



Nitrogen Dioxide Detector-Transmitter E2608-NO2



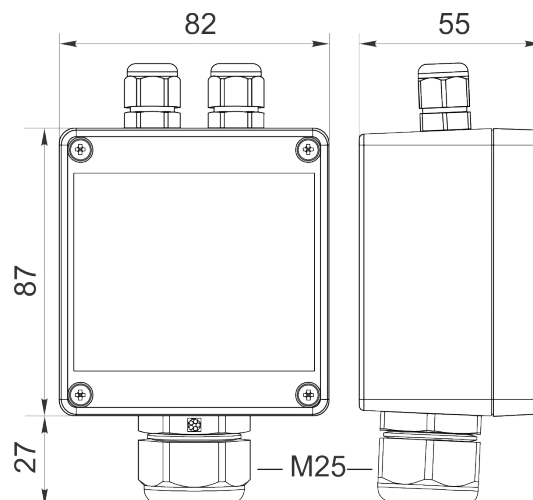
Features

- 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

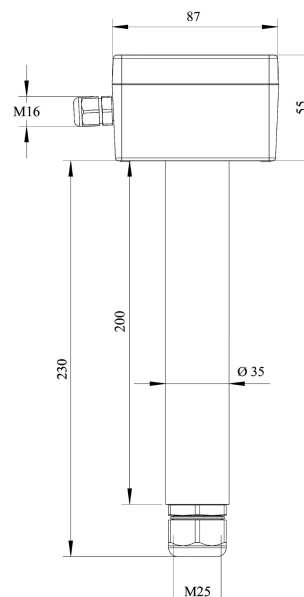
Specifications

Calibration	Nitrogen dioxide NO ₂	
Sensor type	Electrochemical	
Sampling method	Diffusion	
Typical detection range	0...20 ppm	0...200 ppm
Maximum overload	100 ppm	1000 ppm
Resolution	0.1 ppm	1 ppm
Response time T90	< 60 s	<40 s
Operating temperature	-30...+50 °C	-20...+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	RE1 (LOW): 3 / 2.4 ppm (set / release) RE2 (HIGH): 6 / 4 ppm For 0...200 ppm 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) 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

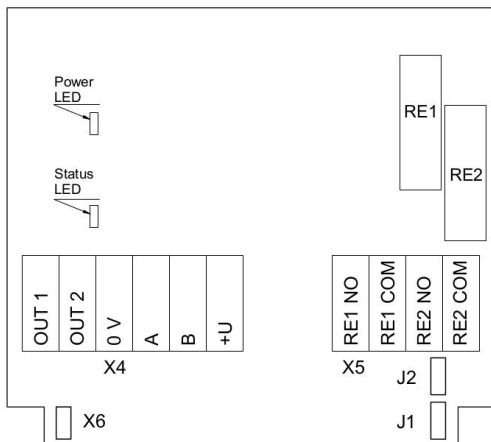


Duct mount version

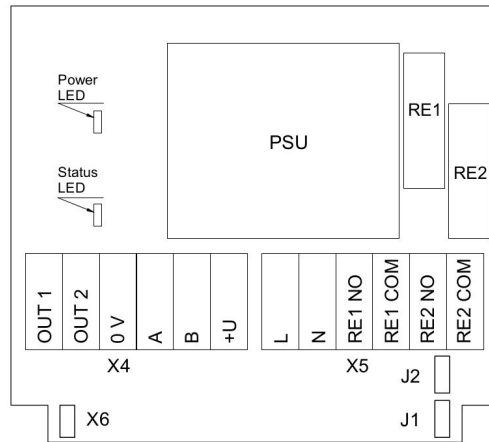


Ask for other versions or custom designed products

Connection diagrams



Version without PSU



Version with PSU

Jumpers

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

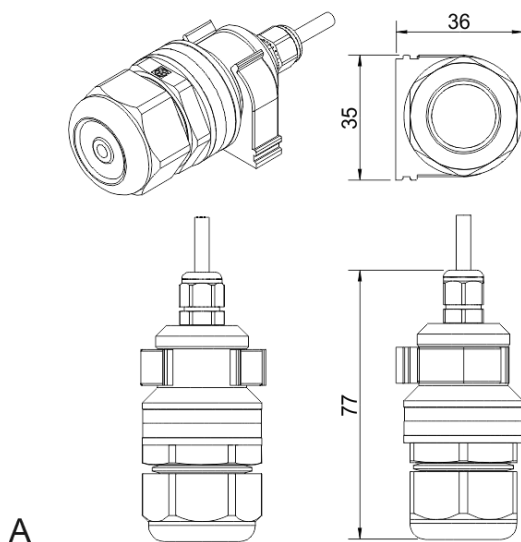
X4 terminals

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)

