



# Hydrogen Sulfide Detector-Transmitter E2608-H2S



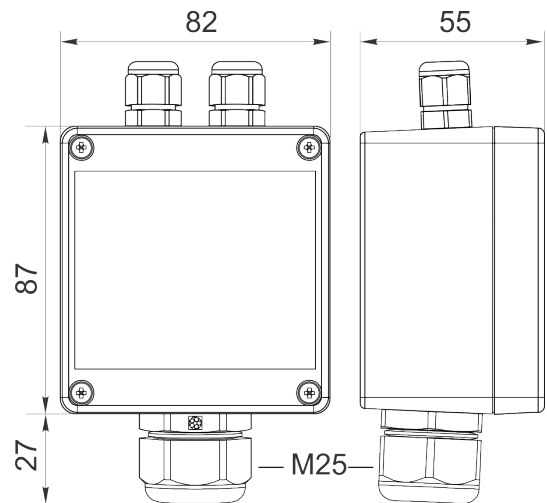
## Features

- Wall-mount or duct-mount version
- Industrial IP65 housing
- Two analog outputs settable to 4-20 mA or 0-10 V
- RS485 Modbus RTU digital interface
- Two relays for alarm / ventilation control
- Attached or remote sensor

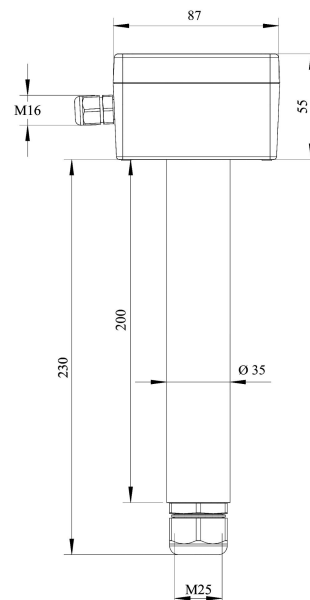
## Specifications

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 /digital unit	0.1 ppm	1 ppm
Response time T90	< 30 s	< 25 s
Operating temperature	-30...+50 °C	-40...+50 °C
Signal update	Every 1 second	
Sensor lifetime	> 2 years	
Maintenance interval	6 months	
Self-diagnostics	Full functionality check at start-up	
Warm-up time	≤ 1 min	
Power supply	11...30 VDC (default), 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	
Output relays	2 × SPST relays (closing contact), 250 VAC / 30 VDC, 5 A max	
Default alarm setpoints	For 0...100 ppm range: LOW: set 10; release 8 ppm HIGH: set 20; release 16 ppm for 0...2000 ppm range: determined by user within 5-95% of the range	
Enclosure	Light beige ABS plastic, wall mount, protection class IP65	
Dimensions	H87 × W82 × D55 mm	
Remote sensor probe	Protection IP65, shielded cable default cable length 3.0 m	
Operating environment	Industrial indoor and outdoor locations	
Operating conditions	(operating temperature is specified above) 0.9...1,1 atm 15...90% RH non-condensing Explosion-safe areas Non-aggressive atmosphere <b>NOTE!</b> We offer technical solutions for extreme humidity, please ask for more information.	

### Wall mount version



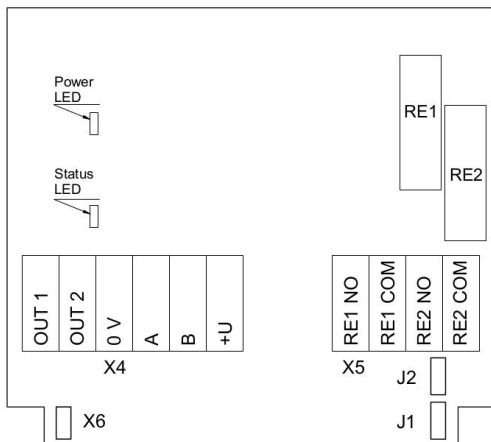
### Duct mount version



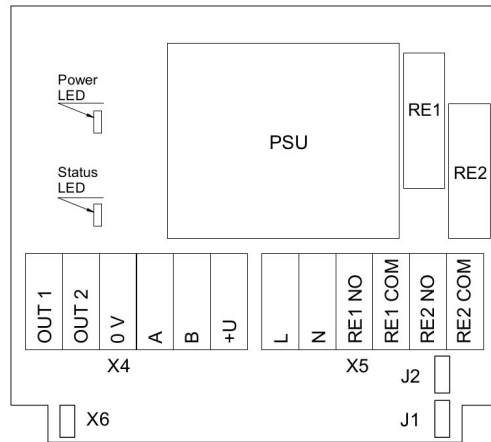
Ask for other versions or custom designed products



