IP65 | 4-20 mA 0-10 V | RS485 Modbus

Carbon Dioxide Detector-Transmitter
AFG2608-CO2

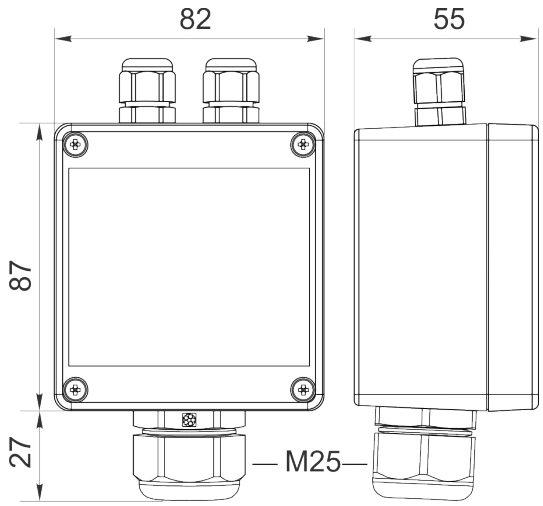
Features

- Wall-mount or duct-mount version
- Industrial IP65 housing
- Two analog outputs settable to 4-20 mA or 0-10 V
- RS485 Modbus RTU digital interface
- Two relays for alarm / ventilation control
- Attached or remote sensor

Specifications

Calibration	Carbon dioxide CO_2
Sensor type	Photoacoustic or Dual beam NDIR
Sampling method	Diffusion
Typical detection range	0...10 000 ppm (ordering code 10K)
Resolution / digital unit	1 ppm for 10K
Response time	T60 ≤ 60 s for 10K
Signal update	Every 5 seconds for 10K
Sensor lifetime	~ 10 years for 10K
Maintenance interval	No field recalibration if ABC algorithm is enabled for 10K
Self-diagnostics	Full functionality check at start-up
Warm-up time	≤ 1 min
Power supply	12...36 VDC (default), 24 VAC or 230 VAC as options
Power consumption	< 2 VA
Digital interface	RS485, Modbus RTU protocol
Analog outputs	2 × 4-20 mA / 0-10 V, user settable
Output scale width	Recommended: 20-100% of the range; > 10 × resolution in any case
Output relays	2 × SPST relays (closing contact), 250 VAC / 30 VDC, 5 A max
Default alarm setpoints	Determined by user within 5-95% of the range
Enclosure	Grey ABS plastic, wall mount, protection class IP65

Wall mount version



Ask for other versions or custom designed products

Dimensions	H87 × W82 × D55 mm
Remote sensor probe	Protection IP65, shielded cable default cable length 3.0 m
Operating environment	Industrial indoor and outdoor locations
Operating conditions	-40...+60 °C, 0...100 %RH; 0,9...1,1 atm; Explosion-safe areas; Non-aggressive atmosphere

Jumpers

J1	OUT1 type (open: 4-20 mA; closed 0-10 V)
J2	OUT2 type (open: 4-20 mA; closed 0-10 V)
X6	Reset Modbus network parameters to default

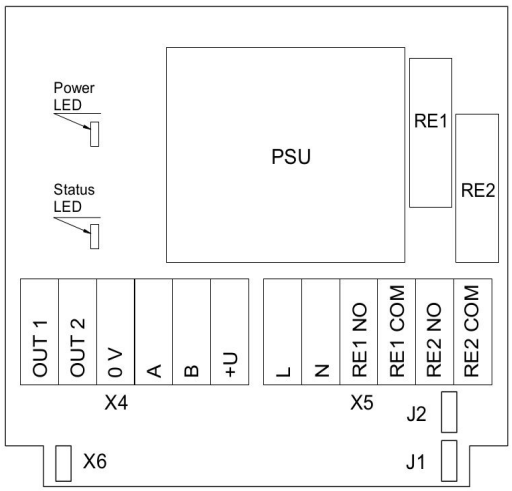
X4 terminals

OUT1	4-20 mA / 0-10 V output
OUT2	4-20 mA / 0-10 V output
0V	0 V / 24 VAC Neutral
A	RS485 A / Data +
B	RS485 B / Data -
+U	+24 VDC / 24 VAC Phase

