

## DATASHEET

# E2648

Evikon

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# Hydrogen Sulfide Detector-Transmitter E2648-H2S



## 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             | Hydrogen sulfide H <sub>2</sub> S                                                                                                                                                                                                                     |              |
| Sensor type             | Electrochemical                                                                                                                                                                                                                                       |              |
| Sampling method         | Diffusion                                                                                                                                                                                                                                             |              |
| Typical detection range | 0...100 ppm                                                                                                                                                                                                                                           | 0...2000 ppm |
| Maximum overload        | 500 ppm                                                                                                                                                                                                                                               | 4000 ppm     |
| Resolution              | 0.1 ppm                                                                                                                                                                                                                                               | 1 ppm        |
| Response time T90       | < 30 s                                                                                                                                                                                                                                                | < 25 s       |
| Operating temperature   | -30...+50 °C                                                                                                                                                                                                                                          | -40...+50 °C |
| Sensor lifetime         | > 2 years                                                                                                                                                                                                                                             |              |
| Maintenance interval    | 6 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)                                                                                                                                                                                                                                 |              |
|                         | 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    | (operating temperature is specified above)<br>0.9...1,1 atm; 15...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 |              |

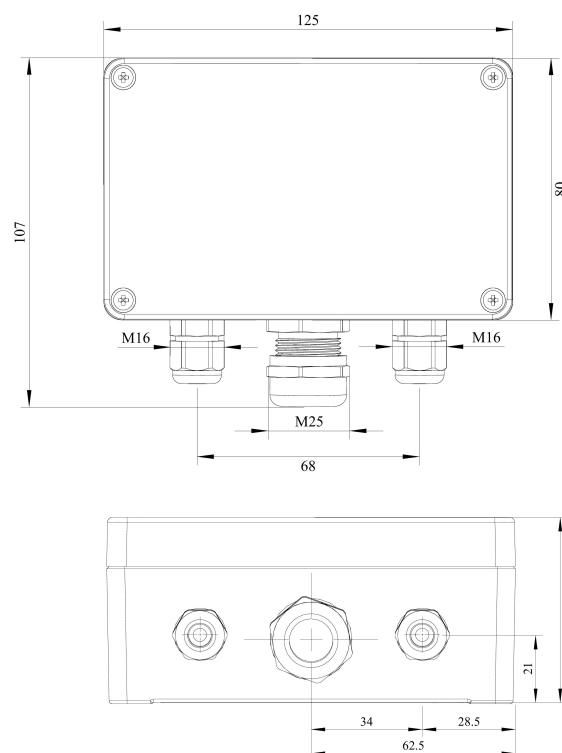
### Relay option (ordering code R)

|                         |                                                                                                                                                                 |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Output relays           | 2 × SPST relays (closing contact),<br>250 VAC / 30 VDC, 5 A max                                                                                                 |
| Default alarm setpoints | For 0...100 ppm range:<br>LOW: set 10; release 8 ppm<br>HIGH: set 20; release 16 ppm<br>For 0...2000 ppm range:<br>determined by user within 5-95% of the range |

### Other options

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

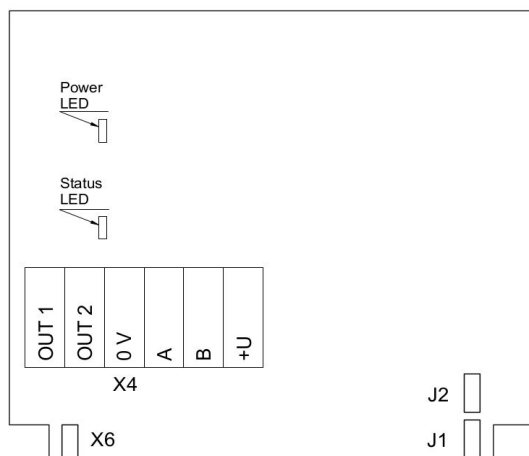
## Dimensions



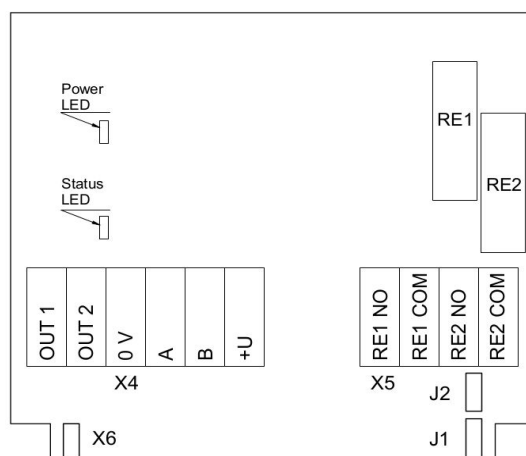
Ask for other versions or custom designed products



