



Gas sensor GSIM 1090 Ex

for detection of CO₂



Features

- The gas detector measures the selected gas concentration
- The gas detector is part of the digital KIMESSA CANline BUS-Network which is designed for up to 128 gas detectors and alarming units
- linearized and temperature-compensated digital CANline-BUS-output, 4-20mA or Modbus RTU with optional relays
- 16...30 VDC supply voltage (2-wire, 3-wire or 4-wire cable for CANline BUS-Network)
- digital MODBUS-RTU (RS 485) output signal
- various gas sensor technologies available (electrochemical, Infrared, pellistor, semiconductor)
- factory calibration with calibration certificate to the specified measuring range
- Calibration/ programming are easily carried out with the use of a hand held HAL magnetic sensor.
- water- and dust-proof IP 65 enclosure
- clearly arranged OLED-Display with concentration- and status information
- optional 3 potential free relay outputs (to control third party devices)
- optional relay contacts: various relay functions (manual/ auto RESET, Energized/ De-Energized)
- optional relay contacts: free programmable time delays and alarm levels
- optional 230 VAC supply for standalone operation
- ATEX-Class: II 2G Ex d IIC T4
- Swiss-Made

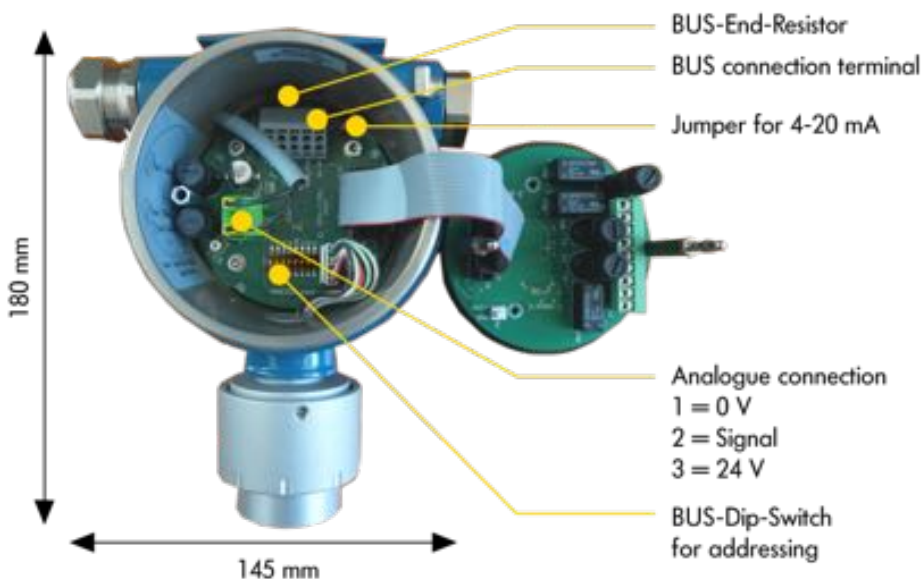
Gas sensor GSIM 1090 Ex

Gas:	Carbon Dioxide
Gas formula:	CO ₂
Alarm thresholds:	2 (pre-/ main-alarm) optional
Warranty:	12 month warranty
Position:	30 cm from floor

Sensor specifications

Measurement principle:	Infrared
Measuring range:	0...5000 ppm/0...1 Vol. %/0...5
Standard calibration:	0...5 Vol. %
Response time t_{90} :	< 90 sec
Operating temperature:	-30 °C ... +50 °C
Start up after reconditioning:	approx. 1 hour
Pressure range:	atmospheric \pm 10%
Air humidity:	15...90 % R.H. non-condensing
Position sensitivity:	none
Long term output drift:	< 2% signal loss/month
Life span at 20 °C:	6-8 years, depending on the application

Electronic and Dimensions



Housing

Housing protection:	IP 65
Material:	Aluminum, RAL 5009 (stainless steel as an option)
Weight:	1200 g

Specifications electronic

Wiring analogue:	3x 0,75 mm ² , shielded
Wiring digital:	4x 1,0 mm ² , shielded
Supply:	16.5...30 VDC
Power consumption:	max. 200 mA
Output signal analogue:	4...20 mA
Output signal digital:	KIMESSA CANBUS / Modbus RTU
Switching output:	3 potential free (2A) (optional)

Specifications construction

Cable gland:	1x M25 (digital 2x M25)
Cable entry:	left/right
Tests:	CE / II 2G Ex d ia IIC T4 Gb / BVS 15 ATEX E 065 X
Display:	OLED-Display
Position:	depending on display
RESET-Connector:	no

Inspection (Maintenance)

The sensor and the electronic require an inspection. Routine calibration is recommended once or twice a year.