

**Ammonia Detector
Model TXL-NH3****DESCRIPTION**

The Model TXL-NH3 is a reliable, low-cost ammonia gas detector, housed in an epoxy-coated aluminum enclosure with NEMA 4 rating. Detector outputs include a two-wire loop-powered 4-20 mA analog signal, and an 8-character LCD gas level display. A magnetic, non-intrusive calibration feature and reliable electrochemical sensor round out this well-designed product. The TXL is approved for use in hazardous areas when used with an approved intrinsically-safe zener barrier.

APPLICATION

The TXL-NH3 is intended for life safety protection in hazardous applications including petrochemical, general industrial, municipal, and commercial facilities. The output signal is compliant with industry standards and can be routed to any standard 4-20 mA analog input receiver or controller. The TXL product family provides extremely low power consumption, and can be installed with or without zener diode barriers depending upon installation area requirements.

FEATURES

- Low-cost
- Easy to install
- Intrinsically-safe
- NEMA 4 aluminum enclosure
- 8-character LCD gas level display
- Magnetic, non-intrusive calibration
- 2-wire, loop-powered 4-20 mA output
- Reliable electrochemical sensor
- 1 year warranty.

**SPECIFICATIONS**

MEASUREMENT RANGE—
0-200 PPM standard (other ranges are field selectable).

TRANSMITTER OUTPUT—
4–20 mA linear current signal.

DISPLAY—
8 character LCD.

ACCURACY—
 ± 5 PPM or $\pm 10\%$ of applied gas concentration.

LINEARITY—
>10% full scale.

REPEATABILITY—
< $\pm 3\%$.

RESPONSE TIME—
T90 < 20 seconds.

Table 1—Cross Sensitivity of NH₃ Sensor

Gas	Level	Reading
Carbon Monoxide	1000 ppm	0
Carbon Dioxide	5000 ppm	0
Hydrogen Sulfide	10 ppm	0
Hydrochloric Acid	5 ppm	0
Phosphine	300 ppb	0
Sulfur Dioxide	2 ppm	0
Nitrogen	100%	0
Chlorine	1 ppm	0
Hydrogen	1%	0
Hydrogen Cyanide	10 ppm	0
Hydrogen Selenide	100 ppb	0
Diborane	100 ppb	0
Arsine	1 ppm	0
Germane	1 ppm	0
Hydrogen Fluoride	4	0
Alcohols	1000 ppm	0

SENSOR CROSS SENSITIVITY—

See Table 1.

TEMPERATURE RANGE—

-15°C to +40°C (+5°F to +104°F).

HUMIDITY RANGE—

15 to 90% (non-condensing).

OPERATING POWER—

24 VDC (12 to 30 VDC). 75 milliwatts maximum.

WIRING—

2-conductor, stranded and shielded.

MAXIMUM CABLE LENGTH—

Up to 4,000 feet using 20 gauge stranded cable.

CONNECTIONS—

Screw terminal.

CALIBRATION—

1-person, non-intrusive magnetic switch on cover.

ENCLOSURE—

NEMA 4, epoxy-coated aluminum enclosure.

SENSOR HOUSING—

Aluminum standard (stainless steel option available).

DIMENSIONS—

4.65" W x 4.5" H x 2.2" D.

SHIPPING WEIGHT—

1 lb (0.5 kg).

WARRANTY—

1 year.

CERTIFICATION—

UL approved when properly installed for:

Class I, Groups A, B, C and D;

Class II, Groups E, F and G;

Class III.

CE and DEMKO approvals.

IS BARRIER—

Voc ≤ Vmax = 30 vdc,

Isc ≤ Imax = 125 ma,

Ca ≥ Ci + C cable,

La ≥ Li + L cable.

Suggested barrier models 9002/13-280/110/00 or 9002/13-252/121/04 manufactured by R. Stahl, Inc.

ORDERING INFORMATION

When ordering, please specify:

Part Number	Description
000518-003	Model TXL-NH3 Ammonia Gas Detector, 0-200 PPM Range

REPLACEMENT NH3 SENSOR CELL

Part Number	Description
000518-103	NH ₃ sensor cell, 0-200 PPM range

CALIBRATION KIT

Part Number	Description
000518-203	Model TXL-KIT-NH3 Kit includes: Two 0.58 liter cylinders, one containing 25 PPM NH ₃ cal gas, one containing "zero" clean air, carry case, calibration cup, 3 ft length hose, gauge/regulator, calibration magnet.



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