

# ESH-A Remote Sensor



The ESH-A Remote Sensor offers flexible location monitoring of combustible or PID TVOC gases in non-hazardous, non-explosion rated, commercial and light industrial applications. It communicates with a controller or transmitter using current loop into a 100 ohm load or a voltage signal of 0.40 to 2 volts. It can be located at a maximum distance of 200 meters from the controller or transmitter.

The ESH-A Remote Sensor comes in a standard water / dust tight, corrosion resistant ABS / polycarbonate enclosure with a hinged, secure door and is designed to protect the sensor and provide easy mounting components. An optional splash guard may be installed to further protect the remote sensor in water spray or washdown applications.

The mounting height of the ESH-A Remote Sensor depends on the gas being monitored. A gas that is heavier than air should be detected 6 inches from the floor and a gas that is lighter should be detected on or near the ceiling. A gas that has the same density as air should be detected in the "breathing zone", where most human breathing takes place, which is 1 to 2 m (4 to 6 ft) from the floor.

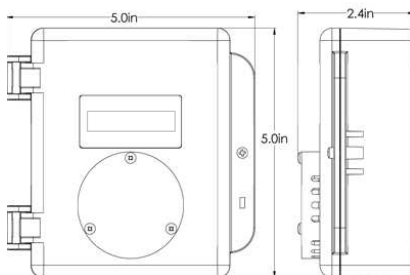
## KEY FEATURES

- » Allows remote location monitoring of combustible or PID TVOC gases.
- » Current or voltage output signal
- » Communicates with CETCI's controllers and transmitters
- » Easy to install and maintain
- » Standard water / dust tight, corrosion resistant enclosure (drip proof); IP54 rated with optional splash guard installed. Keeps sensor dry, clean and protected.

## APPLICATIONS

- » Parking Garages
- » Equipment/ Machinery Rooms
- » Manufacturing Plants
- » Power Generation Plants
- » Airport Maintenance Hangers
- » ... and many more

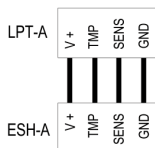
## TECHNICAL DRAWING



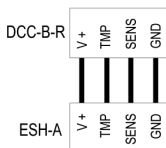
Note: Drawings above are shown with an optional splash guard. Without splash guard, thickness of unit is 2.1" (53 mm).

## WIRING

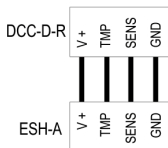
### ESH-A wiring to LPT-A



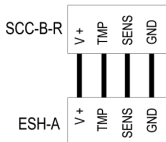
### ESH-A wiring to DCC-B-R



### ESH-A wiring to DCC-D-R



### ESH-A wiring to SCC-B-R



# ESH-A Remote Sensor

## TECHNICAL SPECIFICATIONS

### GAS TYPE

Combustible (catalytic), Jet Fuel (infrared), TVOC (PID)

### MECHANICAL

Enclosure ABS / Polycarbonate, IP54 rated optional splash guard installed. Copper coated interior to reduce RF interference.

Weight 340 g (12 oz)

Size 5.0" x 5.0" x 2.1"  
(127 mm x 127 mm x 53mm)

### ENVIRONMENTAL

Operating Temperature -20°C to 40°C (-4°F to 104°F)

Humidity 15 - 90% RH non-condensing

### ELECTRICAL

Power Requirements 12-24 VDC, 1W, Class 2

Output current or voltage

### REMOTE SENSOR MOUNTING HEIGHTS

On or near the ceiling Hydrogen (H<sub>2</sub>), Methane (CH<sub>4</sub>)  
TVOC (target gas dependant)

6 inches above floor Ethanol (C<sub>2</sub>H<sub>6</sub>O), Propane (C<sub>3</sub>H<sub>8</sub>)  
TVOC (target gas dependant)

### COMPATIBLE CETCI PRODUCTS

Transmitters CGAS-D Digital Detector (1 or 2 channel)  
LPT-A Analog (single channel)  
LPT-P Car Park Digital (1, 2, or 3 channel)  
LPT-M Modbus® (1, 2, or 3 channel)  
LPT-B BACnet® (1, 2, or 3 channel)

Controllers SCC Self Contained (single or dual channel)  
DCC Dual Channel (single or dual channel)

## PRODUCT CODES

### ESH-A- Remote Catalytic Sensors

#### Lifespan

**ESH-A-CC2H2-100** Acetylene (C<sub>2</sub>H<sub>2</sub>) sensor (0 - 100% LEL) 5 yrs

**ESH-A-CH2-100** Hydrogen (H<sub>2</sub>) sensor (0 - 100% LEL) 5 yrs

**ESH-A-CCH4-100** Methane (CH<sub>4</sub>) sensor (0 - 100% LEL) 5 yrs

**ESH-A-CC3H8-100** Propane (C<sub>3</sub>H<sub>8</sub>) sensor (0 - 100% LEL) 5 yrs

### ESH-A- Remote Jet Fuel (Infrared) Sensor

#### Lifespan

**ESH-A-JET** Propane (C<sub>3</sub>H<sub>8</sub>) sensor (0 - 100% LEL) 8 yrs

### ESH-A Remote TVOCs (PID) Sensors

#### Lifespan

**ESH-A-SPL** TVOC PID sensor (0 - 30 ppm) \*\*

**ESH-A-SPH** TVOC PID sensor (0 - 300 ppm) \*\*

\*\* usage and application dependant

### OPTIONS (Factory installed) Add at the end of the "Part Number" above.

**H** Internal heater for cold environment applications down to -40°C / 40°F

**S** Splash Guard

## ACCESSORIES

**CET-SGC** Calibration clip for splash guard

**CET-715A-CK1** Calibration Kit for 17, 34, 58, 74, 100 L cylinders, 0.5 LPM flow regulator & adapter to fit 17 L cylinder

**PID-KITA** Maintenance kit for cleaning PID sensor bulb

**SCS-8000-RSG** Small galvanized metal, 16 gauge protective guard

## CERTIFICATION

Conforms to: CSA-C22.2 No. 205-12, UL508 (Edition 17):2007

Conforms to: EMC Directive 2004/108/EC,  
EN 50270:2006, Type 1, EN61010

Conforms to: FCC. This device complies with Part 15 of the FCC Rules.

