



# Nitric Oxide Detector-Transmitter E2608-NO



## Features

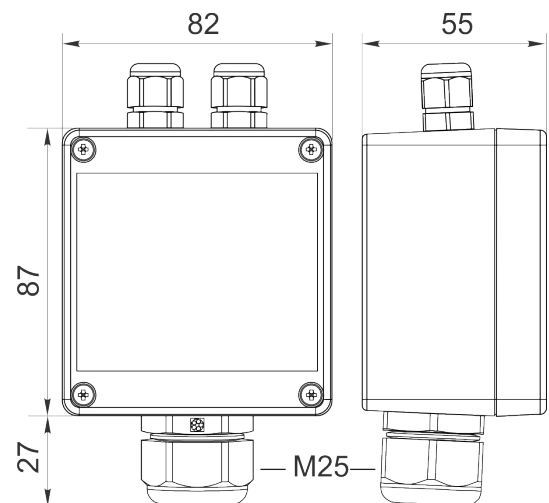
- Wall-mount or duct-mount version
- Industrial IP65 housing
- Two analog outputs settable to 4-20 mA or 0-10 V
- RS485 Modbus RTU digital interface
- Two relays for alarm / ventilation control
- Attached or remote sensor

## Specifications

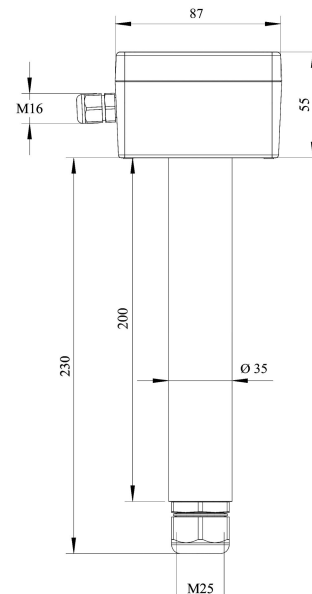
Calibration	Nitric oxide NO
Sensor type	Electrochemical
Sampling method	Diffusion
Typical detection range	0...250 ppm
Maximum overload	1000 ppm
Resolution	1 ppm
Response time T90	<40 s
Signal update	Every 1 second
Sensor lifetime	> 2 years
Maintenance interval	6 months
Self-diagnostics	Full functionality 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	RE1 (LOW): set 10 ppm, release 8 ppm RE2 (HIGH): set 25 ppm, release 20 ppm
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	-30...+50 °C; 15...90% RH non-condensing; 0,9...1,1 atm; Explosion-safe areas Non-aggressive atmosphere

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

### Wall mount version



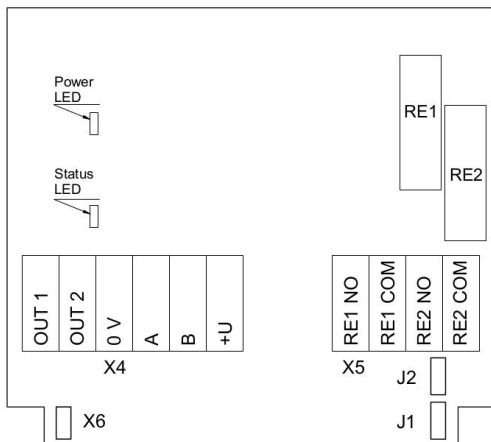
### Duct mount version



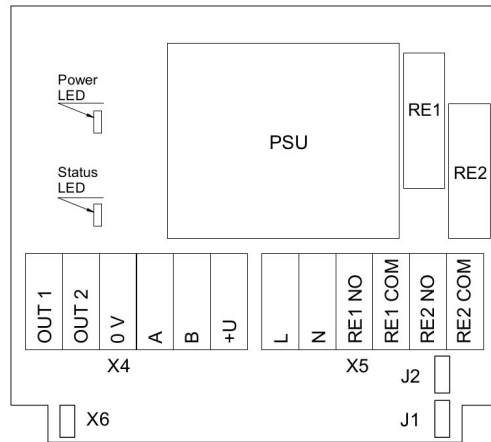
Ask for other versions or custom designed products



## 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

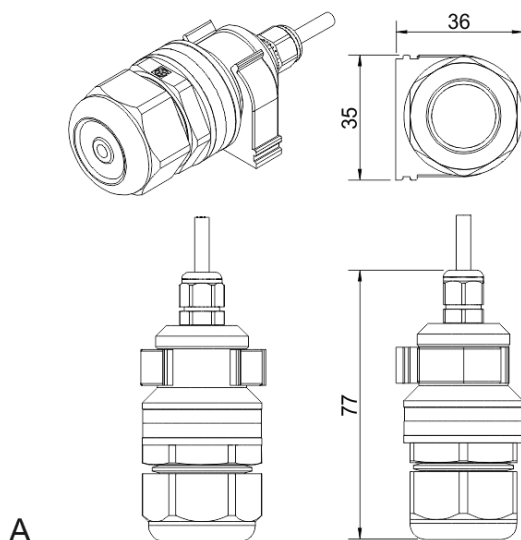
### X4 terminals

<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)