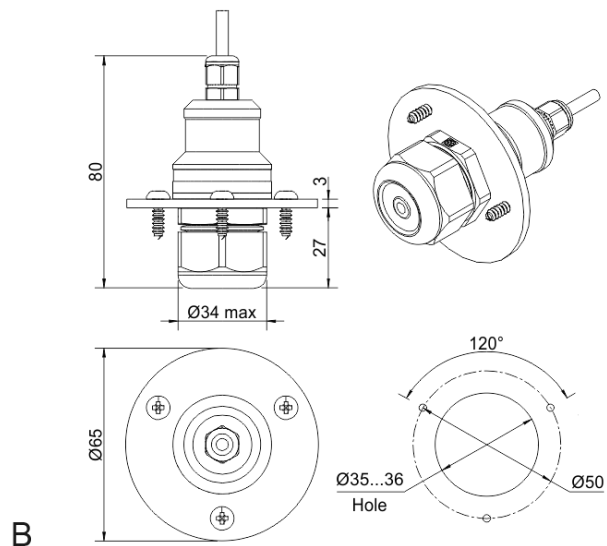
L	90...265 VAC Phase
N	90...265 VAC Neutral
RE1 NO	Relay 1, normally open terminal
RE1 COM	Relay 1, common terminal
RE2 NO	Relay 2, normally open terminal
RE2 COM	Relay 2, common terminal

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)





Nitrogen Dioxide Transmitter E2615-NO2



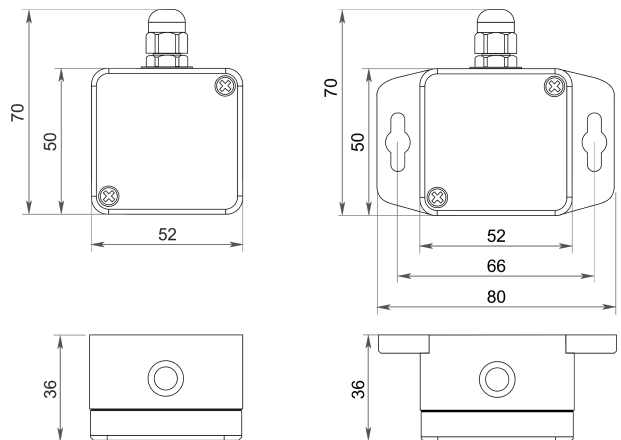
Features

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

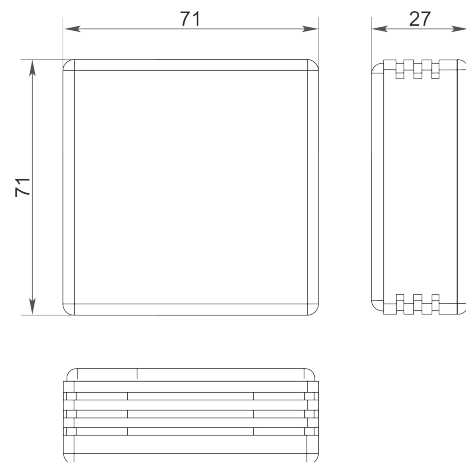
Specifications

Sensor type	Electrochemical
Sampling method	Diffusion
Detection range	0-30 ppm
Response time	≤ 25 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	≥ 5 years
Sensitivity drift	< ± 20% in 5 years
Indoors enclosure	White, ivory or black ABS plastic, wall mount, protection class IP20
Weatherproof enclosure	Light or dark grey ABS plastic, wall mount, protection class IP65
Operating conditions	-20...+50 °C 15...90 %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

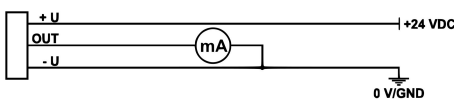


IP20 Enclosures

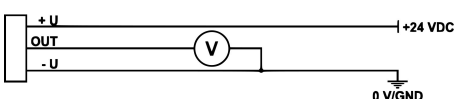


Connection diagrams

3-wire 4-20 mA output



3-wire 0-10 V output





Nitrogen Dioxide Transmitter E2618-NO2



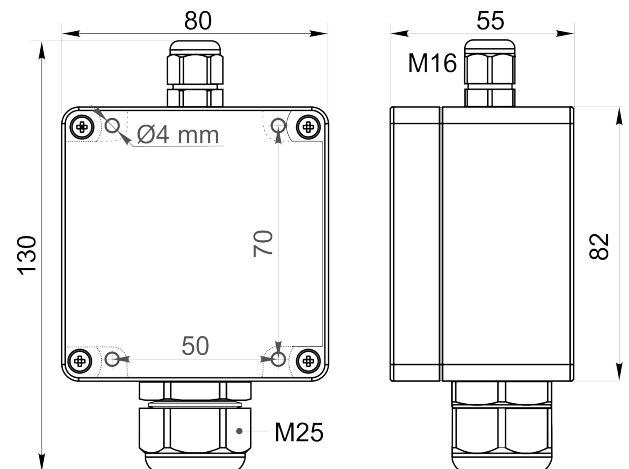
Features

- 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

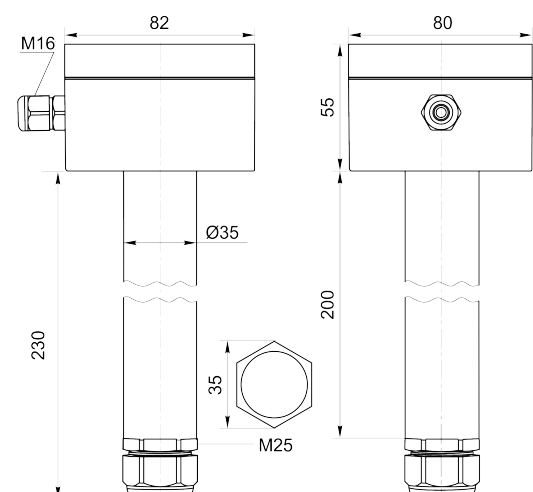
Specifications

Calibration	Nitrogen dioxide NO ₂	
Sensor type	Electrochemical	
Sampling method	Diffusion	
Typical detection range	0...200 ppm	0...200 ppm
Maximum overload	100 ppm	1000 ppm
Resolution	0.1 ppm	1 ppm
Response time T90	< 60 s	<40 s
Operating temperature	-30...50 °C	-20...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) 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



