LHS™

Intrinsic Safety Barriers for Intelligent LHS Systems



Effective: February 2015 K-73-209

FEATURES

- Use with ARIES or ARIES NETLink Intelligent Control Panels For Intrinsically Safe LHS Operation Within Classified Hazardous Areas
- Addressable Contact Input Devices (AI)
- 1-Channel Operation

DESCRIPTION

Linear Heat Sensor (LHS) applications, in classified hazardous areas with potentially explosive vapors, dust or fibers, require the use of Intrinsic Safety Barriers so as to limit the total energy entering the hazard via the sensor wiring conductors.

Kidde P/N 73-117068-201 shunt-diode Safety Barriers are 1-channel devices that use intrinsically safe techniques to allow electrical signals to be conveyed between non-hazardous (safe) and hazardous areas. The Safety Barriers achieve this by limiting the transfer of energy in one direction to a level that cannot cause ignition of explosive atmospheres.

WIRING

As shown in Figure 1, the Intrinsic Safety Barrier (P/N 73-117068-201) is used in Intelligent LHS applications where SmartOne[®] Addressable Contact Input Devices (AI) interface one circuit of the LHS cable to the Signaling Line Circuit (SLC) of the Kidde intelligent control panel. Each Intrinsic Safety Barrier handles two conductors and hence only one Safety Barrier is required for each LHS circuit.

- Shunt-Diode Type
- Limits Energy
- Slim Packaging
- UL Listed
- FM Approved

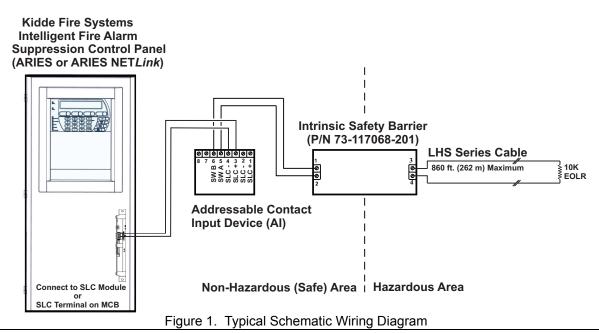
INSTALLATION

Intrinsic Safety Barriers—with dimensions as shown in Figure 2 and Figure 3—must be enclosed in a separate weather-tight enclosure. Kidde offers multi-barrier enclosures suitable for 2, 5, and 12 barriers (see Ordering Information for part numbers).

To determine if the need for an intrinsically safe circuit exists on a specific application, consult the National Electric Code and the local Authority Having Jurisdiction (AHJ).

REFERENCE DOCUMENTATION

- Kidde LHS™ Data Sheet: K-73-201
- Kidde LHS™ Installation Instructions: 06-237418-001
- Kidde LHS[™] System Application and Installation Notes: K-73-200
- Kidde ARIES™ Data Sheet: K-76-600
- Kidde ARIES NETLink™ Data Sheet: K-76-800



DIMENSIONS

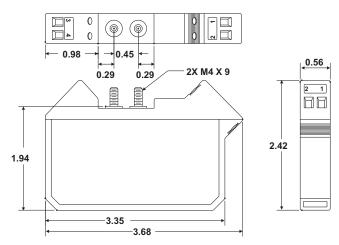
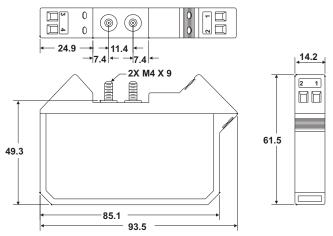


Figure 1. Intrinsic Safety Barrier Dimensions (Inches)





SPECIFICATIONS

FM Approvals	Class I, Division 1, Groups A, B, C, D Class II, Division 1, Groups E, F, G Class III, Division 1
Operating Temperature Range	-4°F to 140°F (-20°C to 60°C)
Humidity	5 to 95% RH
Terminals	Accept up to #12 AWG; Hazardous Area terminals identified by blue labels
Working Voltage	10 V
Maximum Voltage	11.2 V
Fuse Rating	50 mA
End-to-End Resistance	185 ohms maximum
Weight	Approximately 0.275 lb. (0.125 kg)
Mounting and Earthing	By two integral tin-plated steel fixing studs and stainless steel self-locking nuts (provided)

ORDERING INFORMATION

Part Number	Description
73-117068-201	Intrinsic Safety Barrier for Intelligent LHS (need one per circuit)
73-117068-032	Intrinsic Safety Barrier Weathertight Enclosure. Holds 2 Barriers.
73-117068-033	Intrinsic Safety Barrier Weathertight Enclosure. Holds up to 5 Barriers.
73-117068-034	Intrinsic Safety Barrier Weathertight Enclosure. Holds up to 12 Barriers.

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