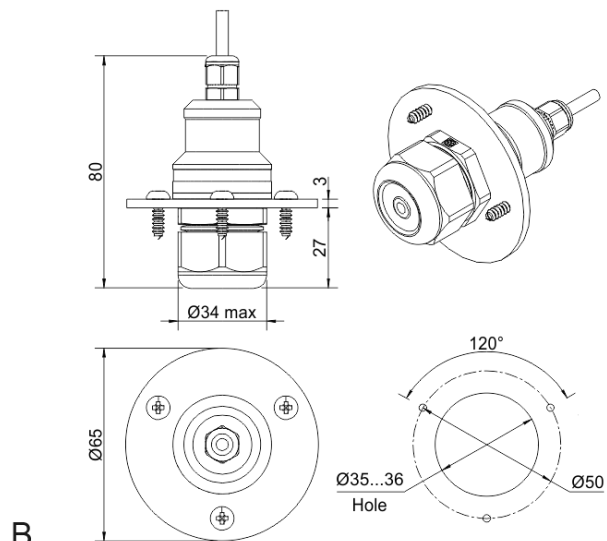
<b>L</b>	90...265 VAC Phase
<b>N</b>	90...265 VAC Neutral
<b>RE1 NO</b>	Relay 1, normally open terminal
<b>RE1 COM</b>	Relay 1, common terminal
<b>RE2 NO</b>	Relay 2, normally open terminal
<b>RE2 COM</b>	Relay 2, common terminal

## Remote probe



A

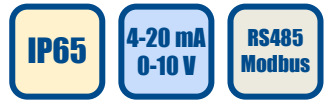
Wall mount remote probe with fixing clamp (default version)



B

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





# Nitric Oxide Transmitter E2618-NO



## Features

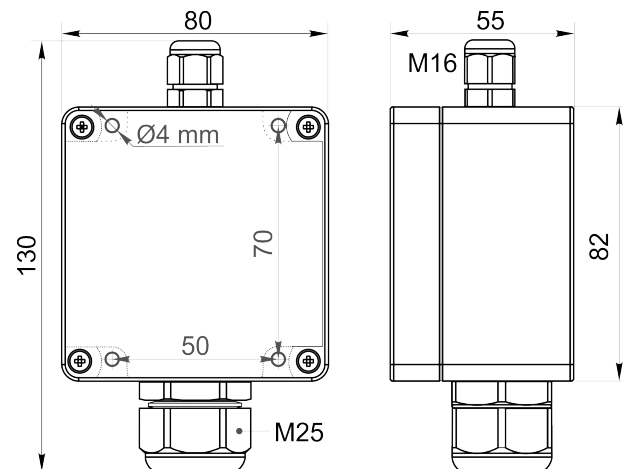
- Wall-mount or duct-mount version
- Industrial IP65 housing
- Two analog outputs settable to 4-20 mA or 0-10 V
- RS485 Modbus RTU digital interface
- Attached or remote sensor

## Specifications

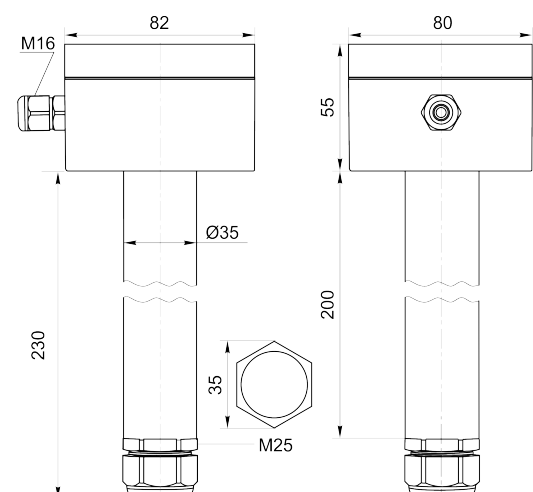
Calibration	Nitric oxide NO
Sensor type	Electrochemical
Sampling method	Diffusion
Typical detection range	0...250 ppm
Maximum overload	1000 ppm
Resolution	1 ppm
Response time T90	< 40 s
Signal update	Every 1 second
Sensor lifetime	> 12 months
Maintenance interval	6 months
Self-diagnostics	Full functionality 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	-30...+50 °C; 15...90% RH non-condensing; 0,9...1,1 atm; Explosion-safe areas Non-aggressive atmosphere

