

# Oxygen Detector-Transmitter E2638-O2



## Features

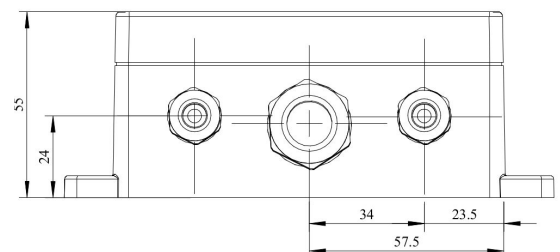
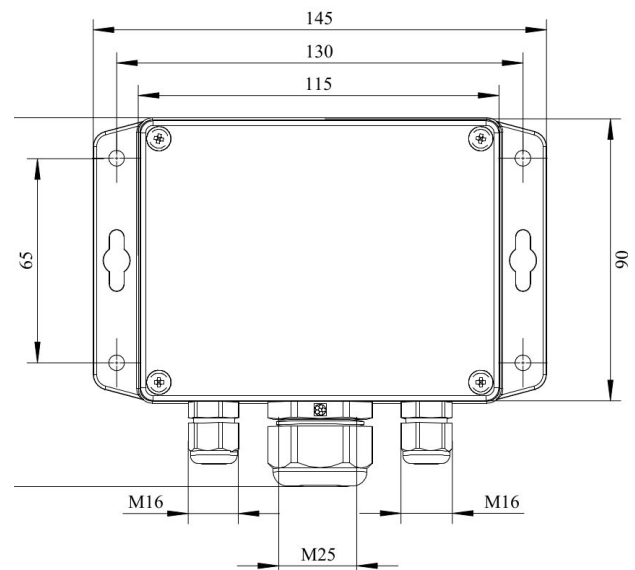
- Accurate and stable measurement
- Easy to install robust enclosure
- Two analog outputs settable to 4-20 mA or 0-10 V
- RS485 Modbus RTU digital interface
- Relay option
- Attached or remote sensor
- LCD indicator option

## Specifications

Calibration	Oxygen O <sub>2</sub>
Sensor type	2-year Electrochemical 5-year Electrochemical (order code O2-5Y) O2-L (Optional)
Sampling method	Diffusion
Detection range	0...25% vol.
Resolution	0.01 % vol.
Response time T90	< 10 s 30 s (O2-L)
Signal update	Every 1 second
Sensor lifetime	> 2 years > 5 years (for O2-5Y and O2-L)
Maintenance interval	6 months
Self-diagnostics	Full functionality check at start-up
Warm-up time	≤ 1 min
Power supply	11...30 VDC 24 VAC or 90...265 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
Enclosure	Grey ABS plastic, wall mount, protection class IP65
Dimensions	H90 × W145 × D50 mm (housing only) H140 with cable glands
Operating environment	Industrial indoor and outdoor locations
Operating conditions	5...90% RH non-condensing; 0,9...1,1 atm; Explosion-safe areas Non-aggressive atmosphere -30...+50 °C -40...+60 °C (for O2-5Y) +10...+40 °C (for O2-L)

**NOTE!** We offer technical solutions for extreme humidity, please ask for more information.

## Dimensions



## 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
<b>Relay outputs</b>	
Output relays	2 × SPST relays (closing contact), 250 VAC / 30 VDC, 5 A max
Default alarm set-points	RE1 (HIGH): set 19.5%, release 20.5% RE2 (LOW): set 18%, release 19%

### 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

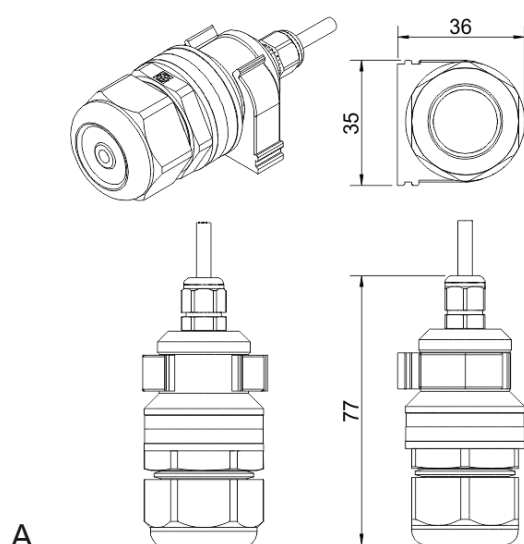
**NOTE!** Only second analog output (OUT2) is available for a version with LCD.

