TriSense
Double Shell ▲ Missing Tab ▲ Leak Detection

THREE-IN-ONE CONTROLLER
NOW AVAILABLE

TRISENSE SD230

3-in-1 Controller
Double Shell   Missing Tab   Leak Detection

A COMPLETE SYSTEM REQUIRES:
Control: SD230 (Qty 1)
Probe: P15 Series (Qty 4)
Cable: CBL101 Series (Qty 4)
HMI: MI230 *optional*
Networking: ET230 Gateway EthernetIP *optional*

LIGHT LEAK DETECTION SYSTEM REQUIRES:
LH200 Light Head Sensor (Qty 1/lane)
SL100 LED Strobe Lamp (Qty1/lane)
SQ100 Sequencing Module (Qty 1/machine)*
**required to ensure no LH200 units flash
simultaneously, improving light isolation in each lane.
**Also required: Quick disconnect cable and power
supply, PLC and reject mechanism*

FEATURES:
- Three detectors in one package
- Cost effective and simple to use
- Install, run & manage on the fly & remotely
- Diagnostics for quick troubleshooting
- Access to more data than ever before
- Network ports for easy daisy-chaining
  of units for ease of installation, wiring &
  automatic Network ID

DOUBLE SHELL & MISSING TAB DETECTOR
- Steel, Tinplate & Aluminum sensitivity
- For single sheet thicknesses ranging from
  .05mm-1.016mm (.002"-.04")
- Microprocessor for better measuring
  resolution & reliability
- LED digital display
- Operating power standard 24 volts DC

END LIGHT LEAK DETECTION
- Detects holes 5 microns & below
- State-of-the-art technology for reliability &
  stability
- Long life light source, est. 6+ years (1.5
  Billion ends)
- High speed strobe with rates over 1,100 epm
- Flash detect: interfaces with existing wiring
  for status indication
- Power & status LEDs
- Quick lead team

ABOUT TRISENSE SD230
New Three-In-One Controller! The TriSense SD230 is our latest control system that allows operators to run and manage our end light leak detection system (comprised of our LH200 Light Head Sensor and SL100 LED Strobe Lamp) and the double shell and missing tab detector, all at the same time. By combining the proven technology and superior quality of all three units together into one system, the TriSense S230 is not only cost effective but simple to use.

DOUBLE SHELL & MISSING TAB DETECTION
When paired with specific dual probes, the TriSense SD230 double shell and missing tab function detects Ferrous Metals (Steel and Tinplate) and Non-Ferrous Metals (Aluminum) with thicknesses ranging from .05mm-1.016mm (.002"-.04"). The TriSense SD230 is an upgraded version of the SD220 unit. The TriSense SD230 offers all the same features of the SD220 model but with the additional of the integrated controls for the end light leak detection system along with two Modbus ports, allowing the detector to be compatible with EthernetIP communications.

END LIGHT LEAK DETECTION
The TriSense SD230 integrates the controls for the end light leak detection system, making it easier for operators to install, run and manage the end light leak detector on conversion presses. Our Light Leak Detection system is comprised of the LH200, Light Head Sensor and SL100, LED Strobe Lamp. These products are typically used to detect leaks or holes in can ends. The system will detect holes through metal can ends on a conversion press with leak diameters 5 microns and below.

The SL100 LED Strobe Lamp is the "Long Life" alternative specifically designed to replace Xenon Strobe Lamps. The high-speed SL100 can strobe at rates over 1,100 ends per minute. This long-life LED Strobe significantly reduces operating cost and provides a broader coverage on the cans allowing for detection across the entire end, not just where the light is focused.

Utilizing state-of-the-art technology, the LH200 is a highly stable and reliable unit that outperforms industry requirements for detecting leaks in can ends. The sensitivity can be easily adjusted without opening the unit and users are able to receive diagnostic information, providing valuable insight into operations, via the TriSense SD230 control.

INDUSTRIAL COMMUNICATIONS
The user-friendly MI230 HMI that allows users to easily set up, access data and remotely operate the control. With menu driven set-up and navigation, the MI230 features a full-color, touch-screen display.

The EthernetIP to Modbus Gateway allows a PLC with EthernetIP to communicate with the TriSense SD230 control unit. The TriSense SD230 can be controlled or monitored through the ET230 Gateway. Typically used by the PLC to generate a custom user-friendly interface for the TriSense SD230 real-time status, controls and diagnostics.