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

### Wall mount version



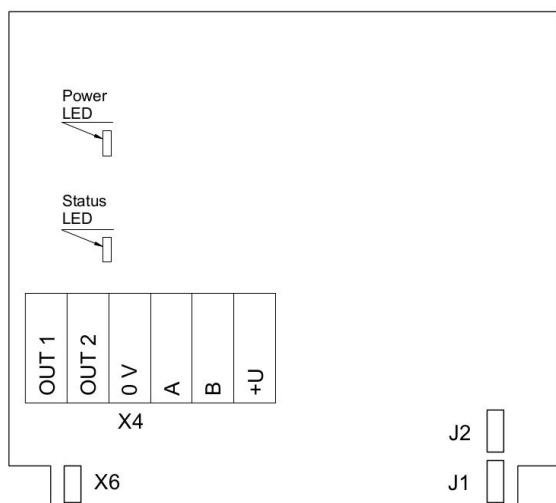
### Duct mount version



Ask for other versions or custom designed products



## Connection diagram



PCB without PSU and relays

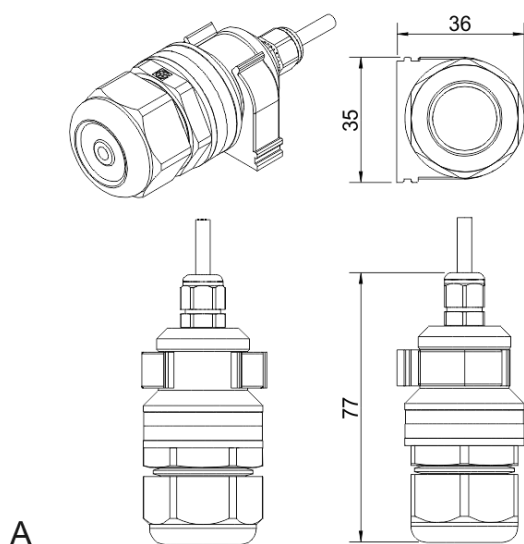
### Jumpers

- 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

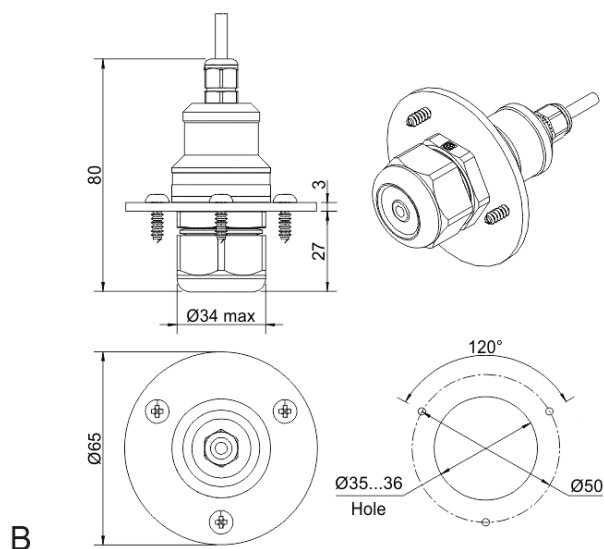
### X4 terminals

- 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)





## Nitric Oxide Detector-Transmitter E2638-NO



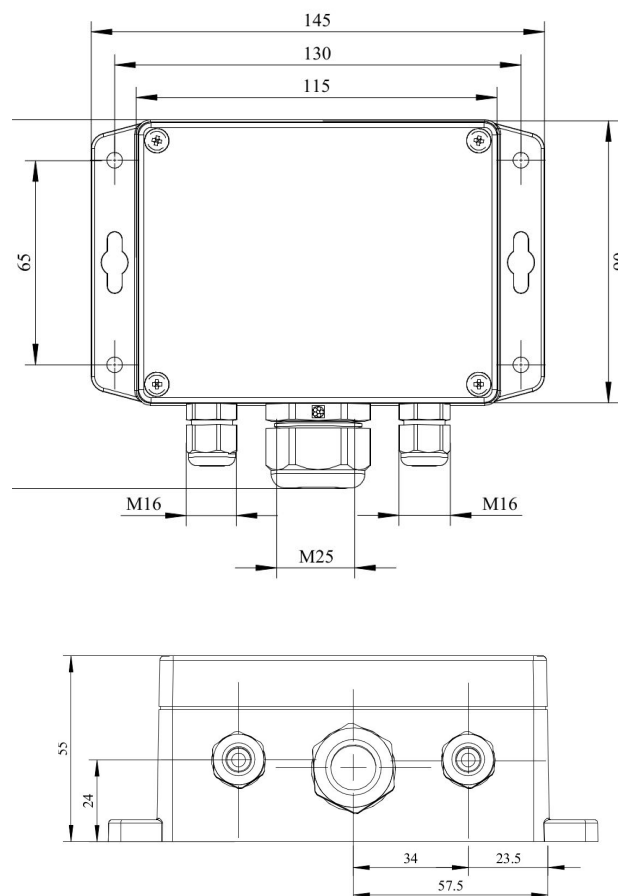
### Features

- 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	Nitric oxide NO
Sensor type	Electrochemical
Sampling method	Diffusion
Typical detection range	0...250 ppm
Maximum overload	1000 ppm
Resolution	1 ppm
Response time T90	<40 s
Signal update	Every 1 second
Maintenance interval	6 months
Sensor lifetime	> 1 year
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	-30...+50 °C; 15...90% RH Non-condensing; 0,9...1,1 atm; 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	RE1 (LOW): set 10 ppm, release 8 ppm RE2 (HIGH): set 25 ppm, release 20 ppm

### 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

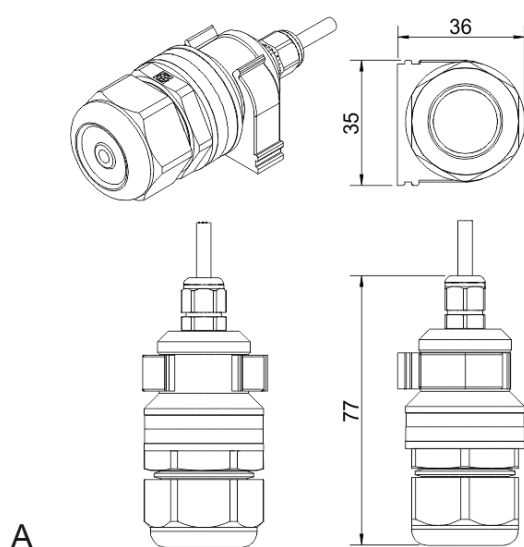
**NOTE!** Only second analog output (OUT2) is available for a version with LCD.

