

Features

- Hydrogen, CH4, VOC and other flammable gas detection
- Detection range 0%-100% LEL
- Calibration free
- Hydrogen sensor up to 15 years life span
- 3 configurable output relays, allows customize and adjust both the sensor type and the threshold values
- RS485 connection available
- Flexible mounting options
- UL 2075 compliant



Description

Potter PGS-3 sensor is an advanced, self-calibrating standalone device specifically designed to monitor flammable gas in stationary systems. With a user-settable Slave ID offering 256 combinations and factory calibration, this sensor provides enhanced convenience and reliability. With a recommendation of one sensor per rack for comprehensive monitoring, the PGS-3 sensor is an indispensable tool for critical facilities. The sensor can be configured to detect different gases based on specific customer needs.

The PGS-3 sensor operates seamlessly on a direct power supply ranging from 12 to 24VDC. This sensor enhances its versatility with three normally open relays. These relay outputs contribute to the system's functionality by providing additional control capabilities. This architecture not only ensures reliable power supply and data connectivity but also equips the system with the ability to actuate external devices or processes through the integrated relay outputs.

Technical Specifications

Relay Outputs	3, Normally Open, Configurable
Relay Switching Current	up to 0.5 A
Input Voltage	12-24 VDC
Power Usage	672 mW
Protocol	Modbus RTU over RS485
Sensor Enclosure	Steel Enclosure, Industrial Grade
Mounting Option	Wall Mountable
Dimensions	71mm (2.79") x 70.5mm (2.77") x 30mm (1.18")
Weight	193g (.43 lbs)
Environment Specification for Hydrogen (H ₂)	
Operating Temperature Range	-40°C to 75°C (-40°F to 167°F)
Operating and Storage Humidity	0 to 93%RH (non-condensing at 90°F)
Environment Specification for Methane (CH ₄)	
Operating Temperature Range	-40°C to 70°C (-40°F to 158°F)
Operating and Storage Humidity	< 90% RH (non-condensation)

Sensor Metrics

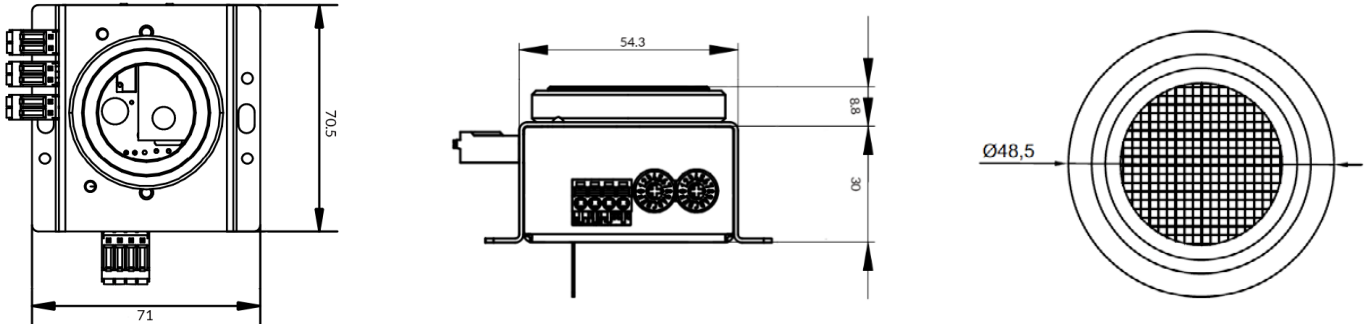
Internal Temperature Measurement Range	-40°C to 125°C
Internal Temperature Accuracy	±0.48°C (0.86 °F)
Internal Relative Humidity Measurement Range	0 to 100% RH
Internal Relative Humidity Accuracy	2% RH
VOC Measurement Output Range	0-500 VOC Index
VOC Repeatability	<±5 VOC index points or % mass volume (m.v.)
Detection Range	0-100% LEL

Hydrogen (H ₂) Accuracy	±5% LEL
Response Time (T ₉₀)	<20 Seconds
Life Span	Up to 15 years
Detection Method	Spectrometer

