

DUCT AIR QUALITY TRANSMITTER

AQDT Series

The duct indoor air quality sensor uses an advanced MEMS metal oxide semiconductor sensor to detect poor air quality. The sensor reacts quickly to detect a broad range of VOCs such as smoke, cooking odors, bio-effluence, outdoor pollutants and from human activities. The sensor captures all VOC emissions that are completely invisible to CO2 sensors. A weatherproof polycarbonate enclosure is provided for ease of installation.

PRODUCT HIGHLIGHTS

* True Air Quality Monitor
* Microprocessor based controller
* Linear and stepped analog output
* Optional relay output
* Optional temperature sensor
* LCD Display
* Polycarbonate enclosure with hinged and gasketed cover

ENGINEERING SPEC’S

* Shall be IP65 (NEMA 4X) with a UL94-V0 rated enclosure
* External mounting tabs must be slotted & tapered away from enclosure to ease field installation
* Enclosure shall be complete with neoprene gasket for duct to enclosure seal
* Enclosure shall be complete with threaded (1/2 NPT and/or M16) conduit connection
* Cover must be hinged and securely attached in the open position
* Cover must contain security screw as extra protection from opening
* Product shall be CE approved

SPECIFICATIONS

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| DESCRIPTION | ENGINEERING SPEC |
| SENSOR TECHNOLOGY | MEMS metal oxide semiconductor VOC sensor |
| MEASUREMENT RANGE | 450-2000 ppm CO2 equivalent or 0-100% (menu selectable) |
| DRIFT COMPENSATION | Automatic baseline correction |
| POWER SUPPLY | 20-28 Vac/dc (non-isolated half-wave rectified) |
| CONSUMPTION | 35 mA max @ 24 Vdc |
| INPUT VOLTAGE EFFECT | Negligible over specified operating range |
| PROTECTION CIRCUITRY | Reverse voltage protected, over voltage protected |
| OPERATING CONDITIONS | 0 to 50°C (32 to 122°F), 5 to 95 %RH non-condensing |
| LINEAR OUTPUT SIGNAL | 0-5 / 0-10 Vdc (menu selectable) = 0-2000 ppm CO2 equivalent |
| ANALOG STEPPED OUTPUT SIGNAL | Three steps representing Good, Fair, and Poor air quality  (each step is independently adjustable from 0-10 Vdc) |
| OUTPUT DRIVE CAPABILITY | 10,000 Ω minimum |
| PROGRAMMING AND SELECTION | Via internal push-buttons and LCD menu |
| WARM-UP TIME | 5 minutes |
| LCD RESOLUTION | 1 ppm / 1% |
| LCD SIZE | 35mm W x 15mm H (1.4” x 0.6”) alpha-numeric 2 line x 8 characters |
| WIRING CONNECTIONS | Screw terminal block (14 to 22 AWG) |
| DUCT PROBE | 152mm L x 22.5mm D (6” x 0.88”) |
| RELAY OUTPUT | Form A contact (N.O.) 5 Amps @ 250 Vac,  5 Amps @ 30 Vdc for resistive load,  2 Amps @ 250 Vac, 2 Amps @ 30 Vdc inductive load |
| OPTIONAL TEMPERATURE SENSOR | Various thermistor and RTD’s, 2-wire resistive output |
| ENCLOSURE | Polycarbonate UL94-V0, IP65  F style includes thread adapter (1/2” NPT to M16) and cable gland fitting |
| DIMENSIONS | 116.5mm W x 99.7mm H x 53.7mm D (4.58” x 3.93” x 2.11”) |
| COUNTRY OF ORIGIN | Canada |

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