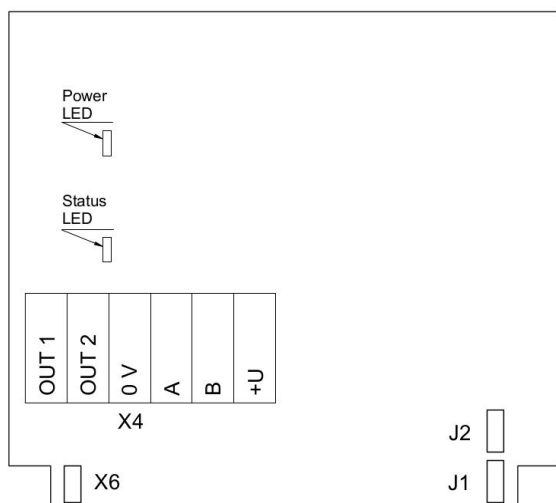
Duct mount version



Ask for other versions or custom designed products



Connection diagram



PCB without PSU and relays

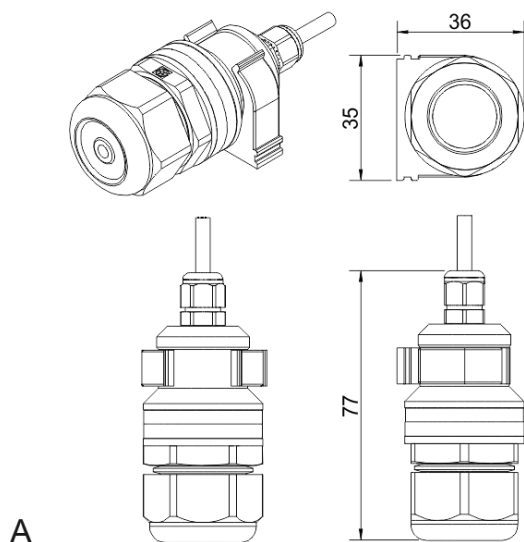
Jumpers

- 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

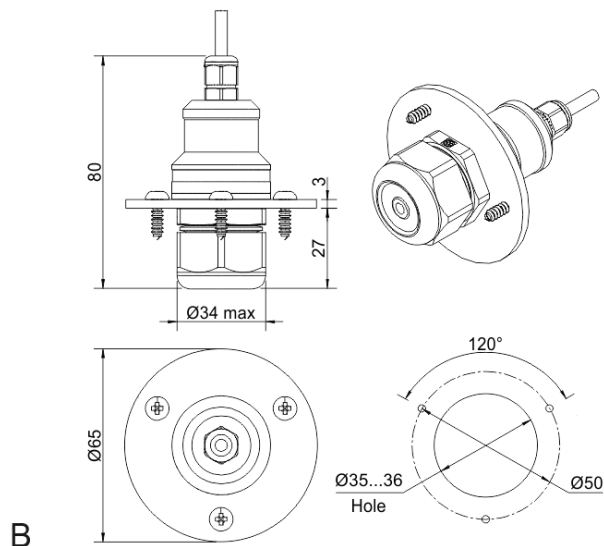
X4 terminals

- 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)





Nitrogen Dioxide Detector E2630-NO2



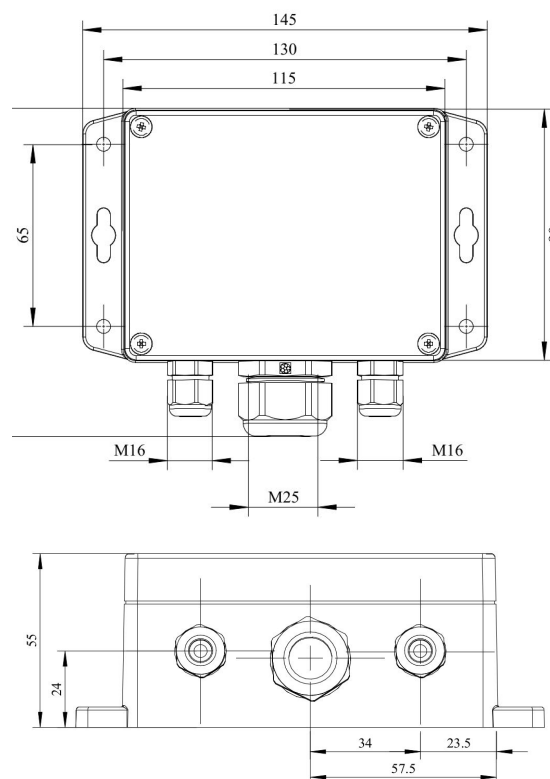
Features

- Accurate and stable measurement
- Wall-mount IP65 protected housing
- Visual and acoustic alarms
- Two output relays for alarm / ventilation control