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

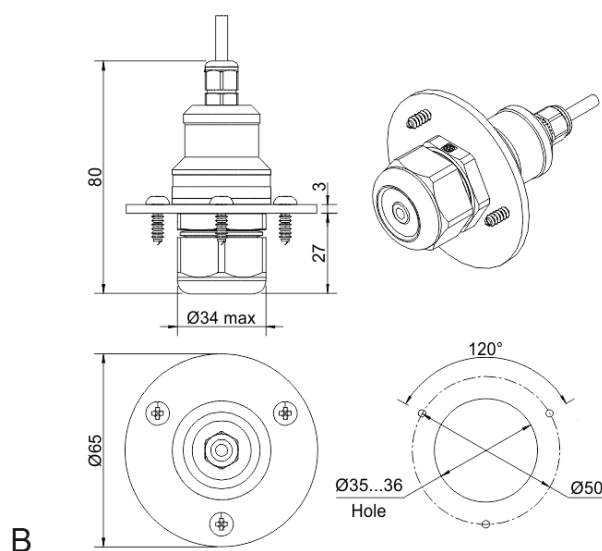
## Version with LCD indicator



## Remote probe



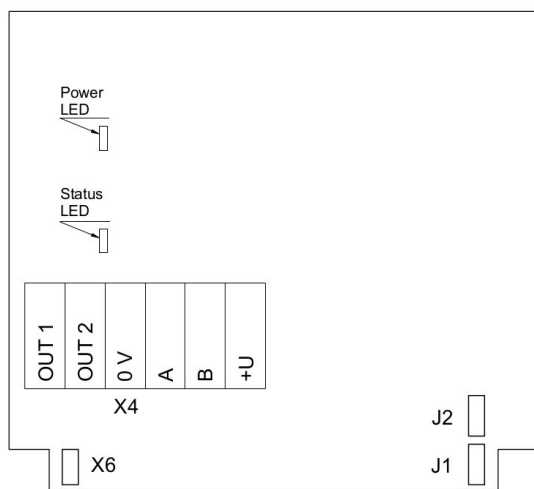
Wall mount remote probe with fixing clamp (default version)



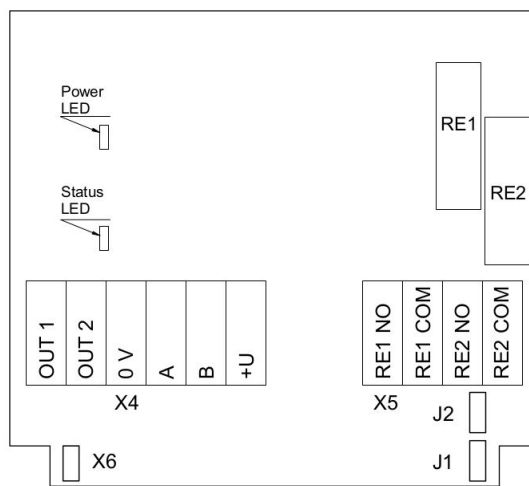
Remote probe with rubber flange and three self-tapping screws (on request)



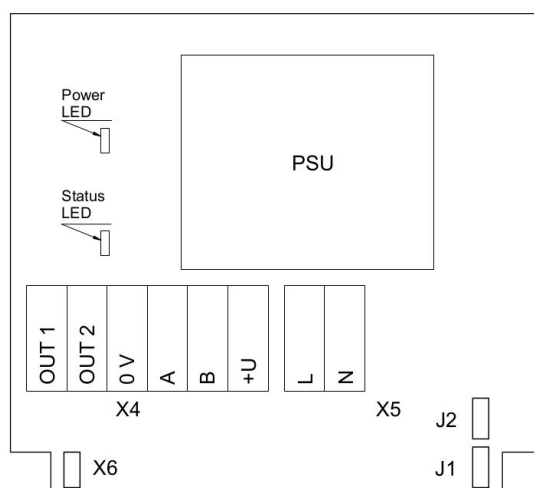
## Connection diagrams



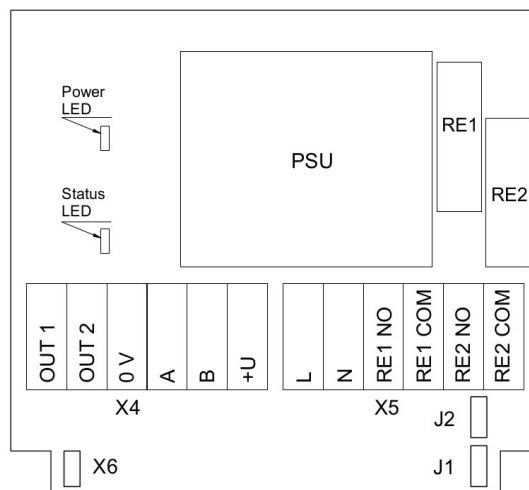
Version without PSU and relays



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





# Nitric Oxide Detector-Transmitter E2648-NO



## 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	Nitric oxide NO
Sensor type	Electrochemical
Sampling method	Diffusion
Typical detection range	0...250 ppm
Maximum overload	1000 ppm
Resolution	1 ppm
Response time T90	<40 s
Sensor lifetime	> 1 year
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 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	Die-cast aluminium, wall mount, protection class IP66
Dimensions	H120 × W125 × D57 mm
Operating environment	Industrial indoor and outdoor locations
Operating conditions	-30...+50 °C; 15...90% RH non-condensing; 0,9...1,1 atm; explosion safe areas Non-aggressive atmosphere <b>Note!</b> We offer technical solutions for extreme humidity, please ask for more information

