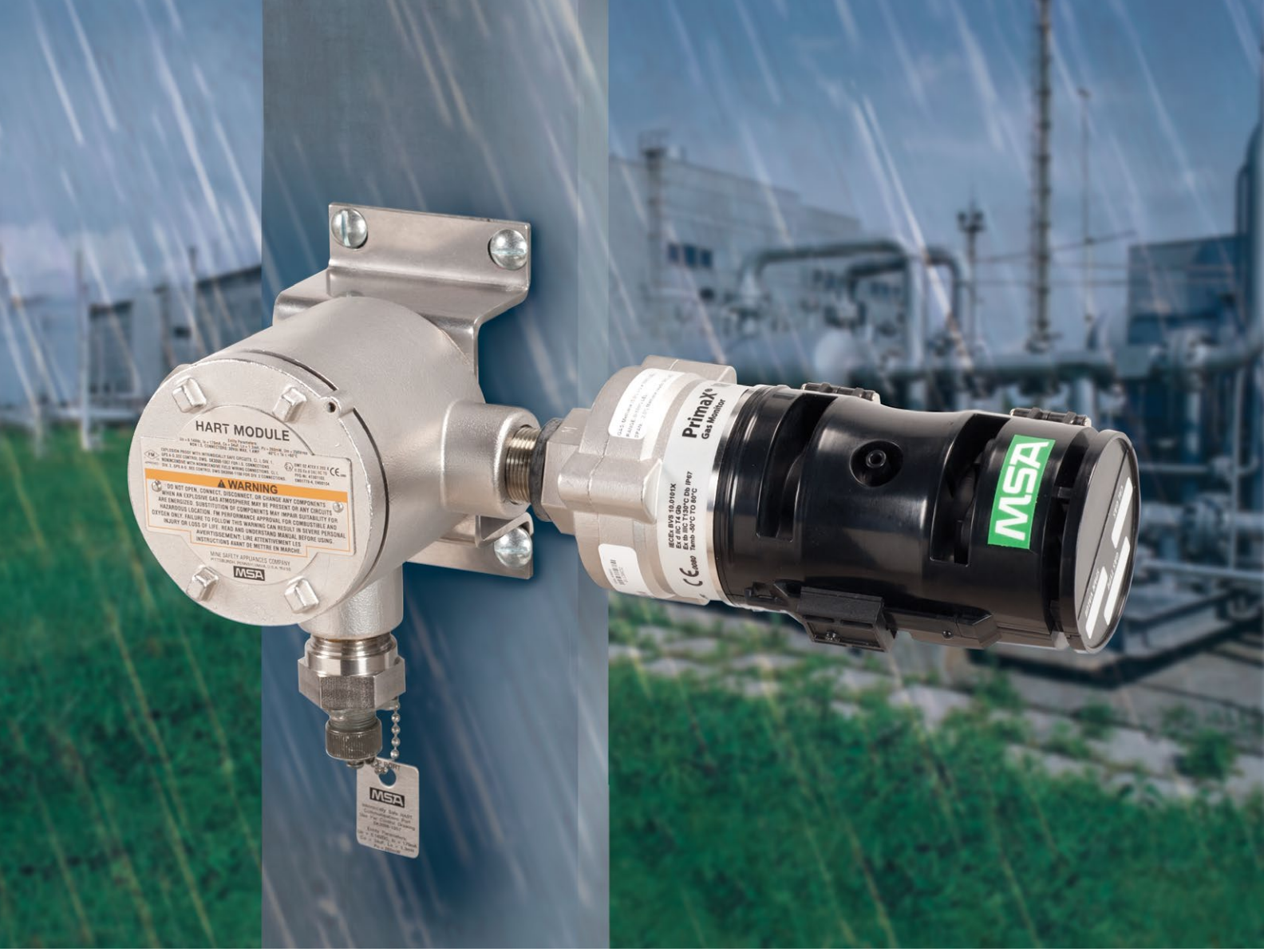
MSA
The Safety Company

PrimaX® IR Gas Transmitter

Reliable Performance in Extreme Conditions

SAFEGUARDING
PEOPLE, PLACES & THE PLANET

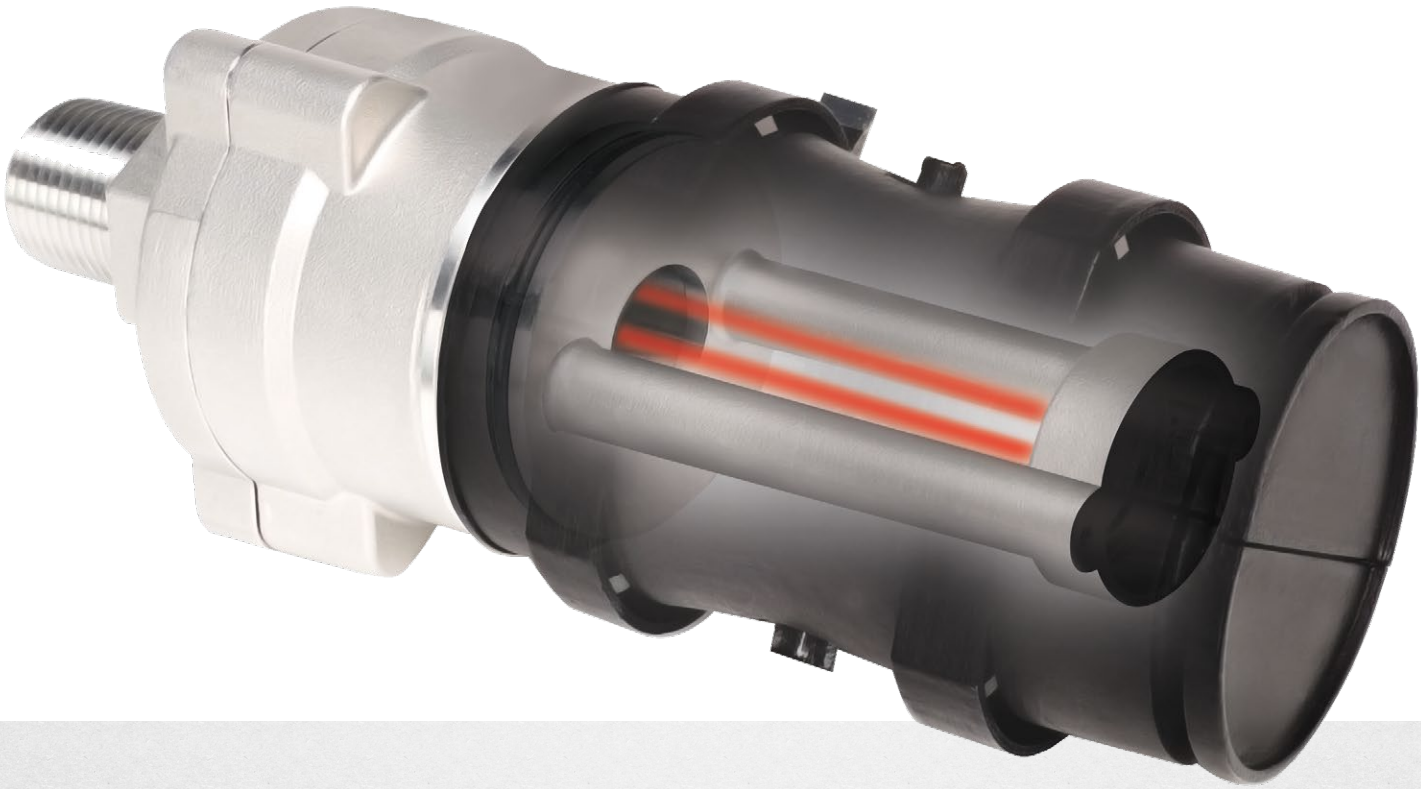


PrimaX® IR Gas Transmitter

Every feature of the SIL2 suitable PrimaX IR Gas Transmitter is designed with reliability in mind 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. A 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.

Features & Benefits

