



Specifications for the Hydro Instruments
Model GA-171 Gas Alarm
Specification GA-171

1.01 GENERAL

1.01.1 Completeness

The system shall be complete with all components, equipment, and appurtenances.

1.01.2 Quality Assurance

All materials and components shall be new and unused of first quality by well-known manufacturers. Inferior materials or components shall not be allowed.

1.02 MANUFACTURER

The manufacturer shall be Hydro Instruments, Telford, PA, USA or approved equal. The gas alarm shall be Hydro Instruments Model GA-171.

1.03 GAS DETECTOR

1.03.1 General

1. The Chlorine Gas Detector shall be a device including a monitor and up to two electrochemical gas sensors.
2. The Chlorine Gas Detector shall include a microprocessor-based monitor operating electrochemical sensors.
3. The microprocessor-based monitor shall be enclosed in a NEMA 4X rated housing. The monitor shall include a two line sixteen character, alphanumeric display, one alarm output relay, and four front panel push buttons.
4. Two LED indicators are provided. Green LED indicates no alarm conditions and red LED indicates existence of an alarm condition.
5. Alteration of the Gas Detector settings shall be password protected.
6. The electrochemical gas sensors shall be mounted in weatherproof enclosures.
7. Twenty-five (25) feet of shielded signal cable shall be provided to connect each sensor to the monitor. A six (6) foot long power cord shall be provided to connect the monitor the AC Power.
8. The Gas Detector shall operate from 120 Volt 60 Hz or 240 Volt 50 Hz AC Power.

1.03.2 Alarm Relay

1. The monitor shall provide one alarm relay. Any alarm condition will activate this relay.
2. Each sensor will have one adjustable alarm set point to activate the relay. The setting shall be adjustable using the password protected keypad / display interface.
3. The alarm shall always be non-latching and non-failsafe.

1.03.3 Gas Sensors

1. The Chlorine gas sensor shall be an electrochemical type having a range of 0 to 10 PPM and a resolution of 0.1 PPM.
2. The Chlorine gas sensor shall have an 80% response time of sixty (60) seconds or less.

1.03.4 Monitor Outputs

1. The gas detector monitor shall be capable of providing an RS-232 digital output signal
2. The gas detector monitor shall be capable of providing one optically isolated 4-20mA analog output signal, for each sensor, to allow external recording of the gas sensor reading.