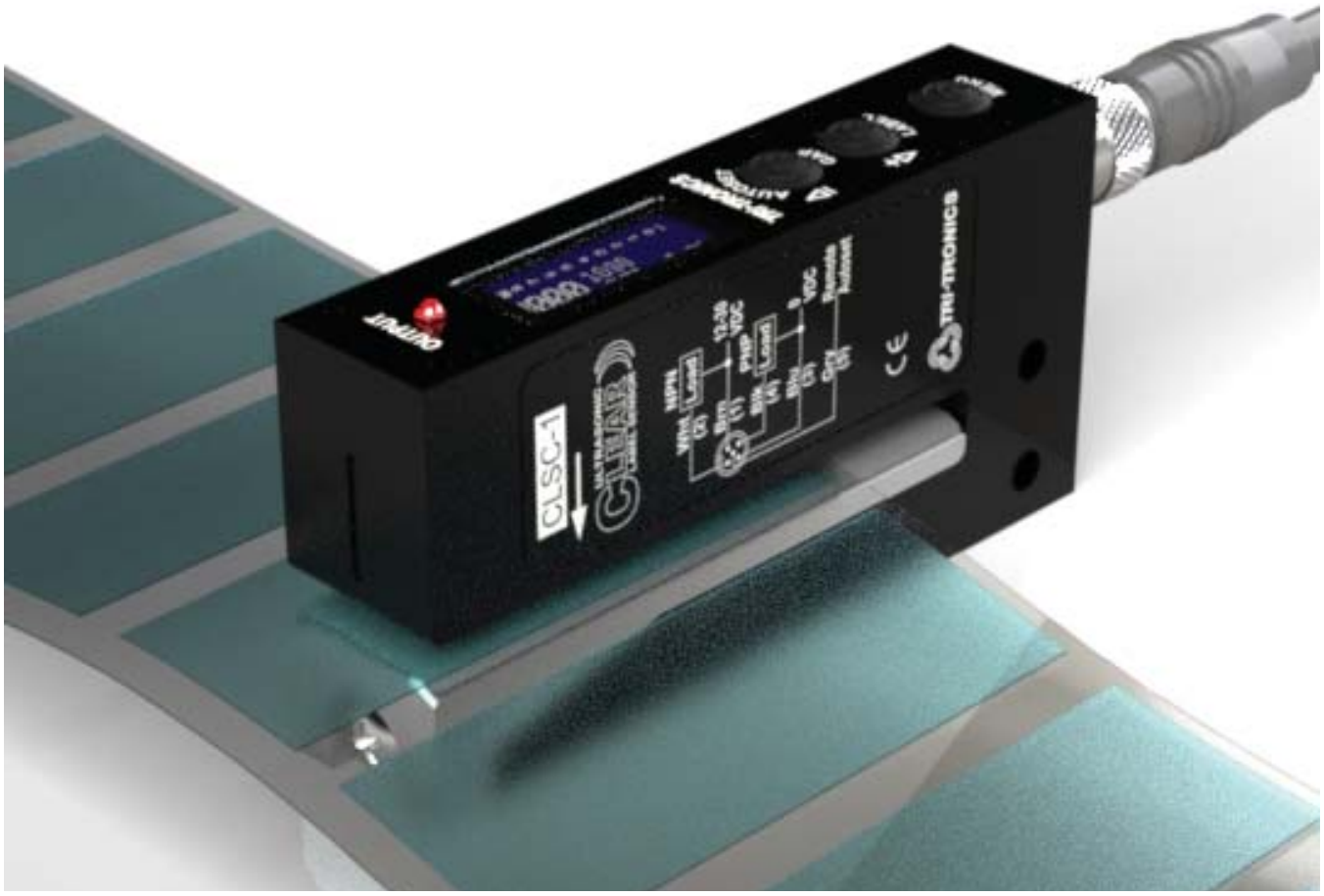
TRI-TRONICS®

Smart Sensing Solutions Since 1954

ULTRASONIC CLEAR LABEL SENSOR



Clear Label Sensor

ULTRASONIC CLEAR LABEL SENSOR

Ultrasonic CLEAR LABEL Sensor

TRI-TRONICS® introduces the very first **Ultrasonic Clear Label Sensor** with a High Performance Graphic OLED display. The OLED display provides the user with an unprecedented view of the sensor's performance, options, program modes, and helpful simple instructions never before offered in a Clear Label Sensor. Designed into the sensor are all the Ease-of-Use characteristics that have made Tri-Tronics' sensors so well known in the industry.

