Resource
Data Management

Mercury Monitor

Installation & User Guide
Software Revision 3.2

PR0744 MON

Contents

The Mercury Mk3 Monitor 3
Ordering Information 3
Mercury Mk3 Hardware 3
Compatible Displays 3
Configuration 4
Compatible Network Interfaces 4
Mercury I/O Connections (PR0744) 4
Front Display Features Mercury Display 5
Input and Output Allocation Tables 5
Switched Resistor Values 6
Relay Output allocation table 6
Setting up the controller 6
Setup through front buttons 6
Setup Function Menu (Common to all types) 7
Test Mode** 7
Recommended set-up method 7
rtc. Real time clock (This will automatically if networked to a DM Touch or Mini DM) 7
type. Set/view controller type 7
PArA. Set/view parameters (This can be achieved at the network front end) 8
Unit. Set/view temperature unit and Probe type 8
Parameter Tables 8
Parameter table for Probe Monitor and LT Probe Monitor (Types 1 & 3) 8
Parameter table for Probe Tester (Type 2) 10
Parameter Descriptions 11
Network Configuration 12
Mercury RS232 Variant 12
IP Futura module 12
RS485 module 13
Mercury IP Variant 14
Normal Operation 14
Defrost (Type 1 only) 15
Defrost Over-run (Type 1 only) 15
Faults 15
Network 15
Probe Offset 15
Inhibit Alarms (Type 1 only) 15
Alarm Relay Action 15
Viewing I/O 15
Input / Output Table 16
Display Messages 17
Probe Offset 17
Specification 18
Relay Specification 18
Switched Resistor Example Wiring 19
Installation& Dimensions 19
Panel Cut-out and Clearances 19
Fixing 19
Dimensions – PR0744 Range 19
Appendix 3: Webpage Appearance 20
Disclaimer 25
Revision History 25

The Mercury Mk3 Monitor

From Resource Data Management

This user guide is specifically for the hardware variant PR0744 with relays to IEC 60079-15 which is specifically for use with hydrocarbon refrigerants. For the standard Mercury Monitor see the PR0740 range.

The Mercury 3 Monitor has three controller types embedded in one controller. Type one is a 6-channel temperature monitor with defrost inputs to inhibit alarms. Each input can be configured for a temperature probe or plant fault (either N/C or N/O). Each channel can be independently configured for over and under temperature alarm set points as well as alarm and recovery delays. The Monitor can also be configured as a temperature probe tester, where the monitor simply records the values without generating alarms. The third type of controller can be used for monitoring in low temperature applications with over and under temperature alarm limits for each channel or be configured for plant faults (either N/C or N/O). The Monitor can operate stand-alone or be networked. There is a choice of serial or built in IP communications for logging onto a network.

The monitor supports PT1000, NTC2K, NTC470R, NTC700R, NTC3K, NTC2K25, NTC5K, NTC6K, NTC10K and NTC10K (2) temperature probes (Note: All 6 inputs must be the same type, they cannot be mixed).

Each input can be configured to have a temperature offset to compensate for long cable lengths.

Ordering Information

Mercury Mk3 Hardware

When ordering a Mercury Mk3 controller the following ordering scheme can be used to purchase the desired hardware configuration.

PR0744 MXY MON

X	Description
D	Internal Display
R	Remote Display

Y	Description
IP	Ethernet Comms.
232	RS232 Comms.

Example:

To order a Mercury MK3 Monitor with an internal display and IP Comms: **PR0744 MD IP MON**

Compatible Displays

The following displays are compatible with the Mercury 3 Remote Display versions:

Description	Part Number
Mercury DIN Remote Display with 5m cable	PR0327
Mercury DIN Key switch Remote Display with 5m cable	PR0328
Mercury Remote Display with 5m cable	PR0725
Mercury Remote Display with 1.5m cable	PR0725A
Mercury Coldroom Display with 1.5m cable	PR0152

Configuration

The controller is delivered pre-configured as a Temperature Monitor (Type 1). The controller gives three configuration options. See set-up for changing the type.