AVAILABLE NOW ON ALL NEW CONVERSION PRESS BUILDS ALONG WITH RETROFITS FOR EXISTING SYSTEMS.

PRIME CONTROLS
Metal Sensing Solutions

PRODUCT SPECIFICATIONS

DOUBLE SHELL & MISSING TAB DETECTOR

POWER INPUT: 24Vdc

OUTPUTS: Transistor outputs, Configure to sourcing or sinking current

MAX LOAD: 100 milliamps at 24Vdc

OUTPUT FAIL SAFE: Sinking output opens. Sourcing output current at zero

OUTPUT RESPONSE: < 5mSec.

PROBE FREQUENCY: Optimized for steel or aluminum

PROBE TYPES: P15 series

CABLE TYPES: CBL101 series - various cable lengths available

METAL SENSITIVITY: .05mm-1.016mm (.002"-.04")

PROBE SEPERATION: Depends on metal, thickness and probe model

CALIBRATION: Push-button switch on single good sample for each channel. Remote calibration can be performed through EthernetIP communication, HMI touchscreen display or remote calibration inputs.

INDICATORS: Red LEDs for Single, Double, Tab and No Tab indication. Three-digit display for signal strength. Amber LEDs for Network indication. Two-digital display for network address

THEORY OF OPERATION: Inductive or Eddy Current engery restricts the signal from transmitter to receiver as the metal thickness increases.

LH200 LIGHT HEAD SENSOR

POWER INPUT: 24V DC +/- 10%, 100mA

CONNECTION: M12, 8-pin male pigtail, 1m long, PUR cable

CABLE: CBL108-15, 8-pin connector cable, 15m length, other lengths available

DETECTION: 5 micron hole (0.0002") and below on standard beverage ends

SPEED: 4,000 ends per minute

OUTPUT: GOOD END – Sourcing (PNP) on for good end; STROBE – Sourcing (PNP); Short circuit protected

INPUT: ENABLE – Sourcing (PNP) input 10-24VDC, over-voltage protected
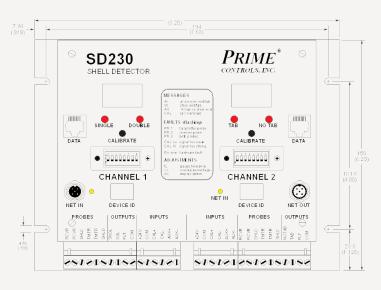
COMMUNICATION: RS-232, Baud Rate - 38,400

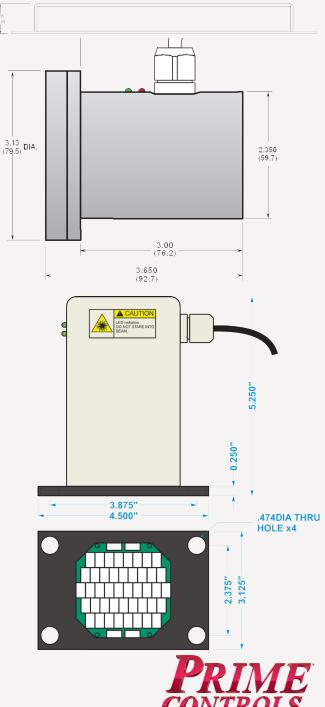**LED INDICATORS:** Power – Green; Status – Green-good end, Red-reject, Amber-dark reading failure

HOUSING: Aluminum

DIMENSIONS: 3.13"(79.5mm) Diameter x 3.65"(92.7mm) Long

MOUNTING: 17/64"(6.75mm) mounting holes x 4

SL100 LED STROBE LAMP

POWER: 24-29VDC, 1A average, 6A during flash

CONNECTION: M12, 8-pin male pigtail, 12" long, PUR cable

CABLE: CBL128-10, 8-pin connector cable, use full 10m for best performance

STROBE: Infrared and visible white (for strobe verification)

DETECTION: 5 micron hole (0.0002") hole and below on standard beverage ends.

SPEED: 1,100 strobes per minute

LIFE: Expected 6 years, 1.5 billion strobes

OUTPUT: Flash Detect, 50mA max, 21VDC, PNP sourcing, Short circuit protected

INPUT: Strobe Trigger, PNP, 7VDC

COMMUNICATION: Serial – RS232 Half Duplex