## Connection diagrams



Version without PSU



Version with PSU

### 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

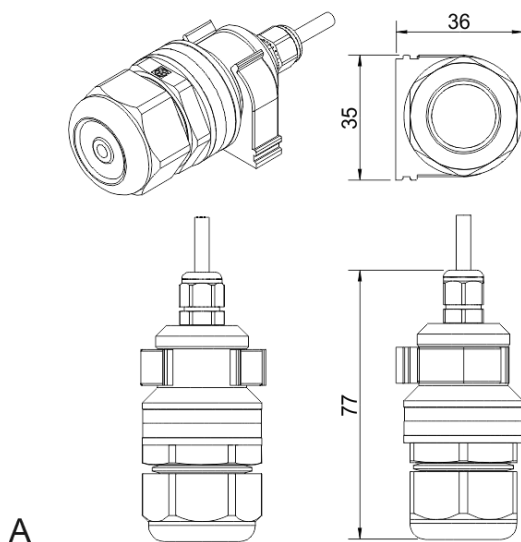
### X4 terminals

<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)

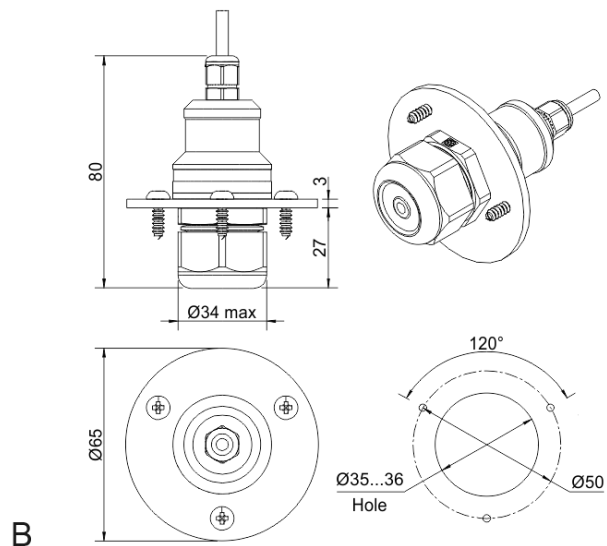
<b>L</b>	90...265 VAC Phase
<b>N</b>	90...265 VAC Neutral
<b>RE1 NO</b>	Relay 1, normally open terminal
<b>RE1 COM</b>	Relay 1, common terminal
<b>RE2 NO</b>	Relay 2, normally open terminal
<b>RE2 COM</b>	Relay 2, common terminal

## 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)





# Hydrogen Sulfide Transmitter E2615-H2S



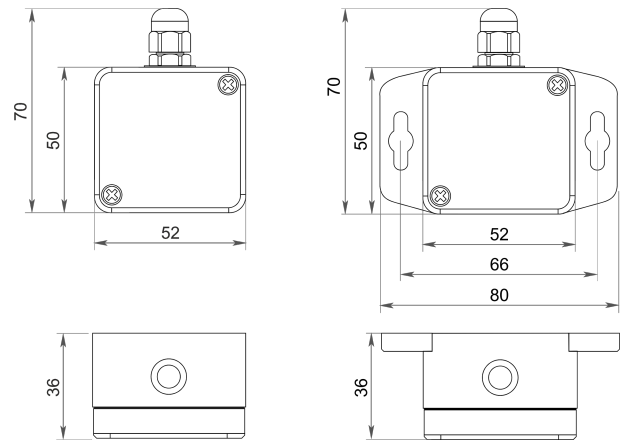
## Features

- Maintenance free sensor
- User selectable output 4-20 mA / 0-10 V
- Range of compact wall mount enclosures
- Low cost for volume HVAC applications

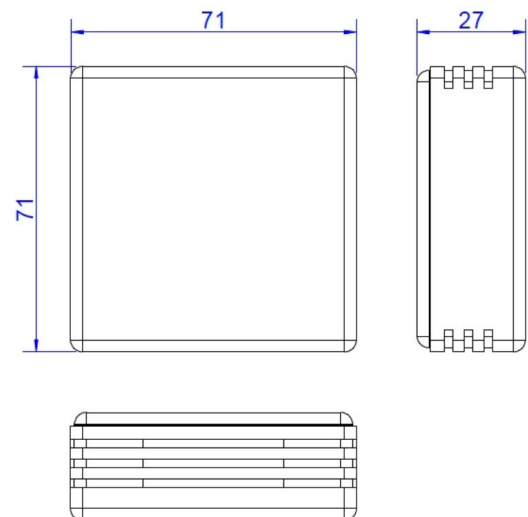
## Specifications

Sensor type	Electrochemical
Sampling method	Diffusion
Detection range	0-10 or 0-50 ppm
Response time T90	< 30 s
Sensor protection	Microporous PTFE dust filter
Warm-up time	≤ 1 min
Analog output	4-20 mA / 0-10 V, user settable
Power supply	24 VDC ± 20%
Power consumption	< 1 W
Sensor lifetime	≥ 2 years
Indoors enclosure	White, ivory or black ABS plastic,
IP20 version	Wall mount, protection class IP20
Weatherproof enclosure	Light or dark grey ABS plastic, wall mount, protection class IP65
IP65 version	
Operating conditions	-20...+40 °C recommended -20...+50 °C intermittently 10...95 %RH non-condensing, pressure 0,9...1,1 atm
EMC Emissions	To EN 61000-6-3, EN 61326-1
EMC Immunity	To EN 61000-6-1, EN 61000-6-2

