



Oxygen Detector-Transmitter

E2648-O2



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	Oxygen O ₂
Sampling method	Diffusion
Sensor type	2-year Electrochemical 3-year Electrochemical (order code O2-3Y) 5-year Electrochemical (order code O2-5Y)
Typical detection range	0...25% vol.
Resolution	0,01% vol.
Response time T90	< 10 s
Sensor lifetime	> 2 years > 3 years (for O2-3Y) > 5 years (for O2-5Y)
Maintenance interval	6 months
Signal update	Every 1 second
Self-diagnostics	Full functionality check at start-up
Warm-up time	≤ 1 min
Power supply	≤ 15 min (O2-5Y) 12...36 VDC (default)
Power consumption	24 VAC or 230 VAC as options
Digital interface	< 2 VA
Analog outputs	RS485, Modbus RTU protocol
Output scale width	2 × 4-20 mA / 0-10 V, user settable Recommended: 20-100% of the range; > 10 × resolution in any case
Enclosure	Die-cast aluminium, wall mount, protection class IP66
Dimensions	H120 × W125 × D57 mm
Operating environment	Industrial indoor and outdoor locations
Operating conditions	15...90% RH; 5...95% RH (O2-3Y); Non-condensing; 0,9...1,1 atm; Explosion-safe areas; Non-aggressive atmosphere -30...+50 °C -40...+60 °C (for O2-5Y)

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

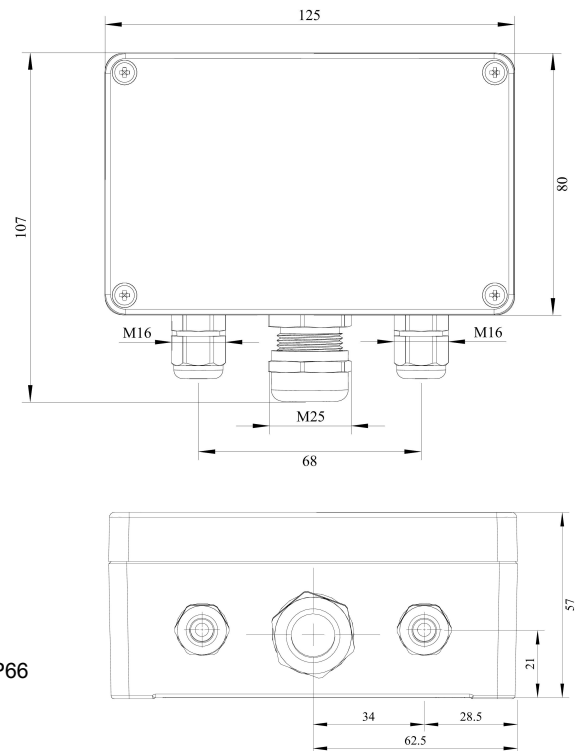
Relay option (ordering code R)

Output relays	2 × SPST relays (closing contact), 250 VAC / 30 VDC, 5 A max
Default alarm setpoints	RE1 (HIGH): set 19.5%, release 20.5% RE2 (LOW): set 18%, release 19%

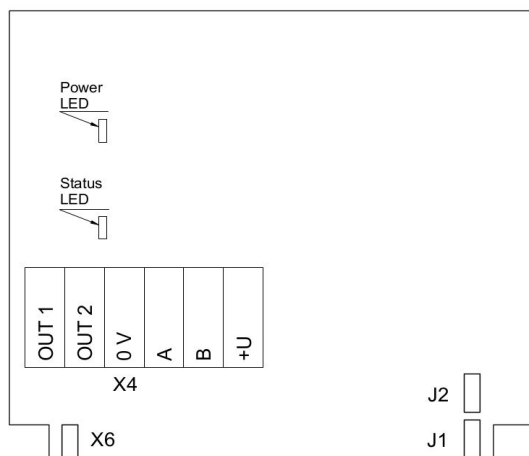
Other options

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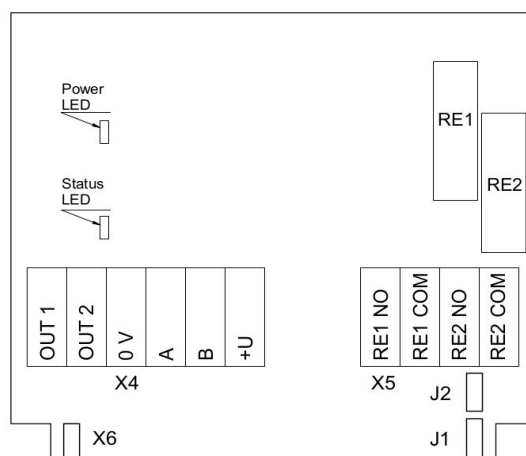
Dimensions