The Ultrasonic Clear Label Sensor is the answer to what the industry has been asking for...

"a reliable, durable, high quality clear label sensor that provides visual confirmation of proper setup and function..." a simple solution, with the ability to accurately adjust for repeatable and reliable performance.

Now "CONFIDENTLY" walk away from the labeling line, "KNOWING" the throughput is at peak performance and trouble free.

Features

- OLED Alphanumeric Display
- 10 Bar Graphic Contrast Indicator
- Static and Dynamic Numerical Display
- One button AUTOSET (Gap Set)
- Tweak-able (Momentary Up/Down Adjustable)
- Available Timers and Delays
- Cable and Connector Version (M12 and M8)
- Removable Gap Plate
- High Speed (200µs) (1800'/548M per minute)
- Durable and Robust Housing
- Compatible with Existing Mounting Configurations

Benefits

- Easy to Set Up
- Highly Accurate and Precise
- Low Maintenance
- Affordable, Low-Cost Option
- Made in USA
- Durable and Reliable

Applications

- Label Rewinding
- Label Applying
- Clear, Paper, Foil, or Mylar Labels
- Splice Detection
- Fold or Crease Detection

Applications

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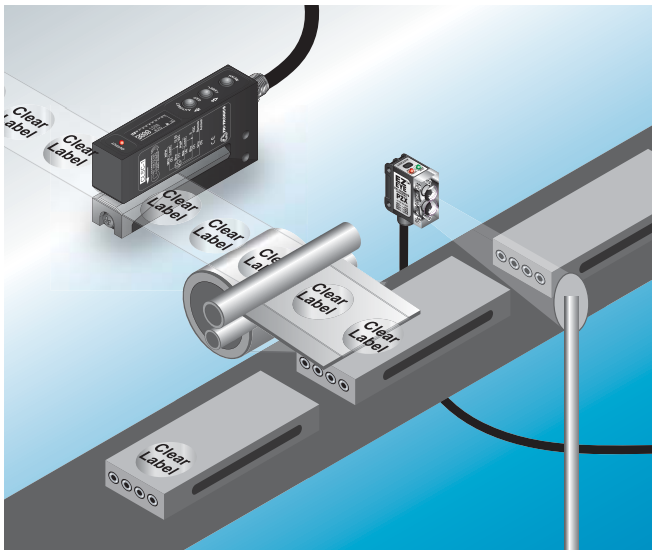
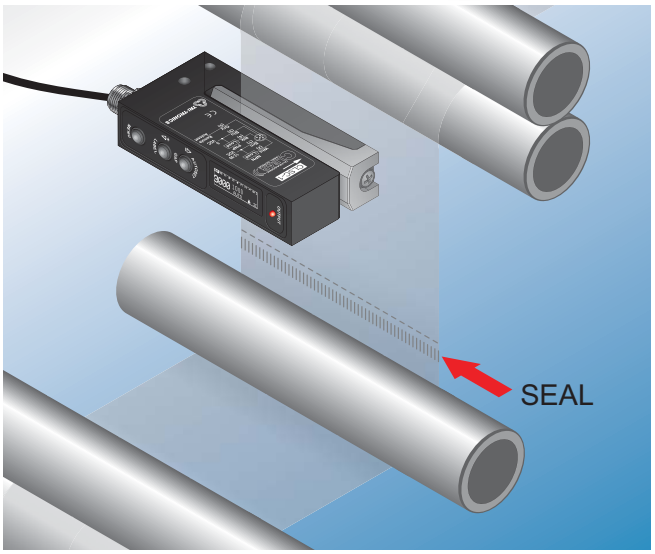
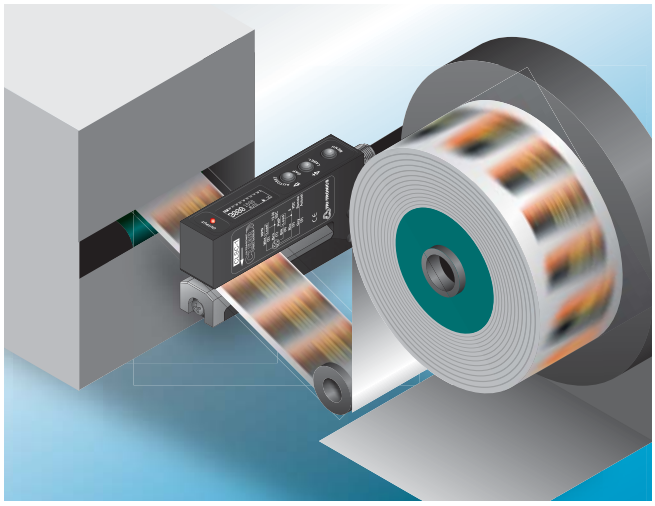