**NOTE!** LCD and LEDs can not be chosen simultaneously.

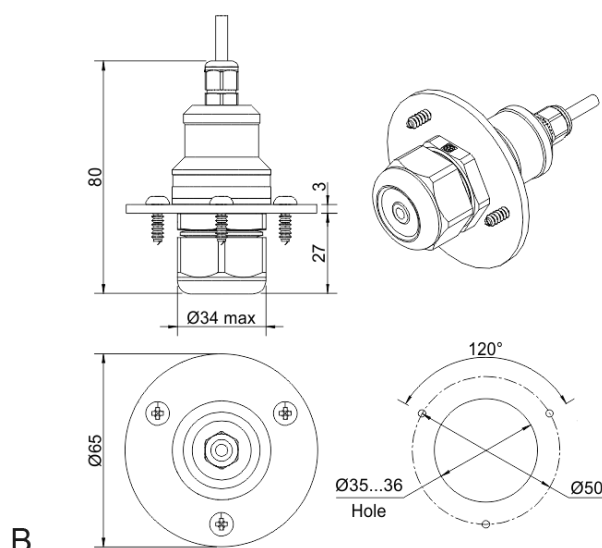
## Version with LCD indicator



## Remote probe



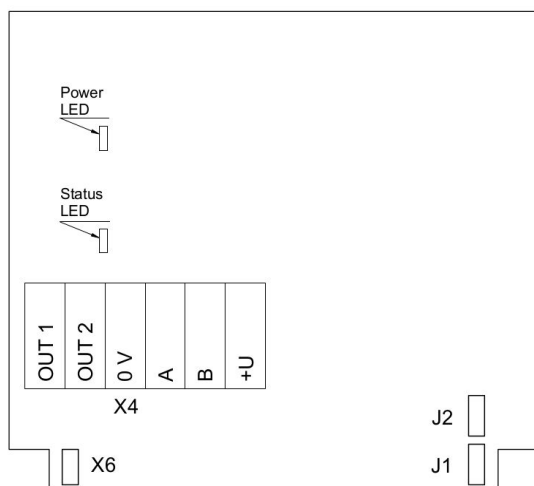
Wall mount remote probe with fixing clamp (default version)



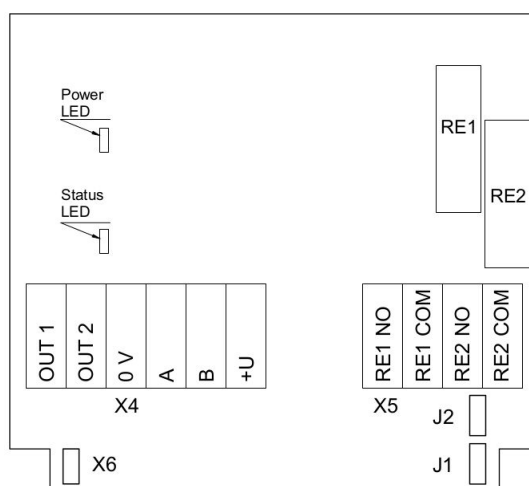
Remote probe with rubber flange and three self-tapping screws (on request)



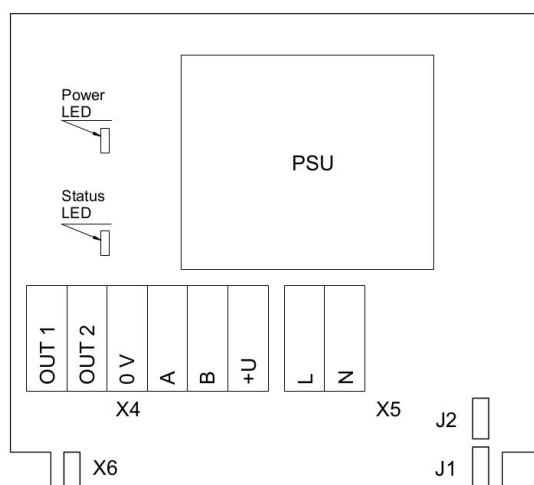
## Connection diagrams



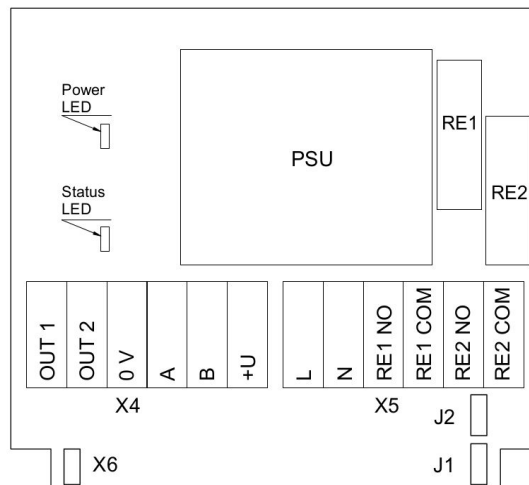
Version without PSU and relays



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

### X4 terminals

<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)

### X5 terminals (optional)

<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

