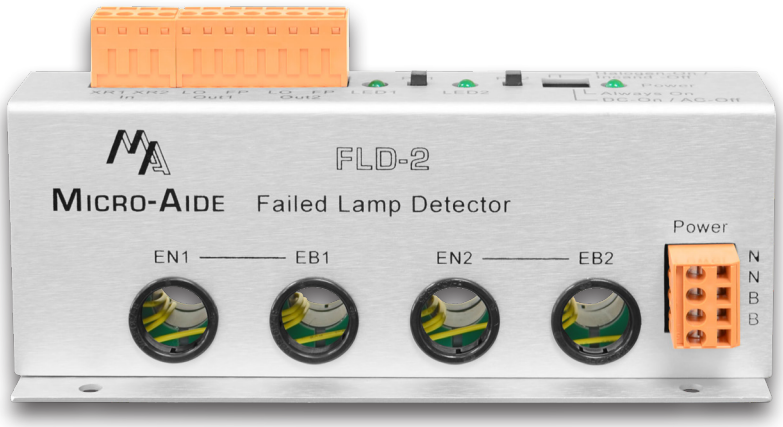
*Failed lamp detection has become a difficult problem with the introduction of mixed LED, incandescent and halogen lamp usage combined with computer controlled gate systems.*

*Only the FLD-2 addresses these issues with a universally compatible solution.*

MICRO-AIDE

www.micro-aide.com

# FLD-2
# FAILED LAMP DETECTOR




## Features

- Standalone device, compatible with any CWR, CAR or RTU
- Fully isolated current sensing with two lamp circuits per unit
- All digital design requires no adjustments
- Calibration settings saved in non-volatile memory
- Can be used with incandescent, halogen and LED lamps
- Compatible with relay-based and SSCC systems
- Flash Pulse output can be used to report flash rate
- 3.5 - 30 Adc (2.5 - 21 Aac) lamp circuit range
- Powered from any 10 to 36 Vdc source
- -40 °C to 72 °C operating range

*Remote reporting of failed lamps can be performed when an FLD-2 is used with a CAR-14A or CAR-24A.*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## Specifications

### Physical
**Size**
**L**: 7.0″ **H**: 3.4″ **D**: 2.5″

**Weight**
14 oz.

### Environmental
**Storage**
**Temperature**: -50 °C to 85 °C

**Humidity**: 0 to 95 %, non-condensing

**Operating**
**Temperature**: -40 °C to 72 °C

**Humidity**: 0 to 95 %, non-condensing

### Mounting
Shelf or back board mounting

### Construction
**Chassis**
Fully enclosed, anodized aluminum

**Electrical**
All components mounted on conformal coated, internal PCB

### Power
**Voltage**
**Range**: 10 to 36 Vdc

**Consumption**
**Typical**: 1 W

### Non-volatile memory
Saves all calibration parameters, auto-restored

### Isolation
**Power**
**Minimum**: 3800 Vdc from B and N terminals to chassis and inputs

**Lamp Circuit Inputs**
**Minimum**: 5000 Vdc to chassis or any terminal

### Inputs
**Input Impedance**
**Lamp Circuits**: infinite, uses Hall-effect circuitry for complete isolation

**XR**: minimum 10K Ohms, opto-isolated

**Range**
**Lamp Circuits**: 3.5 to 30 Adc (2.5 to 21 Aac), per EB and EN circuit with lamps illuminated

**XR Input - On**: 9 to 36 Vdc

**XR Input - Off**: 0 to 2 Vdc

**Flashing**: 35 to 65 fpm

### Capacities
**Lamp Circuit Inputs**
2, AC or DC, separate sensors for EB and EN conductors

3 to 12 incandescent or halogen (25+ LED) lamps

**XR Inputs**
2 total, 1 per lamp circuit, ± pair

**LO and FP Outputs**
**Light Out**: 2 total, 1 per lamp circuit, ± pair, 3 to 12 mAdc

**Flash Pulse**: 2 total, 1 per lamp circuit, ± pair, 3 to 12 mAdc, 35 to 65 fpm

### Lamp Failure Detection
**Incandescent or Halogen Lamps**
Single lamp failure in EB or EN circuit

**LED Lamps**
Detects drop in current of 15 % in EB or EN circuit

### Connectors
**XR Inputs, LO and FP Outputs, Power**
All detachable, tension clamp, 4-position, 12 to 22 AWG

### Controls
**Pushbutton Switches**
**Quantity**: 1 per lamp circuit, initiates Calibration Procedure

**Piano Switch**
**Quantity**: 1 with 4 positions

**Positions 1, 2**: selects incandescent or halogen lamps

**Position 3**: enables compensation for DC voltage fluctuation

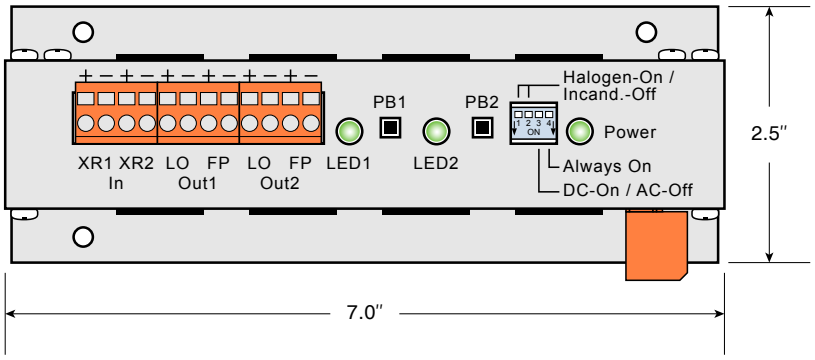
**Position 4**: always on, for factory use only

### LED Indicators (3)
**Power**: green, on with power

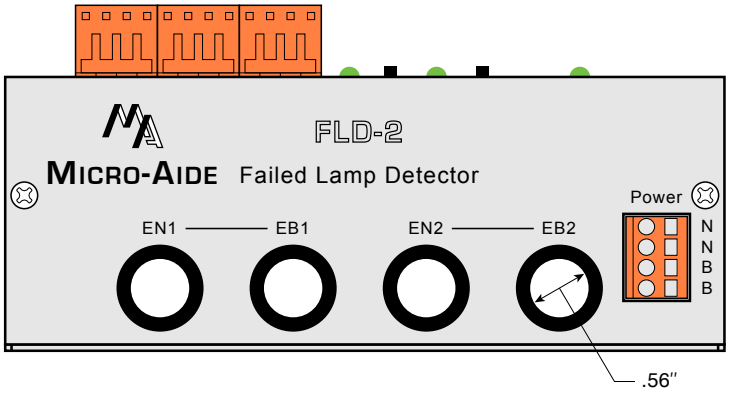
**Lamp Circuit1 and 2**: green, on/off to indicate status of crossing, flashes at various rates to indicate lamp failure(s) and state of calibration

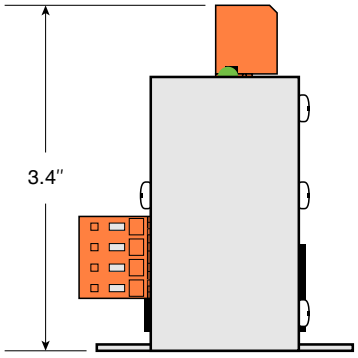
*MICRO-AIDE reserves the right to make changes, at its sole discretion, to any specifications listed herein.*

## Dimensional Drawing







## Typical Connections