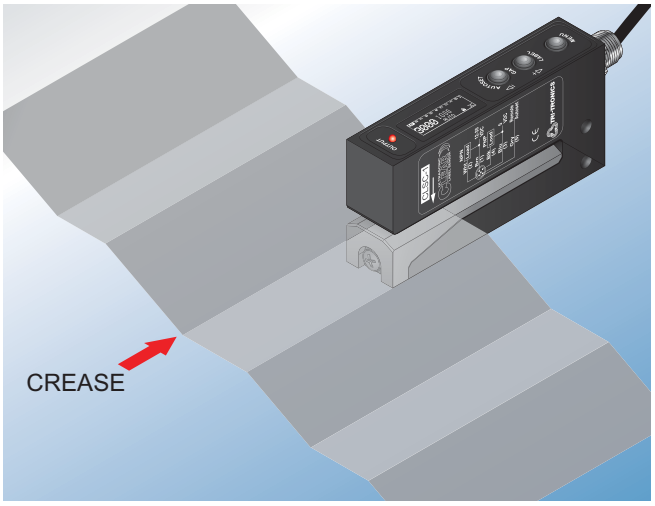
Clear Label Application



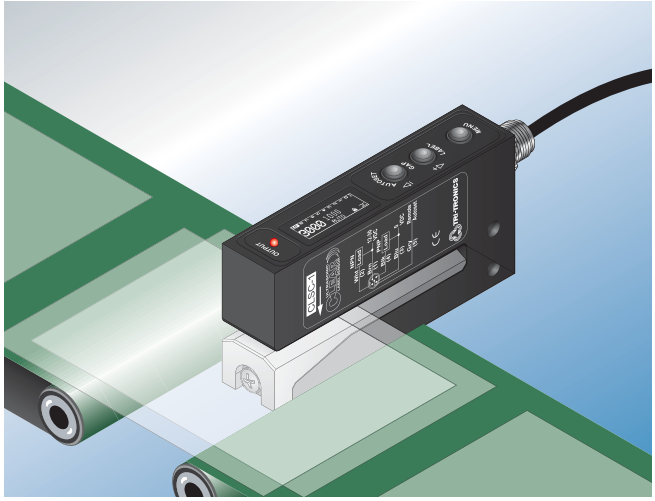
Heat Seal Detection



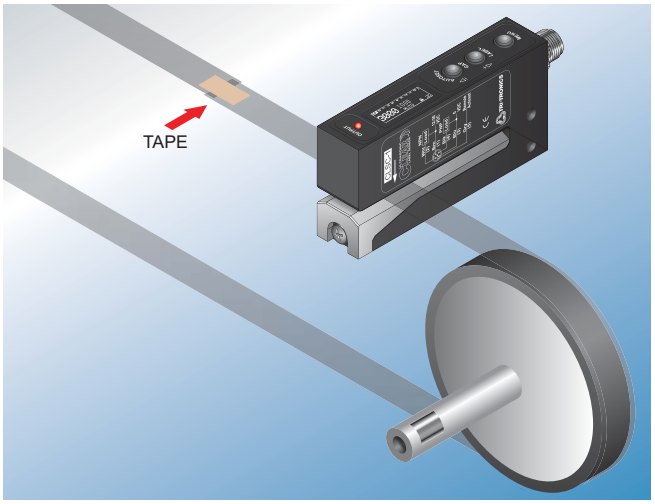
High Speed Rewinding...Clear, Metal Foil, or Paper Labels



Fold or Crease Detection



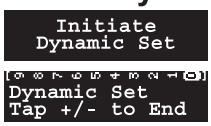
Double Sheet Detection



Splice Detection

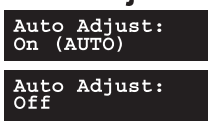
Menu Options

Initiate Dynamic Set



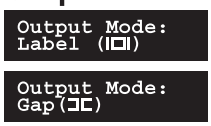
Dynamic Set is a convenient and easy way to set up the CLS sensor. Once initiated, simply pull labels and gaps through the sender receiver transducers and then push the Gap or Label button to complete. This feature is also available via the remote set wire. Dynamic Set is beneficial when holding the gap in place is not easily accomplished, or physical access to the sensor is not practical.

Auto Adjust



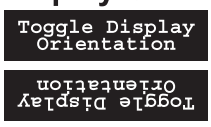
The Auto Adjust feature is helpful in applications with diminishing conditions...such as dirty or dusty environments, or with inconsistent label or web material thickness. This feature bumps up the gain automatically in order to maintain a functional and repeatable contrast between labels and gaps.