## IP65 Enclosures

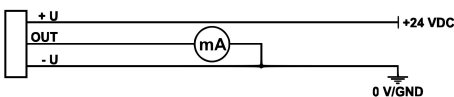


## IP20 Enclosures

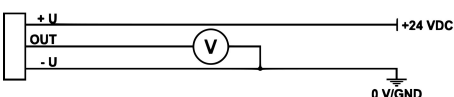


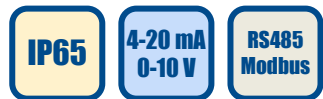
## Connection diagrams

### 3-wire 4-20 mA output



### 3-wire 0-10 V output





# Hydrogen Sulfide Transmitter E2618-H2S



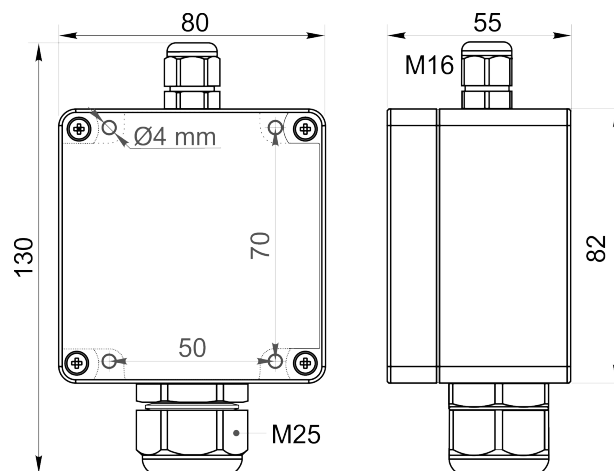
## Features

- Wall-mount or duct-mount version
- Industrial IP65 housing
- Two analog outputs settable to 4-20 mA or 0-10 V
- RS485 Modbus RTU digital interface
- Attached or remote sensor

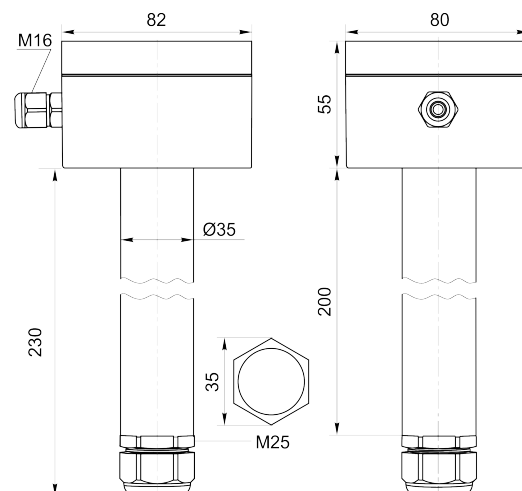
## Specifications

Calibration	Hydrogen sulfide H <sub>2</sub> S	
Sensor type	Electrochemical	
Sampling method	Diffusion	
Typical detection ranges	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
Signal update	Every 1 second	
Sensor lifetime	> 2 years	
Maintenance interval	6 months	
Self-diagnostics	Full functionality check at start-up	
Warm-up time	≤ 1 min	
Power supply	11...30 VDC or 24 VAC	
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	H82 × W80 × D55 mm	
Remote sensor probe	Protection IP65, shielded cable default cable length 3.0 m	
Operating environment	Industrial indoor and outdoor locations	
Operating conditions	(operating temperature is specified above) 0.9...1,1 atm; 15...90% RH non condensing Explosion-safe areas Non-aggressive atmosphere <b>NOTE!</b> We offer technical solutions for extreme humidity, please ask for more information.	