- Patented dual-source design provides redundancy and reliable, uninterrupted performance
- Patented 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-certification provides safety system integration capability
- 316 stainless steel, dual IP66 and IP67 rated, rugged housing protects unit from environmental extremes
- Factory-calibrated for fast commissioning
- Heater element enables operation to -50°C (-58°F)



Applications

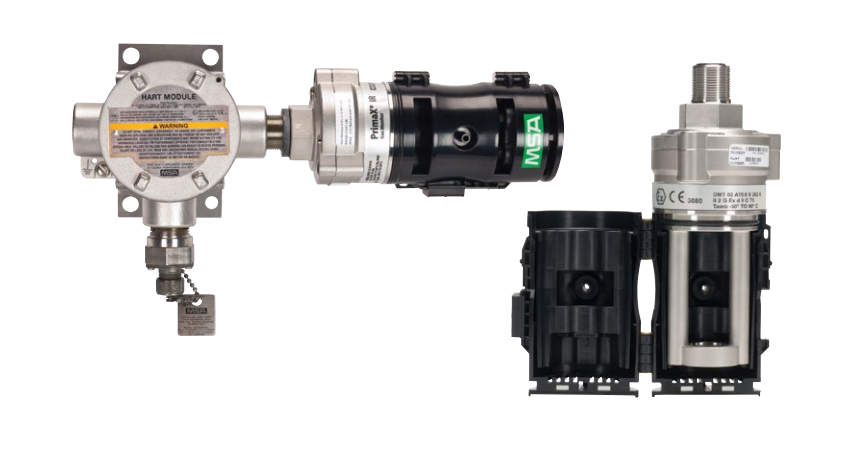
OGP including platforms, refineries, drilling rigs, and compressor stations

