



# Carbon Monoxide Detector-Transmitter E2648-CO



## Features

- Accurate and stable measurement
- Industrial IP66 wall mount housing
- Two analog outputs settable to 4-20 mA or 0-10 V
- RS485 Modbus RTU digital interface
- Two relays for alarm / ventilation control (option)
- Attached or remote sensor

## Specifications

|                         |                                                                                                                                                                                                                        |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Calibration             | Carbon monoxide CO                                                                                                                                                                                                     |
| Sensor type             | Electrochemical                                                                                                                                                                                                        |
| Sampling method         | Diffusion                                                                                                                                                                                                              |
| Typical detection range | 0...300 ppm    0...1000 ppm                                                                                                                                                                                            |
| Maximum overload        | 2000 ppm                                                                                                                                                                                                               |
| Resolution              | 1 ppm                                                                                                                                                                                                                  |
| Response time T90       | < 30 s                                                                                                                                                                                                                 |
| Sensor lifetime         | > 10 years                                                                                                                                                                                                             |
| Maintenance 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)<br>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;<br>> 10 × resolution in any case                                                                                                                                                    |
| Enclosure               | Die-cast aluminium, wall mount,<br>protection class IP66                                                                                                                                                               |
| Dimensions              | H120 × W125 × D57 mm                                                                                                                                                                                                   |
| Operating environment   | Industrial indoor and outdoor locations                                                                                                                                                                                |
| Operating conditions    | -20...+50 °C, 0.9...1,1 atm<br>0...90% RH non condensing<br>Explosion-safe areas<br>Non-aggressive atmosphere<br><b>NOTE!</b> We offer technical solutions for<br>extreme humidity, please ask for more<br>information |

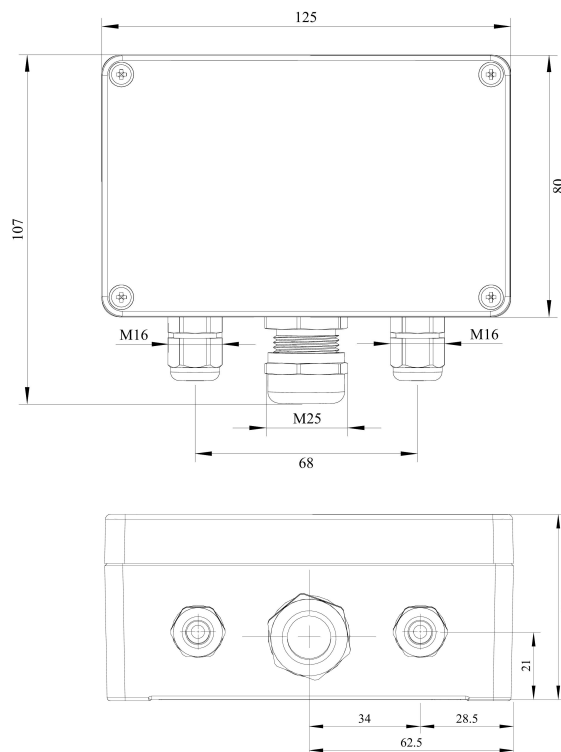
### Relay option (ordering code R)

|                         |                                                                         |
|-------------------------|-------------------------------------------------------------------------|
| Output relays           | 2 × SPST relays (closing contact),<br>250 VAC / 30 VDC, 5 A max         |
| Default alarm setpoints | RE1 (LOW): set 25; release 20 ppm<br>RE2 (HIGH): set 35; release 28 ppm |

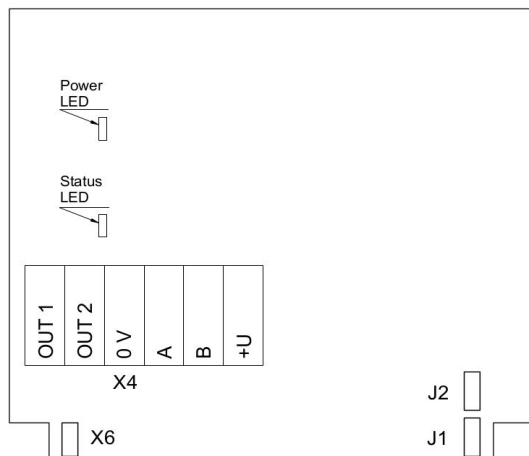
### Other options

|                     |                                                               |
|---------------------|---------------------------------------------------------------|
| Remote sensor probe | Protection IP65, shielded cable<br>default cable length 3.0 m |
|---------------------|---------------------------------------------------------------|