### Wall mount version



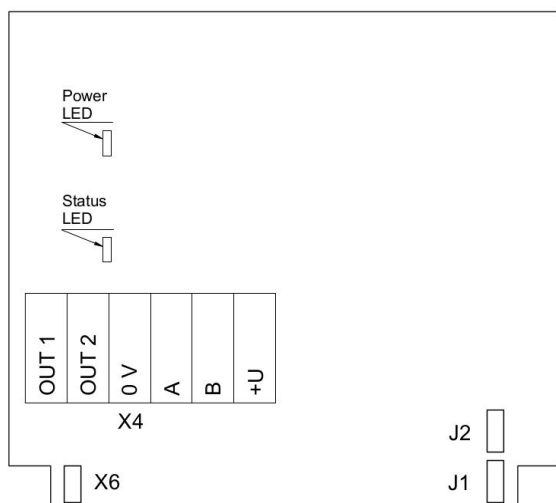
### Duct mount version



Ask for other versions or custom designed products



## Connection diagram



PCB without PSU and relays

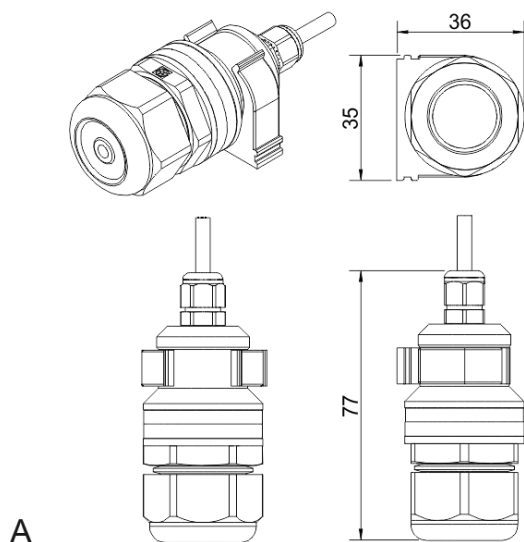
### Jumpers

- 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

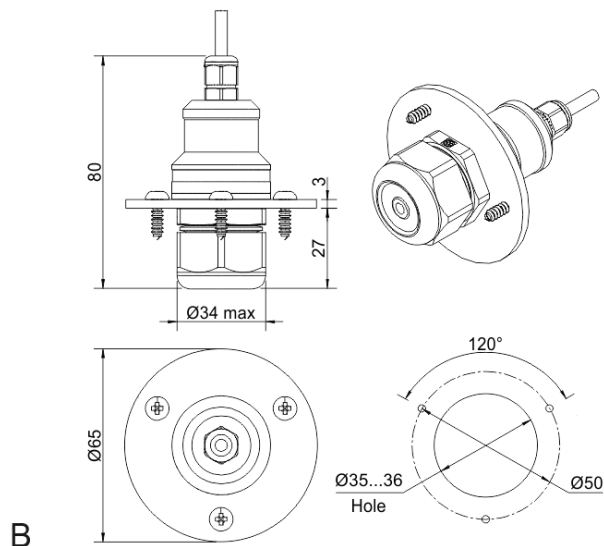
### X4 terminals

- 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)

## Remote probe



Wall mount remote probe with fixing clamp (default version)



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





# Hydrogen Sulfide Detector-Transmitter E2638-H2S



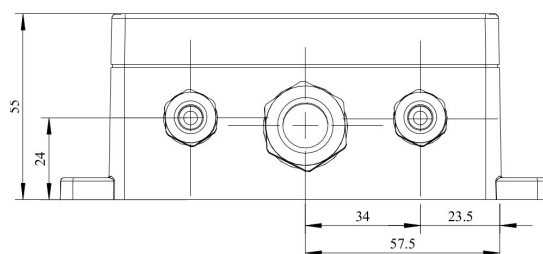
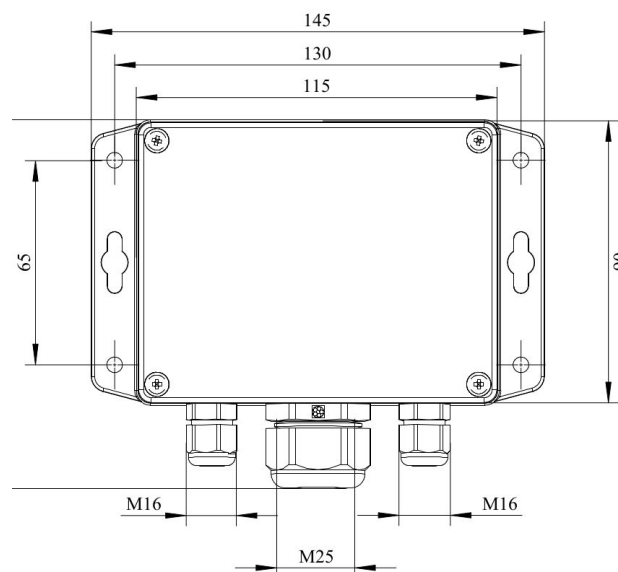
## Features

- 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	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
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	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	(operating temperature is specified above) 0.9...1,1 atm 15...90% RH non condensing Explosion-safe areas Non-aggressive atmosphere <b>NOTE!</b> 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	For 0...100 ppm range: LOW: set 10; release 8 ppm HIGH: set 20; release 16 ppm For 0...2000 ppm range: 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

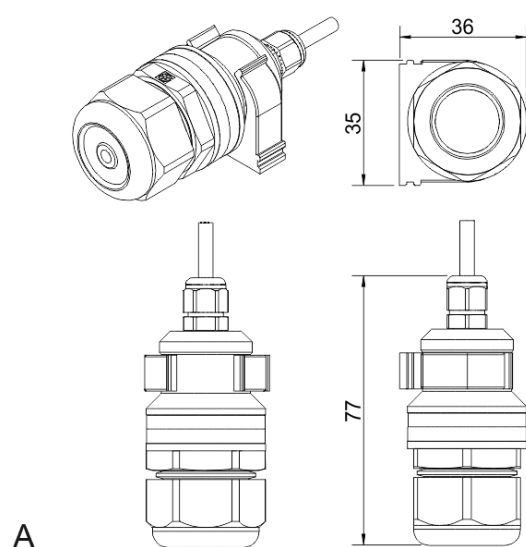
**NOTE!** Only one analog output is available for a version with LCD.

