

PrimaX IR Gas Transmitter

Reliable performance in extreme conditions

Every feature of the PrimaX IR Gas Transmitter is designed with reliability to withstand the most challenging environmental conditions throughout the product's life. MSA's PrimaX IR Gas Transmitter offers LEL (Lower Explosive Limit) combustible gas detection through a patented PrimaX Gas Transmitter IR dual source design. Redundant IR source provides reliability and uninterrupted monitoring should a source failure occur.

Furthermore, the possibility of obscurations due to rain, fog, dirt, dust, and other environmental conditions is minimized due to dual source design. In addition, optics are optimized for maximum signal, resulting in a product of extraordinary stability.

The PrimaX IR Gas Monitor is designed for quick and easy installation. Stainless steel and aluminum junction boxes can be ordered pre-installed for further ease of installation and wiring. A unique environmental guard with patent-pending clamshell design provides convenient installation in tight locations. This monitor provides maintenance alerts as well as other fault conditions over 4-20 mA and HART outputs.

Users may choose the most suitable calibration method for their applications. The calibration cap method offers one-person calibration. The HART remote method uses a HART junction box for local calibration in classified areas; HART software is available to initiate calibration from remote locations.

Applications include OGP, refineries, drilling rigs, compressor stations, chemical plants, fuel-loading and storage facilities, wastewater, and various industrial applications.

Features & Benefits

- Dual source design provides redundancy and reliable, uninterrupted performance
- Environmental guard sensor housing for fast, efficient response time
- Heated optics prevent condensation buildup
- 4–20 mA analog output
- User-friendly setup, calibration diagnostics and maintenance via HART digital communication
- One-person calibration is easily performed using calibration cap
- Easy connection using stainless steel junction box
- SIL 2 design provides safety system integration capability
- 316 stainless steel, IP 67-rated, rugged housing protects unit from environmental extremes
- Factory-calibrated for fast commissioning



Description	Specification
GAS TYPES AND RANGES	Hydrocarbon gases & vapors; 0-100% LEL
TEMPERATURE RANGE	-50°C to 75°C (-58°F to 167°F)
STABILITY	±2% full-scale/year
REPEATABILITY	±1% full-scale
ACCURACY	±2% full-scale (≤50% LEL) ±5% full-scale (>50% LEL)
RESPONSE TIMES WITHOUT ENVIRONMENTAL GUARD WITH ENVIRONMENTAL GUARD	T90 <5 sec. Tested as per procedure in IEC 60079-29-1 For 50% LEL, 50% response in <5s, 90% response in <10s
HUMIDITY	0%-95% RH, non-condensing
SENSOR WARRANTY	10 years for IR source, 3-year full product
POWER INPUT	18-32 VDC, 5 watts (-40°C to 75°C) (-40°F to 167°F)
CURRENT DRAW	150mA RMS average @ 24VDC
WIRING REQUIREMENTS	3-wire, 2.0 mm max (14AWG)
SIGNAL OUTPUT	4-20 mA 3-wire current source with HART protocol
PHYSICAL WEIGHT DIMENSIONS	316 stainless steel 4.5 lbs. (2.0 kg) 3.5" dia. x 8" long (89 x 203 mm)
APPROVAL RATINGS	US and Canada cFMus Class I, Div. 1, Groups A,B, C, & D Class II, Div. 1, Groups E, F, & G Class III ANSI/ISA 12.13.01 CSA C22.2 No. 152 Combustible Gas Performance International CE EMC Directive: 2004/108/EC CE ATEX Directive: 94/9/EC II 2G Ex d IIc T4 IEC China Ex/CMC/CCCF Russia Ex/ GOST R (Tamb -50°C to 75°C) (-58°F to 167°F)
INGRESS PROTECTION	IP67
HART	HART 7.0 compatible
SAFETY INTEGRITY LEVEL	SIL 2