GSx440 Hydrogen Sulfide (H_2S) Monitoring Sensors

Applications
- Wastewater
- Collection Systems
- Industrial



Take control of problem odors and corrosion with H_2S monitoring

Eliminating hydrogen sulfide odors and mitigating corrosion is a costly challenge for wastewater treatment plants. The durably designed GS1440 and GS2440EX hydrogen sulfide sensor from Hach® are the only solutions that can give wastewater treatment plant managers full visibility into where and when the problem originates. These sensors help you to tackle this issue at the source—reducing unnecessary spending on chemical dosing.

Reliable, real-time H_2S data and trends can easily be accessed via wireless or hard-wired connections, so that you will gain actionable insights into H_2S levels, protect valuable assets from corrosion, and avoid public nuisance from odor.

Reduce chemical costs with smarter dosing and actionable insights

Hydrogen sulfide sensors from Hach provide precise, liquid-phase H_2S measurements in real time, offering visibility into odor hotspots and potential corrosion zones. When coupled with the simplicity of the SC4500 controller, Hach's H_2S sensors make it easier than ever to make data-driven decisions and optimize chemical usage -- saving your facility time, effort, and operational costs.

Avoid complaints by stopping the problem before it starts

The turbulence that causes the H_2S to go into the air can be a distraction from where the problem actually begins -- helping you to quickly resolve odor concerns protects residents' well-being and builds trust with the local community.

Durably designed to withstand humid and corrosive environments

Unlike gas-only sensors that fail when exposed to moisture, the GS1440 and GS2400EX are engineered for reliability in harsh conditions in water or air. Their durable construction ensures consistent and accurate performance even in the most demanding applications, so you can focus on your process without interruptions or uncertainties.

Continuous H_2S monitoring made simple

This instrument's corrosion-resistant design can be inserted in pipes or installed in a flow cell, making ultra-tight spaces easy for continuous H_2S monitoring. Cleaning is as simple as wiping the sensor head before each calibration, and calibration only takes five minutes.

Technical Data*

Sensor

Model	GS1440	GS2440EX
EExp / Hazardous Location	N/A	ATEX and UKCA: II 1G Ex ia IIC T4 Ga IECEx: Ex ia IIC T4 Ga North America: Class I Zone 0 AEx ia IIC T4 Ga Class I Division 1 Groups A-D T4 Ex ia IIC T4 Ga (-20 °C ≤ Ta ≤ +60 °C)
Certifications	CE, UKCA, FCC, ISED, RCM, KC	CE, UKCA, IECEx, FCC, ISED, RCM, cETLus
Parameter	Hydrogen Sulfide (H_2S)	
Measuring range	Wastewater: 0 - 5 mg/L Air: 0 - 1000 ppm	
Accuracy	± 5% full scale (discrete measurement accuracy, 90-second purge of 1000 ± 20 ppm H_2S standard following single-point calibration)	
Response time	< 30 seconds	
Calibration	1000 ppm ± 2% gas standard	
Calibration interval	1 - 6 months, depending on use	
Material	Stainless Steel (316 L)	
Cleaning	Mechanical cleaning (wipe) of sensor face for in-water installations	
Mounting	Free hanging, in pipe or flow cell	
Storage conditions	0 - 60 °C (32 - 140 °F), relative humidity 0 - 100%	
Operating temperature range	0 - 40 °C (32 - 104 °F)	
Power Options	4-20 mA loop power DC power (12-28 V) Battery powered with field transmitter H_2S EX	
Dimensions (D x L)	48.3 mm x 240 mm	
Weight	1.36 kg (3.00 lb)	

