

Flameproof Ammonia Detector-Transmitter E2658-NH3-E



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	Ammonia NH ₃		
Sensor type	Electrochemical		
Sampling method	Diffusion		
Typical detection range	0...100 ppm	0...300 ppm	0...1000 ppm
Maximum overload	200 ppm	500 ppm	1500 ppm
Resolution / digital unit	1 ppm	1 ppm	1 ppm
Response time T80	< 75 s		
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; > 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	-40...+50°C, 15...90 %RH non-condensing; 0,9...1,1 atm; Explosion-safe areas; Non-aggressive atmosphere		

NOTE! The device is not suitable for areas with constantly high ammonia concentration.

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	For 0...100 ppm range: RE1 (LOW): set 25; release 20 ppm RE2 (HIGH): set 35; release 28 ppm For other ranges: defined by user within 5-95% of the detection 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:

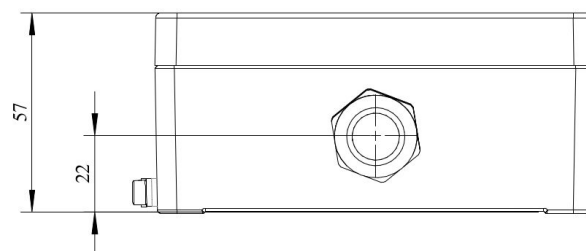
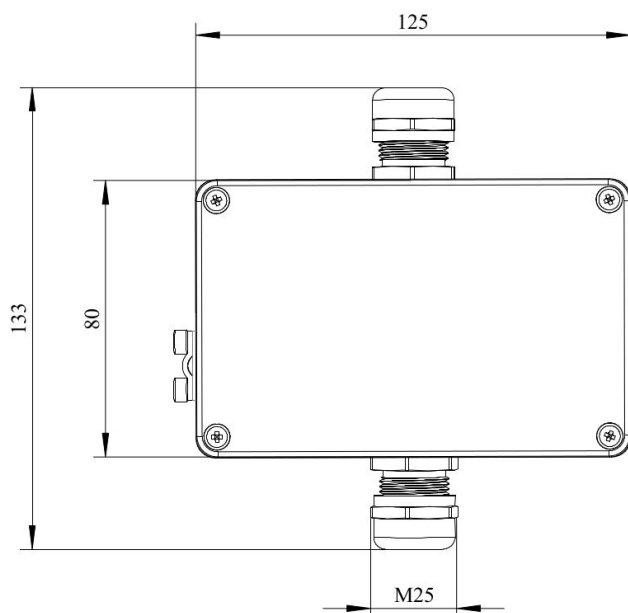
ATEX / IECEx
EESF 19 ATEX 023X
 II 2G Ex db IIC Gb
 II 2D Ex tb IIIC Db IP66

CE conformity

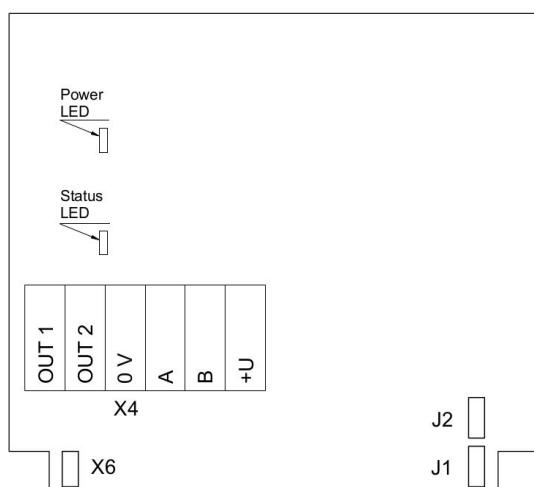
Flameproof to IEC EN 60079-1
Increased safety to IEC EN 60079-7
EMC Emissions to EN 61000-6-3, EN 61326-1
EMC Immunity to EN 61000-6-1, EN 61000-6-2



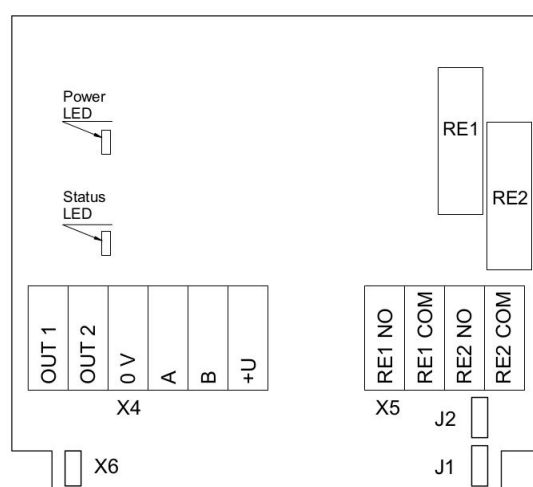
Dimensions



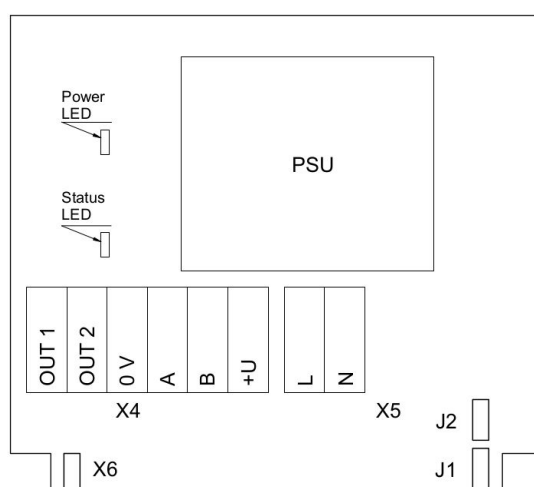
Connection diagrams



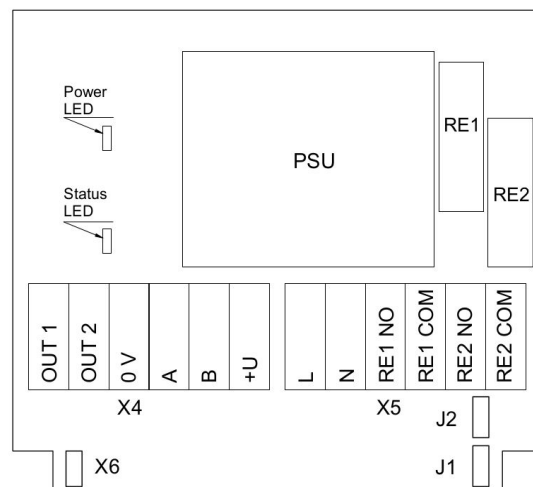
Version without PSU and relays



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