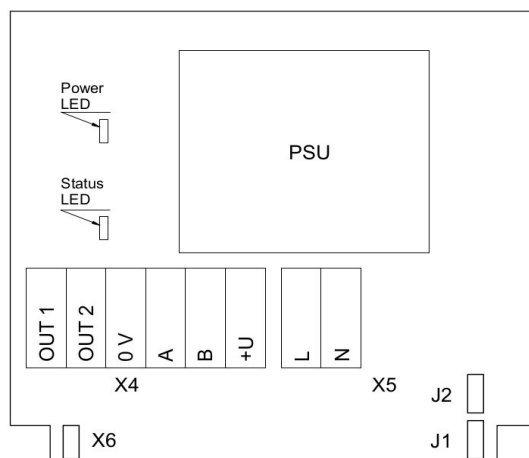
## Connection diagrams



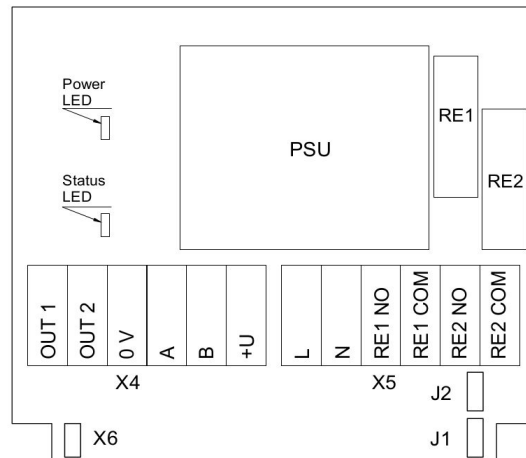
Version without PSU and relays



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

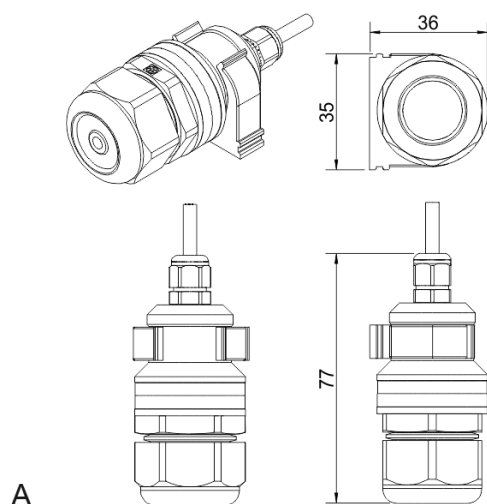
- OUT1** 4-20 mA / 0-10 V output  
**OUT2** 4-20 mA / 0-10 V output  
**0V** 0 V / 24 VAC Neutral (optional)  
**A** RS485 A / Data +  
**B** RS485 B / Data -  
**+U** +24 VDC / 24 VAC Phase (optional)

### X5 terminals (optional)

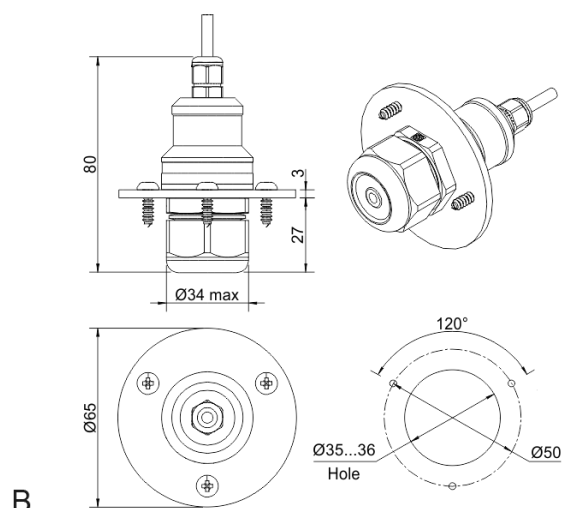
- L** 90...265 VAC Phase  
**N** 90...265 VAC Neutral  
**RE1 NO** Relay 1, normally open terminal  
**RE1 COM** Relay 1, common terminal  
**RE2 NO** Relay 2, normally open terminal  
**RE2 COM** Relay 2, common terminal



## Remote probe



Wall mount remote probe with fixing clamp (default version)



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