

CGAS-D-EH2 Transmitter

Digital Transmitter with Electrochemical Hydrogen (H₂) Sensor

Dimensions: Size	5.0 x 5.0 x 3.0 in (127 x 127 x 76 mm) (without optional splash guard)
Weight	14 oz / 400 g
Construction:	Black ABS / Polycarbonate blend, water/dust tight, corrosion resistant
Sensor: Type	Electrochemical
Life Span	Approximately 2 years (application dependent)
Gases Detected:	Hydrogen (H ₂)
Sensor Range:	0 – 2000 ppm
System Power:	4-wire: 16-30 VDC, 3W, Class 2 4-wire: 12-27 VAC, 50-60 Hz, 3 VA, Class 2
Operating Temperature:	0°C to +40°C (32°F to 104°F), -40°C (-40°F) with low temperature Option -LT
Operating Humidity:	15 to 90% non-condensing
Indicators:	LCD digital display, 2 line x 16 character, backlit
Communication	Field selectable BACnet® MS/TP (version 1 rev 14) RS-485, or Modbus® RTU (version 1.1b3) RS-485
Relay:	Optional SPDT relay rated 30 volts, 2 amp max (Option -RLY)
Audible:	none
Minimum Detection:	2 ppm (with regular calibration maintenance of sensor)
Accuracy:	15 ± 10 nA/ppm
Repeatability:	2% of signal
Baseline Offset (clean air)	0 to -30 ppm equivalent
Zero Shift (+20°C to +40°C)	-20 ppm equivalent
Sensitivity Drift:	< 2% signal drift / month
Response Time (T₉₀):	<90 seconds
Resolution:	Display resolution 1ppm Sensor resolution 2 ppm (electronics dependent)
Warm Up Time:	4 minutes after power up (to full operation)
Cross Sensitivity:	CO: 300 ppm = <60 ppm, H ₂ S: 15 ppm = <3 ppm, NO: 35 ppm = ~10 ppm, HCN: 10 ppm = ~3 ppm, C ₂ H ₄ : 100 ppm = ~80 ppm
Safety:	Automatic resetting thermal overload fuse (reset capabilities to 500 times)
Wiring:	VDC or VAC (ground referenced) 4-conductor shielded, 16 AWG stranded within conduit, network wiring (daisy-chain)
Sensor Mounting:	Typically on or near the ceiling, H ₂ is lighter than air (application dependent)
Monitoring Area:	3000 ft ² / 279 m ²
Certifications (tested to):	CSA: C22.2 NO.205-12 UL: UL508 (Edition 18): 2018 CE: EMC Directive 2014/30/EU, EN50270:2015, Type 1, EN61010 Listed by BTL RoHS compliant circuit boards. This device complies with part 15 of the FCC Rules
Note:	Avoid exposure to high concentrations of solvent vapours, both during storage, fitting into instruments, and operation. Never install gas detectors in the direct path of moving air.

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Specifications are valid at 20°C, 50% RH and 1013 mBar and outline the performance characteristics of the sensor within the first three months. Output signal can drift below the lower limit over time.