MSA’s Chillgard NH₃ Gas Monitor uses reliable electrochemical sensing technology to detect parts-per-million (ppm) levels of ammonia. World-class design and engineering offer single-board design for ultimate reliability and serviceability in an economical package.

Applications

The Chillgard NH₃ Gas Monitor is part of MSA’s family of Chillgard Monitor products designed to monitor for loss of refrigerant gases in many applications:

- Mechanical equipment rooms.
- Propellant-filling operations.
- Solvent-cleaning stations.
- Cold storage and transport facilities.
- Meat packing plants.
- Supermarkets and refrigerant storage locations.
- Other specialty applications using halocarbons.

Features

- Internal heater option—for operation as low as -40°C (-40°F).
- Fast response—electrochemical sensor located directly under calibration cap provides fast ammonia leak response.
- Water- and corrosion-resistant NEMA 4X enclosure.
- Interchangeable smart sensors—pre-calibrated sensor modules are ready for out-of-box installation. Sensors can be field-replaced without tools.
- Liquid crystal display (LCD) conveniently alternates between sensor reading and gas type, and features scrolling messaging, indicating ongoing diagnostic checks such as sensor end-of-life condition.
- Onboard LEDs and relays—optional quick-check LEDs and four relay outputs allow for increased indication of alarm and fault conditions. Quick-check LEDs, viewable from afar, indicate NORMAL (green) and ALERT (red) status conditions.
Installation and Operation

Installation is both simple and flexible.

Unit’s standard 4-20 mA output can be connected directly to any existing Building Automation System (BAS) or other controller to provide leak indication prior to workers entering the room. Additionally, with integral display and status LEDs, workers have visual indication of ammonia level within their work area.

Unit’s full-scale range is 0–1000 ppm with capability of measuring leaks as low as 10 ppm, well below established threshold limit values for ammonia. The Chillgard NH₃ Gas Monitor provides fast, reliable detection for low-level ammonia leaks, thus preventing major loss of gas.

The Chillgard NH₃ Gas Monitor:

- Operates in diffusion mode, with factory-calibrated sensors ready to perform immediately after installation.
- Can operate as stand-alone monitor with large LCD display, optional quick-check LEDs and 4 relay outputs (3 alarm and 1 fault), or connected with standard 4-20 mA output to control system (PLC, DCS, etc).
- Has adjustable full-scale range.
- Provides for easy installations with 2-piece, field-wiring connectors.

Calibration

As with all gas monitors, Chillgard NH₃ Gas Monitors must be calibrated periodically with gas of interest to help ensure proper operation.

The calibration process offers:

- Easy-to-follow calibration instructions displayed on monitor.
- Automatic adjustments.
- Date stamping.
- Output signal selectable lockout during calibration.
- Ability to calibrate at installation location or remotely without systems interruptions (using another base unit).
- No need to open enclosure during setup and calibration when using accessory calibrator or controller.

Note: This bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.

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