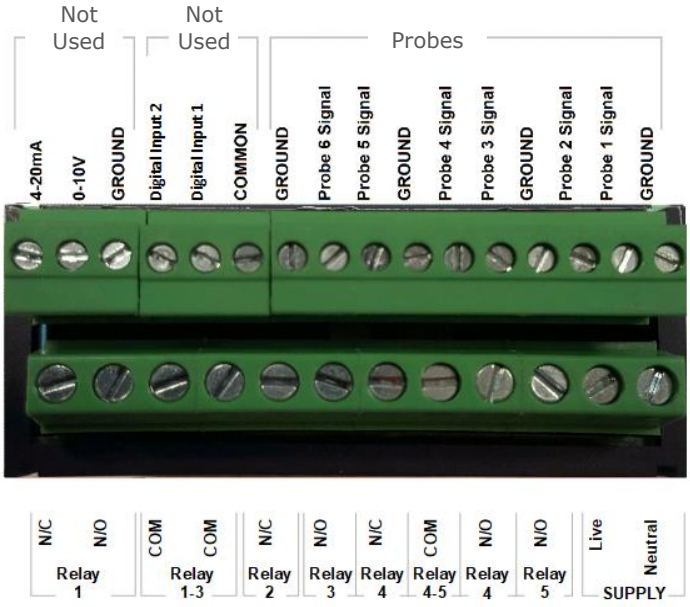
Display value	Type description
1	6 channel temperature or fault monitor
2	6 channel probe tester
3	6 channel Low temperature monitor

Compatible Network Interfaces

Mercury monitors which do not have an IP interface built in are capable of connecting to either a TCP/IP local area network, an RS485 Genus compatible network or they can be used in standalone mode with no network output. To connect to a network, you must add the correct communications module. Connecting to any of these communication modules will automatically be detected on power up and will affect the 'Net' menu set up screens available to you. **Note** controllers with built in IP will be able to communicate to any IP switch, including the rear ports of the RDM Mercury Hub/Intuitive Switch.

Description	Part Number
IP Futura (Single Mercury to IP Interface)	PR0016
IP Futura, DIN rail mounted	PR0016-DIN
IP Futura, DIN rail mounted with 2 x CAT 5 sockets	PR0016-DUALDIN
Intuitive Switch with 6 x RS232 ports, 4 x Ethernet Ports and a 4-20mA Pressure Transducer connection.	PR0758-6P4E-PHI
Intuitive Switch with 12 x RS232 ports and 4 x Ethernet Ports	PR0758-12P4E
Intuitive Switch with 12 x RS232 ports, 4 x Ethernet Ports and a 4-20mA Pressure Transducer connection.	PR0758-12P4E-PHI
Intuitive Switch with 16 x RS232 ports, 4 x Ethernet Ports and a 4-20mA Pressure Transducer connection.	PR0758-16P4E-PHI
Intuitive Switch with 16 x RS232 ports, 3 x Ethernet Ports and 1 x Fibre connection.	PR0757-16P3E-F
Intuitive Switch with 16 x RS232 ports, 3 x Ethernet Ports, 1 x Fibre connection and a 4-20mA Pressure Transducer connection.	PR0757-16P3E-F-PHI
Bluetooth RS232 Network Module	PR0630

Mercury I/O Connections (PR0744)



On the PR0744 variant the terminals are fixed and are not of the plug and socket type.

Front Display Features

LEDs:
Valve (Not Used)

Fans (Not Used)

Lights (Not Used)

Defrost (Relay 2)

On-Line Status

Off: No network attached
Flashing: Attempting to Log on to network
Steady: On-line

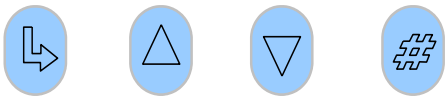
Service (Not Used)

Alarm (Relay 1)

HACCP (Not Used)

Mercury Display

Keys



Enter Up Down Defrost

Main Display

4 character LED display, used to display time and status messages.

Input and Output Allocation Tables

	Monitor Type 1	Probe Tester Type 2	LT Monitor Type 3	Alarm Action Type 1&3	Alarm Action Type 2	Plant Input Type 1 (Switched Resistors)	Plant Input Type 2 &3 (Switched Resistors)
Probe 1	Probe 1 or Plant Fault	Probe 1	Probe 1 or Plant Fault	Yes	N/A	Defrost Signal 1	N/A
Probe 2	Probe 2 or Plant Fault	Probe 2	Probe 2 or Plant Fault	Yes	N/A	Defrost Signal 2	N/A
Probe 3	Probe 3 or Plant Fault	Probe 3	Probe 3 or Plant Fault	Yes	N/A	Defrost Signal 3	N/A
Probe 4	Probe 4 or Plant Fault	Probe 4	Probe 4 or Plant Fault	Yes	N/A	Defrost Signal 4	N/A
Probe 5	Probe 5 or Plant Fault	Probe 5	Probe 5 or Plant Fault	Yes	N/A	Defrost Signal 5	N/A
Probe 6	Probe 6 or Plant Fault	Probe 6	Probe 6 or Plant Fault	Yes	N/A	Defrost Signal 6	N/A

Switched Resistor Values

For PT1000 probes use 820 Ohm
For NTC2K, NTC2K25 and NTC3K probes use 590 Ohm
For NTC5K and NTC 6K probes use 1K Ohm
For NTC10k probes use 2K7 resistors
For NTC10 (2) probes use 2K Ohm

The resistors used must have a tolerance of 1% or better and the resistor must have a power rating of 0.25W. For improved accuracy whilst using switched resistors RDM recommend resistors with 0.1% accuracy are used. When a resistor is switched across the appropriate input it signals to the Mercury a defrost on that channel whilst still recording the probe temperature on the input.