X5 terminals

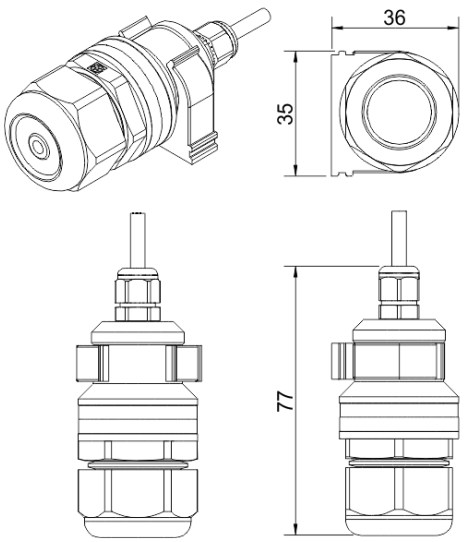
L	90…265 VAC Phase
N	90…265 VAC Neutral
RE1 NO	Relay 1, normally open terminal
RE1 COM	Relay 1, common terminal
RE2 NO	Relay 2, normally open terminal
RE2 COM	Relay 2, common terminal

Connection diagrams



Version with PSU

Remote probe



Wall mount remote probe with fixing clamp (default version)

Halocarbon Refrigerants Detector-Transmitter
AFG2608-HFC

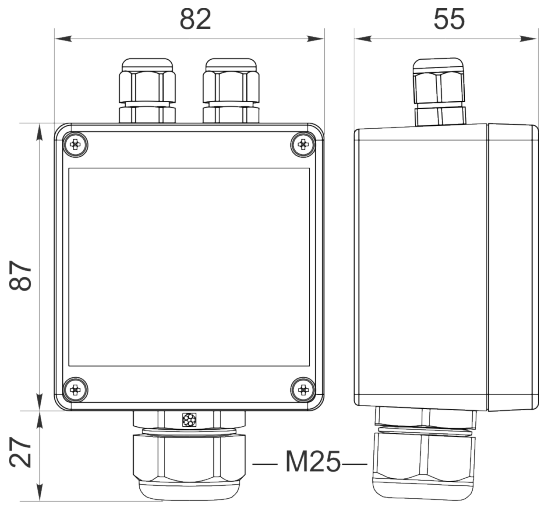
Features

- Wall-mount
- Industrial IP65 housing
- Two analog outputs settable to 4-20 mA or 0-10 V
- RS485 Modbus RTU digital interface
- Two relays for alarm / ventilation control
- Attached or remote sensor

Specifications

Detected gases	R-12, R-123, R-125, R-134a, R-143, R-22, R-404a, R-407c, R-410a, R-507, R-514a, R-1234ze etc
Sensor type	Metal-oxide semiconductor
Sampling method	Diffusion
Typical detection ranges	0...1000 ppm 0…2500 ppm
Resolution	1 ppm
Response time T90	<120 s
Sensor lifetime	> 5 years
Calibration interval	12 months
Signal update	Every 1 second
Self-diagnostics	Full functionality check at start-up
Warm-up time	≤ 1 min
Power supply	12...36 VDC (default), 24 VAC or 230 VAC as options
Power consumption	< 2 VA
Digital interface	RS485, Modbus RTU protocol
Analog outputs	2 × 4-20 mA / 0-10 V, user settable
Output scale width	Recommended: 20-100% of the range; > 10 × resolution in any case
Output relays	2 × SPST relays (closing contact), 250 VAC / 30 VDC, 5 A max
Alarm setpoints	Minimum 250 ppm
Enclosure	Grey ABS plastic, wall mount, protection class IP65
Dimensions	H87 × W82 × D55 mm
Remote sensor probe	Protection IP65, shielded cable default cable length 3.0 m
Operating environment	Industrial indoor and outdoor locations
Operating conditions (MOS)	-30...+60 °C 95% RH non-condensing; 0.9...1,1 atm Explosion-safe areas Normal ambient oxygen level No strong mechanical shock, vibrations or EMI; Avoid exposure to corrosive gases or silicone containing products.