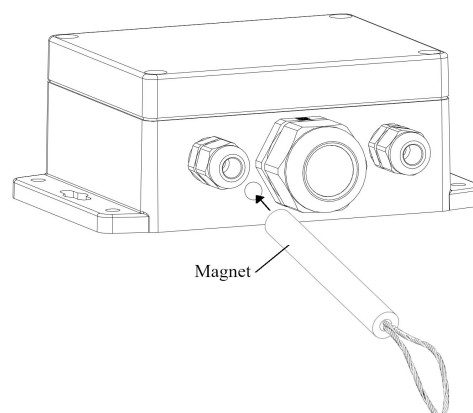
Specifications

Calibration	Nitrogen dioxide NO ₂
Sensor type	Electrochemical
Sampling method	Diffusion
Typical detection range	0...10 ppm
Response time T90	< 60 s
Signal update	Every 1 second
Sensor lifetime	> 2 years
Maintenance interval	6 months
Self-diagnostics	Full functionality check at start-up, testing by magnetic switch
Warm-up time	≤ 1 min
Power supply	24 VAC/DC or 90...265 VAC
Power consumption	< 2 VA
Digital interface	UART
Output relays	2 relays with switch-over contact (SPDT), 250 VAC / 30 VDC, 5 A max
Default alarm set-points (Release - Low - High)	2-3-6 ppm NO ₂
Alarms	Blinking LED, buzzer 85 dB
Enclosure	Grey ABS plastic, wall mount, protection class IP65
Dimensions	H140 × W145 × D55 mm
Operating conditions	-30...+50 °C 15...90% RH non-condensing; 0,9...1,1 atm; Explosion-safe areas Non-aggressive atmosphere

Dimensions



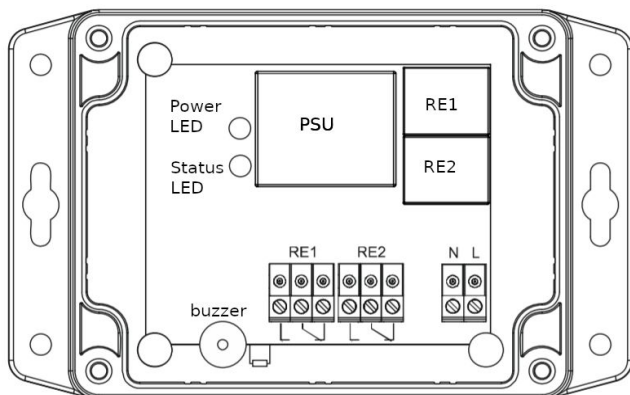
Magnet key



Ask for other versions or custom designed products



Connection diagram



Terminals

RE1 NO	Relay 1, normally open terminal
RE1 COM	Relay 1, common terminal
RE1 NC	Relay 1, normally closed terminal
RE2 NO	Relay 2, normally open terminal
RE2 COM	Relay 2, common terminal
RE2 NC	Relay 2, normally closed terminal
L	90...265 VAC Phase (optional 24 VAC / VDC)
N	90...265 VAC Neutral (optional 24 VAC / VDC)





Nitrogen Dioxide Detector-Transmitter E2638-NO2



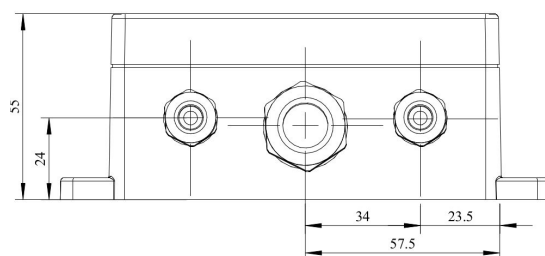
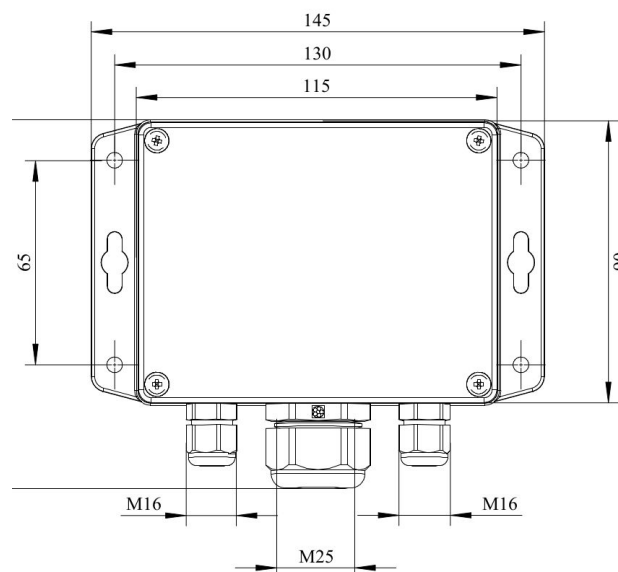
Features

- 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	Nitrogen dioxide NO ₂	
Sensor type	Electrochemical	
Sampling method	Diffusion	
Typical detection range	0...20 ppm	0...200 ppm
Maximum overload	100 ppm	1000 ppm
Resolution	0.1 ppm	1 ppm
Response time T90	< 60 s	<40 s
Operating temperature	-30...50 °C	-20...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) 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.	