Relay Output allocation table

	Monitor Type 1	Probe Tester Type 2	LT Monitor Type 3	Relay Action Type 1 & 3	Relay Action Type 2
Relay 1	Alarm*	Not Used	Alarm*	Output OK = Relay Energised	Not Used
Relay 2	Any Channel On Defrost	Not Used	Remote Relay 1	Output Off = Relay Energised	Not Used
Relay 3	Remote Relay 1 **	Not Used	Remote Relay 2	Output Off = Relay De Energised	Not Used
Relay 4	Remote Relay 2	Not Used	Remote Relay 3	Output Off = Relay De Energised	Not Used
Relay 5	Remote Relay 3	Not Used	Remote Relay 4	Output Off = Relay De Energised	Not Used

*The alarm relay is energised for no alarm. Use the NC and Common for "Loop make" on alarm or use the NO and Common for "Loop break" on alarm.
** Relay 3 has common and normally closed contacts available and has no normally open contact.
When using it as remote relay 1, the normally closed connection will have an output only when the relay is de energised.

Setting up the controller

Access to the controller can be achieved by several ways;

Serial Communications Variant

- Through the front mounted buttons of the display
- Direct access by PC into the serial comms port. This requires a software package available on the RDM website.
- Through the RDM Data Manager.
- Across an IP network (Current controller IP address required).

Ethernet Communications Variant

- Through the front mounted buttons of the display.
- Across an IP network (Current controller IP address required).
- Through the Data Manager.

Setup through front buttons

ENTER

UP

DOWN

To enter setup mode, hold the **Enter** and **Down** buttons together for approximately 3 seconds until the message "Ent" appears on the display. Now press the Enter button again to enter the function menu. IO will be displayed. Scroll up or down to go through the list.

Setup Function Menu (Common to all types)

Display	Option	Explained in Paragraph		Display	Option	Explained in Paragraph
IO	View Inputs / Outputs and States	Input / output table		inh1	Inhibit Channel 1*	Inhibit channel
PArA	Set/View Parameters	Set view parameters		inh2	Inhibit Channel 2*	Inhibit channel
Unit	Probe type and Celsius/Fahrenheit option	Set View Unit		inh3	Inhibit Channel 3*	Inhibit channel
tyPE	Set/View Controller Type	Set/view controller type		inh4	Inhibit Channel 4*	Inhibit channel
Rtc	Set/view Clock (rtc = Real Time Clock)	Real Time Clock		inh5	Inhibit Channel 5*	Inhibit channel
nEt	Set/view network configuration	Network Configuration		inh6	Inhibit Channel 6*	Inhibit channel
SoFt	View software version			tESt**	See Note Below	Test Mode
OFSt	Probe Offset	Probe Offset		ESC	Exit Setup mode	

Test Mode**

When first powered up the controller will have the 'tESt' option in the menu setup. This allows the user to toggle the relays for testing purposes. Upon entering the menu, the display will show r-01 (relay 1) to r-05 (relay 5), select the desired output and toggle the value from 0 to 1 (confirm by pressing enter) to switch the selected relay.

This option is only available for 30 seconds after power up. After this time, the menu setup will return to its standard options.

Recommended set-up method

If you are not connecting to a network and want to set up the controller through the buttons, we recommend you use the following order from the function menu.

rtc. Real time clock (This will automatically if networked to a DM Touch or Mini DM)

a. Use the up or down buttons to scroll through the display until the display reads "rtc"
b. Press enter. The display will show "t-1". press enter again
c. Scroll hours up or down (0 – 23) press enter
d. Use up button to select "t-2", press enter
e. Scroll minutes up or down (0 – 59) press enter
f. Repeat for t-3 (seconds 0 – 59)
g. Repeat for t -4 (Days up to 31)
h. Repeat for t -5 (months up to 12)
i. Repeat for t -6 (Year up to 99)
j. Use up button to display "ESC", press enter to display "rtc"

Time clock is now set

type. Set/view controller type

a. From the function menu scroll to select 'type', press enter
b. Use the up/ down buttons to scroll through case/ coldroom configuration types. (see configuration table on page 4)
c. Press enter.
d. Scroll to select "ESC"
e. Press enter

