

	View/edit sensor emissivity setting
	View/edit sensor reflected energy compensation
	View/edit sensor measurement filtering and peak/valley hold settings
	View/edit sensor alarm settings
	Acknowledge alarms
	Set units to °C
	Set units to °F
	Toggle between °C and °F
	Toggle between single sensor and multiple sensor displays
	Sensor status display: N/C: Sensor is not connected OK: Sensor is operating correctly ERR: A communications error has occurred AL1: Alarm 1 is active AL2: Alarm 2 is active AL*: Alarm 1 and Alarm 2 are active

#### Emissivity settings:

Press on emissivity value to manually edit, or select a material from the list.

	Apply settings to selected sensor only
	Apply settings to all connected sensors
	Exit without applying settings

#### Reflected energy compensation:

To enable: press on reflected temperature value and enter required temperature. Press on enable. To disable: press on disable.

	Apply settings to selected sensor only
	Apply settings to all connected sensors
	Exit without applying settings

#### Filtering and peak/valley hold processing:

Enter average period and hold period by pressing on their respective values. Select the required hold mode from the list.

	Apply settings to selected sensor only
	Apply settings to all connected sensors
	Exit without applying settings

#### Alarms:

To set alarms, press on alarm temperatures and enter required values. Select alarm mode from list.

	Apply settings to selected sensor only
	Apply settings to all connected sensors
	Exit without applying settings
	Reset alarms for selected sensor only
	Reset alarms for all connected sensors

#### Display lock/unlock:

When the display is locked, sensor settings can be viewed but not edited. To unlock the display, enter the passcode by pressing on \*\*\*\* (default 1234), then press the unlock button. To lock the display, press the lock button. To change the passcode, first unlock the display, then press the change passcode button.

	Unlock display
	Lock display
	Change passcode

#### Change passcode screen:

To change the passcode: enter the new passcode, confirm the new passcode, press the accept button.

	Accept new passcode
	Exit without changing passcode

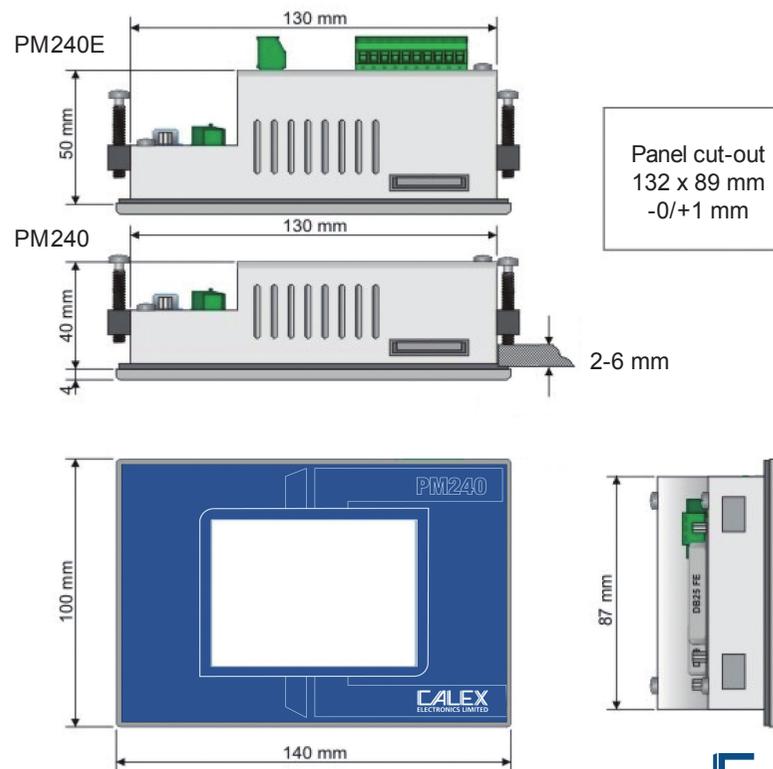
# PM240 Touch-Screen Terminal Operators Guide

## PM240 SPECIFICATIONS

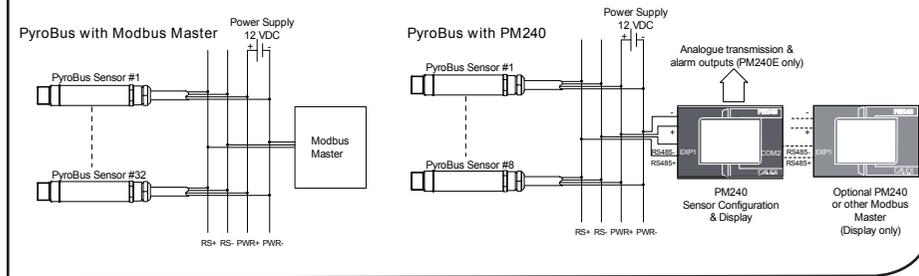
<b>Display</b>	LCD type TFT 320 x 240, 3.5" resistive touch screen
<b>Supply Voltage</b>	12 to 24 V DC
<b>Power Consumption</b>	8 W
<b>Ambient Temperature</b>	0°C to 45°C
<b>Relative Humidity</b>	35% to 95%, non-condensing
<b>Environmental Rating</b>	IP54 (front), IP30 (housing)
<b>Dimensions</b>	140mm wide x 100mm tall x 44mm deep (PM240) 140mm wide x 100mm tall x 65mm deep (PM240E)
<b>Outputs (PM240E only)</b>	4 analogue outputs, 0 to 10 V DC, 16 programmable alarm outputs, 12/24 V DC, 700 mA, (3 A max. per block of 8 outputs)

