



## **Critical Environment Technologies**

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### **ENGINEERING SPECIFICATION SAMPLE # AST-4**

## ***Carbon Monoxide & Nitrogen Dioxide Analog Transmitters for Firehalls***

Provide analog transmitters, with continuous, linear, analog signal capable of being connected directly to a building management system (BMS) or to a CET controller. The transmitter shall provide a 4-20 mA signal representing the quantitative measurement range of the gas it has been designed to detect. Provide transmitters for the Nitrogen Dioxide detection range of 0 - 10 ppm and transmitters for the Carbon Monoxide detection range of 0 - 200 ppm. All transmitters shall incorporate accurate electrochemical sensors and automatic resetting thermal fuse for fault protection. The transmitters shall be installed 4' - 6' from the floor (breathing zone) and each unit shall be capable of monitoring an area of approximately 5000 to 7500 sq. ft. each.

Optional LED digital display, 0 - 10 Volt output signal and relay output shall be available.

The transmitter circuit shall be housed in a wall mount, rugged, break resistant, corrosion resistant, PVC enclosure with a secured, hinged door. Provide an optional polycarbonate watertight enclosure for potentially wet areas and optional splash guard for hose down areas. The circuit shall be capable of operating from 24 VDC or 24 VAC (nominal) input voltages. Wiring shall be 3-conductor shielded cable or conduit for VDC installation or 4-conductor shielded cable or conduit for VAC installation.

System operation shall be as follows: Upon detection of 0.70 ppm NO<sub>2</sub> or 25 ppm CO, the BMS or controller shall activate low alarm indication and / or exhaust fans. Upon detection of 1.5 ppm NO<sub>2</sub> or 100 ppm CO, the BMS or controller shall activate high alarm audible and visual alarms.

Contractor shall provide all wiring, conduit and interconnection required for a successful installation.

#### **Approved manufacturer:**

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