

Carbon Monoxide (CO) Gas Monitor



ITS-M5160-R



DESCRIPTION

Gas monitor with built-in carbon monoxide (CO) sensor, wall-mounted, for binary/relay output control.

APPLICATION

To detect and control levels of carbon monoxide (CO) in a wide variety of commercial and industrial applications such as vehicle exhaust in parking structures, engine repair shops, equipment rooms 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 CO electrochemical sensor, gas specific
- Two-stage relay outputs, w/status LEDs
- Built-in alarm horn (buzzer)
- Liquid Crystal Display (LCD)
- Push button programming
- Easy maintenance

SPECIFICATIONS

Electric		- switching differential	Adjustable, individual for cut-in and cut-out per relay
Power supply	24 VAC (12-28 VAC), floating, 50/60 Hz, 24 VDC (15-40 VDC)	- differential between relays	Adjustable
Protection	Two (2) 2.0 A, socketed pico fuses	- time delays	0-60 minute(s) in 5-minute increments on or off, selectable switching for each cut-in and cut-out; 0 minute factory set
Power consumption	< 2 VA (100 mA) 250 mA turn-on surge		Built-in, 85 db within 1 ft., enabled or disabled selectable; assignable to low or high alarm setpoint
Sensor Performance		Audible alarm (buzzer)	LCD, two lines x 8 characters, 1 digit resolution, displays CO ppm values
Gas detected	Carbon monoxide (CO)		Alarm level/setpoint set-up, differential, time delay and audible alarm via (3) push buttons and LCD display
Sensor element	Electrochemical, diffusion	Digital Display	
Range	Span field adjustable from 0-250 ppm via calibration, 0-125 ppm factory set	Programming	
Resolution	1 ppm CO	Environmental	
Accuracy	2% of reading	Permissible ambient	
Repeatability	± 2%	- working temperature	-4°F to 104°F (-20°C to 40°C)
Output drift	Max. 5% of full scale/year	- storage temperature	32°F to 68°F (0°C to 20°C)
Response time	< 30 seconds to 90% of step change	- humidity, continuous	15 to 90% RH, non-condensing
Sensor life expectancy	5 years, normal operating environment	- humidity, intermitted	0 to 99% RH, non-condensing
Sensor coverage	5,000 sq.ft., max. 7,500 sq.ft. (465 m ² , max. 697 m ²), "under ideal conditions"	- working pressure	Atmospheric ± 10%
Installation Location		Physical	
Mounting height	5 to 6 ft. (1.5 to 1.8 m) above floor	Enclosure	
Type of Control		- material	Polycarbonate, ABS blend, fire-retardant, UL-V0
General	Single-stage or two-stage, two-position control, alarm levels/setpoints assignable over full CO ppm range	- color	Cool gray, 2U pantone
Relay outputs (TB5 & TB6)		- cover	Snap-on, secured by (2) screws
- type	(2) SPDT, dry contacts	- protection	NEMA 1, general purpose
- contact rating	115 VAC / 30 VDC, 1.0 A, contact resistance 50 mΩ, max.	- installation	Wall (surface) mounted, or single gang electrical box

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

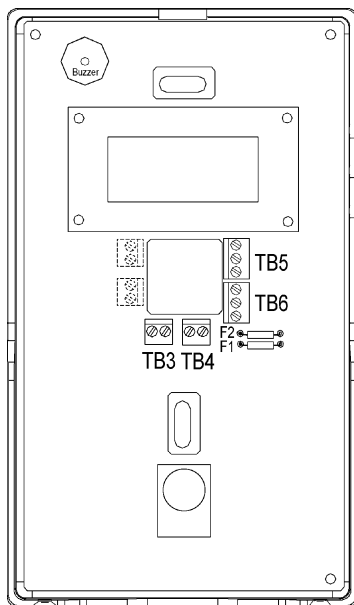
12 months material and
workmanship

ORDERING INFORMATION

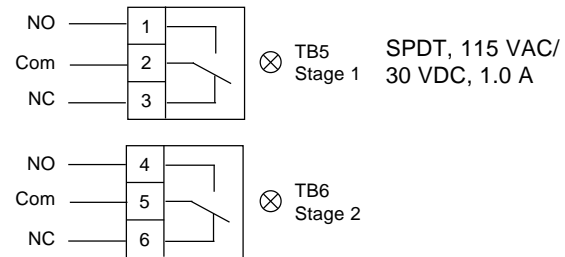
ITS-M5160-R	CO Monitor, 0-125 ppm, (2) SPDT 1 A relays, buzzer, LCD, wall-mount
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FIELD WIRING CONFIGURATION

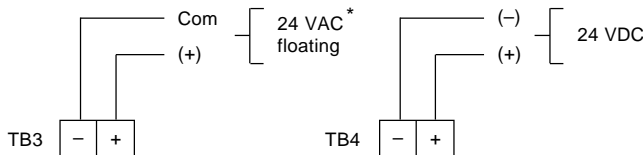
ITS-M5160-R



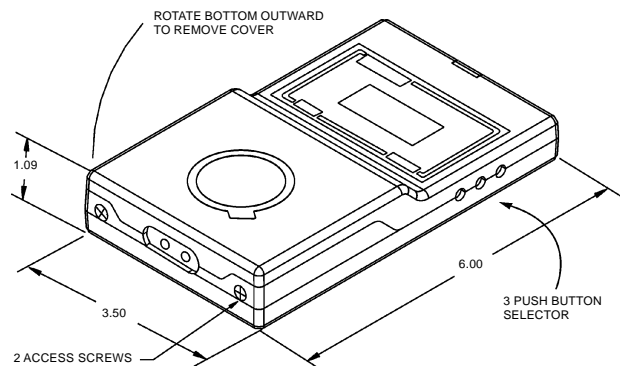
TB5 and TB6 Staged Relay Output Control w/Status LEDs



TB3 and TB4 Power Supply 24 VAC or 24 VDC



* Do not connect 24 VAC to earth ground



F1 and F2 Fuses

