



ISO9001:2000  
Certified

*Gas Detection Technology*

## Model PT900-12FG Gas Monitor

### Features

- Microprocessor based Addressable modules
- Discrete 4-20mA output
- Three (3) Programmable alarm relays
- RS-485 MODBUS RTU Serial Communication
- PLC and SCADA Compatibility
- Alarm Status LED Indicators



### Description

Model PT900-12FG is a microprocessor-based modular controller that provides up to 12 channels of continuous gas detection. The controller is housed in a Nema 4X weatherproof enclosure. Each PT900 Series toxic or combustible gas control module can be interfaced with Pem-Tech's gas sensors. The control modules provide digital display, discrete 4-20mA analog output and programmable alarm relay contacts.

The low power RISC based microprocessor allows all the alarm levels and control module address programmed via switches on the front panel. The bright LED display indicates the gas concentration. Also features amber and red LED indicators for alarm status. One of the safety features is a flashing digital display when the control module is in alarm bypass mode. The flashing display is an indication to the personnel in the control room about the alarm bypass status.

Each control module has RS-485 MODBUS RTU serial communication compatible with PLC's, SCADA, and DCS systems. The module provides complete status like current gas concentration, sensor calibration and current alarm status. The alarm levels can also be accessed and programmed via MODBUS.

<http://www.pem-tech.com>

Email [sales@pem-tech.com](mailto:sales@pem-tech.com)



## Model PT900-12FG Gas Monitor

### Specifications

#### Electrical Classification

Nema 4X Fiberglass Enclosure,  
Outdoor weatherproof

#### Capacity

Up to 12 PT900 Series Control  
Modules, toxic or combustibles.

#### Front Panel Indicators

- 2 Bright LED digital display
- 4 each Alarm LED Indicators
- Flashing digital display if module in alarm bypass mode.

#### Test & Safety Features

Displays programmed alarm levels with flashing alarm LED indicators upon unit power up to check the integrity of display and LED indicators

#### Operating Temperature

-40°F to +158°F (-40°C to +70°C)

#### Operating Humidity

5% to 100% RH, non-condensing

#### Mechanical Specifications

Height: 24 inches (610 mm)  
Width: 24 inches (610 mm)  
Depth: 10 inches (254 mm)  
Weight 40 Lbs. (18 Kg)

#### Input Power

110/220 VAC . Standard  
18-28 VDC (Battery backup systems)

#### Alarm Relays

Low, High & High-High alarm relays.  
Fully programmable from zero to full scale range. Latching or non-latching.

#### Relay Ratings

SPDT Form "C" type Relay contacts  
5 Amps @ 250 VAC or 30 VDC

#### Auxiliary Alarm Relay Assembly

Four (4) each alarm relay contacts  
Each relay rated 10Amps @ 125 VAC /  
28 VDC

#### Analog Output

Discrete 4-20mA (300 Ohms max.  
Load.

#### Peripheral & Interface

- RS-485 MODBUS<sup>®</sup> RTU Compatible with PLC's, SCADA and DCS systems. MODBUS registers defined in the control Module: Gas concentration, current alarm levels and alarm status, sensor calibration mode, Remote alarm Reset and Bypass
- Annunciator model PT750 for remote readout

#### Approvals

Enclosure: CSA & UL  
Control Modules: ABS Type approved  
ABS Rules: 1-1-4/3.7, 4-8-3/tbl 2  
4-8-3/1.7

### **Pem-Tech, Inc.**

12144 Dairy Ashford, Bldg # 2 • Sugar Land, Texas 77478 • USA  
Ph: 281-494-2079 Fax: 281-494-2167  
www.pem-tech.com Email: sales@pem-tech.com