



# ECLIPSE™

Leak Detection Technology

INTRODUCING

# ECLIPSE

## Leak Detection Technology

Eclipse is a superior light-based leak detection technology for cans and ends. This ultra-sensitive leak detection technology is 8x more sensitive than infrared and traditional light detection methods. Eclipse penetrates smaller cracks more efficiently improving the detection of circuitous and indirect defects.

Prime Controls' light-based leak detection system featuring Eclipse Technology uses the latest advancements in light generation and detection technology to achieve industry-leading performance in this competitive market space. By leveraging Prime Controls' 30-year history in the leak detection, Prime Controls is able to offer 0.5 micron pin-hole leak detection in a compact two-component system that mounts directly on the outfeed plate of a conversion press. The system can operate at speeds over 1,000 strokes

per minute, and its modular design can be used for any number of lanes on a press.

Eclipse outperforms existing light testing technology 20x while offering built-in self-test and monitoring to ensure all ends are fully and completely tested. Ambient light and severely damaged ends do not affect system operation. Designed for conversion press OEMs, the system is easy to integrate and offers factory communication for easy set-up and monitoring. Retrofits to existing end light test systems are also available.

### ECLIPSE FEATURES AND ADVANTAGES

## PRIME CONTROLS END LIGHT LEAK DETECTION FEATURING ECLIPSE TECHNOLOGY

### HIGHLIGHTS

- .5 micron detection – outperforming existing light testing technology
- Eclipse technology enables detection of circuitous and indirect defects
- Drop-in upgrade using existing run-out plates
- Reduced lead times with rapid product delivery

### SYSTEM FEATURES

- Up to 1,000 strokes per minute
- LED-based light source rated at 6+ years life
- Built-in reject control logic

### QUALITY DESIGN

- Latest solid-state detection and illumination circuitry
- Vibration resistant
- Temperature compensation
- Low noise
- No blindness, immediate recovery
- Ambient light rejection

### DESIGNED WITH THE USER IN MIND

Full color touch screen display with optional Modbus and optional Ethernet/IP connectivity.

- Leak log
- Measurement value, stroke count, and result codes
- System fault status
- Lane Status Screens: Strobe error, internal measurement error, operator overrides, internal system error.
- Lane history
- Set-up

### EXTRA BENEFITS

- Food ends do not require vacuum
- 7-day standard turnaround on repairs
- Same-day spare part shipment
- Field service and system training programs

WHEN ORDERING  
NEW MACHINES, BE SURE  
TO SPECIFY PRIME CONTROLS.

# ECLIPSE FOR BEVERAGE ENDS

BUILD THE COMPLETE BEVERAGE ENDS SYSTEM:



**1 LH200H-OPT** (1/lane)

Light detector featuring Eclipse Leak Detection Technology, easily detecting 0.5 micron holes and cracks in metal can ends on a conversion press at speeds over 1,000 strokes per minute. Packaged to mechanically match a common mounting interface used in the industry.

**2 SL100H-1** (1/lane)

All-solid-state LED-based illumination system providing constant current drive to the LEDs for detection consistency and pulse confirmation to the LH200H/LH200H-OPT ensuring correct leak detection operation. Packaged to mechanically match a common mounting interface used in the industry, mounted below the belt.

**3 EP200-OPT** (1/machine up to six lanes)

IP66 NEMA4 cabinet to house power supplies, SL100H-1/ SL100H-2 drivers, reject solenoid relays and terminal blocks. Door-mounted 5.7" color touch-panel provides set up and system monitoring capabilities for all six lanes.