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

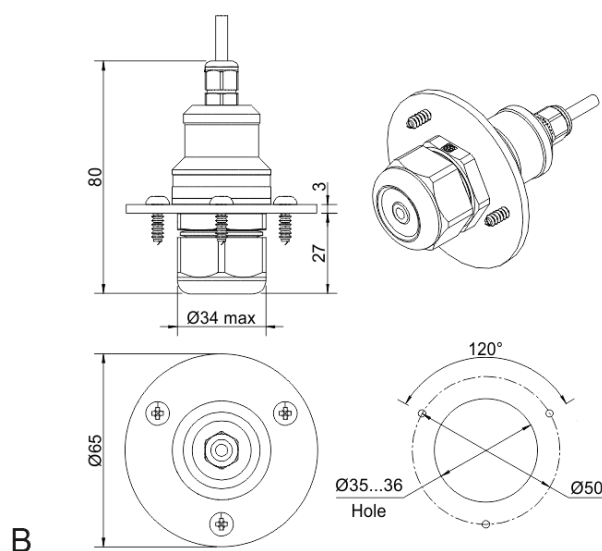
## Version with LCD indicator



## Remote probe



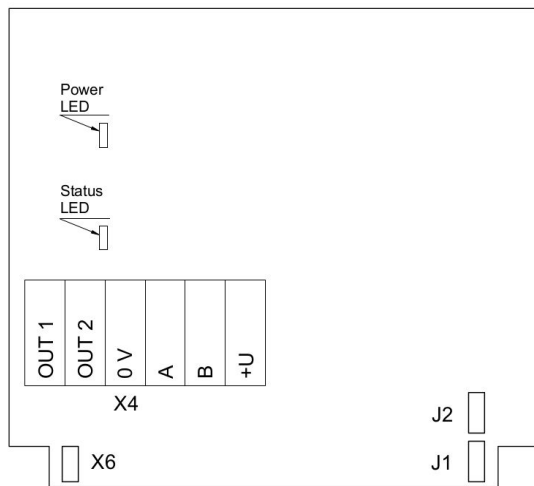
Wall mount remote probe with fixing clamp (default version)



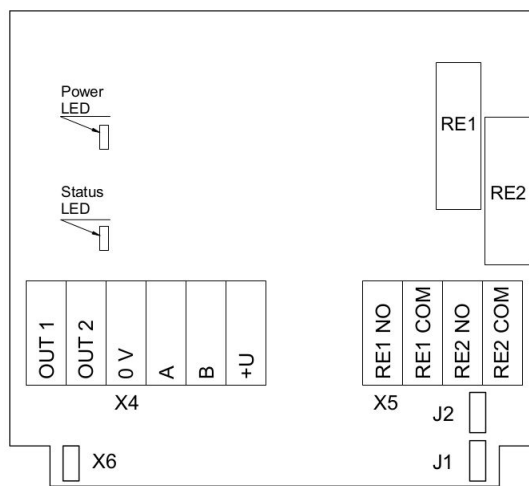
Remote probe with rubber flange and three self-tapping screws (on request)



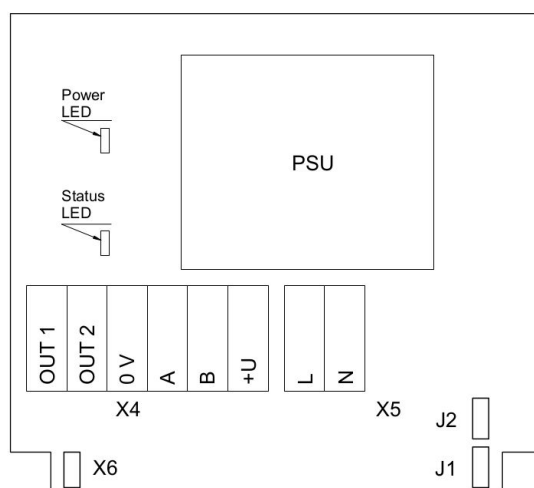
## Connection diagrams



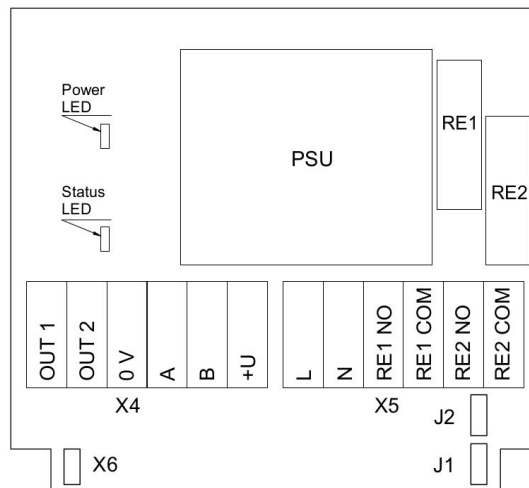
Version without PSU and relays



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







# 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 options	11...30 VDC, 24 VAC or 90...265 VAC	
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	Die-cast aluminium, wall mount, protection class IP66	
Dimensions	H120 × W125 × D57 mm	
Operating environment	Industrial indoor and outdoor locations	
Operating conditions	(operating temperature is specified above) 0.9...1,1 atm; 15...90% RH non condensing Explosion-safe areas Non-aggressive atmosphere <b>NOTE!</b> We offer technical solutions for extreme humidity, please ask for more information	