Chemical plants

Fuel-loading and storage facilities

Wastewater

Various industrial applications

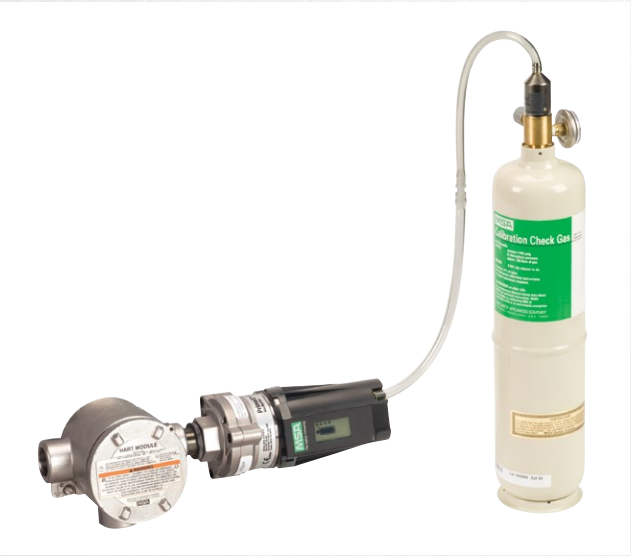


Maintenance

The PrimaX IR Gas Transmitter is designed to minimize maintenance costs without replacement of internal components. The PrimaX IR Gas Transmitter dual-source design reduces potential system faults due to obscurations caused by rain, fog, dirt, etc. This monitor provides maintenance alerts as well as other fault conditions over 4-20 mA and HART outputs.

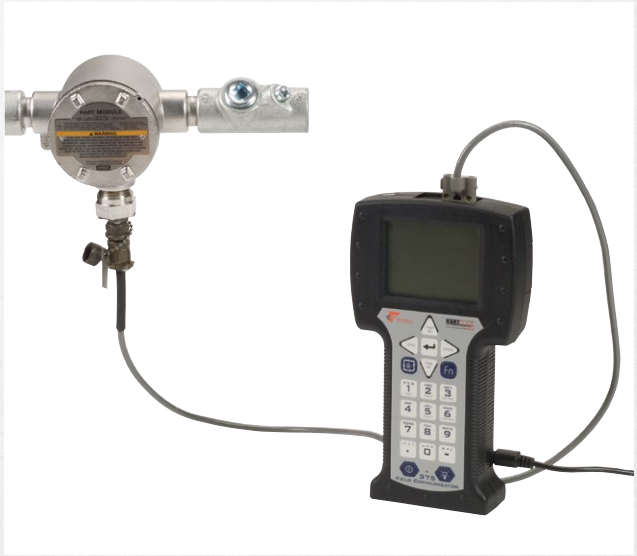
Installation

The PrimaX IR Gas Transmitter is designed for quick and easy installation. Stainless steel junction box 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.



Calibration: Cap Method

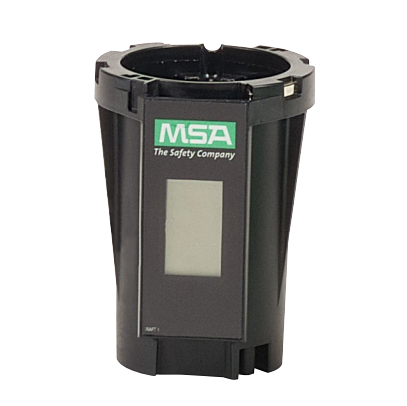
Users may choose the most suitable calibration method for their applications. A calibration cap is placed on the unit to provide one-person calibration. Calibration cap icon-driven user interface guides users through the calibration process.



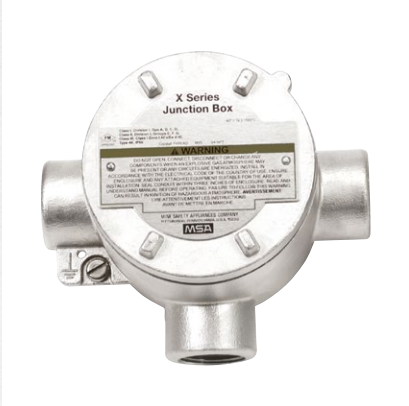
Calibration: HART Remote Method

HART *(Highway Addressable Remote Transducer)* output provides remote calibration capability. A HART junction box is offered for local calibration in classified areas; HART software is available to initiate calibration from remote locations.