**4 CBL144-10** (1/lane)

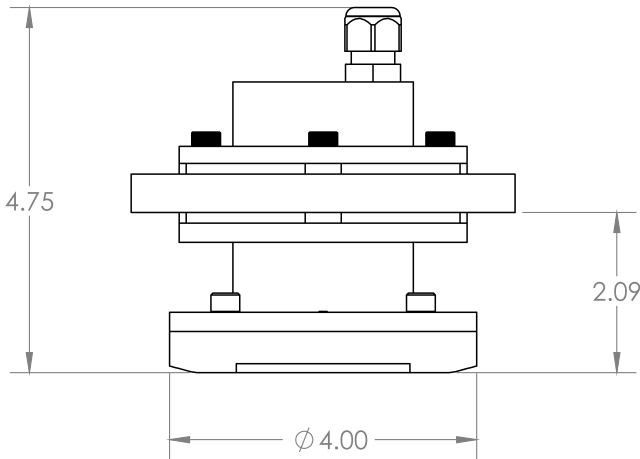
Connector cable for Light Detector, 12 pole, F PUR, shielded, 10 meters in length

**5 CBL145-10** (1/lane)

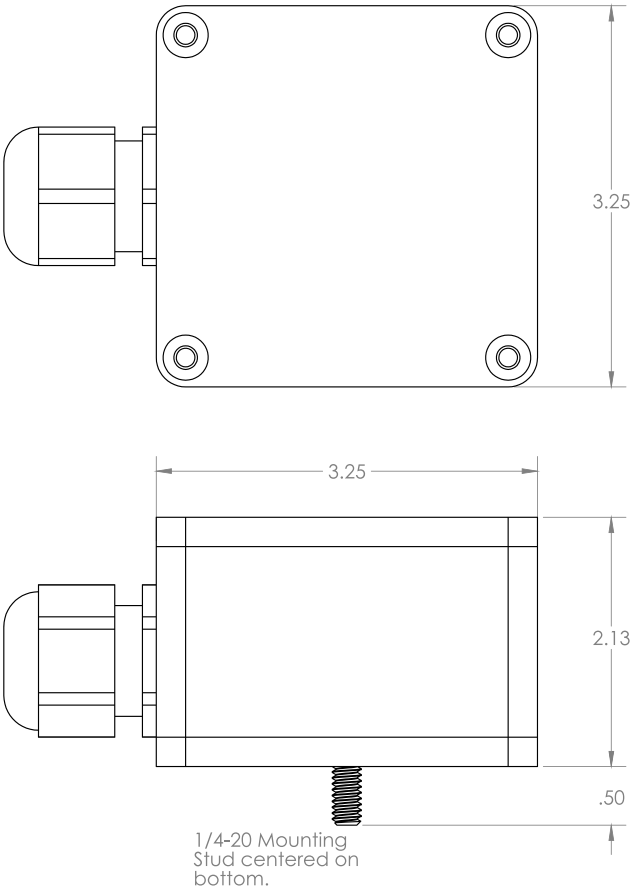
Connector cable for LED Illuminator, 12 pole, F PUR, shielded, 10 meters in length



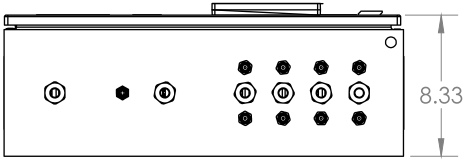
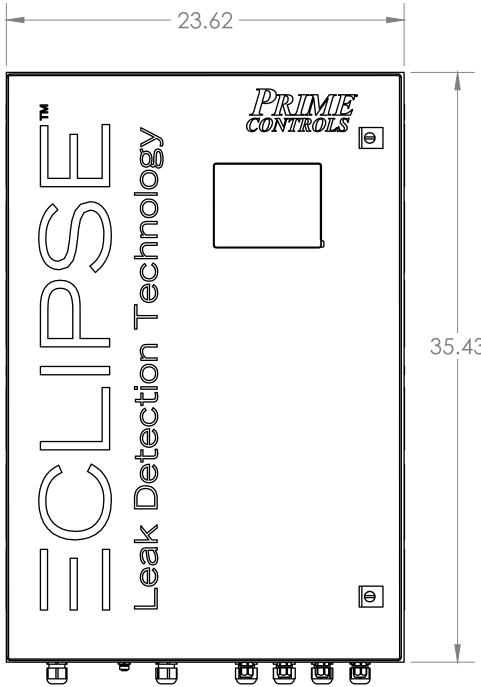
## LH200H-OPT



