



# Sulfur Dioxide Detector-Transmitter E2638-SO<sub>2</sub>



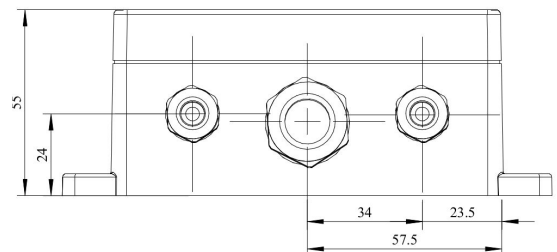
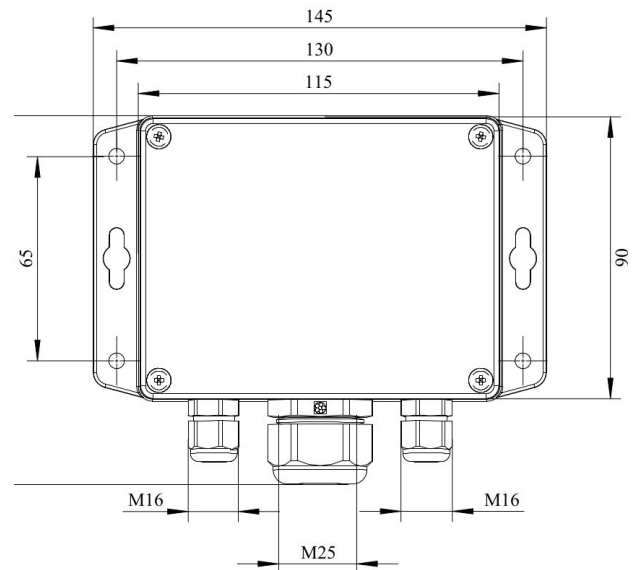
## Features

- 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	Sulfur dioxide SO <sub>2</sub>	
Sensor type	Electrochemical	
Sampling method	Diffusion	
Detection ranges	0-50 ppm	0-2000 ppm
Maximum overload	75 ppm	10 000 ppm
Resolution	0.1 ppm	1 ppm
Response time T <sub>90</sub>	< 35 s	< 33 s
Signal update	Every 1 second	
Maintenance interval	6 months	
Sensor lifetime	> 2 years	
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	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 × D55 mm (housing only) H140 with cable glands	
Operating environment	Industrial indoor and outdoor locations	
Operating conditions	-30...+50°C, 15...90 %RH; 0,9...1,1 atm; Explosion-safe areas; Non-aggressive atmosphere	

## 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

### 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
Protection class	IP50 (both for built-in and remote LCD options)

**NOTE!** Only one analog output is available for a version with LCD.

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

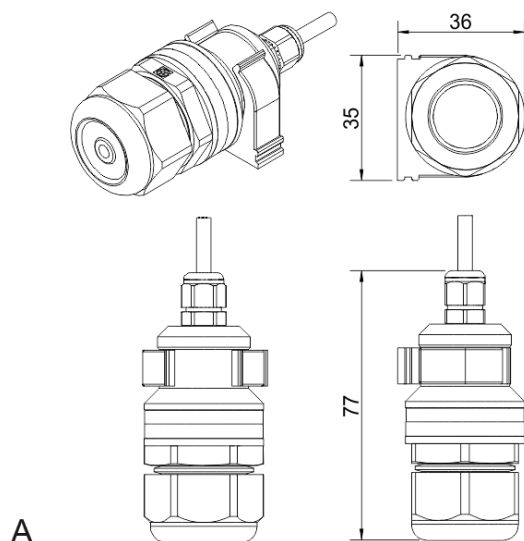
### Version with built-in LCD indicator



### Version with remote LCD indicator

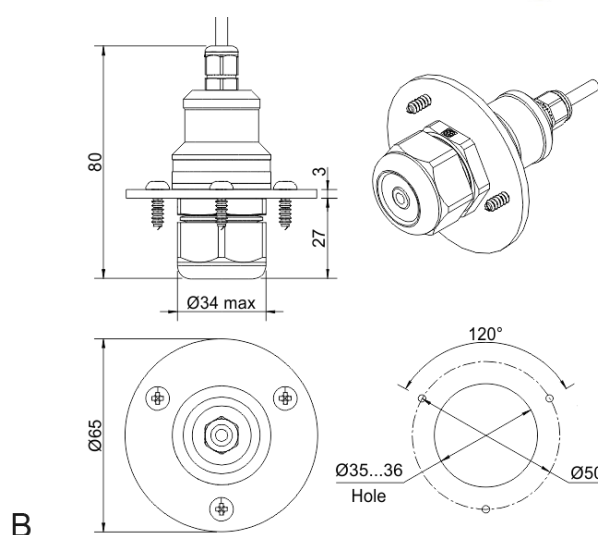


## Remote probe



A

Wall mount remote probe with fixing clamp (default version)

