

A. General:

The Gas monitoring system shall continuously measure and display gas concentration and provide alarms when preset limits are exceeded. The gas detection system shall consist of Hydrogen sensors/ transmitters. Transmitters will send signal to a multi channel controller. Complete system shall be manufactured in the United States.

B. System Components:

1. Multi Channel Controller

The multi channel gas controller shall be a microprocessor based central processing and display system. A keypad shall be used for entering data, selecting the system functions, and programming each remote sensor. The system shall use password protection, entered via the keypad, to prevent unauthorized access to specific functions.

The system shall continuously detect, monitor and display concentrations of toxic and combustible gases. A graphic LCD display (64X240 dots) shall be used to display system and sensor information to the user. Up to (4) windows display simultaneously the reading of (4) remote sensors and the current status of each sensor. Unit must also have trending capabilities for up to 24 hours to review past data. The controller shall provide (4) open collector outputs (Normal, Alarm Level #1, Alarm Level #2, and Sensor Fail) for EACH remote sensor. Two (2) common SPDT relay contacts (240VAC @ 10 A) shall be provided and used as Alarm Level #1 and Alarm Level #2 system outputs. Each channel shall be equipped with a SPDT relay contact rated 240VAC at 10A Each channel shall have warning, alarm, and sensor fail LED indicators. All alarm set points shall be field adjustable over the full range of each individual sensor. Relays shall be used to signal either exhaust fan purge or main gas line valve shut-off. Each channel shall provide a linear 4 to 20mA output signal to the facility's DDC system. The system shall also be equipped with local audible (piezo buzzer), and visual (halogen strobe) alarms.

The enclosure shall be the NEMA 4X type with front facing channels. Mounting brackets for the purpose of attaching the unit to a flat surface shall be provided. When unit is used as a stand-alone system, a DC Power Supply is supplied with the system to convert the 120VAC input voltage to low voltage DC for use with the system. This power supply shall also be used to provide power to the remote transmitters via (4) or (5) 18-22 gauge conductor cable.

2. Remote Sensors / Transmitters

C. Manufacturer and Model

1. Conspec Controls Inc. 1-800-487-8450
 - a) Series P2259 Four (4) Channel Controller
 - b) Remote Gas Transmitters