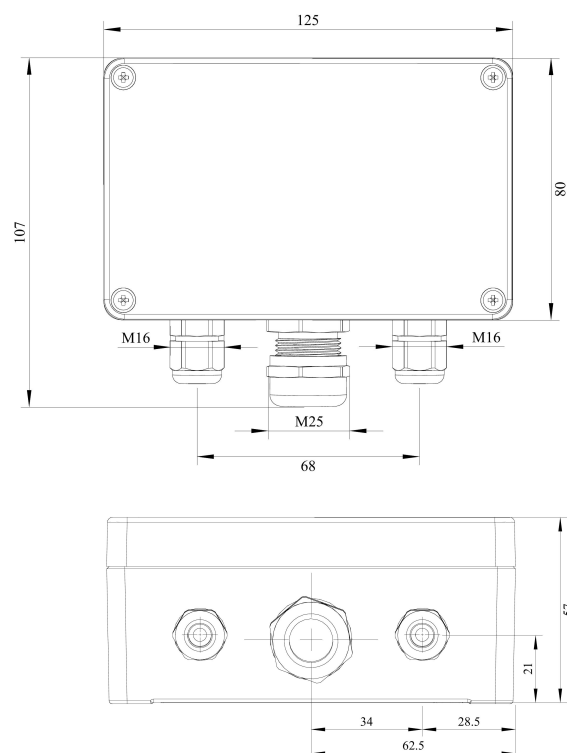
### Relay option (ordering code R)

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

### Other options

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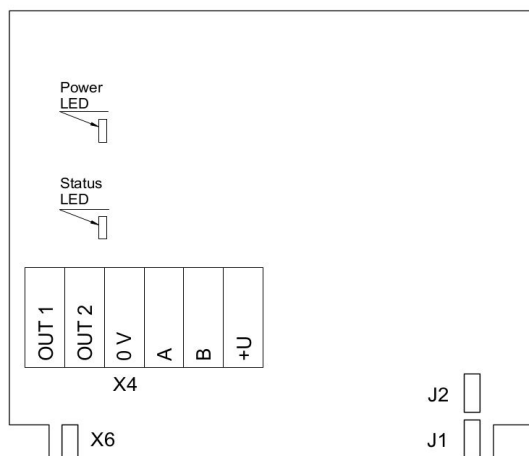
## Dimensions



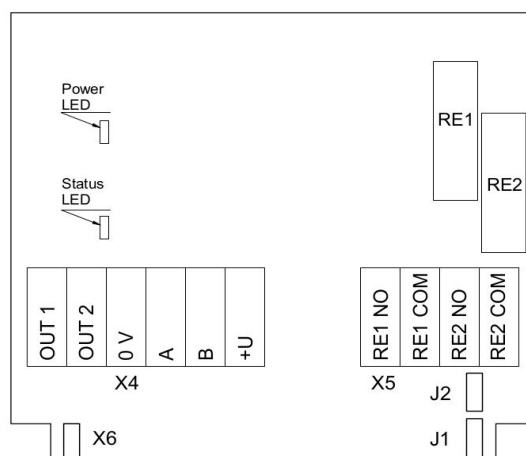
Ask for other versions or custom designed products



