



ISO9001:2000
Certified

Gas Detection Technology

Model PT205-LEL Combustible Hydrocarbon Sensor

Features

- Microprocessor based modular design
- Industry standard 4-20mA output
- LED Status Indicator
- 12-24 VDC Power input
- Reverse polarity protection
- Class I, Div 1, Suitable for use in Hazardous Location
- Simple Calibration



Description

Model PT205 sensor is designed to detect combustible hydrocarbons vapors in air and provides an analog output signal. PT205 uses catalytic beads sensor to detect combustible vapors in % LEL.

The complete sensor consists of a stainless steel sensor head assembly, a user connection board and a transmitter board assembly. All of the sensor electronics are enclosed in an explosion proof instrument box. The unit's modular design allows easy maintenance, troubleshooting and high reliability. The low power microprocessor based sensor transmitter provides a 4-20mA analog signal proportional to 0 - 100% of the detection range of the sensor. Also an LED indicator on the transmitter board provides sensor status and fault condition.

Model PT205 Sensor for Combustible Hydrocarbons

Specifications

Sensor Type

Continuous diffusion Catalytic Bead

Measuring Range

0 to 100 % LEL

Accuracy

± 2 % LEL

Zero Drift

< 5% of Full Scale per year

Response Time

T50 < 10 seconds

T90 < 30 seconds

with 100% LEL methane gas applied

Classification

Class I, division 1, Groups B,C & D

Operating Temperature

-40°F to +158°F (-40°C to +70°C)

Operating Humidity

10% to 90% RH, non-condensing

Mechanical Specifications

Length: 7 inches (178 mm)

Width: 5 inches (127 mm)

Height: 4 inches (101 mm)

Status Indicators

LED indicator of sensor status and
Fault condition.

Approvals

Certified to CSA requirement of use in
Hazardous area.

Performance test: ISA-S12.13-Part I-
1995

Input Power

14-28 VDC. 24 VDC nominal

Power Consumption

110mA @ 24 VDC typical

Analog Output

Linear 4-20mA (300 Ohms max. load)

< 1.0 mA - Sensor malfunction

Cable Requirement

3 wire shielded cable. Max loop
resistance of

20 Ohms @ 24 VDC nominal

Cable Entry Hub

3/4" NPT Female

Pem-Tech, Inc.

12144 Dairy Ashford, Bldng # 2 • Sugar Land, Texas 77478 • USA

Ph: 281-494-2079

Fax: 281-494-2167

www.pem-tech.com

Email: sales@pem-tech.com