Stand-alone data logger and communicating H2S sensor

LOGAZPROV4

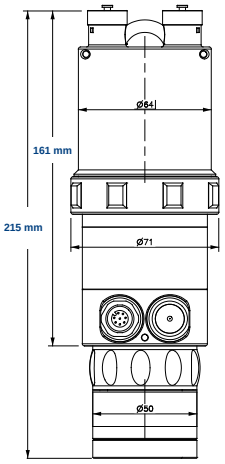
This sensor integrates the H2S gas sensor, the logger and process outputs in 4-20mA and Modbus. The H2S concentration is measured by an electrochemical sensor built into a measuring head. It is easily interchangeable on site and comes with its own calibration system.

The logger includes a radio function allowing configuration at a distance of up to 100 m in free field, as well as a datalogger function allowing the recording of measurement logs that can be retrieved by radio.

- **Measuring range 0-2000 ppm**
- **Wireless configuration via RFID**
- **Outputs: 4-20mA loop and/or Modbus on RS485**
- **Memory: 500,000 measures**
- **IP68 logger** (10 meters 30 days)

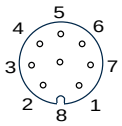
Features	**LOGAZPROV4-2000-H2S-8X (868 MHz) - LOGAZPROV4-2000-H2S-9X (915 MHz)**
Net weight	365 g
Power supply external	External: 7 V - 30 V DC; max. 1 Watt or 150 mA (5 V) to 40 mA (30 V) with ground Internal: 3.6 V - 34 Ah lithium battery (A0G00030)
Process outputs External power supply required (5 V - 30 V DC)	4-20 mA current loop (the sensor cannot be powered by the loop: 3 strand wiring). Modbus RS485: • ASCII or RTU mode • Speed (Baud) 600, 1200, ... 19200, 38400, 57600 (default 9600 baud) • 8 data bits, 1 stop bit, no parity by default • Configurable slave address (default address=1) • Reading concentration on extended modbus register table (@184 cf: K0K00011, available in the logger programming function on the Avelour software) Word (16 bits) coded in “little endian”: Least significant bit first (lsb first) Short = 1 word = 16 bits / Long = 2 words = 32 bits 32 bits inverted = word 2 before word 1
Measure period	Minimum 10 seconds
Radio	Internal antenna - 100 m free-field range - WIJI® protocol
Radio frequencies	868 MHz (Europe - China) / 915 MHz (United States, Canada, Australia, etc.)
Data logger	500,000 measures
Internal battery	3.6 V - 34 Ah (A0G00030) • Allows configuration by radio and restores the correct time in the event of a power cut (for datalogger function) • Battery operation does not allow use of process outputs
Temperature range	-40°C - 85°C
Housing	ABS 20%FV
Logger ingress protection rating (without gaz sensor)	IP68 (10 meters 30 days)
Programming	Wiji or Wiji-key programming kit (P/N M0C0001) including AVELOUR software

Certifications	
ATEX certification zone 2	II 3G Ex ic ec IIB T4 Gc Ambient temp: -20 °C to 60 °C
CE/FCC/IC certified -	SE6A002-A0102 / IC: 10983A-A002-A0102

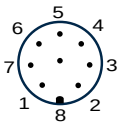


Sensor features	
Gas sensor characteristics	H2S 0-2000 ppm
Typical measurement range	0 - 2000 ppm
Maximum overexposure	10,000 ppm
Sensor accuracy	± 0.15% full scale
Resolution	1 ppm
Temperature range	-30 °C to +50 °C
Relative humidity range	15 to 90% RH without condensation
Pressure range	80 to 120 kPa
Sensor ingress protection rating	IP66
Dimensions	Ø54 x 58 mm
Weight	108 g
Calibration	Built-in to cartridge

Wiring



Male



Female

Cable color	Blanc	Marron	Vert	Jaune	Gris	Rose	Bleu	Rouge
8-pin connector: No.	1	2	3	4	5	6	7	8
Name	Vin	GND	Input OR Output	Input OR Output	Output	Input	Input	Input
Features	(5 V - 30 V)	Ground	RS485-H	RS485-L	Current	Open drain 1	Open drain 2	Digital 1
Type	Power supply input		Modbus	Modbus	4-20 mA	Open drain (1A/30V)	Open drain (1A/30V)	Digital

* Maximum 1.8 W on V_{out} if the connected sensor is powered by the internal battery (voltage adjustable via software).