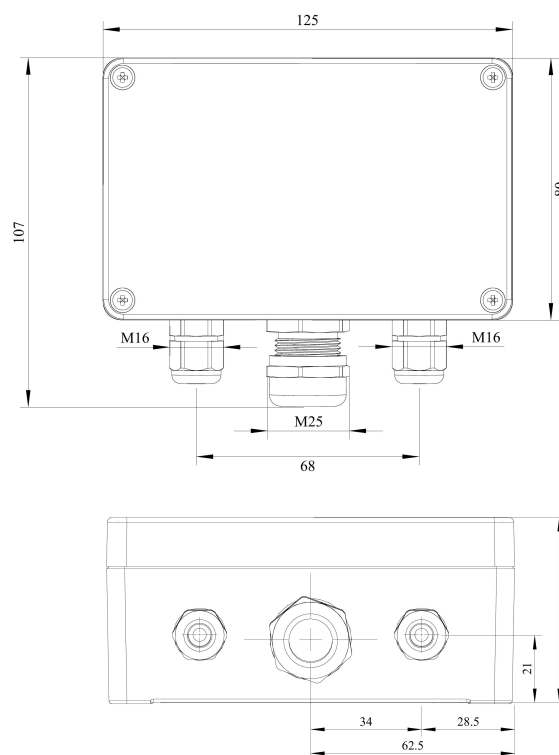
### Relay option (ordering code R)

Output relays	2 × SPST relays (closing contact), 250 VAC / 30 VDC, 5 A max
Default alarm setpoints	RE1 (LOW): set 10 ppm, release 8 ppm RE2 (HIGH): set 25 ppm, release 20 ppm

### Other options

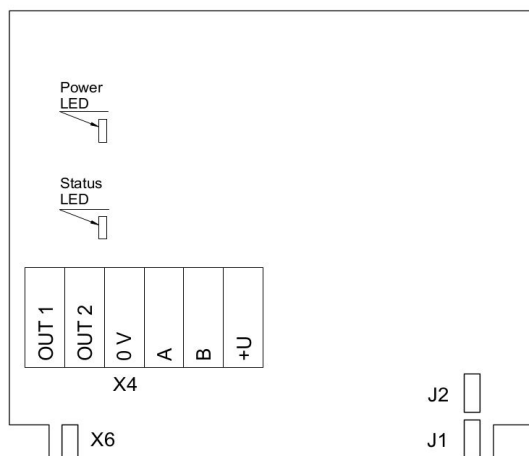
Remote sensor probe	Protection IP65, shielded cable default cable length 3.0 m
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## Dimensions

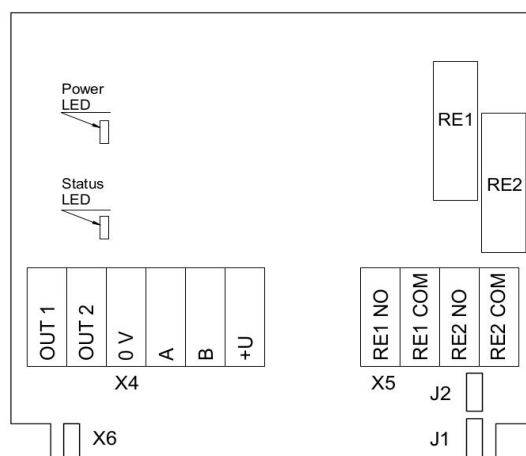




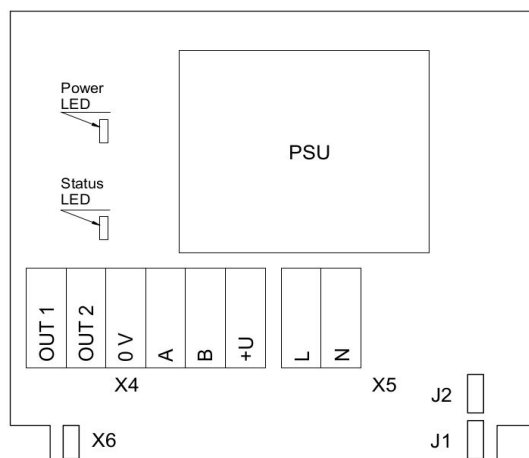
## Connection diagrams



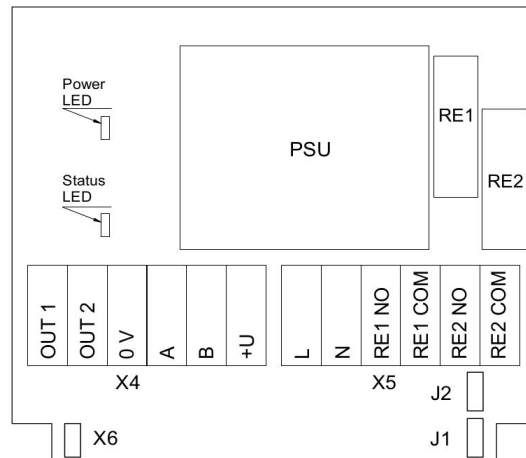
Version without PSU and relays



Version without PSU and with relays



Version with PSU and without relays



Version with PSU and relays

### Jumpers

<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

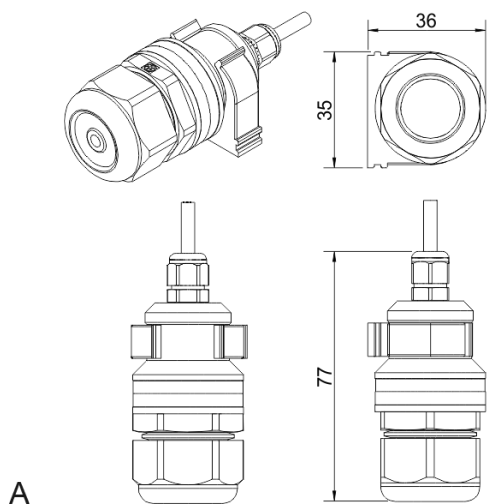
<b>OUT1</b>	4-20 mA / 0-10 V output
<b>OUT2</b>	4-20 mA / 0-10 V output
<b>0V</b>	0 V / 24 VAC Neutral (optional)
<b>A</b>	RS485 A / Data +
<b>B</b>	RS485 B / Data -
<b>+U</b>	+24 VDC / 24 VAC Phase (optional)