Methane (CH ₄) Accuracy	±5% LEL
Response Time (T ₉₀)	<15 Seconds
Life Span	Up to 5 years
Detection Method	Catalytic

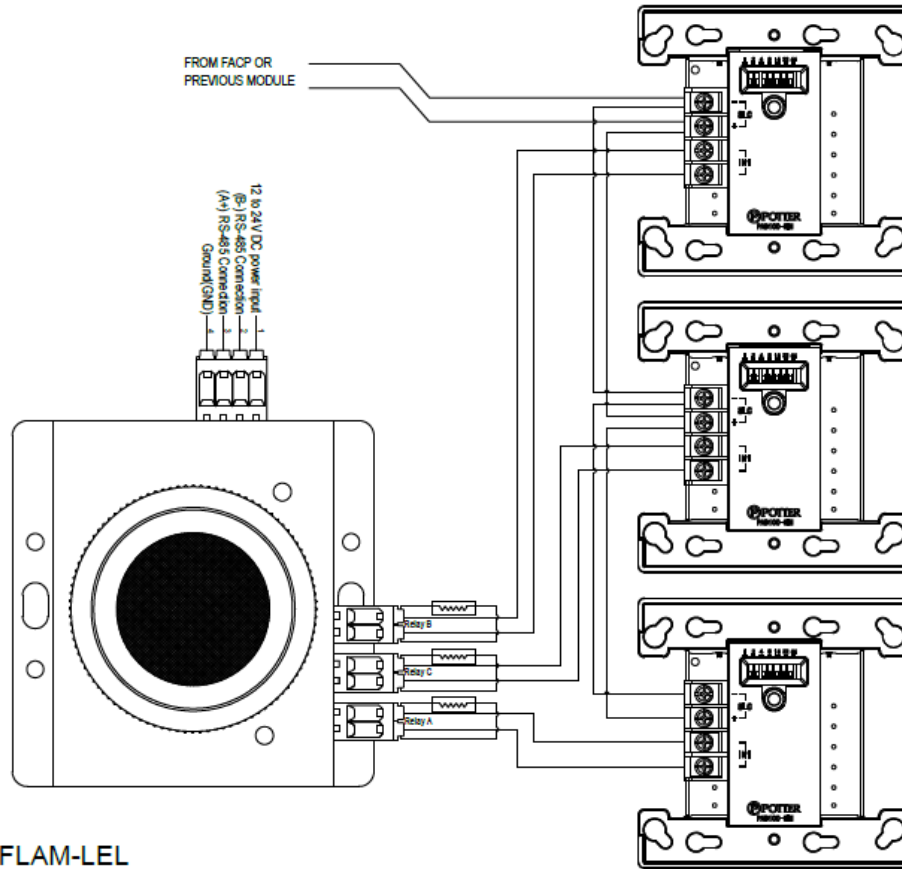
Butane (C ₄ H ₁₀) Accuracy	±5% LEL
Ethane (C ₂ H ₆) Accuracy	±5% LEL
Hydrogen (H ₂) Accuracy	±5% LEL
Isobutane (CH ₃) Accuracy	±5% LEL
Methane (CH ₄) Accuracy	±5% LEL
Octane (C ₈ H ₁₈) Accuracy	±12% LEL
Pentane (C ₅ H ₁₂) Accuracy	±5% LEL
Propane (C ₃ H ₈) Accuracy	±6% LEL
Propylene (C ₃ H ₆) Accuracy	±5% LEL
Toluene (C ₇ H ₈) Accuracy	±12% LEL
Xylene (C ₈ H ₁₀) Accuracy	±12% LEL

Dimensions



Wiring Diagram

Below Wiring Diagram shows how to connect the three output relays to a Potter Addressable fire panel through input module.



PGS-FLAM-LEL

Ordering Information

Model	Description	Stock No.
PGS-FLAM-LEL	Hydrogen and VOC Flammable Gas Sensor	1431700
PGS-BUMP	Bump Test Adaptor	1431701