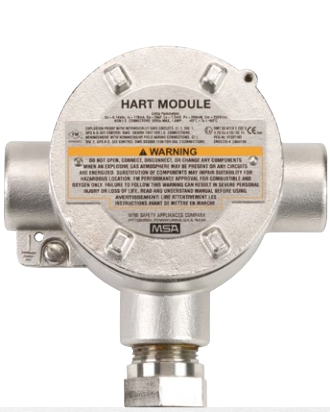
Options & Accessories



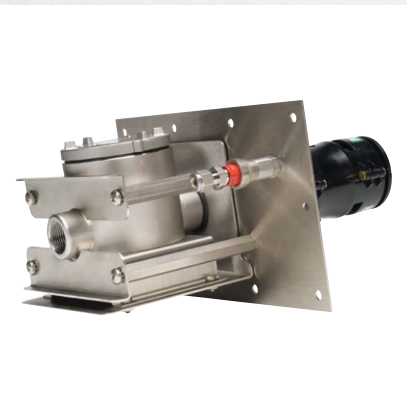
Calibration cap



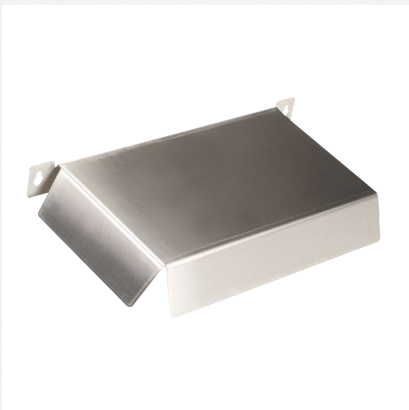
Stainless steel junction box



HART junction box

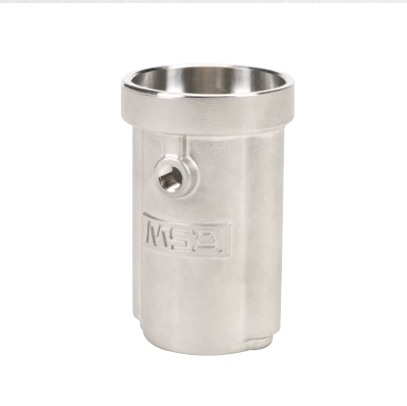


Duct-mount kit

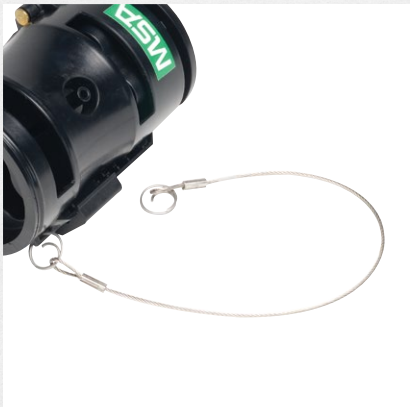


Sun shield

Insect guard



Flow cap



Environmental guard tether

HART calibration cover

Specifications

GAS TYPES AND RANGES	Hydrocarbon gases & vapors; 0-100% LEL
TEMPERATURE RANGE	-50°C to 75°C (-58°F to 167°F)
RESOLUTION	1% LEL
REPEATABILITY	±1% full-scale
ZERO DRIFT	< 1% LEL/3 months
RESPONSE TIMES	
WITHOUT ENVIRONMENTAL GUARD	T50 <5 sec, T90 <7 sec
WITH ENVIRONMENTAL GUARD	T50 < 7 sec, T90 <15 sec
HUMIDITY	15 to 95% RH, non-condensing
SENSOR WARRANTY	10 years for IR source, 3-year full product
POWER INPUT	18-32 VDC, 6 watts
RUSH CURRENT	<350 mA
CURRENT DRAW	150mA RMS average @ 24 VDC
WIRING REQUIREMENTS	3-wire, 2.5 mm max (14 AWG)
SIGNAL OUTPUT	4-20 mA ,3-wire current source with HART protocol
PHYSICAL CHARACTERISTICS	
MATERIAL	316 stainless steel
WEIGHT	8.8 lb. (4.0 kg), with mounting bracket:
DIMENSIONS	12.4 in. W x 4.3 in. L x 4.4 in. H (314.5 x 108 x 112 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
EUROPE	2014/34/EU (ATEX), UKSI 2016:1107 (UKCA) & 2014/30/EU (EMC) EN IEC 60079-0:2018, EN 60079-1:2014 EN, 60079-31:2014 EN 60079-29-1:2016, EN 50271:2018 EN 61000-6-3:2021 II 2 G Ex db IIC T4 Gb II 2 D Ex tb IIIC T130°C Db
INTERNATIONAL	China Ex/CMC/CCCF Russia Ex/ GOST R (Tamb -50°C to 75°C) (-58°F to 167°F)
INGRESS PROTECTION	Dual IP66 and IP67 rated
HART	HART 7.0 compatible
SAFETY INTEGRITY LEVEL	SIL 2

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