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	For 0...20 ppm range: RE1 (LOW): set 3; release 2.4 ppm RE2 (HIGH): set 6; release 4.8 ppm For 0...200 ppm 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

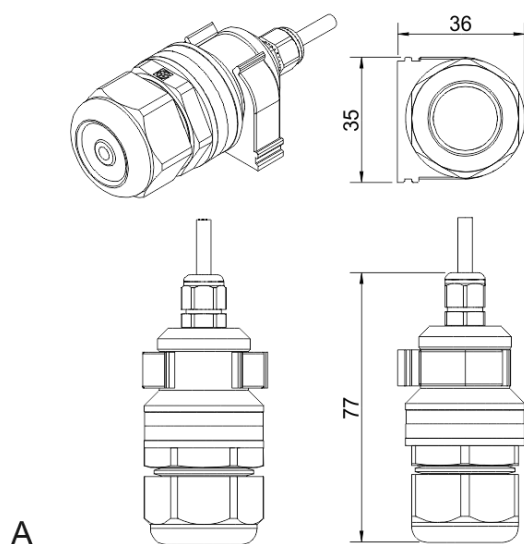
NOTE! Only second analog output (OUT2) is available for a version with LCD.

NOTE! LCD and LEDs can not be chosen simultaneously.

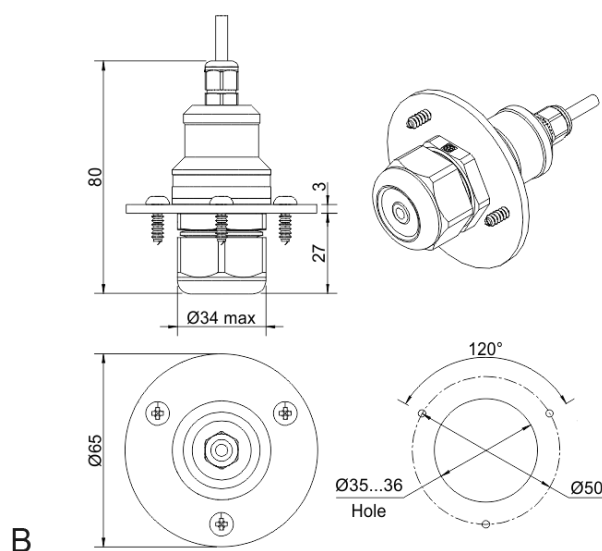
Version with LCD indicator



Remote probe



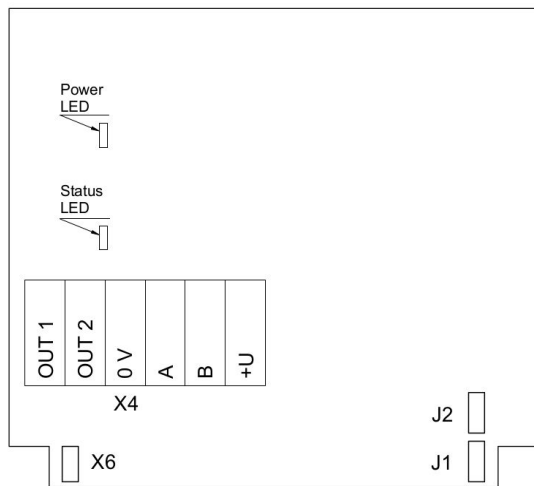
Wall mount remote probe with fixing clamp (default version)



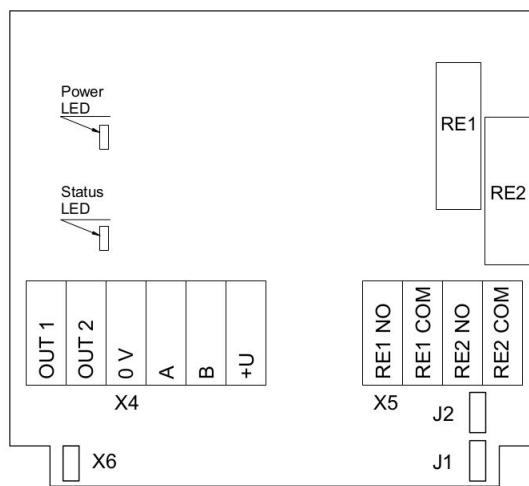
Remote probe with rubber flange and three self-tapping screws (on request)