### 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

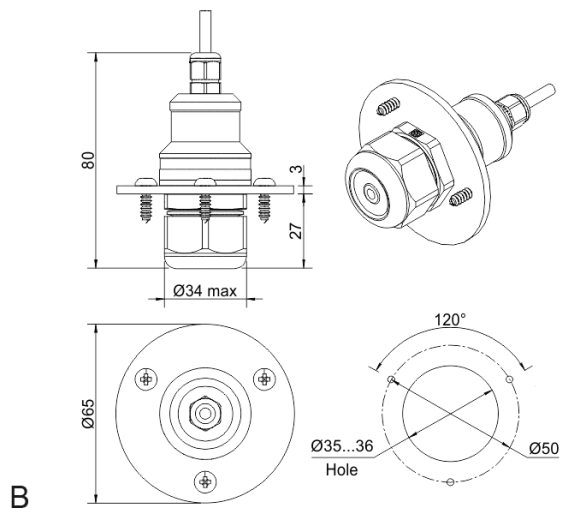


## Remote probe



A

Wall mount remote probe with fixing clamp (default version)



B

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



# Flameproof Nitric Oxide Detector-Transmitter E2658-NO



## 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	Nitric oxide NO
Sensor type	Electrochemical
Sampling method	Diffusion
Typical detection range	0...250 ppm
Maximum overload	1000 ppm
Resolution / digital unit	1 ppm
Response time T90	<40 s
Sensor lifetime	> 12 months
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	-30...+50 °C; 15...90% RH non-condensing; 0,9...1,1 atm; 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	RE1 (LOW): set 10 ppm, release 8 ppm RE2 (HIGH): set 25 ppm, release 20 ppm

## Approvals

### Enclosure:

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

### Glands:

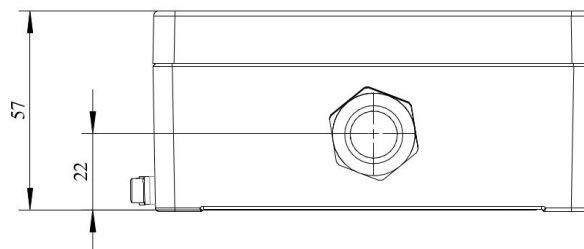
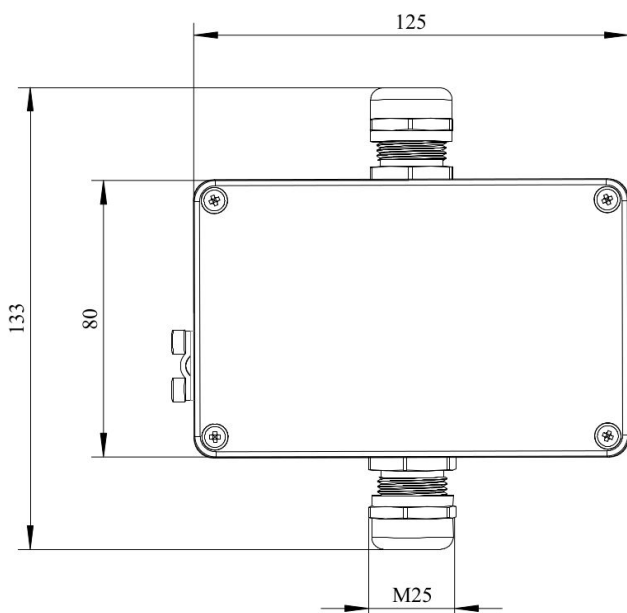
ATEX / IECEx  
EESF 19 ATEX 023X  
 II 2 G Ex db IIC Gb  
 II 2 D Ex tb IIIC Db IP66

### CE conformity

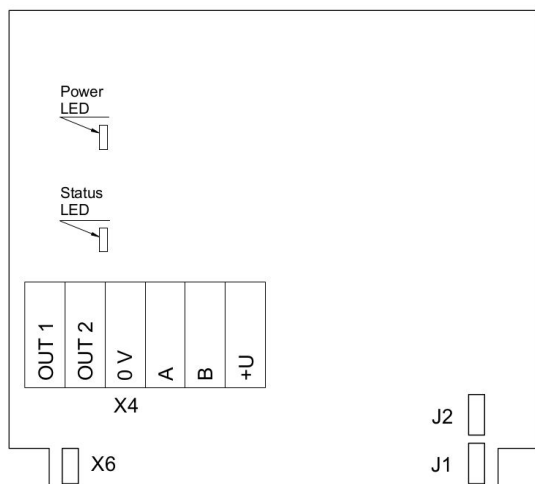
Flameproof to IEC EN 60079-1  
Increased safety to IEC EN 60079-7  
EMC Emissions to EN 61000-6-3, EN 61326-1  
EMC Immunity to EN 61000-6-1, EN 61000-6-2