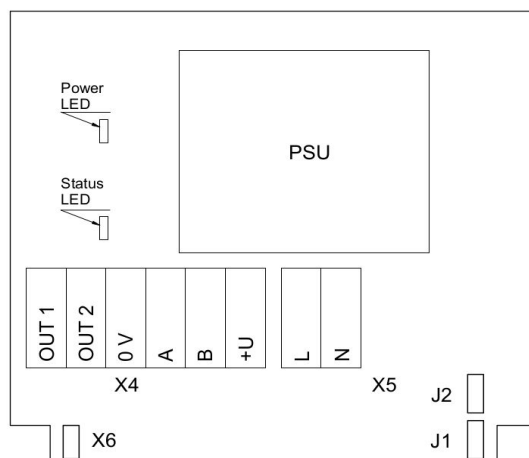
## Connection diagrams



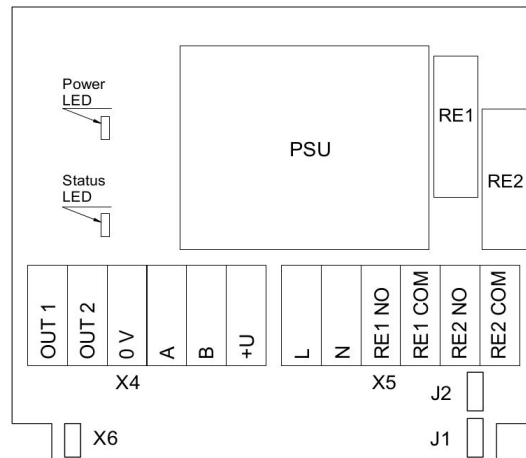
Version without PSU and relays



Version without PSU and with relays



Version with PSU and without relays



Version with PSU and relays

### Jumpers

<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

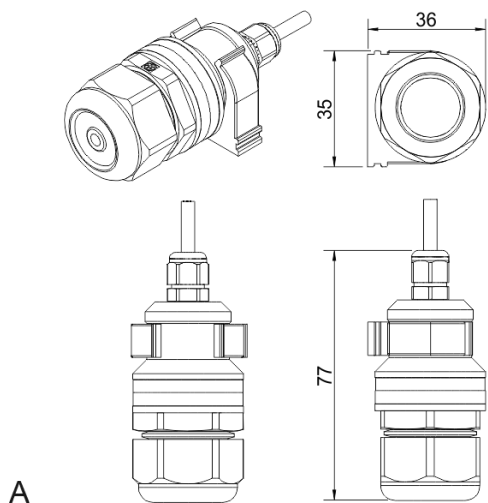
<b>OUT1</b>	4-20 mA / 0-10 V output
<b>OUT2</b>	4-20 mA / 0-10 V output
<b>0V</b>	0 V / 24 VAC Neutral (optional)
<b>A</b>	RS485 A / Data +
<b>B</b>	RS485 B / Data -
<b>+U</b>	+24 VDC / 24 VAC Phase (optional)

### X5 terminals (optional)

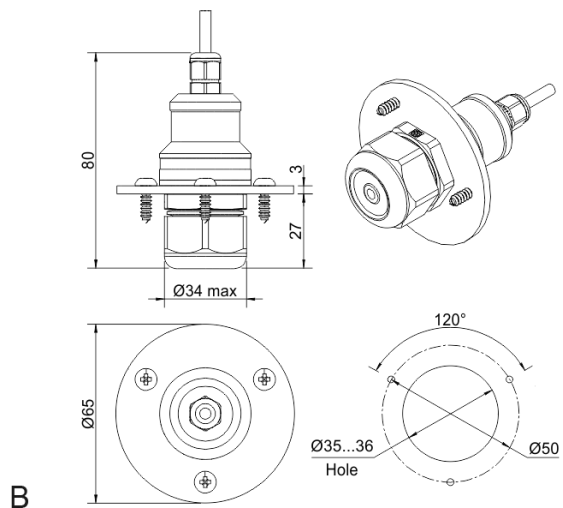
<b>L</b>	90...265 VAC Phase
<b>N</b>	90...265 VAC Neutral
<b>RE1 NO</b>	Relay 1, normally open terminal
<b>RE1 COM</b>	Relay 1, common terminal
<b>RE2 NO</b>	Relay 2, normally open terminal
<b>RE2 COM</b>	Relay 2, common terminal



## 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)



# Flameproof Hydrogen Sulfide Detector-Transmitter E2658-H2S



## Features

- Wall mount robust flameproof metal enclosure
- Suitable for ATEX Zones 2 and 22
- Two analog outputs settable to 4-20 mA or 0-10 V
- RS485 Modbus RTU digital interface
- Relay option

## 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 / digital unit	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	11...30 VDC (default), 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 die-cast aluminium, protection class IP66	
Dimensions	H80 × W125 × D57 / H80 × W175 × D80 mm	
Operating environment	Industrial indoor and outdoor locations	
Operating conditions	(operating temperature is specified above) 0.9...1,1 atm 15...90% RH non condensing Explosion-safe areas Non-aggressive atmosphere <b>NOTE!</b> We offer technical solutions for extreme humidity, please ask for more information.	
<b>Relay option (ordering code R)</b>		
Output relays	2 × SPST relays (closing contact), 250 VAC / 30 VDC, 5 A max	
Default alarm setpoints	For 0...100 ppm range: LOW: set 10; release 8 ppm HIGH: set 20; release 16 ppm For 0...2000 ppm range: Determined by user within 5-95% of the range	