Output Mode



The Output Mode allows the user to decide which is more important to detect...the label or the gap. The leading or trailing edge of labels may be more desirable to receive an output in some applications than others. This option allows the user to make that determination and provides flexibility in real world conditions.

Display Orientation



For visual preference, the Display Orientation allows the user to flip the screen for a more user-friendly visibility.

Timer Mode *(**Advanced Option)*

The Timer Mode is offered as an Advanced Option. This feature provides users with the option to condition the output specifically for the application requirement.

Off Delay: Extends the Output Time.
On Delay: Extends the Input Time.
One Shot: Provides a defined Output "On" Time.
Debounce: Provides an Anti-Chatter timer.

Button Lockout

Button Lockout is useful for maintaining a set up without worry. This is tamper-proof, and reassures the continued performance of the sensor and up-time of the production line.

Quick Reference

Quick Reference was included as a way to visually instruct through the different set up options. This feature also includes contact information for the factory.

Sensor Scope *(**Advanced Option)*

The Sensor Scope is also an Advanced Option and allows the user to visually see how the sensor is detecting the target. Whether the labels or web materials are inconsistent, or noise issues occur occasionally, this feature clearly shows the user exactly where the problems are and how to resolve the issue quickly.

How to Specify

1. Select Sensor:
Ultrasonic Clear Label Sensor

2. Select Cable or Connector:
Blank = 6' (1.8m) Cable
C = Connector M12, 5-Pin (Standard)

3. Select Connector Type:
-1 = Standard M12 Connector (see #2). Includes both NPN and PNP
-1M8 = M8, 4-Pin Connector NPN/PNP Software Selectable
-1M8LE = Wired like LERC

NOTE: The M12 version is not wired the same as LERRC-M12.

Example: CLS C -1

Ultrasonic Clear Label Sensor

Blank = 6' Cable
C = Connector

-1
-1M8
-1M8LE

Features

OUTPUT INDICATORS
Red LED illuminates when when outputs are ON

Flashes when short circuit or overload detected

AUTOSET/GAP BUTTON
1. Push and Hold with gap in view for 2 seconds for AUTOSET.
2. Tap for UP on Contrast Indicator, or reduce threshold.
3. Change settings in MENU options

AUTOSET/LABEL BUTTON
1. Push and Hold with label in view after GAP AUTOSET on rare occasions when labels have multiple layers.
2. Tap DOWN on Contrast Indicator, or increase threshold.
3. Change settings in MENU options

OLED NUMERICAL DISPLAY
1. 1 to 10 bar Contrast Indicator
2. Numerical display for threshold and feedback number
3. Options Status Display: Button Lock or Unlock ( ); auto adjust on/off (AUTO); output in Gap( ) or on Label ( ).
4. View Menu Options

MENU BUTTON
1. Push and Hold for 1 second to enter Menu Options.
2. Tap to scroll through Menu options.
3. Hold during power up for additional Menu Options; Timers and Factory Diagnostics (or sensor scope).

Hardware & Accessories

4-Wire Nano Cable, M8

GEC-6
6' (1.8m)

GEC-15
15' (4.6m)

GEC-25
25' (7.62m)

RGEC-6
6' (1.8m) right angle

RGEC-15
15' (4.6m) right angle

RGEC-25
25' (7.62m) right angle

GEX-9
9' (2.7m) Extension

5-Wire Shielded MicroCable, M-12

GSEC-6
6' (1.8m)

GSEC-15
15' (4.6m)

GSEC-25
25' (7.62m)

GRSEC-6
6' (1.8m) right angle

GRSEC-15
15' (4.6m) right angle

GRSEC-25
25' (7.6m) right angle

GX-25
25' (7.6m) extension

CLS-GP
Gap Plate

Specifications

ULTRASONIC CLEAR LABEL SENSOR

SUPPLY VOLTAGE
- 12 to 30 VDC
- Polarity Protected

Note: For use in Class 2 Circuits

CURRENT REQUIREMENTS
- 95mA @ 12 VDC, 45mA @ 30 VDC

DIGITAL OUTPUTS
- (1) NPN and (1) PNP open collector output 150mA Max; <2V Residual Voltage

(Note: On CLSC-1M8, NPN & PNP are software selectable).
- All outputs are continuously short circuit protected

REMOTE AUTOSET INPUT
- Momentary sinking or sourcing input;

1.2mA max; Software Selectable

DIAGNOSTIC INDICATORS
- OLED Graphic Display - Includes Contrast Indicator, Numerical Display, Set Point and Trigger Point, and all sensor options and modes.
- 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.

