

PET BACnet® Transmitter



PET BACnet® digital transmitter is a "Parkade Emissions Transmitter" that communicates via BACnet® protocol MS / TP. It is available with one or two electrochemical sensors or solid-state sensors and temperature sensor, enclosed in a general purpose ABS enclosure.

Featuring thermal resetting fuse, tri-color LED indicator for power and alarm, and an optional 4-digit LED display.

Includes new sensor CEF (Calibration Extending Firmware) that takes into account the aging of the sensors so that less frequent calibrations are acceptable in non-critical applications.

Calibration and maintenance procedures are easily performed in the field without requiring access to the controller.

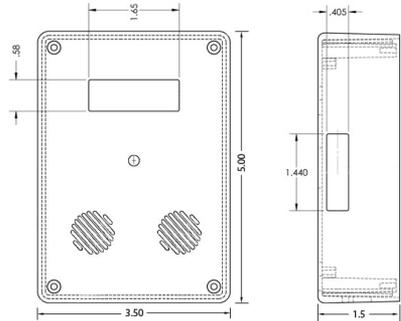
KEY FEATURES

- » MS / TP BACnet® communication
- » RoHS compliant circuit boards
- » Thermal resetting fuse
- » Tri-color LED light indicator
- » Economical
- » Easy maintenance
- » Single or dual gas sensor
- » Includes temperature sensor
- » BTL certified

APPLICATIONS

- » Parking Garages
- » Repair Shops
- » Commercial HVAC Buildings
- » Light Industrial Plants
- » Laboratories
- » Schools / Educational Institutions
- » ... and many more

TECHNICAL DRAWING



SAMPLE ENGINEERING SPECIFICATIONS

CO & Combustible gases/vapours BACnet® Transmitters for Parking Garages
Provide PET series BACnet® transmitters, capable of being connected directly to a BACnet® building automation system. The transmitter shall be capable of communicating via BACnet® MS / TP protocol with a BACnet® controller / head end. Provide transmitters for the Carbon Monoxide with a detection range of 0 - 200 ppm and transmitters for Combustible gases & vapours with a detection range of 0 - 50% LEL.

The transmitters shall be a CETCI model PET-TCO for Carbon Monoxide and model PET-SCB for Combustible gases & vapours. All CO transmitters shall incorporate accurate electrochemical sensors and all Combustibles transmitters shall incorporate rugged semi-conductor sensors. All transmitters shall incorporate an automatic resetting thermal fuse for fault protection. The CO transmitters shall be installed 4' - 6' from the floor (breathing zone). The Combustibles transmitters shall be installed 6" from the floor and each unit shall be capable of monitoring an area of approximately 5,000 - 7,500 ft² in relatively open unobstructed parking areas.

The transmitter circuit shall be housed in a rugged, ABS junction box with a secured cover and designed to mount directly onto standard electrical junction boxes. The transmitter shall operate on 24 VD (nominal) input voltages. An optional watertight Polycarbonate enclosure shall be available. Digital display shall be available as an option.

Wiring shall be 2 conductor 16 gauge for low voltage power, and a 18 gauge two wire low capacitance shielded twisted pair for the communication bus.

System operation shall be as follows: Upon detection of 25 ppm CO or 10% LEL Combustibles, the BACnet® controller shall activate exhaust fans. Upon detection of 100 ppm CO or 20% LEL combustibles, the BACnet® controller shall activate higher ventilation level and audible / visual alarms.

The contractor shall provide all wiring, conduit and interconnection required for a successful installation. System should be tested and commissioned by manufacturer after installation, with a report provided after the site visit.

More specification samples are available at www.critical-environment.com.

WIRING

Coming soon...

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TECHNICAL SPECIFICATIONS

GAS TYPE

Ammonia (NH ₃)
Carbon Monoxide (CO)
Combustible Gas (solid state) <i>Hydrogen (H₂), Methane (CH₄), Propane (C₃H₈), etc.</i>
Ethylene (C ₂ H ₄)
Formaldehyde (CH ₂ O)
Nitrogen Dioxide (NO ₂)
Nitric Oxide (NO)
Oxygen (O ₂)
Refrigerants (solid state) <i>R22, R134A, R402A, R404A, R407C, R410A, R422A, R422D, R507</i>
Sulphur Dioxide (SO ₂)
TVOCs (solid state)

MECHANICAL

Enclosure	General Purpose ABS
Weight	284 g (10 oz)
Size	5.0" x 3.5" x 1.5" (127 mm x 89 mm x 38 mm)

ELECTRICAL

Power Requirement	24 VDC
Current Draw	30 mA; 90 mA (with display)
Outputs	BACnet® MS / TP up to 76,800 bps MAC address 0-127 DIP switch settable
Wiring	4-conductor shielded network wiring (daisy-chained)
Fuse	Automatic resetting thermal

ENVIRONMENTAL (sensor dependant)

Operating Temperature	Sensor dependant
Humidity	Sensor dependant

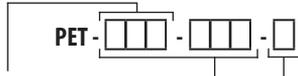
CERTIFICATION

BTL	Certified
CE & C-Tick	Pending



PET-TCO-END-N model, contains an LCD digital display, is pictured beside a PET-SCB-R model which is a remote propane sensor (picture to the right).

PRODUCT CODES



Single Channel Mode:

- Electrochemical*
- EAM** NH₃ sensor (0 - 500 ppm)
 - TCO** CO sensor (0 - 200 ppm)
 - EC4** C₂H₄ sensor (0 - 2,000 ppm)
 - EFO** CH₂O sensor (0 - 10 ppm)
 - EH2** H₂ sensor (0 - 2,000 ppm)
 - END** NO₂ sensor (0 - 10 ppm)
 - ENO** NO sensor (0 - 100 ppm)
 - 002** O₂ sensor (0 - 25% volume)
 - ES0** SO₂ sensor (0 - 20 ppm)

Solid State

- SCB** Combustible gas sensor (0 - 50% LEL)
- SCB** H₂ sensor (0 - 100% LEL)
- SCB** CH₄ sensor (0 - 50% LEL)
- SCB** C₂H₆ sensor (0 - 50% LEL)
- SR2** Refrigerants (R22, R134A, R402A, R404A, R407C, R410A, R422A, R422D, R507) sensor (0 - 2,000 ppm)
- S05** TVOCs sensor (0 - 500 ppm)

Options:

(You can select more than 1 option)

- None
- N** LED digital display
- R** Remote housing (solid state sensor only)

Dual Channel Mode:

- TCO-END** CO sensor (0 - 200 ppm) & NO₂ sensor (0 - 10 ppm)
- TCO-ENO** CO sensor (0 - 200 ppm) & NO sensor (0 - 100 ppm)
- TCO-002** CO sensor (0 - 200 ppm) & O₂ sensor (0 - 25% volume)
- TCO-ES0** CO sensor (0 - 200 ppm) & SO₂ sensor (0 - 20 ppm)

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

