



Critical Environment Technologies

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ENGINEERING SPECIFICATION SAMPLE # AST-5

Nitrogen Dioxide Analog Transmitters for Diesel Exhaust Detection

Provide analog transmitters, with continuous, linear, analog signal capable of being connected directly to a "BMS" building management system or 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. 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 sq. ft. each.

Optional LED 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. An optional watertight Polycarbonate enclosure is available. 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 NO₂, the BMS or controller shall activate low alarm and / or exhaust fans (or low speed of two-speed fans). Upon detection of 1.5 ppm NO₂, the BMS or controller shall activate the high speed of two-speed fans, 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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