

APPENDIX A – TECHNICAL DATA

SPECIFICATIONS

Physical

Size
Length: 7.0"
Height: 3.4"
Depth: 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
Externally accessible switches, LEDs and connectors
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
Parameters are auto-restored when power is reapplied

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, fully independent, AC or DC
Separate sensors for EB and EN conductors
3 to 12 incandescent or halogen lamps per EB and EN circuit (25W per lamp nominal)
25 or more LED lamps per EB and EN circuit

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
Pulses high and low with current flow
Range of 35 to 65 fpm

Lamp Failure Detection

Incandescent or Halogen Lamps
Single lamp failure in either EB or EN circuit is detected

LED Lamps

Calibrates current with all LEDs on or flashing
Detects and reports drop in lamp current of 15% in either EB or EN circuit

Connectors

XR Inputs
Detachable, tension clamp, 4-position, 12 to 22 AWG

LO and FP Outputs

Dual, detachable, tension clamp, 4-position, 12 to 22 AWG

Power

Detachable, tension clamp, 4-position, 12 to 22 AWG
Dual B and N terminals

Controls

Pushbutton Switches

Quantity: 2, 1 per lamp circuit
Usage: 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, illuminates with power

Lamp Circuit1 and 2

Green, flashes at various rates

Off: crossing is idle

On: crossing is active, no light failures

Slow / Medium Flashing: indicates calibration state

Fast Flashing: crossing is active, light failure detected

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

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