Controller type configuration is now set

PArA. Set/view parameters (This can be achieved at the network front end)

a. From the function menu, scroll to select 'PArA'
b. Pressing Enter while PArA is displayed will enter the parameter menu.
c. The first parameter option will be displayed as P-01. Pressing the Up or Down button will present the other parameter options P-02, P-03 etc. See the parameter list below to find what parameter number corresponds to which actual parameter.
d. Pressing the Enter button will show the current value of the selected parameter.
e. Press Up or Down to modify the value and press Enter again to save the value.
f. The parameter list number will be displayed again.
g. Two other options are present in the parameter menu – dFLt and ESC. Selecting ESC will exit the setup mode and save all changes.
h. Selecting dFLt will reset all parameters back to the default values for the current type of controller

Unit. Set/view temperature unit and Probe type

From the function menu scroll to, and select Unit. Press enter and the value will be displayed: -

Change the probe type to: -	Type 1 & 2	Type 3
0 = PT1000ºC	Range -42.0 to 128.0 ºC	Range -98.0 to 128.0 ºC
1 = PT1000ºF	Range -43.6 to 262.4 ºF	Range -144.4 to 262.4 ºF
2 = NTC2K ºC	Range -42.0 to 60.0 ºC	Range -98.0 to 106.0 ºC
3 = NTC2K ºF	Range -43.6 to 140.0 ºF	Range -144.4 to 223.0 ºF
4 = NTC470R ºC	Range -42.0 to 45.0 ºC	Range -98.0 to 45.0 ºC
5 = NTC470R ºF	Range -43.6 to 114.0 ºF	Range -144.4 to 114.0 ºF
6 = NTC700R ºC	Range -42.0 to 60.0 ºC	Range -42.0 to 60.0 ºC
7 = NTC700R ºF	Range -43.6 to 140.0 ºF	Range -41.1 to 140.0 ºF
8 = NTC3K ºC	Range -42.0 to 60.0 ºC	Range -98.0 to 100.0 ºC
9 = NTC3K ºF	Range -43.6 to 140.0 ºF	Range -144.4 to 212.0 ºF
10 = NTC2K25 ºC	Range -42.0 to 58 ºC	Range -98.0 to 90.0 ºC
11= NTC2K25 ºF	Range -43.6 to 136.3 ºF	Range -144.0 To 194.0 ºF
12 = NTC5K ºC	Range -42.0 to 60.0 ºC	Range -98.0 to 118.0 ºC
13 = NTC5K ºF	Range -43.6 to 140.0 ºF	Range -144.0 to 245.0 ºF
14 = NTC6K ºC	Range -42.0 to 60.0 ºC	Range -98.0 to 125.0 ºC
15 = NTC6K ºF	Range -43.6 to 140.0 ºF	Range -144.0 to 258.0 ºF
16 = NTC10K ºC	Range -42.0 to 60.0 ºC	Range -98.0 to 128.0 ºC
17 = NTC10K ºF	Range -43.6 to 140.0 ºF	Range -144.0 To 262.4 ºF
18 = NTC10K (2) ºC	Range -42.0 to 60.0ºC	Range -85.6 to 128.0 ºC
19 = NTC10K (2) ºF	Range -43.6 to 140.0 ºF	Range -122.2 to 262.4 ºF

This function is now complete

Parameter Tables

Parameter table for Probe Monitor and LT Probe Monitor (Types 1 & 3)

Not all parameters apply to all controller types, for example P-08 is Channel 1 Defrost Over-run which only applies to Monitor type 1, this parameter will not appear if the controller is set up as a type 3 (Low temperature monitor). In the following table, the type columns on the right-hand side will be greyed out if that parameter does not apply to that controller type.

Number	Parameter	Range ºC(ºF)	Step	Units	Default ºC(ºF)	Type 1	Type 3
P-01	Channel 1 Select	0 = Off 1 = Probe 2 = Plant N/C 3 =Plant N/O			1	✓	✓
P-02	C1 Slug Probe	0 = No 1 =Yes			0	✓	✓
P-03	Channel 1 UT	-42.0 – 128.0ºC (-43.6 – 262.4ºF)	0.1	Deg	-2.0 (28.4)	✓	
	Channel 1 UT	-98.0 – 128.0ºC (-144.4 – 262.4ºF)	0.1	Deg	-2.0 (28.4)		✓
P-04	Channel 1 OT	-42.0 – 128.0ºC	0.1	Deg	5.0	✓	

