

LCD  
indicator  
option

IP65

4-20 mA  
0-10 V

RS485  
Modbus

# Carbon Dioxide Detector-Transmitter E2638-CO2-10K



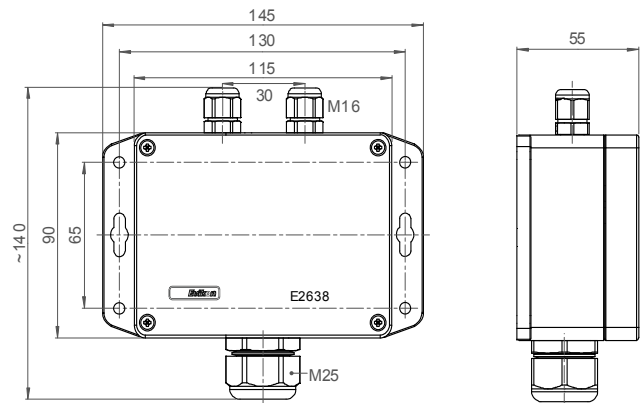
## Features

- Accurate and stable measurement
- Easy to install robust enclosure
- Remote probe option
- Two analog outputs settable to 4-20 mA or 0-10 V
- RS485 Modbus RTU digital interface
- Relay option
- LCD indicator option
- Ambient pressure compensation option

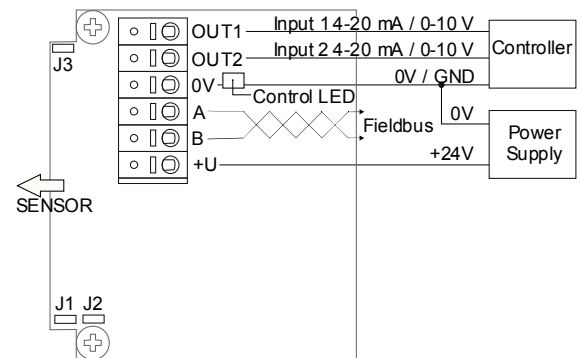
## Specifications

|                      |  |
|----------------------|--|
| Calibration          | Carbon dioxide CO <sub>2</sub>   |
| Sensor type          | Optical (NDIR)   |
| Sampling method      | Diffusion  |
| Detection range      | 0...10 000 ppm CO <sub>2</sub>   |
| Resolution           | 1 ppm  |
| Accuracy             | ± (50 ppm + 3% of reading)<br>in the range 300...5000 ppm  |
| Signal update        | every 2 second   |
| Response time (T90)  | ~2 min   |
| Calibration interval | up to 5 years  |
| Sensor lifetime      | ca 10 years  |
| Self-diagnostics     | Full functionality check at start-up   |
| Warm-up time         | ≤ 1 min  |
| Power supply         | 11...30 VDC, 24 VAC or 90...265 VAC  |
| 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;<br>> 10 × resolution in any case  |
| Enclosure            | Grey ABS plastic,<br>protection class IP65   |
| Dimensions           | H90 × W145 × D50 mm (housing only)<br>H140 with cable glands   |
| Operating conditions | -0...+50 °C, 0...95 %RH,<br>atmospheric pressure ±10%<br>non ATEXrated areas,<br>non-aggressive atmosphere |

## Dimensions



## Connection diagram



J1: OUT1 type (open: 4-20 mA; dosed: 0-10 V)  
J2: OUT2 type (open: 4-20 mA; dosed: 0-10 V)  
J3: return to factory settings



## Additional options

Ambient pressure compensation in the range 0,5...2 bar of absolute pressure

Remote sensor probe Protection IP65, shielded cable default cable length 3.0 m

### Relay outputs

Output relays 2 × SPST relays (closing contact), 250 VAC / 30 VDC, 5 A max

Default alarm setpoints defined by user within 5-95% of the range

Visual alarm Red and green LEDs (option)

Acoustic alarm Buzzer 85 dB (option)

### LCD indicator

Operating temperature 0...+50 °C,

Display dimensions 72 × 36 mm

Number of digits 3.5 7-segment

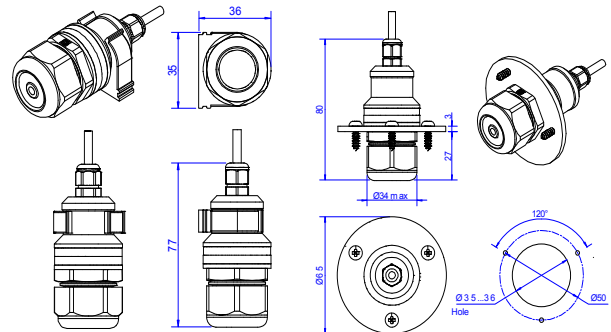
Character height 14 mm

Other features Backlight

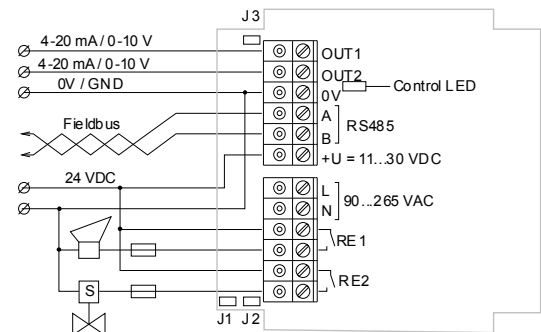
**Note:** only one analog output is available for a version with LCD

[Ask for other versions or custom designed products](#)

### Remote probe



### Connection diagram for relay version



J1: OUT1 type (open: 4-20 mA; closed: 0-10 V)  
J2: OUT2 type (open: 4-20 mA; closed: 0-10 V)  
J3: return to factory settings

### LCD indicator option

