CO2 TRANSMITTER

Carbon Dioxide Detector-Transmitter E2638-CO2
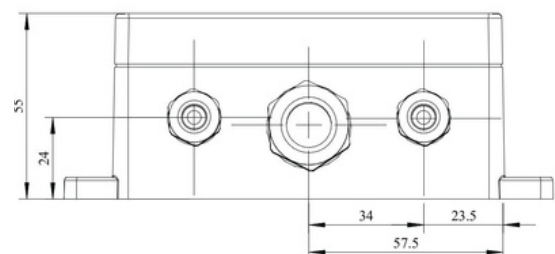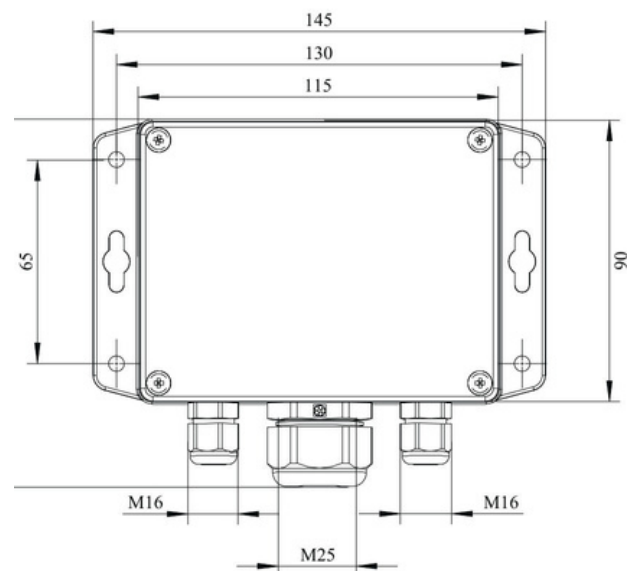
IP65 | 4-20 mA 0-10 V | RS485 Modbus

CE

Features

- Accurate and stable measurement
- Easy to install robust enclosure
- Two analogue outputs settable to 4-20 mA r 0-10 V
- RS485 Modbus RTU digital interface
- Relay Option
- Attached or remote sensor
- LCD indicator option

Specifications

Calibration	Carbon dioxide CO2
Sensor Type	Photoacoustic or Dual-beam NDIR
Sampling Method	Diffusion
Typical Detection Range	0…10 000 ppm (ordering code 10K)
	0…40 000 ppm (ordering code 40K)
	0…5% vol (ordering code 50KN)
	Up to 100% CO2 on request
Resolution / Digital Input	1 ppm for 10K
	10 pm for 40K
	0.2% FS for 50KN
Response Time	T60 ≤ 60 s for 10K/40K
	T50 ≤ 20 s; T90 ≤ 60 s for 50KN
Signal Update	Every 5 seconds for 10K/40K
	Every 1 second for 50KN
Sensor Lifetime	~ 10 years for 10K/40K
	~ 5 years for 50KN
Maintenance Interval	no field recalibration if ABC algorithm is enabled for 10/40K
	12 months for 50KN
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	RS486, Modbus RTU protocol
Analog Outputs	2 x 4-20 mA / 0-10 V, user settable
Output Scale Width	Recommended: 5-100% of the range; >10 x resolution in any case
Enclosure	Grey ABS plastic, wall mount, protection class IP65
Dimensions	H90 x W145 x D50mm (housing only) H140 with cable glands

Dimensions

* Emissions Measurement * Drug + Alcohol * Environmental Monitoring * Post Harvest Technology *

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

Additional options

Remote sensor probe	Protection IP65, shielded cable default cable length 3.0 m
Self-test button	Triggers both relays simultaneously; push-button switch

Relay outputs

Output relays	2 × SPST relays (closing contact), 250 VAC / 30 VDC, 5 A max
Default alarm set-points	Determined by user within 5-95% of the range

Alarm signalling

Visual	Red and green LEDs
Acoustic	Buzzer 85 dB

LCD indicator

Operating temperature 0...+50 °C

Display dimensions 72 × 36 mm

Number of digits 3.5 7-segment

Character height 14 mm

Other features Backlight

NOTE! Only one analog output is available for a version with LCD.
NOTE! LCD and LEDs can not be chosen simultaneously.

Version with LCD indicator

Connections table

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 (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

Cooling and Refrigeration

HVAC

Food and Beverage Industry

Agricultrure

Process Industries

* Emissions Measurement * Drug + Alcohol * Environmental Monitoring * Post Harvest Technology *

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