Number	Parameter	Range °C(°F)	Step	Units	Default °C(°F)	Type 1	Type 3
		(-43.6 – 262.4°F)			(41.0)		
	Channel 1 OT	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg	5.0 (41.0)		✓
P-05	C1 Alarm Delay	00:00 to 99:00	01:00	mm:ss	20:00	✓	✓
P-06	C1 Recovery	00:00 to 99:00	01:00	mm:ss	20:00	✓	
P-07	C1 Inhibit	00:00 to 99:00	01:00	mm:ss	30:00	✓	
P-08	C1 Defrost Over-run	00:00 to 99:00	01:00	mm:ss	60:00	✓	
P-11	Channel 2 Select	0 = Off 1 = Probe 2 = Plant N/C 3 = Plant N/O			1	✓	✓
P-12	C2 Slug Probe	0 = No 1 = Yes			0	✓	✓
P-13	Channel 2 UT	-42.0 – 128.0°C (-43.6 – 262.4°F)	0.1	Deg	-2.0 (28.4)	✓	
	Channel 2 UT	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg	-2.0 (28.4)		✓
P-14	Channel 2 OT	-42.0 – 128.0°C (-43.6 – 262.4°F)	0.1	Deg	5.0 (41.0)	✓	
	Channel 2 OT	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg	5.0 (41.0)		✓
P-15	C2 Alarm Delay	00:00 to 99:00	01:00	mm:ss	20:00	✓	✓
P-16	C2 Recovery	00:00 to 99:00	01:00	mm:ss	20:00	✓	
P-17	C2 Inhibit	00:00 to 99:00	01:00	mm:ss	30:00	✓	
P-18	C2 Defrost Over-run	00:00 to 99:00	01:00	mm:ss	60:00	✓	
P-21	Channel 3 Select	0 = Off 1 = Probe 2 = Plant N/C 3 = Plant N/O			1	✓	✓
P-22	C3 Slug Probe	0 = No 1 = Yes			0	✓	✓
P-23	Channel 3 UT	-42.0 – 128.0°C (-43.6 – 262.4°F)	0.1	Deg	-2.0 (28.4)	✓	
	Channel 3 UT	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg	-2.0 (28.4)		✓
P-24	Channel 3 OT	-42.0 – 128.0°C (-43.6 – 262.4°F)	0.1	Deg	5.0 (41.0)	✓	
	Channel 3 OT	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg	5.0 (41.0)		✓
P-25	C3 Alarm Delay	00:00 to 99:00	01:00	mm:ss	20:00	✓	✓
P-26	C3 Recovery	00:00 to 99:00	01:00	mm:ss	20:00	✓	
P-27	C3 Inhibit	00:00 to 99:00	01:00	mm:ss	30:00	✓	
P-28	C3 Defrost Over-run	00:00 to 99:00	01:00	mm:ss	60:00	✓	
P-31	Channel 4 Select	0 = Off 1 = Probe 2 = Plant N/C 3 = Plant N/O			1	✓	✓
P-32	C4 Slug Probe	0 = No 1 = Yes			0	✓	✓
P-33	Channel 4 UT	-42.0 – 128.0°C (-43.6 – 262.4°F)	0.1	Deg	-2.0 (28.4)	✓	
	Channel 4 UT	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg	-2.0 (28.4)		✓
P-34	Channel 4 OT	-42.0 – 128.0°C (-43.6 – 262.4°F)	0.1	Deg	5.0 (41.0)	✓	
	Channel 4 OT	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg	5.0 (41.0)		✓
P-35	C4 Alarm Delay	00:00 to 99:00	01:00	mm:ss	20:00	✓	✓

Number	Parameter	Range °C(°F)	Step	Units	Default °C(°F)	Type 1	Type 3
P-36	C4 Recovery	00:00 to 99:00	01:00	mm:ss	20:00	✓	
P-37	C4 Inhibit	00:00 to 99:00	01:00	mm:ss	30:00	✓	
P-38	C4 Defrost Over-run	00:00 to 99:00	01:00	mm:ss	60:00	✓	
P-41	Channel 5 Select	0 = Off 1 = Probe 2 = Plant N/C 3 = Plant N/O			1	✓	✓
P-42	C5 Slug Probe	0 = No 1 = Yes			0	✓	✓
P-43	Channel 5 UT	-42.0 – 128.0°C (-43.6 – 262.4°F)	0.1	Deg	-2.0 (28.4)	✓	
	Channel 5 UT	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg	-2.0 (28.4)		✓
P-44	Channel 5 OT	-42.0 – 128.0°C (-43.6 – 262.4°F)	0.1	Deg	5.0 (41.0)	✓	
	Channel 5 OT	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg	5.0 (41.0)		✓
P-45	C5 Alarm Delay	00:00 to 99:00	01:00	mm:ss	20:00	✓	✓
P-46	C5 Recovery	00:00 to 99:00	01:00	mm:ss	20:00	✓	
P-47	C5 Inhibit	00:00 to 99:00	01:00	mm:ss	30:00	✓	
P-48	C5 Defrost Over-run	00:00 to 99:00	01:00	mm:ss	60:00	✓	
P-51	Channel 6 Select	0 = Off 1 = Probe 2 = Plant N/C 3 = Plant N/O			1	✓	✓
P-52	C6 Slug Probe	0 = No 1 = Yes			0	✓	✓
P-53	Channel 6 UT	-42.0 – 128.0°C (-43.6 – 262.4°F)	0.1	Deg	-2.0 (28.4)	✓	
	Channel 6 UT	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg	-2.0 (28.4)		✓
P-54	Channel 6 OT	-42.0 – 128.0°C (-43.6 – 262.4°F)	0.1	Deg	5.0 (41.0)	✓	
	Channel 6 OT	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg	5.0 (41.0)		✓
P-55	C6 Alarm Delay	00:00 to 99:00	01:00	mm:ss	20:00	✓	✓
P-56	C6 Recovery	00:00 to 99:00	01:00	mm:ss	20:00	✓	
P-57	C6 Inhibit	00:00 to 99:00	01:00	mm:ss	30:00	✓	
P-58	C6 Defrost Over-run	00:00 to 99:00	01:00	mm:ss	60:00	✓	
dflt							

