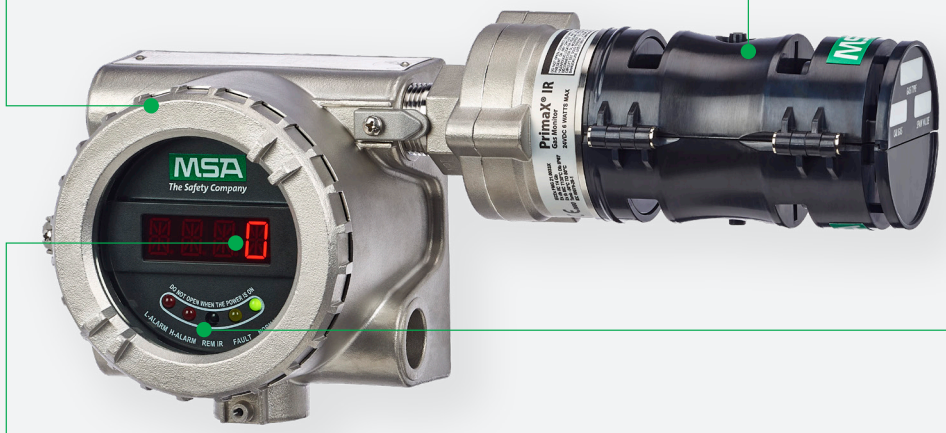
PrimaX® IR+ Gas Detector

Datasheet

Stainless Steel or Aluminum housing options with M25 cable gland entries

Stainless Steel IR sensor protected by patented environmental guard



Four digit LED display for gas readings and function codes

Status LED indicators illuminate power, fault, and alarm conditions

Patented dual source design

A redundant Infrared (IR) source provides reliability and uninterrupted monitoring should a source failure occur. In addition, optics are optimized for maximum signal, resulting in a product of extraordinary stability.

Remote sensing capability

The sensor can be remotely mounted up to 30 meters/100 feet from the display unit using Aluminum or Stainless Steel optional junction boxes.

Flexible output options

The unit is equipped with LED display, status indicators and relay outputs providing the users with flexible combustible gas detection monitoring using 4-20 mA output and HART® enabled diagnostics.

Thoroughly tested and performance approved

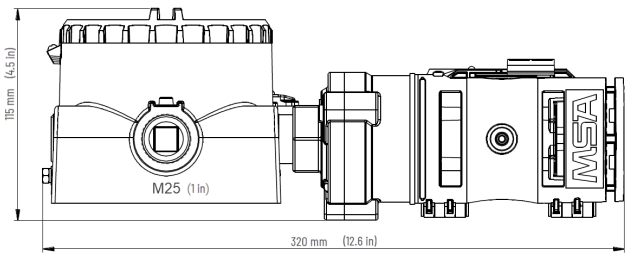
SIL 2
Safety Integrity Level

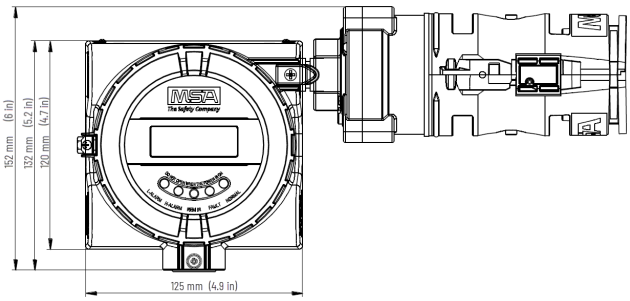
SIL2 suitable for use in critical Safety Instrumented Systems and IEC/EN 60079-29-1 performance approved for various combustible gases.

Specifications

General specifications		
Measuring Range	0 - 100% LEL	
Gas Types	Hydrocarbon gases and vapours; The PrimaX IR+ Detector is available with factory Methane and Propane calibrations, the instrument may also be calibrated to following performance approved gases: Methane, Propane, Toluene, n-Butane, n-Pentane, n-Hexane, Propylene, Ethane, Propylene Oxide, Acetone, Cyclopentane, Ethyl Acetate, IsoButane, Ethylene. Most of other flammable hydrocarbon vapours are also detectable.	
Warranty	3 years full instrument 10 years IR source	
Signal Outputs	3-Wire, 4-20 mA current source, HART 7 protocol compatible 3 relays: 2 alarm, 1 fault (2A@30 VDC)	
Output Levels (default values)	Normal for 0 - 100% LEL	4.0 - 20.0 mA
	Safety Critical Fault	0.0 mA
	*Fault	2.0 mA
	*Obscuration or dirty optics	2.5 mA
	*Power up or calibration	3.0 mA
	*Cleaning mode	3.5 mA
	Overrange	20.0 - 20.5 mA
	(*) user configurable via the HART interface	
Current Draw	175 mA RMS average @ 24 VDC 250 mA Max in-rush @ 24 VDC including sensor	
Power Input	20-30 VDC, 6 Watts max	
Wiring requirement	Connection terminals: 3-Wires, 2.5 mm2 max	
Performance specifications		
Response Time Methane/Propane	T50 < 5 sec, T90 < 7 sec (without environmental guard) T50 < 7 sec, T90 < 15 sec (with environmental guard)	
Stability	+/- 2% Full Scale/Year	
Repeatability	+/- 1% Full Scale	

Mechanical specifications	
Physical	320-W x 152-L x 115-H mm (12.6 x 6.0 x 4.5 inches) Weight with display and mounting bracket: SS: 3.8 kg (8.4 lb) & AL: 2.8 kg (6.2 lb)
Material Type	Display housing: Aluminum or 316 Stainless Steel with 3 each M25 entries (316 Stainless Steel stopping plug provided) Sensor assembly: 316 Stainless Steel
Mounting bracket (included)	316 Stainless Steel, with 2" pipe mount U-Bolts
Environmental specifications	
Temperature range	-40 to 75°C (-40 to 167°F)
Humidity	15-95% RH, non-condensing
Ingress Protection	Dual IP66 and IP67 rated
Approvals	
General	IECEx, ATEX, UKCA, CE Marking, SIL 2 suitable
Approval Ratings	**European Approvals** ATEX Directive 2014/34/EU, EMC Directive 2014/30/EU Gas II 2 G Ex db IIC T4 Gb Dust II 2 D Ex tb IIIC T130°C Db -40°C ≤ Ta ≤ +75°C EN 60079-0:2018, EN 60079-1:2014, EN 60079-31:2014, EN 60079-29-1:2016, EN 50271:2018 **IEC Approvals** Gas Ex db IIC T4 Gb Dust Ex tb IIIC T130°C Db -40°C ≤ Ta ≤ +75°C IEC 60079-0:2017, IEC 60079-1:2014, IEC 60079-31:2013, IEC 60079-29-1:2016
Safety Integrity Level	Suitable for SIL2 (HFT=0), SIL3 (HFT=1) according to IEC 61508





Stainless Steel version shown.

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