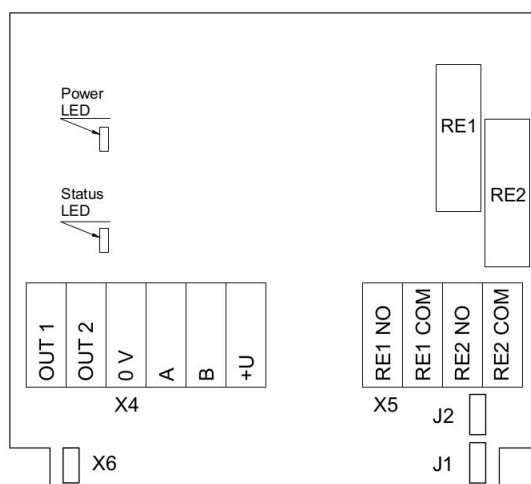
### Dimensions



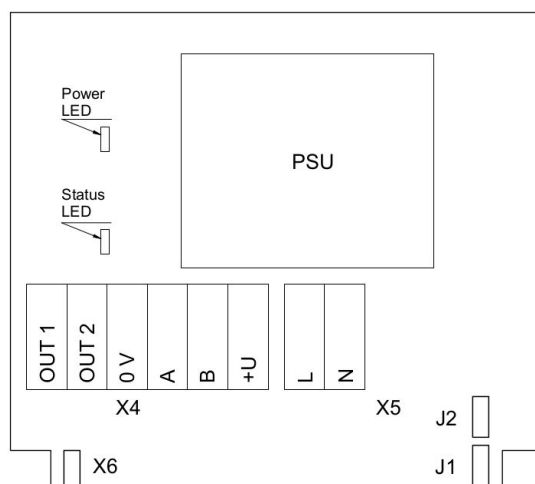
### Connection diagrams



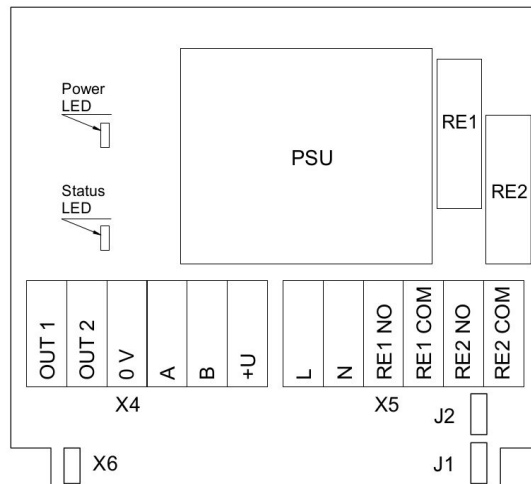
Version without PSU and relays



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





## Dual Gas Transmitter E2660-CO-NO



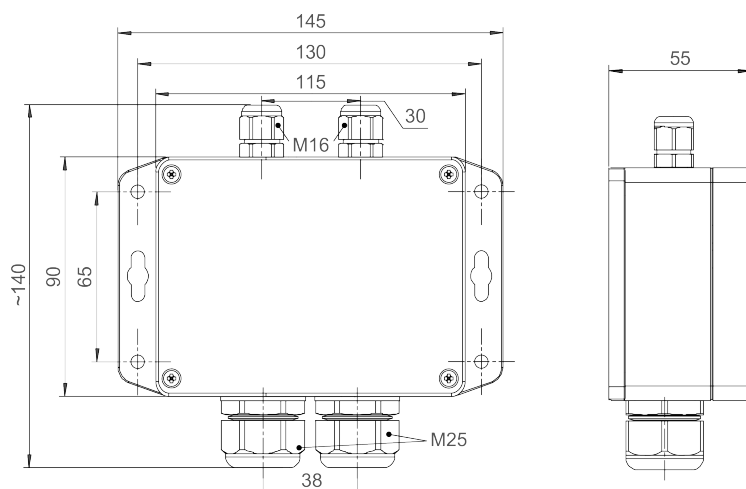
### Features

- CO and NO monitoring in underground parking
- Two analog outputs 4-20 mA and 0-10 V
- RS485 Modbus RTU digital interface
- Wall mount IP65 protected housing
- Attached or remote sensor
- Relay option

### Specifications

	CO	NO
Sensor type	Electrochemical	Electrochemical
Sampling method	Diffusion	Diffusion
Detection ranges	0-300, 0-1000 ppm	0...250 ppm
Max. overload	2000 ppm	1000 ppm
Resolution	1 ppm	1 ppm
Response time T90	ca. 30 s	<40 s
Maintenance interval	12 months	6 months
Sensor lifetime	> 10 years	> 12 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	Light grey ABS plastic, wall mount, protection class IP65	
Dimensions	H90 × W145 × D55 mm	
Sensor heads	M25	
Remote sensor probe	Protection IP65, shielded cable default cable length 3.0 m	
Operating conditions	Explosion-safe areas; Non-aggressive atmosphere without condensation; 0,9...1,1 atm; -20...+50 °C, 0...85 %RH	

### Dimensions



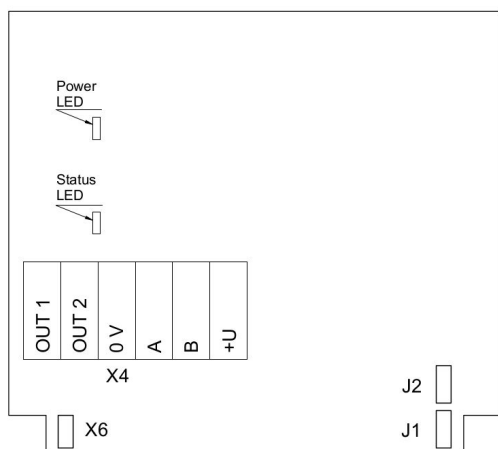
### Relay option (ordering code R)