Wall mount version



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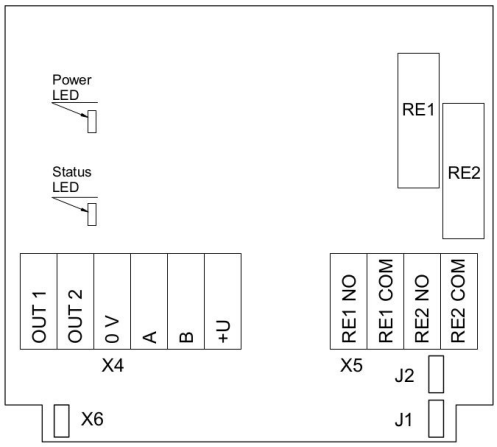
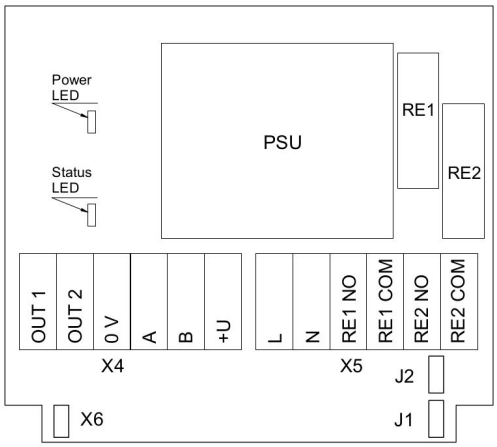
Connection diagrams



Version without PSU



Version with PSU

Jumpers

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X4 terminals	
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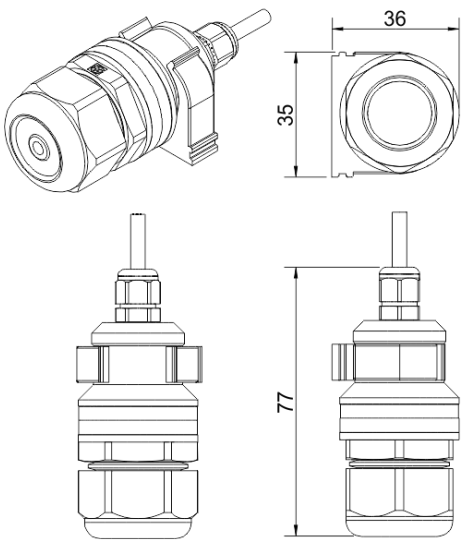
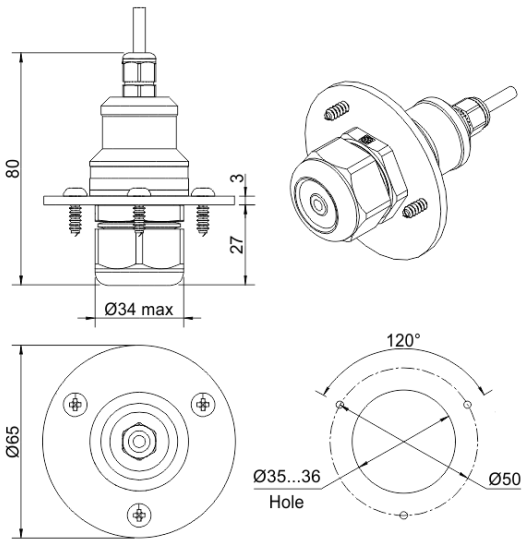
0V	0 V / 24 VAC Neutral (optional)
A	RS485 A / Data +
B	RS485 B / Data -
+U	+24 VDC / 24 VAC Phase (optional)
X5 terminals (optional)	
L	90…265 VAC Phase
N	90…265 VAC Neutral
RE1 NO	Relay 1, normally open terminal
RE1 COM	Relay 1, common terminal
RE2 NO	Relay 2, normally open terminal
RE2 COM	Relay 2, common terminal

Remote probe



A

Wall mount remote probe with fixing clamp (default version)



B

Remote probe with rubber flange and three self-tapping screws (on request)