



## Model PT900-12R Gas Monitor



### Features

- Addressable Control modules
- Discrete 4-20mA output
- Three (3) Programmable alarm relays
- RS-485 MODBUS<sup>®</sup> RTU Serial Link
- PLC and SCADA Compatibility
- Alarm Status LED Indicators

### Description

Model PT900-12R is a standard 19" rack assembly with up to 12 control modules to serve as a gas monitor and controller for Pem-Tech's remote mounted gas sensors. The modular designed 12 channel gas monitor is rated Nema 1 for safe area use. 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.



## Model PT900-12R Gas Monitor

### Specifications

#### Electrical Classification

Nema 1 Panel Mount.  
Standard 3U - 19" rack-mount

#### Capacity

12 Channel / PT900 Series Control  
Modules

#### Front Panel Indicators

- 2 Bright LED digital display
- 4 each Alarm LED Indicators:  
Amber for Low Alarm  
Red for High, High-High and fault
- 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 system  
integrity

#### Operating Temperature

-40°F to +158°F (-40°C to +70°C)

#### Operating Humidity

5% to 100% RH, non-condensing

#### Mechanical Specifications

Height: 5 ¼ inches (133 mm)  
Width: 19 inches (483 mm)  
Depth: 11 inches (279 mm)

#### Approvals

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

#### Power Consumption

Per channel 160mA @ 24 VDC  
including gas sensor and control module

#### Alarm Relays

Low, High & High-High alarm relays.  
Fully programmable 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 (Optional)

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

#### Analog Output

Discrete 4-20mA (300 Ohms max.  
load) 2.0 mA - When sensor in  
Calibration mode  
< 1.0 mA - Sensor malfunction

#### Peripheral & Interface

- RS-485 MODBUS<sup>®</sup> RTU Compatible  
with PLC's, SCADA and DCS  
systems.
- Annunciator model PT750 for remote  
readout

### **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