PUSHBUTTON CONTROL
- Three (3) push button controls
- Gap (for Gap AUTOSET)
- Label (for multi-layered labels)
- Menu (for accessing Options)

HYSTERESIS
- Dynamic – adjusted by AUTOSET

RESPONSE TIME
- 200µs

REPEATABILITY
- 125µs

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

RUGGED CONSTRUCTION
- Chemical resistant, high impact Aluminum housing
- Waterproof ratings: NEMA 4X, 6P and IP65
- Conforms to heavy industry grade CE requirements

THRESHOLD SET
- 1-Point, 2-Point, or Dynamic AUTOSET; manually or remotely.

THRESHOLD ADJUST
- Manual or AUTO Adjust

OUTPUT TIMERS
- On Delay, Off Delay, One Shot, or Debounce (Advanced Option, software selectable).

CONNECTOR
- M12 5-Pin, M8 4-Pin, or 6' (1.8m) Shielded Cable

RoHS Compliant
Product subject to change without notice

Connections and Dimensions

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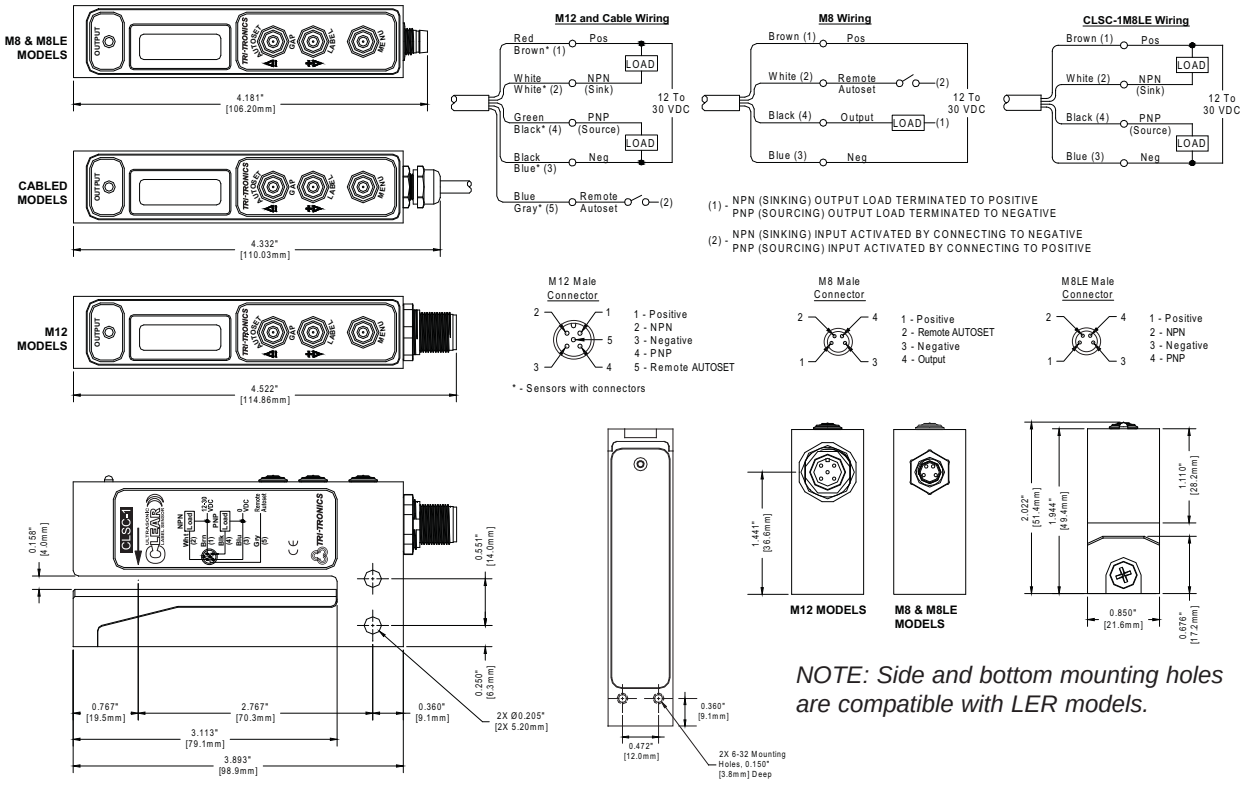

NOTE: Side and bottom mounting holes are compatible with LER models.