Parameter table for Probe Tester (Type 2)

Number	Parameter	Range	Step	Units	Default
P-81	Channel 1 select	0 (Off), 1 (ON)			1
P-82	Channel 2 select	0 (Off), 1 (ON)			1
P-83	Channel 3 select	0 (Off), 1 (ON)			1
P-84	Channel 4 select	0 (Off), 1 (ON)			1
P-85	Channel 5 select	0 (Off), 1 (ON)			1
P-86	Channel 6 select	0 (Off), 1 (ON)			1

Parameter Descriptions

Number	Parameter	Description
P-01	Channel 1 Select	0 = Channel not used. 1 = Temperature probe 2 = No 0 volt return = alarm. 3 = 0 volt return = alarm
P-02	C1 Slug Probe	Electronic slugging
P-03	Channel 1 UT	Under temperature alarm
P-04	Channel 1 OT	Over temperature alarm
P-05	C1 Alarm Delay	Alarm delay period
P-06	C1 Recovery	Defrost recovery period
P-07	C1 Inhibit	Inhibit alarms
P-08	C1 Defrost Over-run	Defrost Over-run
P-11	Channel 2 Select	0 = Channel not used. 1 = Temperature probe 2 = No 0 volt return = alarm. 3 = 0 volt return = alarm
P-12	C2 Slug Probe	Electronic slugging
P-13	Channel 2 UT	Under temperature alarm
P-14	Channel 2 OT	Over temperature alarm
P-15	C2 Alarm Delay	Alarm delay period
P-16	C2 Recovery	Defrost recovery period
P-17	C2 Inhibit	Inhibit alarms
P-18	C2 Defrost Over-run	Defrost Over-run
P-21	Channel 3 Select	0 = Channel not used. 1 = Temperature probe 2 = No 0 volt return = alarm. 3 = 0 volt return = alarm
P-22	C3 Slug Probe	Electronic slugging
P-23	Channel 3 UT	Under temperature alarm
P-24	Channel 3 OT	Over temperature alarm
P-25	C3 Alarm Delay	Alarm delay period
P-26	C3 Recovery	Defrost recovery period
P-27	C3 Inhibit	Inhibit alarms
P-28	C3 Defrost Over-run	Defrost Over-run
P-31	Channel 4 Select	0 = Channel not used. 1 = Temperature probe 2 = No 0 volt return = alarm. 3 = 0 volt return = alarm
P-32	C4 Slug Probe	Electronic slugging
P-33	Channel 4 UT	Under temperature alarm
P-34	Channel 4 OT	Over temperature alarm
P-35	C4 Alarm Delay	Alarm delay period
P-36	C4 Recovery	Defrost recovery period
P-37	C4 Inhibit	Inhibit alarms
P-38	C4 Defrost Over-run	Defrost Over-run
P-41	Channel 5 Select	0 = Channel not used. 1 = Temperature probe 2 = No 0 volt return = alarm. 3 = 0 volt return = alarm
P-42	C5 Slug Probe	Electronic slugging
P-43	Channel 5 UT	Under temperature alarm
P-44	Channel 5 OT	Over temperature alarm
P-45	C5 Alarm Delay	Alarm delay period
P-46	C5 Recovery	Defrost recovery period
P-47	C5 Inhibit	Inhibit alarms
P-48	C5 Defrost Over-run	Defrost Over-run
P-51	Channel 6 Select	0 = Channel not used. 1 = Temperature probe 2 = No 0 volt return = alarm. 3 = 0 volt return = alarm
P-52	C6 Slug Probe	Electronic slugging
P-53	Channel 6 UT	Under temperature alarm
P-54	Channel 6 OT	Over temperature alarm
P-55	C6 Alarm Delay	Alarm delay period
P-56	C6 Recovery	Defrost recovery period
P-57	C6 Inhibit	Inhibit alarms
P-58	C6 Defrost Over-run	Defrost Over-run

Network Configuration

The final section to setup is the network address. In all instances, this must be done before the controller is plugged into the site network.