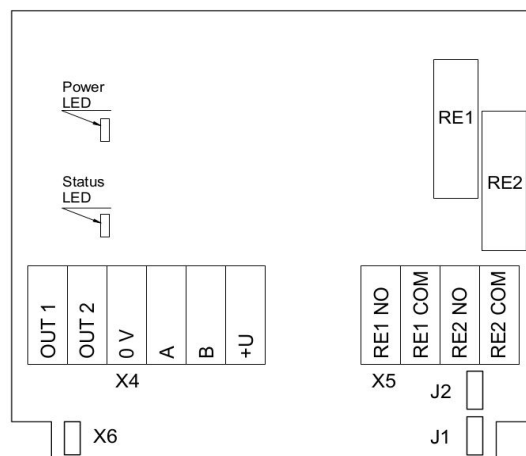
## Dimensions



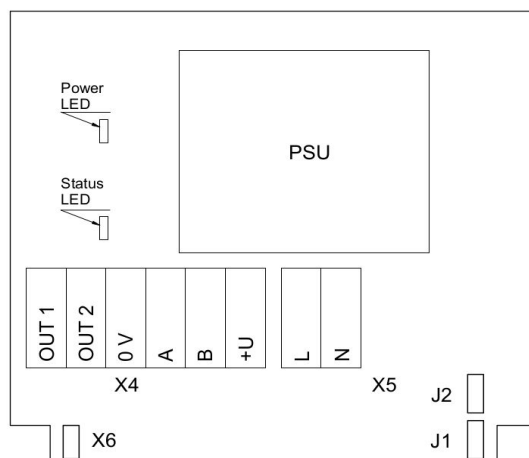
## Connection diagrams



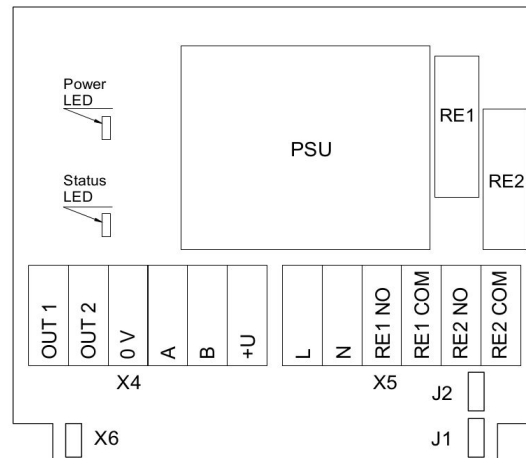
Version without PSU and relays



Version without PSU and with relays



Version with PSU and without relays



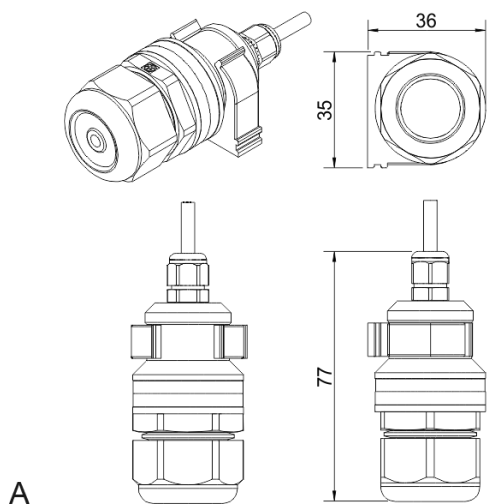
Version with PSU and relays

### Jumpers

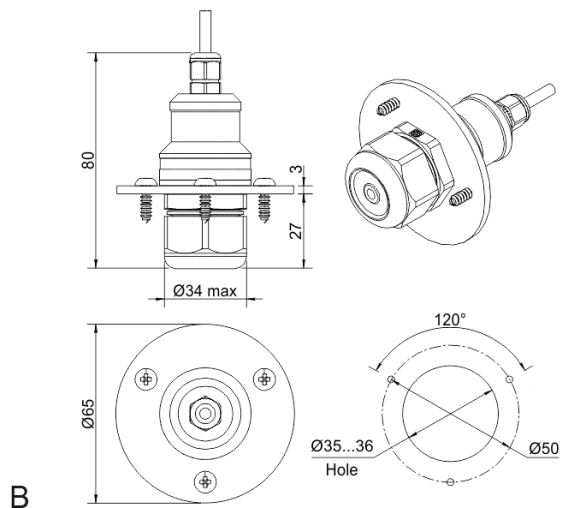
|                                |                                            |
|--------------------------------|--------------------------------------------|
| <b>J1</b>                      | OUT1 type (open: 4-20 mA; closed 0-10 V)   |
| <b>J2</b>                      | OUT2 type (open: 4-20 mA; closed 0-10 V)   |
| <b>X6</b>                      | Reset Modbus network parameters to default |
| <b>X4 terminals</b>            |                                            |
| <b>OUT1</b>                    | 4-20 mA / 0-10 V output                    |
| <b>OUT2</b>                    | 4-20 mA / 0-10 V output                    |
| <b>0V</b>                      | 0 V / 24 VAC Neutral (optional)            |
| <b>A</b>                       | RS485 A / Data +                           |
| <b>B</b>                       | RS485 B / Data -                           |
| <b>+U</b>                      | +24 VDC / 24 VAC Phase (optional)          |
| <b>X5 terminals (optional)</b> |                                            |
| <b>L</b>                       | 90...265 VAC Phase                         |
| <b>N</b>                       | 90...265 VAC Neutral                       |
| <b>RE1 NO</b>                  | Relay 1, normally open terminal            |
| <b>RE1 COM</b>                 | Relay 1, common terminal                   |
| <b>RE2 NO</b>                  | Relay 2, normally open terminal            |
| <b>RE2 COM</b>                 | 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)