## SL100H-1



## EP200-OPT



Power Supply: 90-230VAC, <4A, 50/60Hz

Inputs: Press Run, Read Trigger

Outputs: Lane Rejects (1/lane), Fault Signal, Excess Rejects, Ready Signal

User Interface: 5.7" color touch-panel HMI 1 cabinet supports up to six lanes

# ECLIPSE FOR FOOD ENDS

## BUILD THE COMPLETE BEVERAGE ENDS SYSTEM:

### 1 LH200H (1/lane)

Light detector featuring Eclipse Leak Detection Technology, easily detecting 0.5 micron holes and cracks in metal can ends on a conversion press at speeds over 1,000 strokes per minute. Packaged to mechanically match Prime Controls LH200 Light Sensor.

### 2 SL100H-2 (1/lane)

All-solid-state LED-based illumination system providing constant current drive to the LEDs for detection consistency and pulse confirmation to the LH200H/LH200H-OPT ensuring correct leak detection operation. Packaged to mechanically match Prime Controls SL100/SL100H Light Sensor.



### 3 EP200-OPT (1/machine up to six lanes)

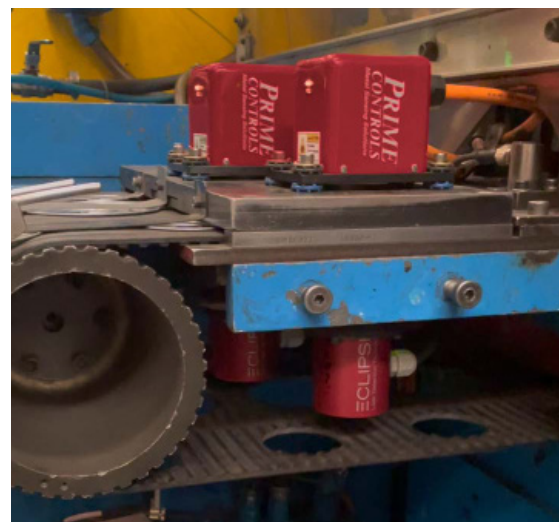
IP66 NEMA4 cabinet to house power supplies, SL100H-1/SL100H-2 drivers, reject solenoid relays and terminal blocks. Door-mounted 5.7" color touch-panel provides set up and system monitoring capabilities for all six lanes.

### 4 CBL144-10 (1/lane)

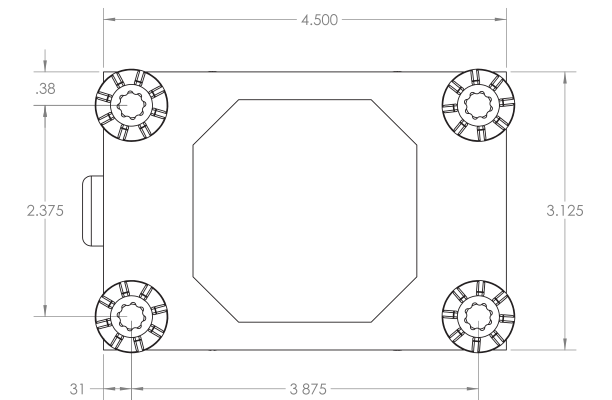
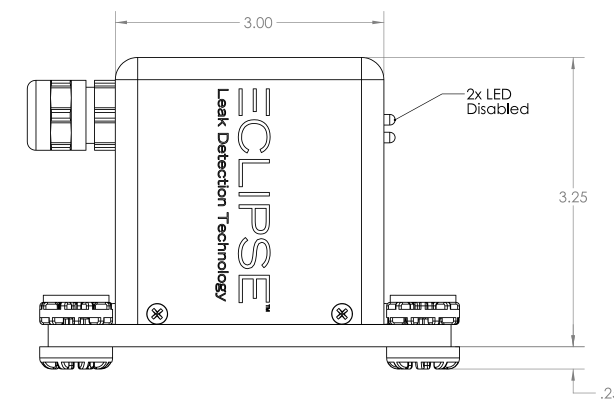
Connector cable for Light Detector, 12 pole, F PUR, shielded, 10 meters in length