For the Mercury there are two standard hardware variants; RS232 interface or built in IP (See Ordering details for more information).

Mercury RS232 Variant

When logging a Mercury with an RS232 interface onto a network you must first connect the controller to a communications module, this is either a 485 Legacy, IP Futura, Mercury Switch or Bluetooth network module.

IP Futura module

In an IP system there are two options;

- IP-L – setting rotary address of module to 000
- IP-r – setting rotary address of module to a unique number that is not 000

IP-L allows the user to statically assign an IP address in the controller which could be used, for example, when connecting the controllers onto a customer's local area network that does not use DHCP.

IP-r allows the network ID (rotary switch address) to be used by a system running a DHCP server (for example the RDM DM Touch) to issue out an IP address automatically.

IP-L

To configure the communication module or network card for IP-L, set all three rotary switches to zero. The module should then be connected to the controller.

- From within the device's display navigate to the 'nEt' menu and press the 'enter' key.
- 'IP-L' will be displayed, press enter again.
- The user can now set the address using the table below

Display	Option
IP-1	IP Address byte 1
IP-2	IP Address byte 2
IP-3	IP Address byte 3
IP-4	IP Address byte 4
nL	Network Mask Length (see the network mask length table above)
gt-1	Gateway Address byte 1
gt-2	Gateway Address byte 2
gt-3	Gateway Address byte 3
gt-4	Gateway Address byte 4
ESC	Exit network menu. **Note:** This option **must** be selected to save any changes made in this menu.

To ease setup, a single network mask length value is used. If the address has been specified with a network mask value in dotted IP format e.g. 255.255.255.0 then the table below gives the conversion:

Mask	Length	Mask	Length	Mask	Length
		255.255.254.0	23	255.254.0.0	15
255.255.255.252	30	255.255.252.0	22	255.252.0.0	14
255.255.255.248	29	255.255.248.0	21	255.248.0.0	13
255.255.255.240	28	255.255.240.0	20	255.240.0.0	12
255.255.255.224	27	255.255.224.0	19	255.224.0.0	11
255.255.255.192	26	255.255.192.0	18	255.192.0.0	10
255.255.255.128	25	255.255.128.0	17	255.128.0.0	09
255.255.255.0	24	255.255.0.0	16	255.0.0.0	08

IP-r

To configure the communication module for IP-r, set the three rotary switches to give each controller a unique identifier. The module should then be connected to the controller and the network. To view the issued IP address from the DHCP server;

- Select 'nEt' from the function menu and press the 'Enter' key.
- 'IP-r' will be shown, press enter again
- Similar to the tables above, the network details can be viewed.

Mercury Switch/Intuitive Switch

A similar process to that of the IP Futura can be used with the Mercury Switch. Please refer to the Mercury Switch user guide, which can be obtained from the RDM website, for information regarding connecting a controller to a network.

Bluetooth Network module

Connecting a Bluetooth Network Module to the controller will update the screens available under the 'Net' menu. They are detailed below;

Display	Option
485t	1: 485 Genus Network (See RS485 module/ Intuitive Internal RS485 Network card) 2: Bluetooth
485A	Bluetooth device name. As it will appear on DMTouch's device list (RC00-0 – RC99-9)
nI d	Select Bluetooth Network ID (0 – 4)
gAdd	Shows underlying network address assigned to controller
rLog	Re-log the controller back onto the network
ClrA	Clear the address/ name from the controller
ESC	Exit network menu. **Note:** this option **must** be selected to save any changes made in this menu.

- Ensure the 485t is set to '2' (Bluetooth)
- Provide a unique device alias under the 485A menu (e.g. 01-5)
- Select the Network ID. Please see the Bluetooth wireless mesh setup guide for more details.
- Press the 'ESC' to save

The green network LED will flash to show it is attempting to log on and go solid when connected.

RS485 module

Connecting an RS485 legacy Module to the controller will govern which set up screens available under the 'Net' menu, the module supports the Genus protocol only. These are detailed below;

Display	Option
485t	1: 485 Genus Network 2: Bluetooth (See Bluetooth Network module)
485A	RS485 device name. As it will appear on DMTouch's device list (RC00-0 – RC99-9)
gAdd	Shows underlying network address assigned to controller
rLog	Re-log the controller back onto the network
ClrA	Clear the address/ name from the controller
ESC	Exit network menu. **Note:** this option **must** be selected to save any changes made in this menu.

