



Features and Advantages

- Microprocessor based controller
- Adjustable alarm set points
- Audible / visual alarm
- Electrochemical sensor
- Easy to read LCD display
- Analog output, 4-20 mA
- Nema 4X, powder coated steel enclosure



AAV Series A316 CO Monitor

The AAV Series A316 Carbon Monoxide Monitors are designed to accurately and reliably monitor the carbon monoxide content of high pressure breathing air or medical air supplies and provide an alarm when safe levels are exceeded. Carbon Monoxide (CO) contamination of supplied air breathing systems can occur primarily by release of exhaust from internal combustion engines running in the vicinity of the air compressor inlet. Monitoring of the compressed air for CO is of vital importance to insure a safe air supply. Compressed air regulations call for a maximum of 10 ppm CO in the air supply, and the monitoring can be carried out reliably and economically by use of the AAV Series A316 CO Monitor.

This wall mounting instrument is housed in a powder-coated dustproof steel enclosure, rated NEMA 4X with hinged and latched door. Concentration of CO, measured in ppm, is digitally displayed and visible through a window in the door, and pilot and alarm lights are shown through a second window. Alarm conditions (CO in excess of 10 ppm) are signaled by the red alarm light and by an audible tone generator on the side.

External alarm or control devices, for example control valves or dampers, can be controlled using the normally open or closed terminals of an internal relay rated 10 amps at 120 VAC. A remote signal output, 4-20 mA for 0-100 ppm CO, is also provided.

Detection is by an electrochemical sensor which is specific to CO, with interference only by hydrogen. Sensor typically lasts for two years, and is easily replaced using only a screwdriver. Sample flows from the high-pressure airline to the inlet port, and is internally reduced and controlled by the built-in pressure regulator.

Performance is easily verified using the available calibration kit having 25 ppm CO as the calibration medium. Other concentrations if available can be used as well. Screwdriver adjustments on the inner panel make it easy to correct for deviations in zero or span setting. An alarm silence pushbutton is provided which silences the audible alarm for up to 4 minutes, as a convenience when carrying out calibration procedures.

The microprocessor-controlled electronic circuit is field-proven over several years and thousands of units, but can be removed and replaced as a plug-in device if any problem should arise.

Power, less than 1 watt at 115 VAC, is connected by means of a computer-type power cord with grounded 3-wire plug. Internal operation is from a regulated 115 AC to 12 VDC encapsulated power supply. Resistance to electromagnetic interference is provided by the all-metal case and RF filters on the incoming wires.

Electronics:

Display: Large, bright digital display
Alarm: Relay, SPDT 10A, 115AC,
Audible at 95dB, Visual red LED
Output: 4-20mA
Power: 120 AC, 0.5 Watt

Enclosures:

Rack: 2" W x 6.75" H x 3" D
Panel: 2" W x 6.75" H x 3" D
Nema-4X: 5.5" W x 7.16" H x 3.5" D
Powdercoat, White

CO Sensor:

Range: 0-199 ppm CO in air or inert gas
Precision: +- 0.5%
Sensor life in air: Up to 2 yrs in normal operation
Response time: 90% in 20 seconds
Operating temperature: 20 - 120 F
Operating humidity: 0-99% Non-condensing
Sample flow: 0.2 - 0.6 scfh