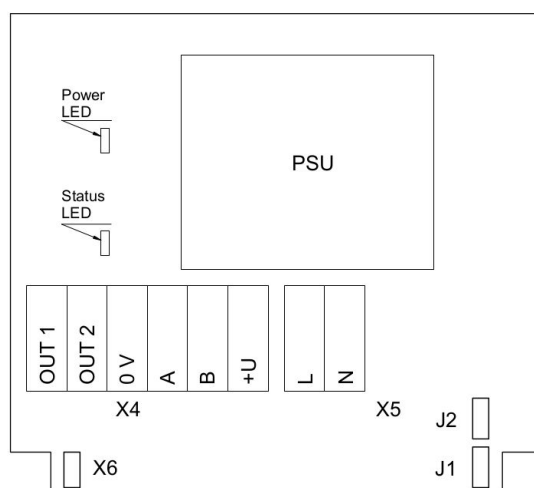
Connection diagrams



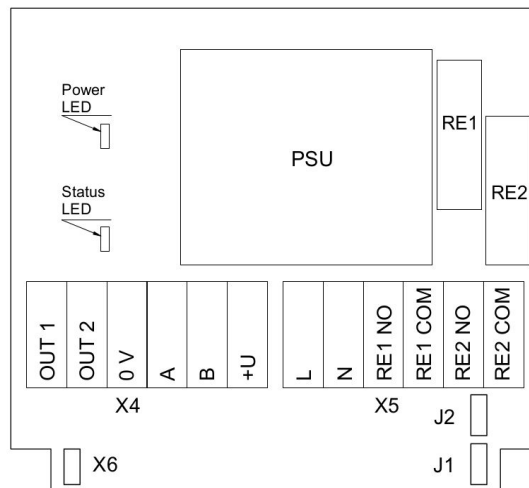
Version without PSU and relays



Version without PSU and with relays



Version with PSU and without relays



Version with PSU and relays

Jumpers

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





Nitrogen Dioxide Detector-Transmitter E2648-NO2



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	Nitrogen dioxide NO ₂	
Sensor type	Electrochemical	
Sampling method	Diffusion	
Typical detection range	0...20 ppm	0...200 ppm
Maximum overload	100 ppm	1000 ppm
Resolution	0.1 ppm	1 ppm
Response time T90	< 60 s	<40 s
Operating temperature	-30...50 °C	-20...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 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 temperature is specified above)	
Operating conditions	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	

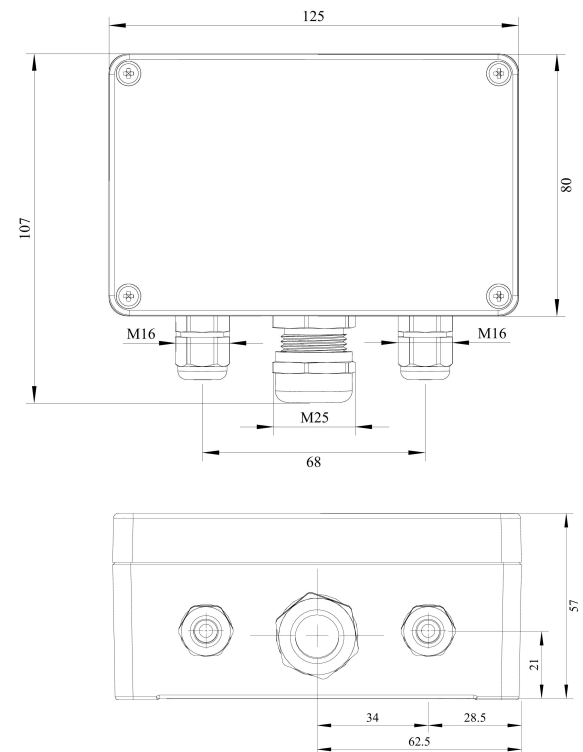
Relay option (ordering code R)

Output relays	2 × SPST relays (closing contact), 250 VAC / 30 VDC, 5 A max
Default alarm setpoints	RE1 (LOW): 3 / 2.4 ppm (set / release) RE2 (HIGH): 6 / 4.8 ppm For 0...200 ppm 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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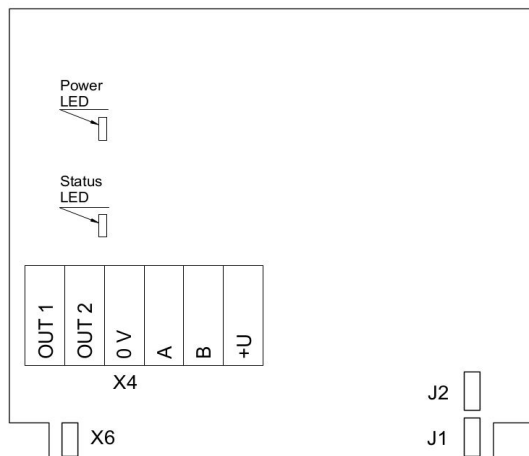
Dimensions



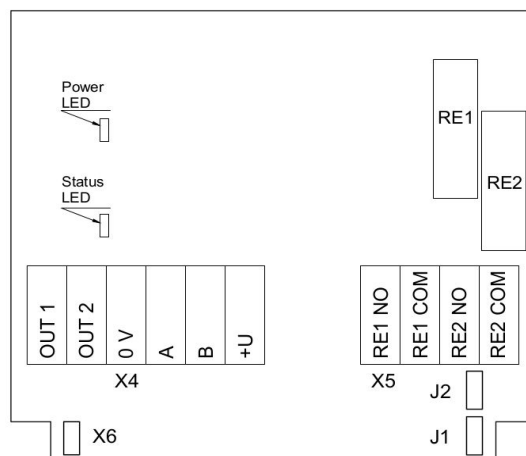
Ask for other versions or custom designed products