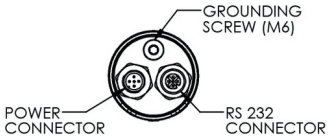
CAx440EX Field Transmitter

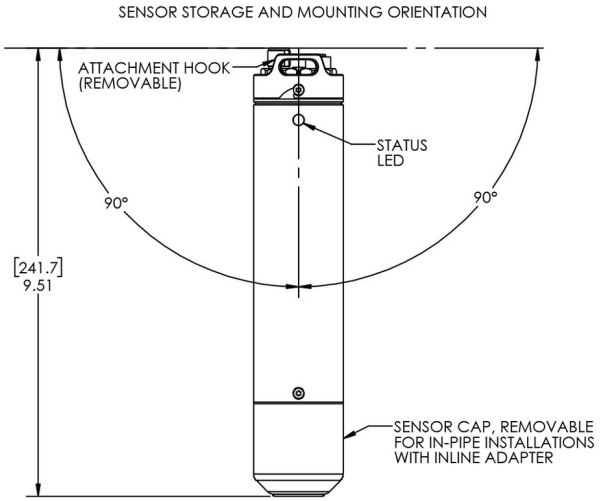
Power Options	Batteries or DC power (9-28 VDC, min. 1 A), 4-20 mA loop power (24 VDC from a device, e.g. SCADA/PLC)
Battery life	3 months (estimated)
Data Download/ Output	Cloud data 4-20 mA (24 V) for SCADA/PLC
Parameter	Hydrogen Sulfide (mg/L or ppm), Temperature
Interface	Status LED; On-off switch
Material	Polypropylene
Certifications	CE, UKCA
EExp / Hazardous Location	ATEX/UKEX II 2(1) G Ex ib [ia IIC Ga] IIC T4 Gb ATEX/UKEX II (1) G [Ex ia Ga] IIC (with external connections)
Dimensions (H x W x D)	179 mm x 215 mm x 107 mm
Weight	0.99 kg (2.18 lb)