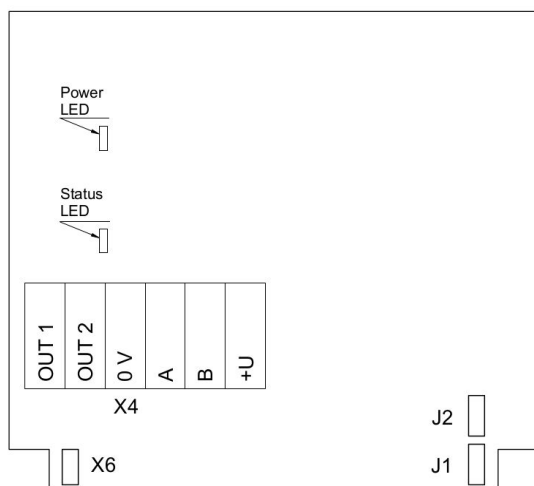


B

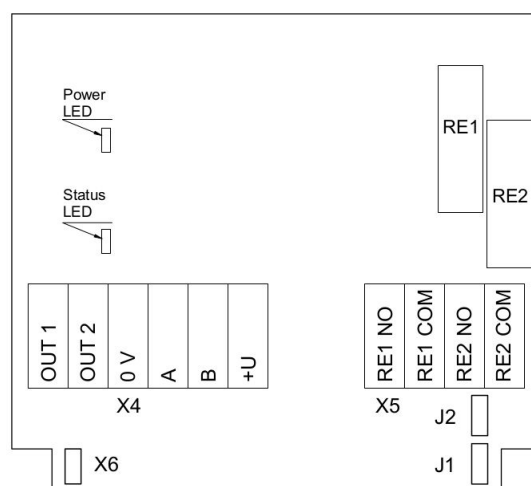
Remote probe with rubber flange and three self-tapping screws (on request)



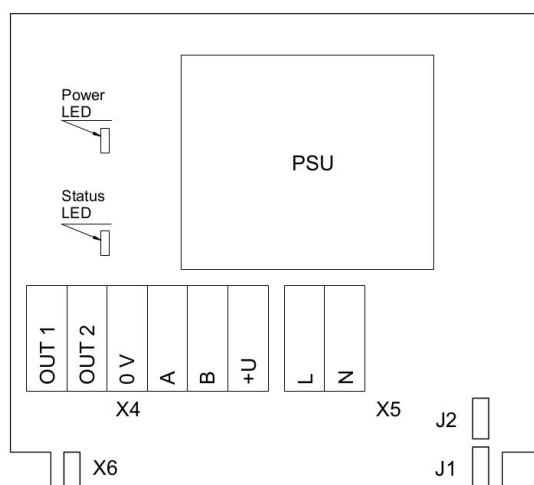
## Connection diagrams



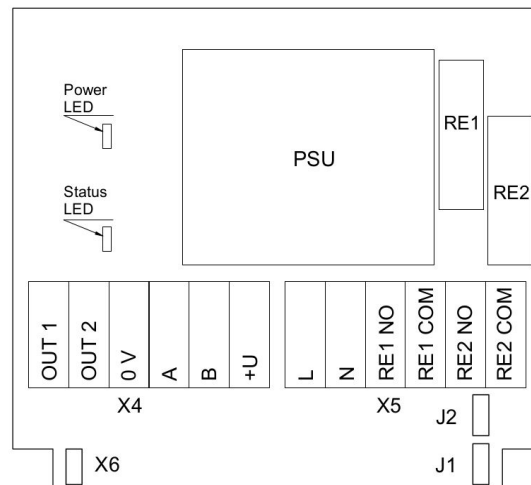
Version without PSU and relays



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