### 5 CBL145-10 (1/lane)

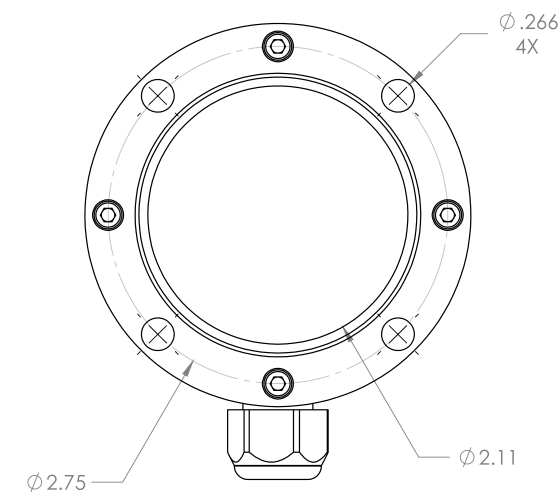
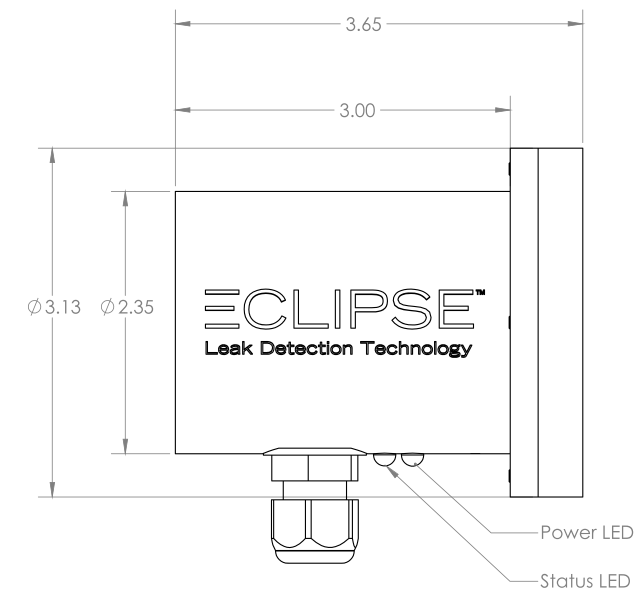
Connector cable for LED Illuminator, 12 pole, F PUR, shielded, 10 meters in length



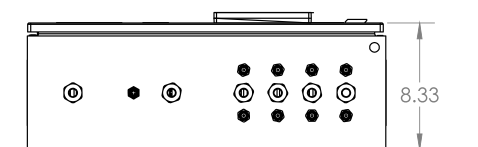
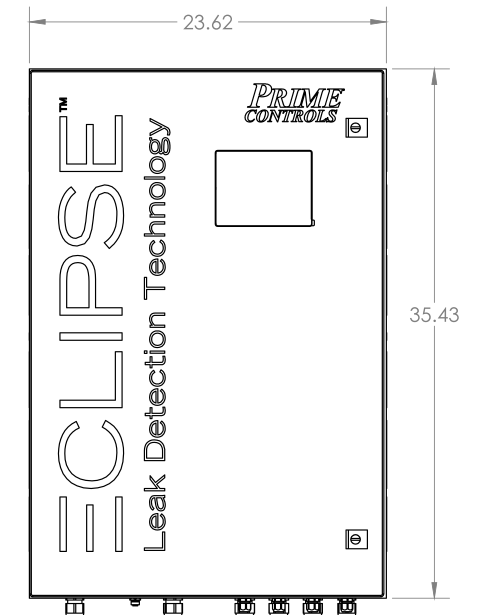
### SL100H-2



### LH200H



### EP200-OPT



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Outputs: Lane Rejects (1/lane), Fault Signal, Excess Rejects, Ready Signal

User Interface: 5.7" color touch-panel HMI  
1 cabinet supports up to six lanes



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