Ask for other versions or custom designed products

## Approvals

### Enclosure:

ATEX / IECEx  
DEMKO 13 ATEX 1327771U  
 II 2 G Ex e IIC Gb  
 II 2 D Ex tb IIIC Db IP66

### Glands:

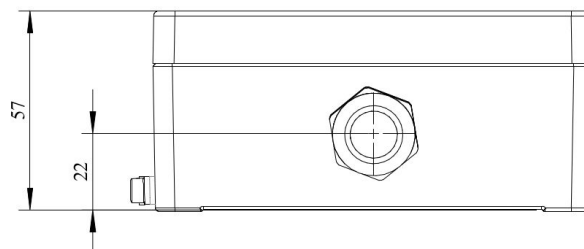
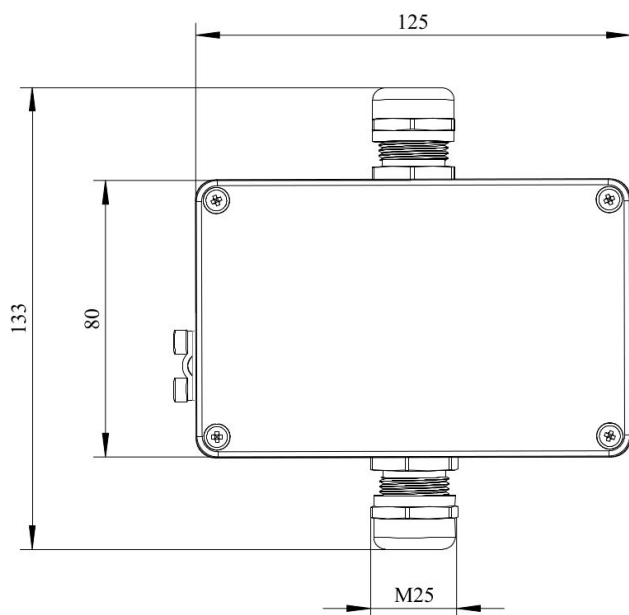
ATEX / IECEx  
EESF 19 ATEX 023X  
 II 2 G Ex db IIC Gb  
 II 2 D Ex tb IIIC Db IP66

### CE conformity

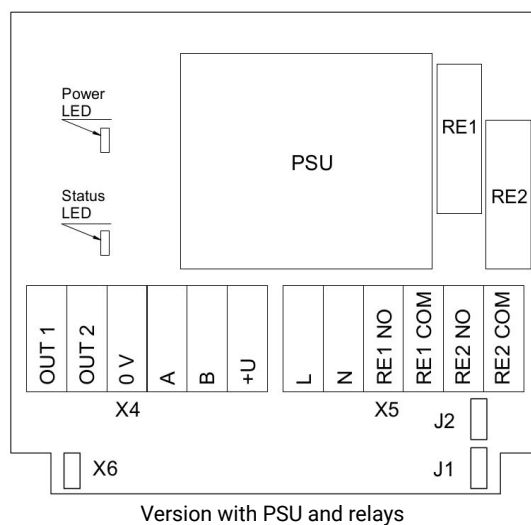
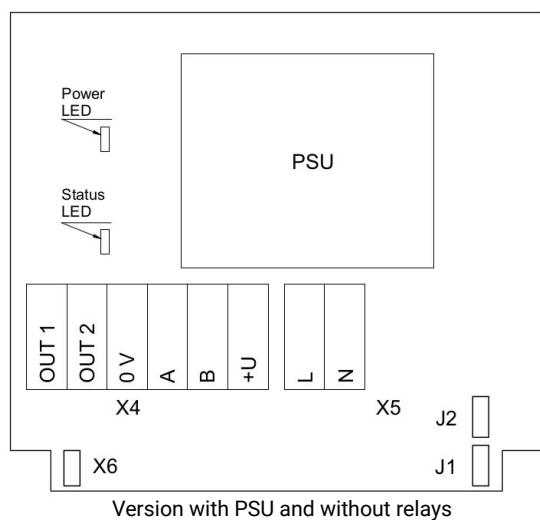
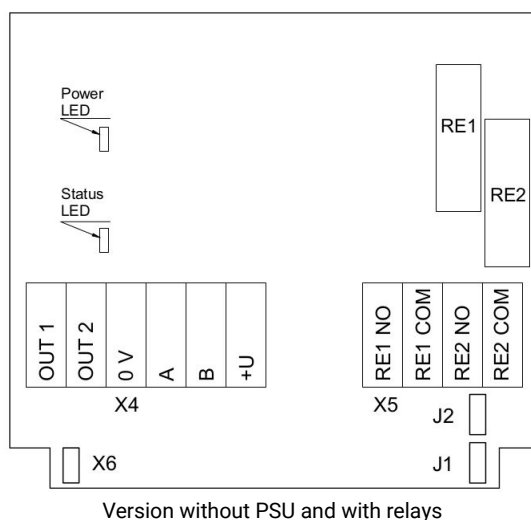
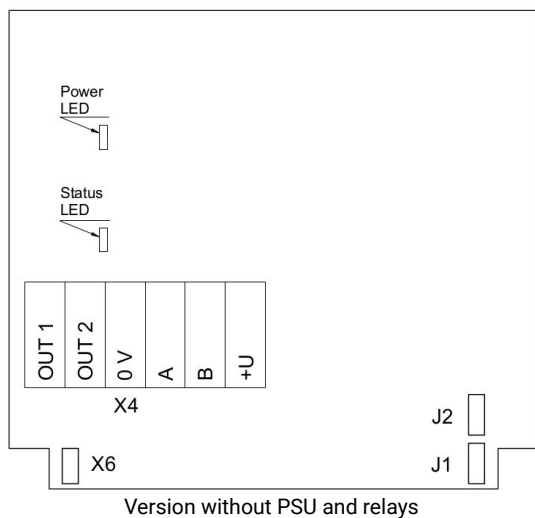
Flameproof to IEC EN 60079-1  
Increased safety to IEC EN 60079-7  
EMC Emissions to EN 61000-6-3, EN 61326-1  
EMC Immunity to EN 61000-6-1, EN 61000-6-2



## Dimensions



## Connection diagrams



**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

