MACURCO GAS DETECTORS
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GT-11A
INSTALLATION AND OPERATING INSTRUCTIONS

GENERAL INFORMATION

The GT-11A is a low voltage (24 volts AC or DC) dual output (1 to 5 volts and 4 to 20 ma) all electronic gas detector. The unit normally is connected to a building automation system to monitor for leaks and hazardous conditions. The label on the front of the unit will designate the gas that was used to calibrate the unit.

LOCATION

The unit on average can cover about 900 sq. ft. The coverage depends on air movement in the room or facility. The GT-11A should be mounted on a wall, about 1 foot above the floor or ceiling depending on whether the gas of concern is heavier or lighter than air. Methane is lighter than air and Propane and LP are heavier than air. If more information is needed on the density of a particular gas contact the gas manufacture. Extra detectors may be needed near any areas were people work or the air is stagnant.

INSTALLATION

Open the cover of the knock-out box, and orient the unit with the cover down. Remove the two small screws at the BOTTOM of the internal face plate panel. The inner panel will now hinge up for access to mount the box and make the wiring connections. Note the vent plugs in four of the conduit access holes. These vent plugs must be left in place for air to circulate through the GT-11A. Connect the conduit or other wiring in one of the smaller (1/2) knock-out holes in the bottom of the box. The GT-11A is powered by either 24 VAC or DC (± 10%). The Terminal Strip is labeled with the information on connections. Although both outputs are available at the terminal strip, only one should be used. When multiple detectors are used, The power supply connections may be wired in parallel, but the two output wires must have their individual pairs of wires connected to the measuring device. More information on the GT-11A may be found on the GT-11A data sheet.

NOTE: The GT-11A sources power to the controller or computer, which should have an input impedance between 10 and 500 ohms if using the ma. output or 500 to 2000 ohms if using the volts output.

OPERATION

When power is first applied to the unit, it will go through a 2 minute warm-up cycle, during which the green LED light will flash on and off. At the end of the warm-up period, the GT-11A green light will be on continuously, brightly to show the unit is operable. During the warm-up cycle the outputs are low: approximately 0.5 volt and 1.7 ma. After the warm-up cycle and in clean air the outputs should be approximately 1 volt and 4 ma. The GT-11A can be tested by injecting gas from an *un-lit* butane cigarette lighter. The outputs should increase. The GT-11A is supervised. A failure of the sensing element will result in the yellow light being on steady. The outputs will show approximately 5.3 volts and 21 ma. The monitoring system should be programmed to respond to these and other levels, and take appropriate actions (ex. turn on fan, notify personnel).

ALARM ACTION

Macurco suggests that the customer modify it's facilities emergency response procedures to provide for appropriate actions should a gas leak occur. We suggest that if an alarm occurs and maintenance personnel are present, treat the alarm only as a *warning* of a possible problem and attempt to determine and remedy the cause. If the facility is un-attended at the time of an alarm, the emergency procedures might include dialing security personnel or maintenance people.

INTERFERING GASSES AND SENSOR POISONS

In addition to Natural (Methane) and Propane, the GT-11A will detect other gases including Butane, LP, Hydrogen, Alcohol's, Gasoline fumes, CFC's, Paint thinners, Freons and Acetone.

The gas sensing tip in the detector is designed with extreme sensitivity to the environment. As a result, the sensing function of the tip may be deteriorated if it is exposed to a direct spray from aerosols such as paints, silicone vapors, etc., or to a high density of corrosive gases (such as hydrogen sulfide, sulfur dioxide) for an extended period of time.

SERVICING OF UNIT

The GT-11A does not require regular maintenance. The unit uses a self purging semi-conductor sensor that has a 7-10 year life expectancy. All maintenance and repair of products manufactured by Macurco are to be performed at the Macurco manufacturing facility. Macurco does not sanction any third-party repair facilities.

LIMITED WARRANTY

The GT-11A gas detector is warranted to be free from defective material and workmanship for a period of two (2) years from the date of manufacture (stamped on the unit). If any component becomes defective during the warranty period, it will be replaced or repaired free of charge, if the unit is returned in accordance with the instructions below. This warranty does not apply to units that have been altered or had repair attempted, or that have been subjected to abuse, accidental or otherwise. The above warranty is in lieu of all other express warranties, obligations or liabilities. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE ARE LIMITED TO A PERIOD OF TWO (2) YEARS FROM THE PURCHASE DATE. Macurco shall not be liable for any incidental or consequential damages for breach of this or any other warranty, express or implied, arising out of or related to the use of said gas detector. Manufacturer or its agent's liability shall be limited to replacement or repair as set forth above. Buyer's sole and exclusive remedies are return of the goods and repayment of the price, or repair and replacement of non-conforming goods or parts. (The Uniform Commercial Code applicable in the State of Colorado shall govern.)

RETURN INSTRUCTIONS

Call (303) 781-4062 for a Return Authorization number. Then carefully pack the gas detector with a written description of the nature of the return. Send the unit to the following address:

Macurco
3946 South Mariposa Street
Englewood, Colorado 80110

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