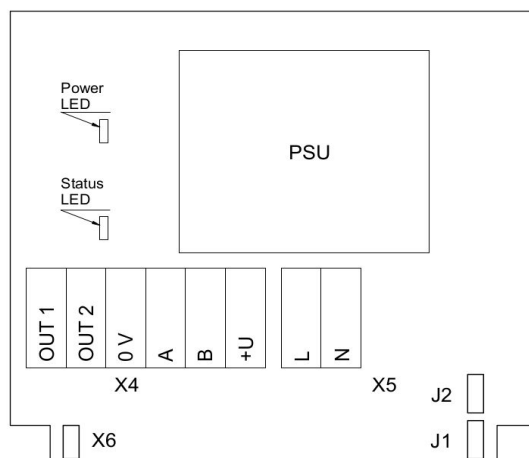
Connection diagrams



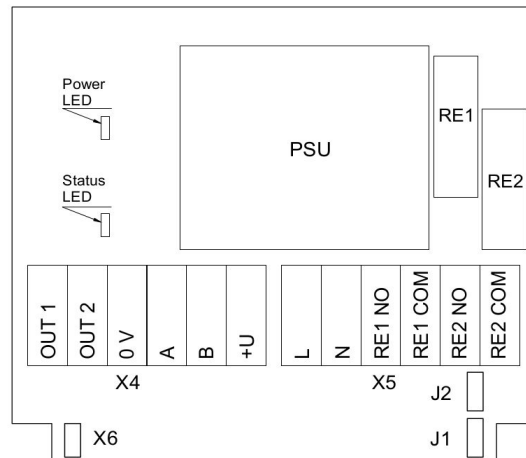
Version without PSU and relays



Version without PSU and with relays



Version with PSU and without relays



Version with PSU and relays

Jumpers

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

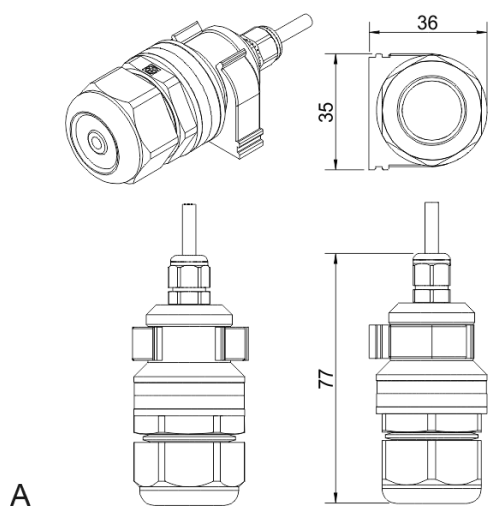
OUT1	4-20 mA / 0-10 V output
OUT2	4-20 mA / 0-10 V output
0V	0 V / 24 VAC Neutral (optional)
A	RS485 A / Data +
B	RS485 B / Data -
+U	+24 VDC / 24 VAC Phase (optional)

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

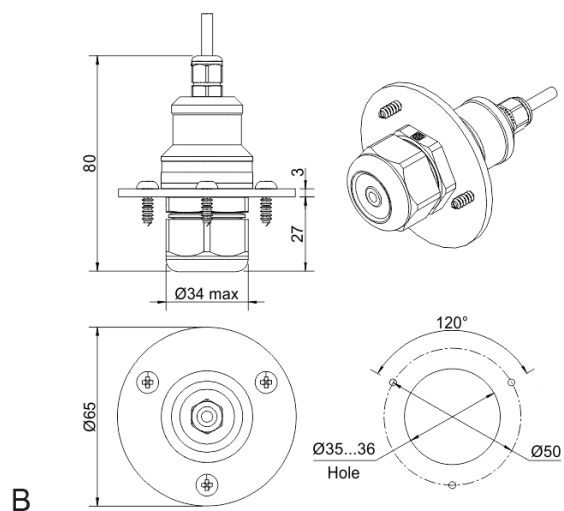


Remote probe



A

Wall mount remote probe with fixing clamp (default version)



B

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