## SERIAL PORTS

<b>Serial port EXP1</b>	RS485 Modbus RTU interface for PyroBus sensors
<b>Serial port COM2</b>	RS485 / RS232 interface for second display (read only)



## ELECTRICAL INSTALLATION



## CHANGING MODBUS ADDRESSES

Each sensor has its own unique address that identifies it in the Modbus network. By default, all sensors are shipped with Modbus address 1. If more than one sensor is to be used, then before use, the Modbus address of each sensor should be changed and noted.

Modbus addresses may be configured via an existing Modbus system, or alternatively by using a PM240 or PM240E touchscreen terminal as follows:

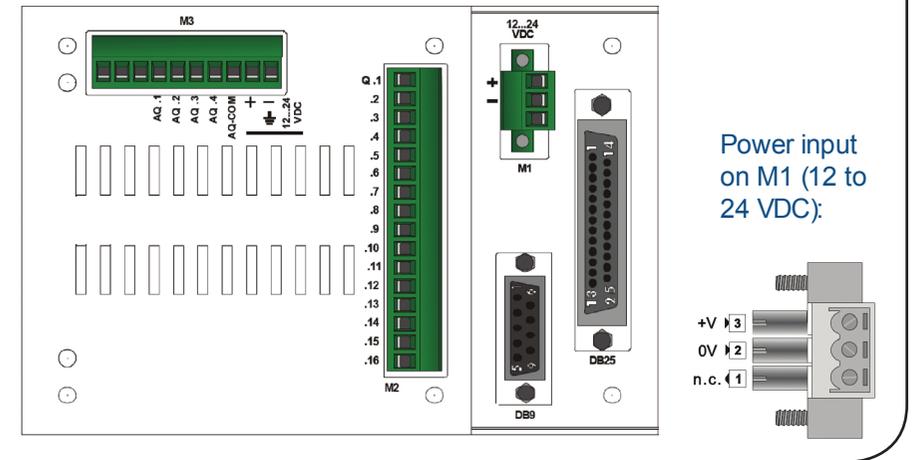
1. Connect one sensor to the terminal. To access the New Address function, only one sensor may be connected. If more than one sensor is connected, the @ button will remain greyed out when the terminal is unlocked.
2. Switch on the terminal. The terminal searches for sensors, and one sensor will be listed.
3. To change a Modbus address, the terminal must first be unlocked. Press the button to access the Unlock screen, enter the passcode (default: 1234) and press to unlock the terminal.
4. Press the @ button to access the New Address screen. The current address of the sensor is displayed.
5. Press the number beside "New address" (default: 001) to enter a new address for this sensor. The new address may be a whole number between 1 and 247.

Please note:

- If the sensors are to be used with a PM240 or PM240E terminal, addresses 1 to 8 must be used.
- Do not apply the same address to more than one sensor in any network. Each sensor in the network must have a unique address.

6. To confirm the address, press the number beside "Confirm address" and enter the same address. The numbers entered in New Address and Confirm Address must match.
7. Press to store the new address in the sensor. If successful, the message "Address changed" will be displayed.
8. The new address is stored in the sensor's memory, however it will not be used until the sensor power is turned off and turned on again. To confirm that the address has been properly changed, restart the terminal; the new address will be displayed alongside the sensor in the list.

## PM240 CONNECTIONS



### MODBUS master interface EXP1 on DB9:

Description	PyroBus cable ident.	DB9 pin no.
RS485 +	RS+	9
RS485 -	RS-	4
RS485 GND	PWR-	5

### Analogue outputs (0-10V) AQ1-4 on M3 (PM240E only):

AQ1 = Sensor 1, AQ2 = Sensor 2, AQ3 = Sensor 3, AQ4 = Sensor 4

## DISPLAY FUNCTIONS

### Sensor list screen:

/	Unlock display
	Edit contrast
	Search for sensors
	Move selected sensor up in list
	Move selected sensor down in list
	View selected sensor
	View all sensors
@	Change Modbus address (with 1 sensor connected)

### MODBUS slave interface COM2 on DB25 (only applicable when using second PM240 as display only repeater)

Description	PM240 (1) DB9 pin no.	PM240 (2) DB25 pin no.
RS485 +	9	24
RS485 -	4	25
RS485 GND	5	14

### Alarm outputs Q1-16 on M2 (PM240E only):

	Alarm 1	Alarm 2
Sensor 1	Q1	Q2
Sensor 2	Q3	Q4
Sensor 3	Q5	Q6
Sensor 4	Q7	Q8
Sensor 5	Q9	Q10
Sensor 6	Q11	Q12
Sensor 7	Q13	Q14
Sensor 8	Q15	Q16

### Single- and multiple-sensor display screen:

/	Lock/Unlock display
#	View sensor list