PM180 Series
6-channel Modbus Pyrometer Hub with Data Logging

- Compatible with PyroBus and PyroMini infrared temperature sensors with RS485 Modbus interface
- Operates as Modbus master and isolated Modbus slave
- Configure, display and log data and alarms from up to 6 sensors per PM180 unit, simultaneously or individually
- MicroSD Card stores up to 1 year of data (with 2 GB card)
- Touch screen with backlight
- Scheduled and manual logging start/stop
- Relay alarms with ICP DAS M-7061 (not included)
- Analogue outputs with ICP DAS M-7024 (not included)
- Temperature chart displays data from 2 channels simultaneously
- CE marked and RoHS compliant

GENERAL SPECIFICATIONS

Display
2.83" (72 mm) resistive touch TFT, 320 x 240 pixels, backlit
Supply Voltage
10 to 30 V DC
Maximum Current Draw
100 mA
Ambient Temperature Range
0°C to 60°C
Relative Humidity
Maximum 95%, non-condensing
Configurable Parameters (global)
Temperature units, date and time, data logging, graph channels, alarm logging
Configurable Parameters (per channel)
Signal processing, emissivity setting, reflected energy compensation, alarms, Modbus address
Alarm Configuration
12 alarms (2 per sensor) with adjustable level, individually configurable as HI or LO.
Temperature Units
°C or °F selectable
Temperature Resolution
0.1°
Signal Processing
Average, peak hold, valley hold, minimum, maximum
Display Sample Period
120 ms per sensor (720 ms in total for 6 sensors)
Compatible Sensor Types
PyroBus (all models), PyroMini (-BB and -BRT models)

DATA LOGGING

Logging Interval
1 to 86,400 seconds (1 day)
MicroSD Card
Max. capacity: 32 GB (not included)
Internal Clock Battery
1 x BR 1225 3V (not included)
Variables Logged
Target temperature, sensing head temperature, alarm events
File Format
.csv (can be imported to Excel)
Configurable Parameters
Sample period, number of samples, scheduled start date and time

MECHANICAL SPECIFICATIONS

Dimensions
98(e) x 64(h) x 36(d) mm excluding cable glands
Weight
280 g
### PM180 as MODBUS MASTER

**Sensors #1 to #6**
- any of the following types:
  - PyroMini with touch screen (model -BRT)
  - PyroMini without screen (model -BR)
  - PyroBus (any model)
  - M-7061 relay output module
  - M-7024 analogue output module

**Optional ICP DAS output modules**

- Modbus Master e.g. SCADA system in control room
- Other Modbus devices

**PM180 #1**
- Up to 6 sensors and 2 output modules

**PM180 #2**
- Up to 6 sensors and 2 output modules

Each PM180 is a slave device on the main network and the master on each network of sensors.

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### PM180 as MODBUS SLAVE

**Sensors #1 to #6**
- any of the following types:
  - PyroMini with touch screen (model -BRT)
  - PyroMini without screen (model -BR)
  - PyroBus (any model)

**Optional ICP DAS output modules**

- Modbus Master e.g. SCADA system in control room
- Other Modbus devices

**PM180 #1**
- Up to 6 sensors and 2 output modules

**PM180 #2**
- Up to 6 sensors and 2 output modules

**PM180 #247**
- Up to 6 sensors and 2 output modules

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### Intuitive touch screen interface

Display, chart and configure all 6 channels individually or simultaneously. The display for each channel turns red in an alarm condition.

### Temperature chart

Display temperature data from two channels in a scrolling graph.

### Password-protected settings

Configure options for each sensor and the PM180 itself via the touch screen interface.

### Data logging

Temperature data and alarm events may be logged to a MicroSD Card (not supplied).

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### MODEL NUMBERS

**PM180**
- 6-channel Modbus display/logger

### ACCESSORIES

**AC adapter PM180MA**
- 2 GB MicroSD Card MSD
- 12-channel relay output module M-7061
- 4-channel voltage or current analogue output module M-7024