AST Analog Transmitter

The rugged, reliable AST analog transmitter offers a variety of sensor types to detect a wide range of gases, including solid state, electrochemical, catalytic, infrared, and PID.

AST 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.

AST transmitters feature 4 - 20 mA or 0 - 10 VDC linear output signals, automatic thermal resetting fuse, RoHS compliant circuit boards, and LED indicators for power and open loop. Options include a field settable dry contact relay and a local digital display.

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

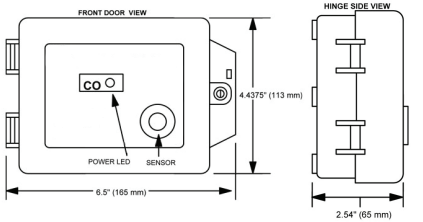
KEY FEATURES

» 4 - 20 mA or 0 - 10 VDC linear output signal
» LED indicators for power and open loop
» RoHS compliant circuit boards
» Temperature compensation
» Automatic thermal resetting fuse
» Automated calibration procedure
» C-Tick certified

APPLICATIONS

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

TECHNICAL DRAWING



SAMPLE ENGINEERING SPECIFICATIONS

Carbon Monoxide & Combustible Gas Transmitters for Parking Garages
Provide analog transmitters with continuous, linear, analog signal capable of being connected directly to a building management system (BMS). The analog transmitter shall be a CETCI model AST-ECO for Carbon Monoxide and a model AST-SCB for combustibles. The transmitters shall provide a 4 - 20 mA signal representing a Carbon Monoxide measurement range of 0 - 200 ppm CO or 0 - 50% LEL Propane (or other combustible gases / vapours). The circuit shall incorporate long-life HVAC electrochemical sensor for CO and long life solid-state sensors for combustibles with temperature compensation and an automatic resetting thermal fuse for fault protection.

Optional 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 junction box with a secured, hinged door. The circuit shall be capable of operating from 24 VDC or 24 VAC (nominal) input voltages. The PVC junction box shall have conduit entry ports on the top, bottom, right side and rear. Wiring shall be 3-conductor shielded cable or conduit for VDC installation or 4-conductor shielded cable or conduit for VAC installation. An optional watertight Polycarbonate enclosure shall be available.

Provide current signal readings to the installing contractor to allow accurate setting of BMS for fan control at 25 ppm CO or 10% LEL Propane and a secondary alarm condition at 100 ppm CO or 20% LEL Propane.

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.**

WIRING

Coming soon...

AST Analog Transmitter

TECHNICAL SPECIFICATIONS

GAS TYPE
Ammonia (NH_3)
Carbon Monoxide (CO)
Combustible Gas (solid state or catalytic) *Hydrogen (H_2), Methane (CH_4), Propane (C_3H_8), etc.*
Ethylene (C_2H_4)
Hydrogen (H_2)
Formaldehyde (CH_2O)
Nitrogen Dioxide (NO_2)
Nitric Oxide (NO)
Oxygen (O_2)
Refrigerants (solid state) *R22, R134A, R402A, R404A, R407C, R410A, R422A, R422D, R507*
TVOCs (solid state or PID)

MECHANICAL	
Enclosure	Polycarbonate
Weight	255 g (9 oz)
Size	4.4″ x 6.5″ x 2.5″ (113 mm x 165 mm x 65 mm)

ELECTRICAL	
Power Requirement	12 - 30 VAC or 16 - 30 VDC
Current Draw	Approximately 80 - 120 mA
Outputs	Linear 4 - 20 mA or 0 - 10 VDC signal, jumper selectable
Wiring	VDC three-conductor shielded VAC four-conductor shielded
Fuse	Automatic resetting thermal

ENVIRONMENTAL *(sensor dependant)*	
Operating Temperature	-20°C to 40°C (-4°F to 104°F)
Humidity	15 - 90% RH non-condensing

CERTIFICATION	
C-Tick	Certified

PRODUCT CODES

AST - □□□ - □

Single Channel Sensor:

Electrochemical

EAM	NH_3 sensor (0 - 500 ppm)
ECO	CO sensor (0 - 200 ppm)
EC4	C_2H_4 sensor (0 - 2,000 ppm)
EH2	H_2 sensor (0 - 2,000 ppm)
EFO	CH_2O sensor (0 - 10 ppm)
END	NO_2 sensor (0 - 10 ppm)
ENO	NO sensor (0 - 100 ppm)
002	O_2 sensor (0 - 25% volume)

Solid State

SCB	Combustible gas sensor (0 - 50% LEL)
SCB	H_2 sensor (0 - 50% LEL)
SCB	CH_4 sensor (0 - 50% LEL)
SCB	C_3H_8 sensor (0 - 50% LEL)
SR2	Refrigerants (R22, R134A, R402A, R404A, R407C, R410A, R422A, R422D, R507) sensor (0 - 2,000 ppm)
SOS	TVOCs sensor (0 - 500 ppm)

Catalytic

CCB	Combustible gas sensor (0 - 100% LEL)
CCB	H_2 sensor (0 - 100% LEL)
CCB	CH_4 sensor (0 - 100% LEL)
CCB	C_3H_8 sensor (0 - 100% LEL)

PID

SPH	TVOCs sensor (0 - 300 ppm)
SPL	TVOCs sensor (0 - 50 ppm)

Options:
(You can select more than 1 option)

-	None
N	LED digital display
R	SPDT relay, 2 A @ 28 V
Z	Remote sensor

ACCESSORIES	
Calibration kit for 17, 34, 58, 74, 103 L cylinders, 0.5 LPM flow regulator & adapter to fit 17 L cylinder	CET-715A-CK1
Metal protective guard, small, 16 gauge, galvanized metal guards for transmitters	SCS-8000-RSG

AST-SR2-RZ model (picture above) contains a relay and remote refrigerant (R410A) sensor enclosed in a standard polycarbonate enclosure.