

Combustible Gas Monitor



ITS-M1700-R



DESCRIPTION

Gas monitor with built-in combustible sensor, wall-mounted, for binary/relay output control.

APPLICATION

To detect and control levels of combustible methane or propane in a wide variety of commercial and industrial applications such as buildings built on landfill sites, boiler rooms (i.e. Methane), warehouses and garages (i.e. Propane), and ventilation systems, etc. The monitor's binary/relay outputs can control fans, remote alarms and other devices.

FEATURES

- Continuous monitoring
- One (1) built-in catalytic bead (pellistor) gas sensor
- Two-stage relay outputs, w/status LEDs
- Built-in alarm horn (buzzer)
- Liquid Crystal Display (LCD)
- Push button programming
- Easy maintenance

SPECIFICATIONS

Electric

Power supply 24 VAC (18-30 VAC), floating, 50/60 Hz, 24 VDC (18-30 VDC)
 Protection One (1) 1.0 A, socketed pico fuse
 Power consumption < 2 VA (100 mA) 250 mA turn-on surge

Sensor Performance

Gas detected Combustible gases
 - part # - M1710- Methane (CH₄)
 - part # - M1730- Propane (C₃H₈)
 Sensor element Catalytic bead (pellistor), diffusion
 Range 0-100% LEL
 Methane 5% v/v = 100% LEL
 Propane 2.1% v/v = 100% LEL
 Accuracy ± 2% LEL
 Repeatability ± 2% LEL
 Zero drift 2% of full scale/month at 68°F (20°C)
 Long term sensitivity drift 2% of LEL methane/month
 Response time < 10 sec. to 50% of step change < 30 sec. to 90% of step change
 Sensor life expectancy 3 years, normal operating environment

Installation Location

Mounting height
 - part # - M1710/methane 1 ft. (0.3m) below ceiling
 - part # - M1730/propane 1 ft. (0.3m) above floor

Type of Control

General Single-stage or two-stage, two-position control, alarm levels/setpoints assignable over full % LEL

Relay outputs (TB4 & TB5)

- type (2) SPDT, dry contacts
 - contact rating 115 VAC / 30 VDC, 1.0 A,

- switching differential
- differential between relays
- time delays

Audible alarm (buzzer)

Digital Display

Programming

Environmental

- Permissible ambient
- working temperature 14°F to 104°F (-10°C to 40°C)
- storage temperature 41°F to 68°F (5°C to 20°C)
- humidity, continuous 0 to 95% RH, non-condensing
- humidity, intermitted 0 to 99% RH, non-condensing
- working pressure Atmospheric ± 10%

Physical

Enclosure

- material Polycarbonate, ABS blend, fire-retardant, UL-V0
- color Cool gray, 2U pantone
- cover Snap-on, secured by (2) screws
- protection NEMA 1, general purpose
- installation Wall (surface) mounted, or single gang electrical box

contact resistance 50 mΩ, max. Adjustable, individual for cut-in and cut-out per relay

Adjustable 0-60 minute(s) in 5-minute increments on or off, selectable switching for each cut-in and cut-out; 0 minute factory set Built-in, 85 db within 1 ft., enabled or disabled selectable; assignable to low or high alarm setpoint LCD, two lines x 8 characters, 1 digit resolution, displays CO ppm values Alarm level/setpoint set-up, differential, time delay and audible alarm via (3) push buttons and LCD display

SPECIFICATIONS

Physical (cont...)

Dimensions (H x W x D)	6.0 x 3.5 x 1.09 in. (152 x 89 x 28 mm)
Cable entry	1 hole on back side of base plate for single gang electrical box mounting
Wire connection	Terminal blocks, screw type for lead wire
Wire size	Min. 26 AWG (0.4 mm ²) Max. 16 AWG (1.3 mm ²)
Weight	0.5 lbs. (0.3 kg)

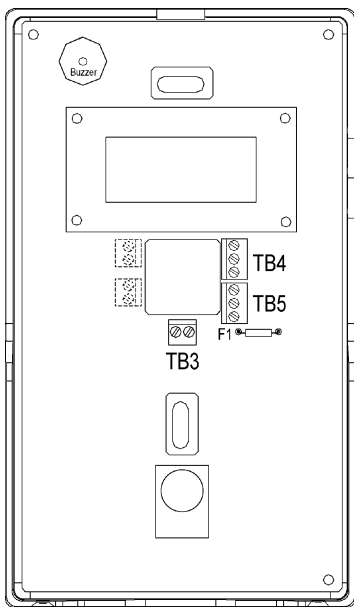
Warranty	12 months material and workmanship
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ORDERING INFORMATION

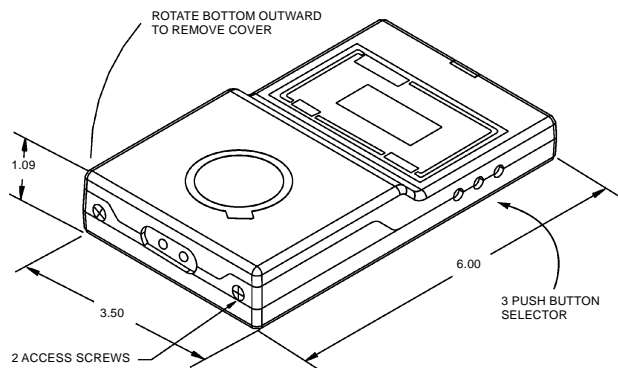
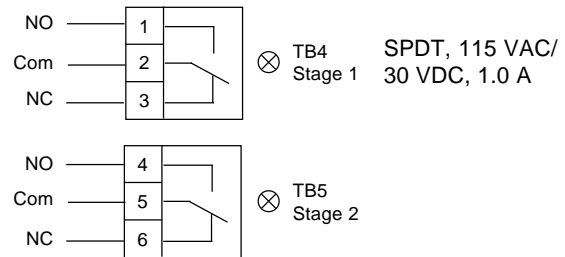
ITS-M1710-R	Methane (CH ₄)
ITS-M1730-R	Propane (C ₄ H ₈)
	Combustible Transmitter, 0-100% LEL, (2) SPDT 1 A relays, buzzer, LCD, wall-mount

FIELD WIRING CONFIGURATION

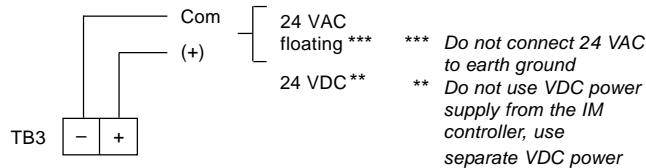
ITS-M1700-R



TB4 and TB5 Staged Relay Output Control w/Status LEDs



TB3 Power Supply 24 VAC or 24 VDC



F1 Fuse

