Honeywell

TC842B Intrinsically Safe, Plug-In Intelligent Photoelectronic Sensor

SPECIFICATION DATA

FEATURES

- **Two sensor LEDs provide status indication at the control panel.**
- **Provides rotary-decade switches to set sensor address.**
- **Sensor transmits smoke density information to a TC843A Intelligent System Translator (obtain separately) that relays information to the control panel.**

APPLICATION

The TC842B is an intrinsically safe, plug-in smoke sensor that combines a photoelectronic sensing chamber with addressable analog communications. The sensor transmits an analog representation of smoke density over a regulated communication line, through a barrier, to a TC843A Intelligent System Translator (obtain separately). The TC843A Translator then relays the analog information to a control panel. Rotary-decade switches are provided to set the sensor address. The sensor has two LEDs that are controlled by the panel to indicate sensor status.

SPECIFICATIONS

Electrical Ratings:
Operating Voltage Range: 17 to 24 Vdc.
Standby Current: 330 µA at 24 Vdc (one communication every five seconds with LED blink enabled).
Maximum Alarm Current (LED on): 2.5 µA at 24 Vdc.

Temperature Ratings:
Operating:
US: 32°F to 120°F (0°C to 49°C).
Europe: -10°C to 60°C.

Humidity Ratings: 10% to 93% RH, non-condensing.

Associated Equipment:
14506414-002 Base.
14507371-001 Base.

Wiring: See Fig. 1.

Approvals: BASEEFA EEX ia IIC part.

NOTE: BASEEFA is the British Approvals Service for electrical equipment in flammable atmospheres (BASEEFA). MECS and BASEEFA were brought together to form EECS which is operated by the government Health and Safety Office of the United Kingdom. It provides a range of testing and certification services primarily related to equipment and systems intended for use in potentially explosive atmospheres.

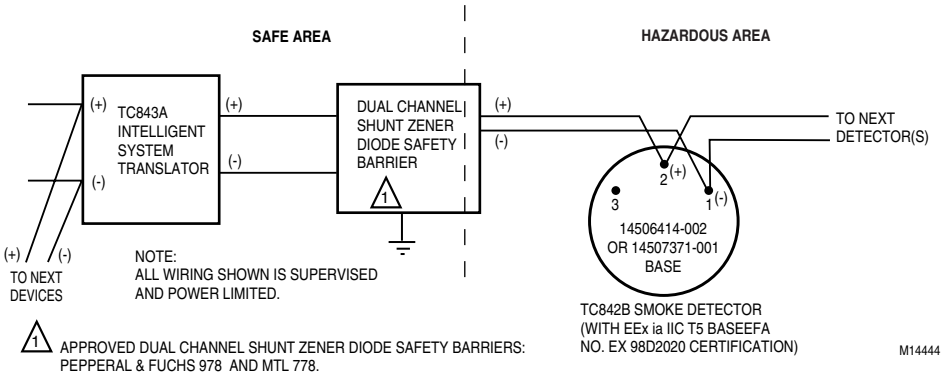

Fig. 1. TC842B wiring diagram.

The capacitance and inductance or inductance/resistance (L/R) ratio of the cable connected to the hazardous area between power terminals 1 and 2 must not exceed the value shown in Table 1.

Table 1. Terminals 1 and 2.

Group	Capacitance µF	Inductance mH	L/R Ratio µH/ohm
IIC	0083	4.20	55
IIB	0.65	12.6	165
IIA	2.15	33.6	440

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