

SB-NH₃

Ammonia-Selective Semi-Conductor Gas Sensor/Transmitter



The SB-NH₃ sensor is a major breakthrough in high-level ammonia sensing by means of a selective semi-conductor sensor that exhibits long life.

In the past, solid-state sensors exhibited broad-spectrum characteristics, but Manning Systems SB-NH₃ sensor brings a new era in high-level ammonia gas sensing for well-ventilated engine rooms. A patented filtering process enhances the selectivity at high levels of ammonia.

The standard configuration is a circuit board-mounted sensor with a linear 4/20 mA output.

The board includes internal diagnostics with a fault condition noted by board-mounted LEDs and a fault current output of 0.5 mA.

In addition, the sensor mounting configuration allows simple calibration checks. The unit has an "easy zero" method for re-zeroing the instrument without a meter.

Standard range is 0-20,000 ppm (2%). Lowest recommended trip level is 1% (10,000 ppm).

Cross sensitivity to interference gases such as hydrogen, carbon monoxide, carbon dioxide, ethylene, methane, chlorine, propane and butane is either minimal or non-existent. The sensor does have some sensitivity to hydrogen sulfide. Recent sensor enhancements allow exposure to alcohols, most solvents and vinegars as long as the exposure times are short term and not continuous.

Be sure to discuss application details with Manning Systems, including ventilation rates, temperature, moisture and other gases present in your environment.

Applications

Well-ventilated Mechanical Rooms

Key Features

Enhanced selectivity to ammonia

Rapid response

Long-term maintenance-free operation

No moving parts

No pump or dust filter required

Modular electronics for ease of installation

NEMA 1, #16 gauge heavy-duty steel enclosure



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Manning Systems, Inc. provides a complete line of industrial quality Gas Alarm Monitoring Systems for equipment rooms, refrigerated spaces, storage facilities, laboratories and process areas.

Ammonia-Selective Semi-Conductor Gas Sensor/Transmitter

SB-NH₃

Specifications

Method:

Semi-conductor/ conductive oxide

Trip Level:

20,000 ppm (2%)

Output:

4/20 mA linear

Maximum 250 ohm impedance

Accuracy:

±3% full scale

Repeatability:

±3%

Operating Humidity:

5-95% RH (non-condensing)

If the SB-NH₃ will be installed in extreme moisture conditions, please discuss with Manning Systems engineers

Operating Temperatures:

-15°F to 120°F

Storage Temperatures:

-40°F to 140°F

Power Source:

24 VDC regulated, 500 mA

Gas Sampling:

Diffusion method

Weight:

3 lbs.

Dimensions:

6"H x 4"W x 3.5"D

Cable Recommendations:

#18/3 shielded cable
(Belden #8770 or equal)

Cable length to sensor <1500'

Enclosure:

NEMA 1, gasketed, #16 gauge steel

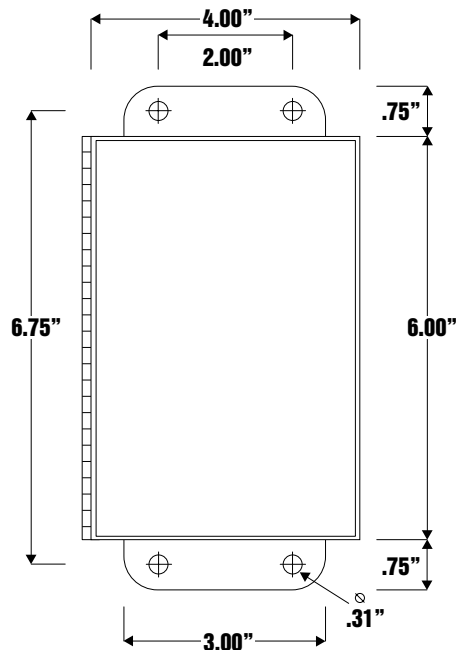
NEMA 4 and explosion-proof designs
(contact Manning Systems)

NOTE: The standard SB is for use in non-classified areas only.

Specifications subject to change without notice.

Sold per Manning Systems standard Limited Warranty.

Dimensions

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The "C" and "US" indicator adjacent to the CSA Mark signifies that the product has been evaluated to the applicable ANSI/UL and CSA Standards for use in the U.S. and Canada. This includes products eligible to bear the NRTL indicator. NRTL, i.e., Nationally Recognized Testing Laboratory, is a designation granted by the U.S. Occupational Safety & Health Administration (OSHA) to laboratories which have been recognized to perform certification to U.S. Standards.

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