Output relays	2 × SPST relays (closing contact), 250 VAC / 30 VDC, 5 A max
Default alarm setpoints	RE1: set 25 ppm, release 20 ppm RE2: set 10 ppm, release 8 ppm

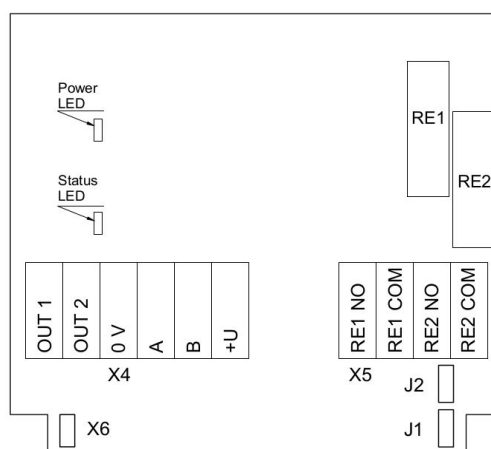
Ask for other versions or custom designed products



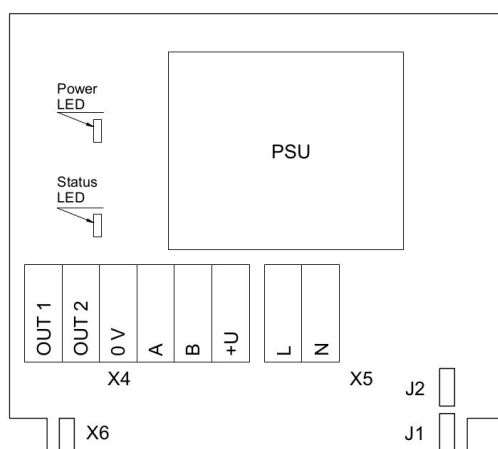
## Connection diagram



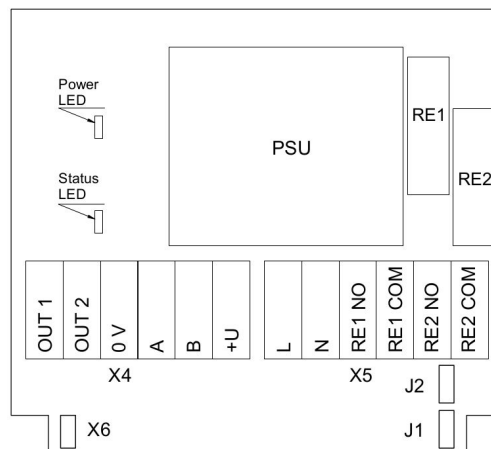
Version without PSU and relays



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

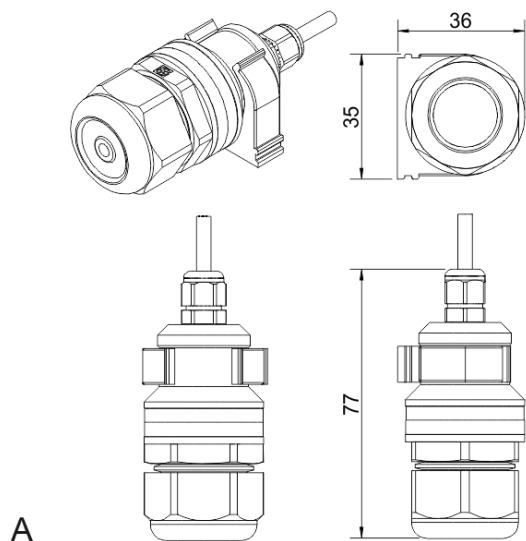
<b>OUT1</b>	4-20 mA / 0-10 V output
<b>OUT2</b>	4-20 mA / 0-10 V output
<b>0V</b>	0 V / 24 VAC Neutral (optional)
<b>A</b>	RS485 A / Data +
<b>B</b>	RS485 B / Data -
<b>+U</b>	+24 VDC / 24 VAC Phase (optional)

### X5 terminals (optional)

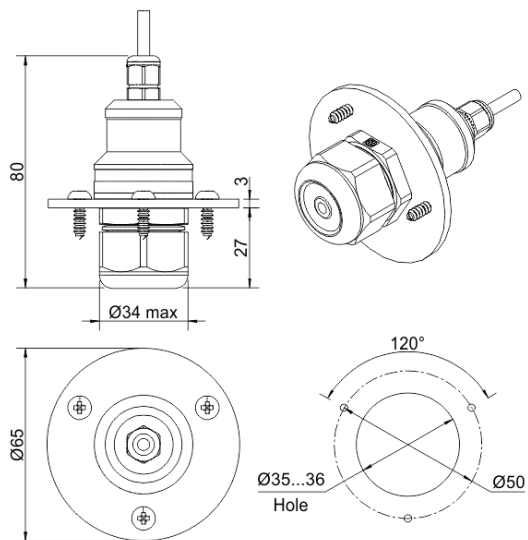
<b>L</b>	90...265 VAC Phase
<b>N</b>	90...265 VAC Neutral
<b>RE1 NO</b>	Relay 1, normally open terminal
<b>RE1 COM</b>	Relay 1, common terminal
<b>RE2 NO</b>	Relay 2, normally open terminal
<b>RE2 COM</b>	Relay 2, common terminal



## 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)

