



## **Critical Environment Technologies**

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### **ENGINEERING SPECIFICATION SAMPLE # AST-6**

#### ***Nitrogen Dioxide Transmitters for Diesel Exhaust Duct Applications***

Provide analog transmitters, with continuous, linear, analog signal capable of being connected directly to a "BMS" building management system 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. All transmitters shall incorporate accurate electrochemical sensors and automatic resetting thermal fuse for fault protection.

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, water / dust tight Polycarbonate enclosure with a secured, hinged door. A duct mount aspirator kit shall be supplied with sampling probes that extend into the duct. The probes extend into the air stream, allowing a sample of the duct air to flow through flexible tubing to the sealed enclosure and back out into the air stream. 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>, the BMS shall activate low alarm and / or louvers. Upon detection of 1.5 ppm NO<sub>2</sub>, the BMS shall activate high alarm.

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

#### **Approved manufacturer:**

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