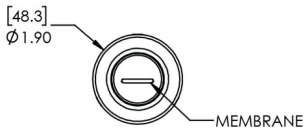
**Subject to change without notice.*

Dimensions

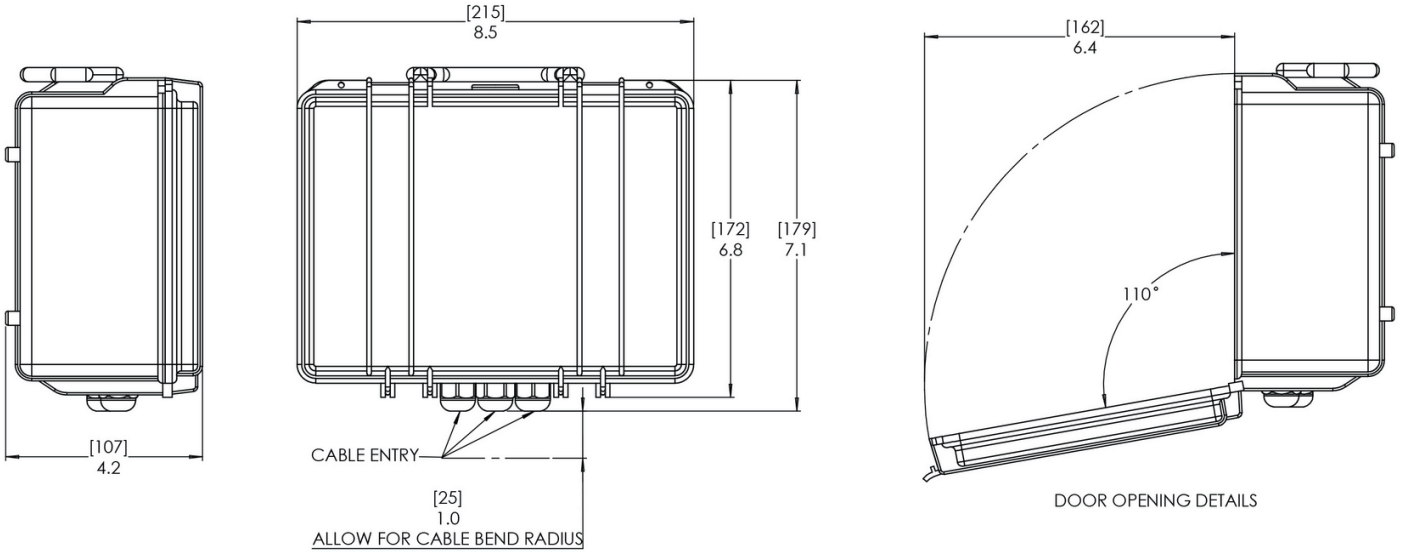
GS1440/GS2440EX Hydrogen Sulfide Sensor







CAx440EX Field Transmitter



Order Information

Sensors

LXV449.99.10000 GS1440 Sensor H_2S
LXV449.99.20000 GS2440EX Sensor H_2S EX

Portable Transmitters and Power Sources

LXV449.98.01000 CAx440EX Field Transmitter H_2S EX, Wireless 3G (EU & UK)
LXV449.98.01010 CAx440EX Field Transmitter H_2S EX, Wireless 4G (EU & UK)

Consumables and Spare Parts

LXZ449.99.00003 Batteries for CA440EX Field Transmitter H_2S EX, pk/8
LXZ449.99.00012 Installation spare parts kit, GS1440/GS2440EX

Accessories

LXV449.99.02000 CDx440sc Gateway
LXZ449.99.00001 Tee, 1¼" BSPT
LXZ449.99.00022 Tee, 1¼" NPT
LXZ449.99.00002 Suspension chain and carabiners, 3 m (10 ft)
LXZ449.99.00004 Adapter for inline mounting, 1¼" BSPT
LXZ449.99.00015 Adapter for inline mounting, 1¼" NPT
LXZ449.99.00005 Adapter for inline mounting with tee, 1¼" BSPT
LXZ449.99.00019 Adapter for inline mounting with tee, 1¼" NPT
LXZ449.99.00006 Cable guard extension, 1.4 m (4.6 ft)
LXZ449.99.00017 Cable guard, with chain
LXZ449.99.00007 Crossbeam
LXZ449.99.00008 Crossbeam clamps
LXZ449.99.00009 CAx440EX Field Transmitter H_2S EX External Antenna
LXZ449.99.00010 Flush-front sensor cap for submerged sensors
LXZ449.99.00011 Air flow cell, GS1440/GS2440EX
LXZ449.99.00013 4-20 mA Barrier with power supply, GS2440EX
LXZ449.99.00014 CAx440EX Field Transmitter H_2S EX DIN rail and wall bracket (EU & UK)

Cellular Data Subscriptions

LXZ449.99.D0001 CAx440EX Field Transmitter Data License, 1 year
LXZ449.99.D0002 CAx440EX Field Transmitter Data License, 2 years

Sensor Cables

101335 Cable pull-through tool for cable guard
100934-05 RS232 cable, 5 m (16.4 ft)
100934-10 RS232 cable, 10 m (32.8 ft)
100934-30 RS232 cable, 30 m (98.4 ft)
100935-05 Power cable, 5 m (16.4 ft)
100935-10 Power cable, 10 m (32.8 ft)
100935-30 Power cable, 30 m (98.4 ft)
LXZ449.99.02G05 Cable Set, RS232 and Power, 5 m (16.4 ft), gas measurement
LXZ449.99.02G10 Cable Set, RS232 and Power, 10 m (32.8 ft), gas measurement
LXZ449.99.02G30 Cable Set, RS232 and Power, 30 m (98.4 ft), gas measurement
LXZ449.99.02L05 Cable Set, RS232, Power and cable guard, 5 m (16.4 ft), liquid measurement
LXZ449.99.02L10 Cable Set, RS232, Power and cable guard, 10 m (32.8 ft), liquid measurement
LXZ449.99.02L30 Cable Set, RS232, Power and cable guard, 30 m (98.4 ft), liquid measurement