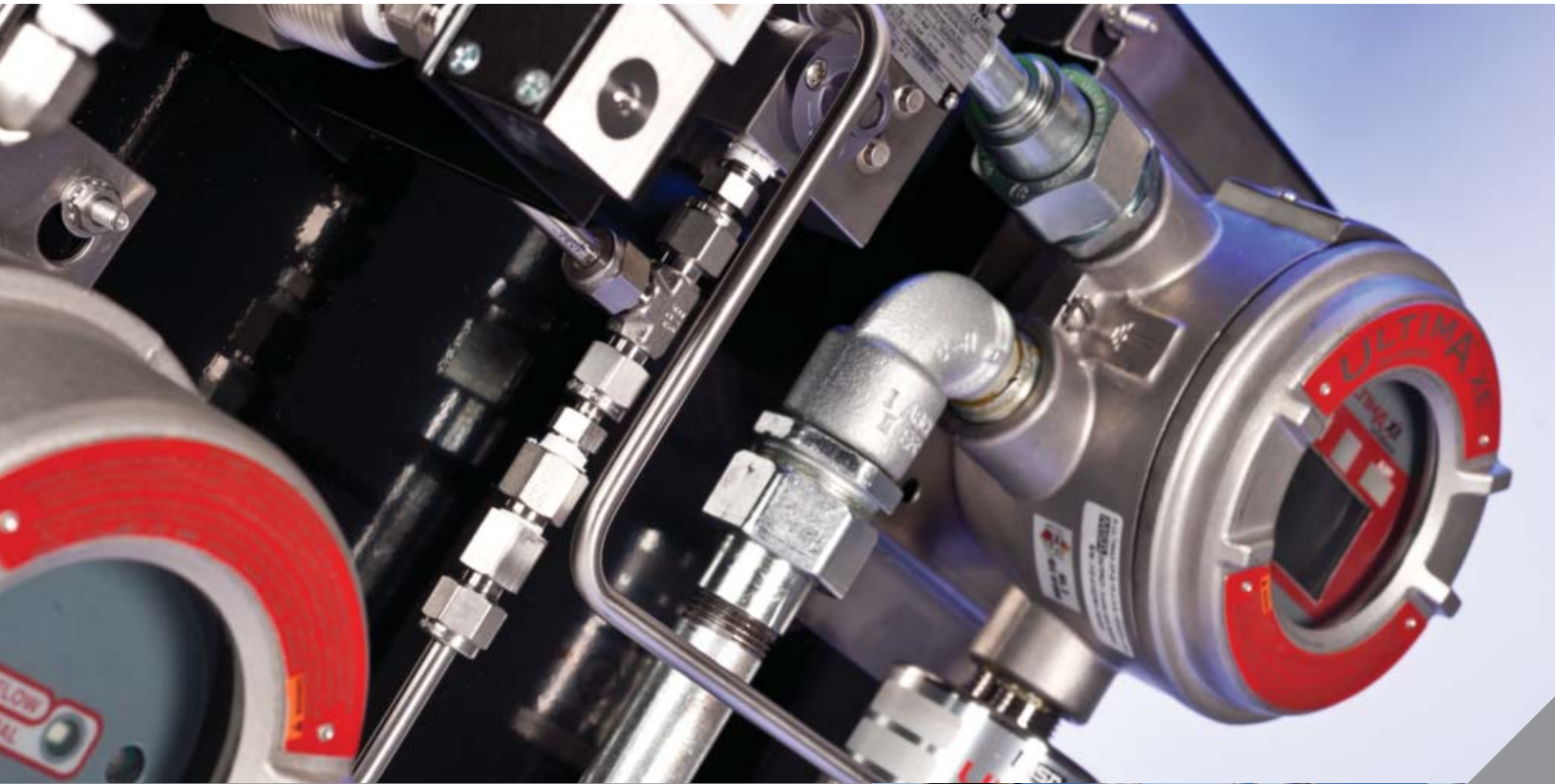


# MSA Gas Detection H<sub>2</sub>S Flow Panel System



## Application

Natural gas producers are required to measure specific target gases within their natural gas pipelines, including hydrogen sulfide (H<sub>2</sub>S) and carbon dioxide (CO<sub>2</sub>). H<sub>2</sub>S and CO<sub>2</sub> can be found in natural gas and cause pipeline corrosion. These gases must be monitored in the event that their concentrations rise above predetermined levels. A general rule among natural gas producers requires H<sub>2</sub>S concentration of less than 4 ppm and CO<sub>2</sub> concentration of less than 2%.



