



The rugged, reliable ATW two wire analog transmitters offers a wide variety of electrochemical sensors to detect a wide range of gases.

ATW transmitters convert the raw signal from a sensor into a useful output that can be sent to a controller or building automation system.

Several enclosure options are available to meet the requirements of many different applications.

ATW transmitters feature 4 - 20 mA linear output signals, automatic thermal resetting fuse, RoHS compliant circuit boards, and LED indicators for power and function indications.

Automated calibration and other maintenance procedures are simple and are easily performed in the field.

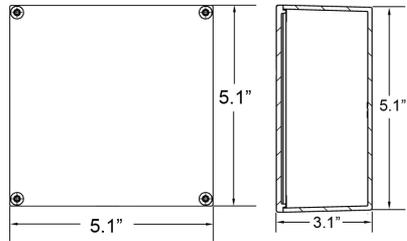
### KEY FEATURES

- » 4 - 20 mA output signal
- » LED indicators for power and alarm status
- » RoHS compliant circuit boards
- » Temperature compensation
- » Thermal resetting fuse
- » Automated calibration procedure
- » Calibration due notification
- » Loop powered wiring, 2 conductor
- » Power requirement 12 - 28 VDC
- » C-Tick certified

### APPLICATIONS

- » Parking Garages
- » Repair Shops
- » Ice Cleaning Machine Rooms
- » Pools
- » Manufacturing plants
- » ... and many more

### TECHNICAL DRAWING



### SAMPLE ENGINEERING SPECIFICATIONS

*Carbon Monoxide & Nitrogen Dioxide Transmitters for Parking Garages*  
Provide analog transmitters, with continuous, linear, analog signal capable of being connected directly to a building management system (BMS). The transmitter shall provide a 4 - 20 mA signal representing the quantitative measurement range of the gas it has been designed to detect. The transmitters shall be loop powered and operate in a two wire configuration. Provide transmitter model ATW-END for the Nitrogen Dioxide detection range of 0 - 10 ppm and transmitter model ATW-ECO 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 ft from the floor (breathing zone) and each unit shall be capable of monitoring an area of approximately 5,000 - 7,500 ft<sup>2</sup> each.

The transmitter circuit shall be housed in a wall mount, rugged, break resistant, corrosion resistant, PVC junction box with a secured, hinged door. The circuit will be powered by 24 VDC (nominal) input voltage. Wiring shall be 2 conductor 18 gauge shielded cable or in conduit for VDC installation. The PVC junction box shall have conduit entry ports on the top, bottom, right side and rear. An optional watertight Polycarbonate enclosure shall be available.

System operation shall be as follows: Upon detection of 0.7 ppm NO<sub>2</sub> or 25 ppm CO, the BMS shall activate exhaust fans. Upon detection of 1.5 ppm NO<sub>2</sub> or 100 ppm CO, the BMS shall activate audible and visual alarms.

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

More specification samples are available at [www.critical-environment.com](http://www.critical-environment.com).

**WIRING**



SIGNAL  
24VDC POSITIVE

**TECHNICAL SPECIFICATIONS**

<b>GAS TYPE</b>	
Ammonia (NH <sub>3</sub> )	EAM
Carbon Monoxide (CO)	ECO
Chlorine (Cl <sub>2</sub> )	ECL
Ethylene Oxide (ETO)	EET
Formaldehyde (CH <sub>2</sub> O)	EFO
Hydrogen (H <sub>2</sub> )	EH2
Hydrogen Sulphide (H <sub>2</sub> S)	EHS
Nitrogen Dioxide (NO <sub>2</sub> )	END
Nitric Oxide (NO)	ENO
Oxygen (O <sub>2</sub> )	OO2
Ozone (O <sub>3</sub> )	EO3
Sulphur Dioxide (SO <sub>2</sub> )	ESO

<b>MECHANICAL</b>	
Enclosure	Water / dust tight polycarbonate
Weight	340 g (12 oz)
Size	5.1" x 5.1" x 3.1" (129 mm x 129 mm x 77 mm)

<b>ELECTRICAL</b>	
Power Requirement	12 - 28 VDC
Current Draw	22 mA maximum
Outputs	Linear 4 - 20 mA
Wiring	Loop powered, 2-conductor
Fuse	Automatic resetting thermal

<b>ENVIRONMENTAL</b> <i>(sensor dependant)</i>	
Operating Temperature	-20°C to 40°C (-4°F to 104°F)
Humidity	15 - 90% RH non-condensing

<b>CERTIFICATION</b>	
C-Tick	Certified

**PRODUCT CODES**

Ammonia (NH <sub>3</sub> ), 0 - 500 ppm	ATW-EAM-W
Carbon monoxide (CO), 0 - 200 ppm	ATW-ECO-W
Chlorine (Cl <sub>2</sub> ), 0 - 5 ppm	ATW-ECL-W
Ethylene oxide (ETO), 0 - 20 ppm	ATW-EET-W
Formaldehyde (CH <sub>2</sub> O), 0 - 10 ppm	ATW-EFO-W
Hydrogen (H <sub>2</sub> ), 0 - 2,000 ppm	ATW-EH2-W
Hydrogen sulphide (H <sub>2</sub> S), 0 - 50 ppm	ATW-EHS-W
Nitrogen dioxide (NO <sub>2</sub> ), 0 - 10 ppm	ATW-END-W
Nitric oxide (NO), 0 - 100 ppm	ATW-ENO-W
Oxygen (O <sub>2</sub> ), 0 - 25% volume	ATW-OO2-W
Ozone (O <sub>3</sub> ), 0 - 2 ppm	ATW-EO3-W
Sulphur dioxide (SO <sub>2</sub> ), 0 - 20 ppm	ATW-ESO-W

<b>OPTIONS</b> <i>(to be added to the end of the product code)</i>	
Splash guard	S

<b>ACCESSORIES</b>	
Calibration kit, 15 L or 17 L cylinders, 0.5 LPM flow regulator	CET-8000-CK1
Calibration kit, 34 L, 58 L, 75 L, or 103 L cylinders, 0.5 LPM flow regulator	CET-7150-CK1
Metal protective guard, small, 16 gauge, galvanized metal guards for transmitters	SCS-8000-RSG

