

Environmental Sensors CO₂ Transmitters

CARLO GAVAZZI



- Simple installation
- Compact housing
- Auto-calibration
- Measuring ranges: 0...2000ppm or 0...5000ppm
- 0-10V or 4-20mA output
- Duct mounting
- CE, RoHS



Product Description

Duct mounted CO₂ transmitters of the CGES series are designed for HVAC applications. The CO₂ sensing element uses the Non-Dispersive Infrared Technology (NDIR). A patented auto-calibration procedure compensates for drift caused by the aging of the sensing element and guarantees outstanding long term stability. Installed into a duct a small flow of air will be established by convection through the

probe into the transmitter housing and back into the duct. Inside the transmitter housing the air will diffuse through a membrane into the CO₂ sensing element. Measuring ranges of 0...2000ppm and 0...5000ppm correspond to an analogue interface of 0-10V or 4-20mA. The instruments can be easily positioned in the duct with the standard mounting flange.

Ordering Key

CGESC02D 2 V L N

Model _____
 Measuring range _____
 Output _____
 Probe length _____
 Version _____

Type Selection

Model	Output	Measuring range	Probe Length	Ordering No.
CO ₂ Transmitter	0-10 V	0...2000ppm	200 mm	CGESC02D2VLN
	0-10 V	0...5000ppm	200 mm	CGESC02D5VLN
	4-20 mA	0...2000ppm	200 mm	CGESC02D2ALN
	4-20 mA	0...5000ppm	200 mm	CGESC02D5ALN

General Specifications

Voltage supply	24VAC ±20% 15-35VDC	Recommended min. flow speed	1m/s
Current consumption	typ. 15mA + output current	Temperature ranges	operating temperature range 0°C - +50°C storage temperature range -20°C - +60°C
Warm up time	<5min	Electromagnetic compatibility	EN61326-1, EN61326-2-3
Humidity	0...95% (not condensing)		

Measuring Values

CO₂		Response time τ_{es}	100s at 3m/s air speed in duct
Measurement principle	Non-Dispersive Infrared Technology (NDIR)	Temperature dependence	typ. 2ppm CO ₂ /°C
Measuring range	0...2000ppm / 0...5000ppm	Sample rate	~15s
Accuracy @ 25°C and 1013mbar	0...2000ppm <±(50ppm +2% of meas. value) 0...5000ppm <±(50ppm +3% of meas. value)		



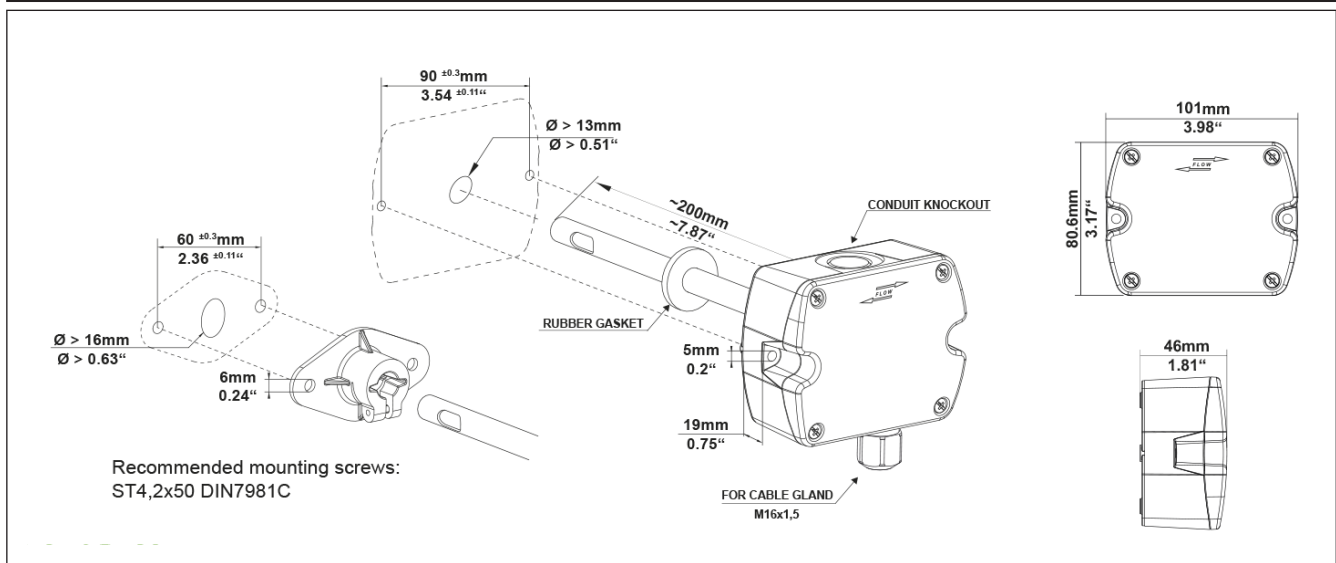
Output Specifications

Analogue Outputs	
0...2000ppm/0...5000ppm	
0-10V	-1mA<IL<1mA
4-20mA	RL <500Ω

Mechanical Specifications

Housing	Polycarbonate
Electrical connection	Screw terminals max. 2.5mm ² (AWG 14)
Cable gland	M16 x 1.5
Protection Degree	Housing IP65 Probe IP20

Dimensions



Connection Diagram