## Solution

The MSA flow panel can help users meet this gas detection need and is targeted for use in natural gas treatment plants, gas production wells and custody transfer locations. The MSA flow panel is capable of measuring both low-range hydrogen sulfide (0 - 10 ppm) and high-range hydrogen sulfide (0 - 500 ppm) through use of various sensor technologies.

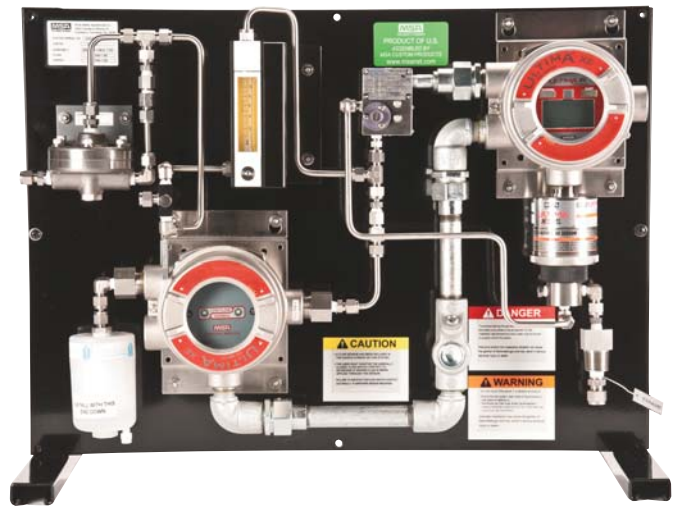
A carbon dioxide IR sensor can be added to the flow panel to measure several ranges of CO<sub>2</sub> (0 - 2% and 0 - 5%). Available options include a high-pressure regulator and all sample conditioning components, as well as an optional moisture measurement sensor.

MSA flow panels may be installed indoors or outdoors. Panels are usually mounted upon small structures that are placed in close proximity to pipelines; samples are pulled directly from pipelines and run through the flow panel system.

*Because every life has a **purpose...***

### Features & Benefits

- Sensor detects H<sub>2</sub>S within natural gas pipelines
- RFI-resistant for enhanced reliability
- Alternate outputs are available including relays, Modbus and HART
- Designed for use with MSA's electrochemical sensor
- Part-numbered panel includes sensor, dilution pump, flow regulator, and filter
- Other configurations are available as MSA Custom Products; panels include all necessary flow components including meters, flow switches and filters; optional incoming pressure regulator



H <sub>2</sub> S MONITORING IN NATURAL GAS	
Measuring Principle	Electrochemical Cell
POWER	10.5 - 32 VDC
RESPONSE TIME	T50 <30 sec
RANGES	0-10 ppm 0-50 ppm 0-100 ppm 0-500 ppm
REPEATABILITY	+/- 1% full scale
OPERATING TEMPERATURE	-4°F to 140°F (-20°C to 60°C)
TYPICAL SENSOR LIFE	2 years
OUTPUTS	Analog HART (optional) Relays (optional) RS-485 (optional)
DISPLAY	LCD
WARRANTY	1 year
CALIBRATION	90 days
REQUIREMENTS	15 psi maximum inlet pressure

OPTIONS	
SAMPLE CONDITIONING	2-stage regulation Coalescing filter Flow metering
ENCLOSURE	Sun shield
COMMUNICATION	Wireless
ADDITIONAL MEASUREMENT	Carbon dioxide optional moisture measurement sensor
HIGH PRESSURE REGULATION	3000 psi maximum
POWER	Solar with battery backup
SAMPLE PROBE	Stainless steel, available in several lengths



Optional probes

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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