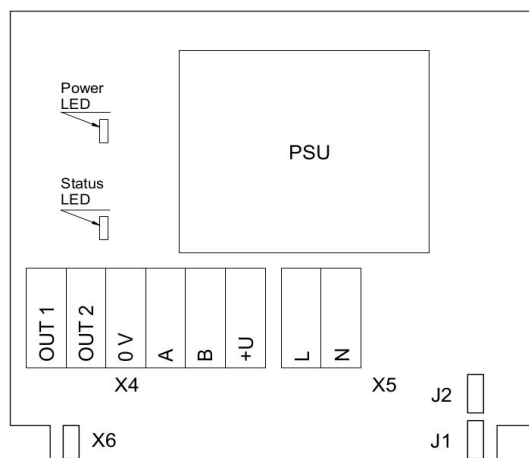
Connection diagrams



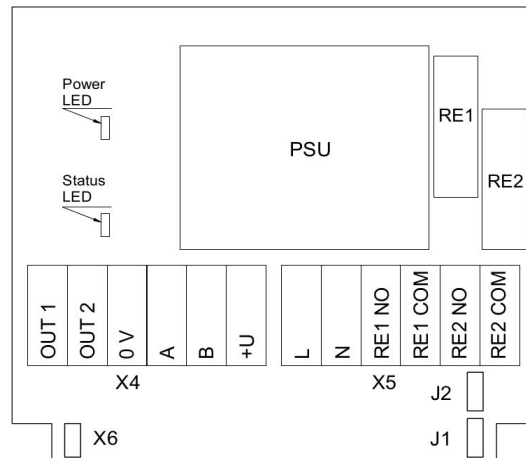
Version without PSU and relays



Version without PSU and with relays



Version with PSU and without relays



Version with PSU and relays

Jumpers

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

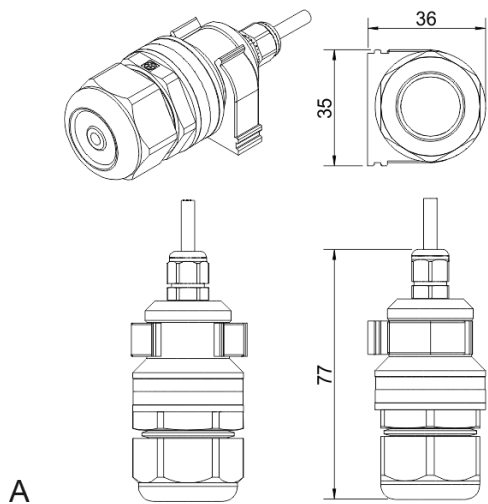
OUT1	4-20 mA / 0-10 V output
OUT2	4-20 mA / 0-10 V output
0V	0 V / 24 VAC Neutral (optional)
A	RS485 A / Data +
B	RS485 B / Data -
+U	+24 VDC / 24 VAC Phase (optional)

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

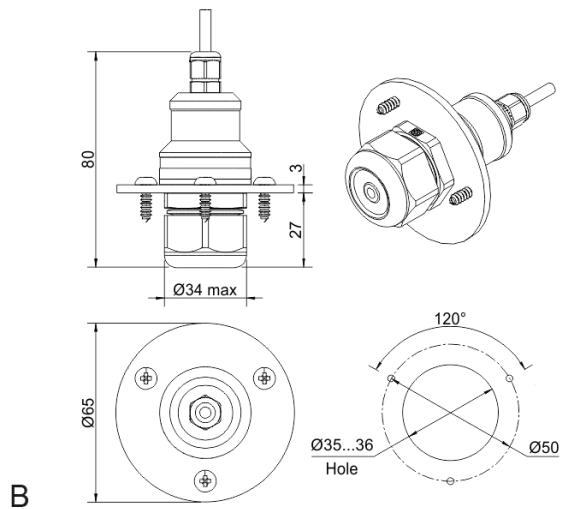


Remote probe



A

Wall mount remote probe with fixing clamp (default version)



B

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



Flameproof Nitrogen Dioxide Detector-Transmitter E2658-NO2



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	Nitrogen dioxide NO ₂	
Sensor type	Electrochemical	
Sampling method	Diffusion	
Typical detection range	0...20 ppm	0...200 ppm
Maximum overload	100 ppm	1000 ppm
Resolution / digital unit	0.1 ppm	1 ppm
Response time T90	< 60 s	<40 s
Operating temperature	-30...+50 °C	-20...+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) 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.	

Relay option (ordering code R)

Output relays	2 × SPST relays (closing contact), 250 VAC / 30 VDC, 5 A max
Default alarm setpoints	RE1 (LOW): 3 / 2.4 ppm (set / release) RE2 (HIGH): 6 / 4 ppm For 0...200 ppm 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:

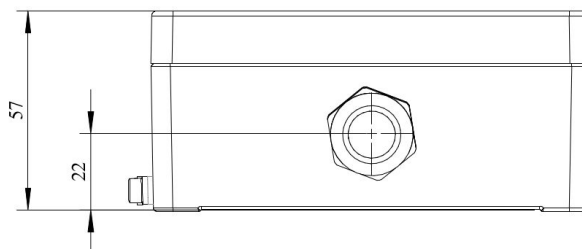
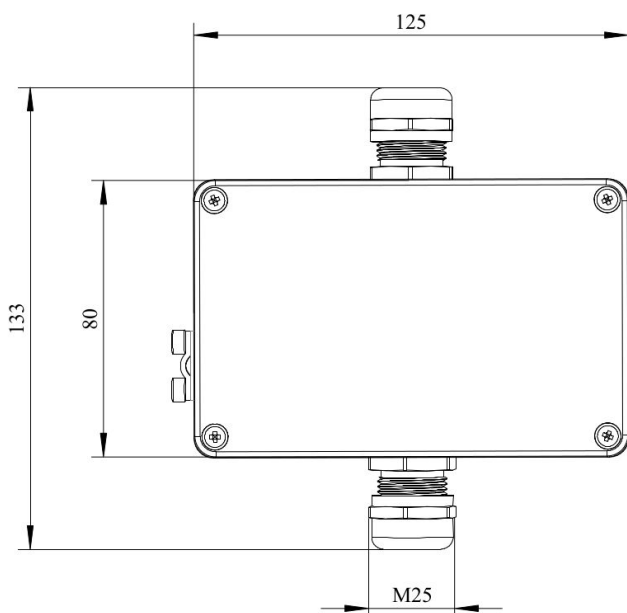
ATEX / IECEx
EESF 19 ATEX 023X
 II 2 G Ex db IIC Gb
 II 2 D Ex tb IIIC Db IP66

CE conformity

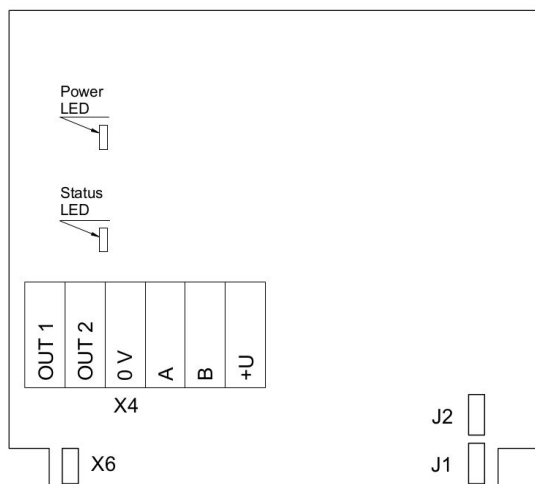
Flameproof to IEC EN 60079-1
Increased safety to IEC EN 60079-7
EMC Emissions to EN 61000-6-3, EN 61326-1
EMC Immunity to EN 61000-6-1, EN 61000-6-2



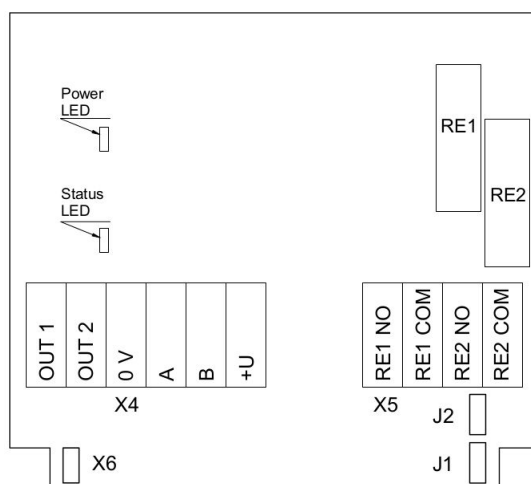
Dimensions



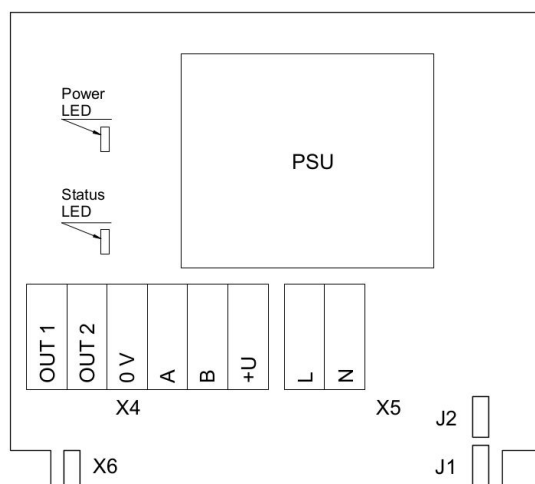
Connection diagrams



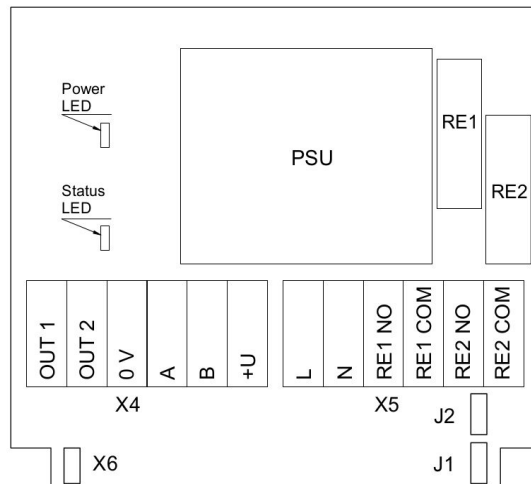
Version without PSU and relays



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

