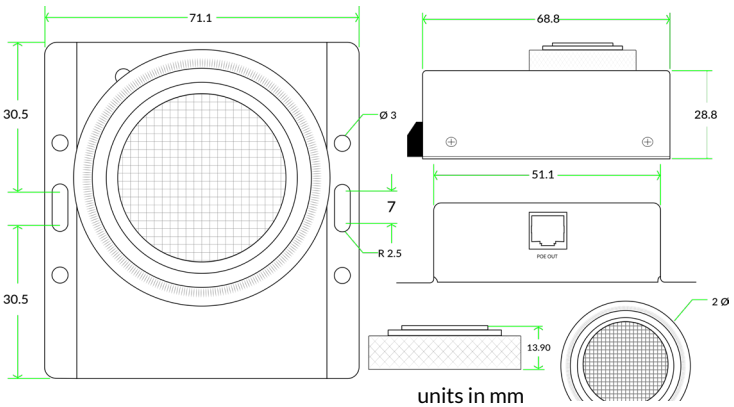
H2, VOC, Temperature and Humidity Sensor (GAS-H2-VOC)



PATENT PENDING

Self calibrating standalone sensor designed for monitoring offgas and H2 in stationary battery systems. Factory calibrated. Self calibrating, no in field calibration required.

Certification and Calibration:

Certification	UR61010 - UL Recognized
VOC	Factory calibrated
H2	Factory calibrated. Self calibrating over life span
Temperature	Factory calibrated (ISO 17025 certificate optionally available)
Humidity	Factory calibrated (as per 17025 standards)

Sensor Metrics:

VOC measurement output range	0-500 VOC Index
VOC repeatability	<±5 VOC index points or % mass volume (m.v.)
H2 detection range	0-100% LEL
H2 accuracy	±5% LEL
Internal temperature measurement range	-40°C to 125°C (-40°F to 257°F)
Internal temperature accuracy	±0.48°C (0.86 °F)
Internal relative humidity measurement range	0 to 100% RH
Internal relative humidity accuracy	2% RH
Response time (T90)	<30 seconds

Technical Specifications:

Powered by and communicates with	Base Unit (BASE-XX) (required) Requires the optional BASE-FW-SSLS firmware add on for the Base Unit
Connectivity	RJ45 cable transmitting data & power from Base Unit to Sensor
Cable specification	RJ45 CAT 6/7 recommended Up to 100m (330ft) subject to cable quality & interference
Sensor power usage	492mW
Detection method	Spectrometer
Life span	up to 10 years

Environmental Specifications:

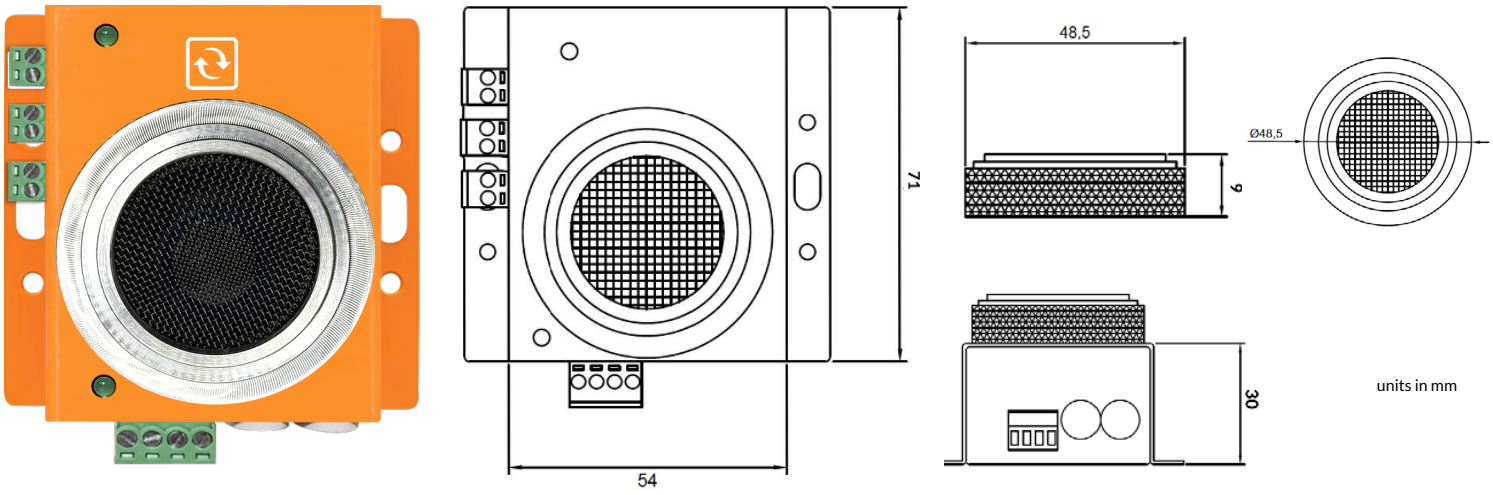
Operating temperature range	-30°C to +60°C (-22°F to 140°F)
Humidity (operating and storage)	< 90% rH (non-condensating)

Physical Specifications:

Sensor enclosure	Steel enclosure, industrial grade
Mounting option	0U rack, DIN rail, magnetic, or wall mountable sensor
Dimensions	71.1mm (2.8”) x 68.8mm (2.71”) x 28.8 mm (1.13”)
Weight	193g (0.43lb)

The visual appearance and dimensions presented on this datasheet are for illustrative purposes only and are subject to change without prior notice. Actual product appearance and dimensions may vary due to continuous product improvement and manufacturing

Flammable Gas Sensor (R-GAS-FLAMMABLE)



PATENT PENDING

Calibration free flammable RS485 version gas sensor that is specifically designed to detect the presence and measure the concentration of specific gases in nonhazardous critical facilities. User settable address (RS485) out of 256 possibilities

Certification and Calibration:

ETL 2075 Listing (pending)

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.)
Butane (C4H10) accuracy	±5 %LEL
Ethane (C2H6) accuracy	±5 %LEL
Hydrogen (H2) accuracy	±5% LEL
Isobutane (CH3) accuracy	±5 %LEL
Methane (CH4) accuracy	±3 %LEL
Octane (C8H18) accuracy	±12 %LEL
Pentane (C5H12) accuracy	±5 %LEL
Propane (C3H8) accuracy	±6 %LEL
Propylene (C3H6) accuracy	±5 %LEL
Toluene (C7H8) accuracy	±12 %LEL
Xylene (C8H10) accuracy	±12 %LEL
Response time (T90)	<30s
Detection Range	0-100 %LEL
Detection method	Spectrometer

Technical Specifications:

Relay outputs	3 (Normally Open)
Relay switching current	up to 0.5A
Input Voltage	12-24V DC
Power usage	672mW
Protocol	Modbus RTU over RS485
	Integration with Base Unit over RJ45 (serial data)
Life span	up to 15 years

Environmental Specifications:

Operating temperature range	-30°C to +75°C (-22°F to 167°F)
Humidity (operating and storage)	0 to 100% RH (non-condensating)

Physical Specifications:

Sensor enclosure	Steel enclosure, industrial grade
Mounting option	0U rack, DIN rail, magnetic, or wall mountable sensor
Dimensions	71mm (2.79”) x 54mm (2.13”) x 30 mm (1.18”)
Weight	193g (0.43lbs)