- Ensure the 485t is set to '1' (Genus RS485)
- Provide a unique device alias under the 485A menu (e.g., 01-5)
- Press the 'ESC' to save

The green network LED will flash to show it is attempting to log on and go solid when connected.

Mercury IP Variant

When logging a Mercury with an in-built IP interface it be connected directly into an IP network without the need of a communications module.

When networking the Ethernet variant, the 'Net' menu will have the following menus:

Display	Option
IP-L / IP-r	Read/ Write Static IP address / Read Only DHCP IP address
Id	The 3-digit network address
AtyP	IP-r / IP-L selection
ESC	Exit Menu

Similar to the IP Futura setup, IP-L allows you to fix a static IP address into the controller and IP-r allows you to give each controller on the system a unique network number (using the Id).

- To firstly select between IP-L and IP-r navigate to 'AtyP'.

IP-r

Once IP-r is selected the controller must be given a unique 3 digit 'network address' that no other device on the network has (**note** if logging on to a Data Manager, this will be the device ID). Once the ID has been set connect the controller to the IP network for it then to be given an IP address by the DHCP server. To view the IP address given, within the Net menu, navigate to 'IP-r'.

IP-L

If IP-L has been selected from the 'AtyP' menu the IP address must be set in the controller by navigating to 'IP-L' within the 'Net' menu. The following menus will be available:

Display	Option
IP-1	IP Address byte 1
IP-2	IP Address byte 2
IP-3	IP Address byte 3
IP-4	IP Address byte 4
nL	Network Mask Length (see the network mask length table above)
gt-1	Gateway Address byte 1
gt-2	Gateway Address byte 2
gt-3	Gateway Address byte 3
gt-4	Gateway Address byte 4
ESC	Exit network menu. **N.B.** this option **must** be selected to save any changes made in this menu

Once the IP address has been entered, the controller can be connected to the IP network.

Normal Operation

During normal operation, the controller will display the current time, if there are no alarms and no defrost actions. If there is a current alarm(s) the time will alternate with the alarm status. If the Monitor is on a network and on-line, the green network LED will be on.

Defrost (Type 1 only)

If a defrost signal is received (switched resistor) the Monitor will indicate which channel is in the defrost state and the amber defrost LED will come on. All alarms on that channel will be inhibited during the time the resistor is switched in. Alarms will continue to be inhibited for the duration of the recovery period after the resistor is switched out. **Note**: if the defrost over-run parameter is set to 00:00, the channel will remain in the defrost state until the resistor is removed.

When any channel is in a defrost state, the defrost relay is energised.

Defrost Over-run (Type 1 only)

A defrost over-run period can be set into the monitor on a per channel basis, if the defrost exceeds this period, the channel will revert to normal operations. Setting this parameter to 00:00 inhibits this function.

Faults

If a fault is detected, the Monitor will indicate the fault on the display and the red alarm LED will come on.

Network

The Network green LED flashes if the controller goes off-line or loses its given address.

Probe Offset

Each probe can be offset by up to ±10 °C to compensate for long cable runs.

Inhibit Alarms (Type 1 only)

Probe alarms can be inhibited on a probe-by-probe basis by selecting the desired channel parameter in the set-up mode and pressing 'enter'. This state can be changed back by repeating the above procedure. There is also a timeout function on the alarm inhibit (see parameter table for timeout values).

Note. If the channel temperature is **not** within the set alarm limits before the inhibit timeout has elapsed, the channel will stay inhibited and **not** give an alarm. **–xxx Use this feature with caution xxx–**

Alarm Relay Action

The alarm relay has; common, NO and NC contact available for use.

This relay will normally be energised (no alarm condition) and be de-energised when an alarm occurs (after the alarm delay time-out).

The table below shows the Alarm relay action:

State	Alarm Delay	Alarm Relay
Probe Fault	Fixed 10 Seconds	x
Channel Under temp	Variable (parameter)	✓
Channel Over temp	Variable (parameter)	✓
Plant Fault	Variable (parameter)	✓

Viewing I/O

Apart from setting up the controller, you can also view the status of the inputs and outputs and controller states from the display.

From the function menu, select 'IO' and press 'enter'. The IO table can be viewed as set out below. Inputs and outputs that do not apply to a particular controller type will be greyed out.

Input / Output Table

Number	IO	Range °C (°F)	Step	Unit	Type 1	Type 2	Type 3
I-01	Probe 1	-42.0 – 128.0°C (-43.6 – 262.4°F)	0.1	Deg	✓	✓	
	Probe 1	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg			✓
I-02	Probe 2	-42.0 – 128.0°C (-43.6 – 262.4°F)	0.1	Deg	✓	✓	
	Probe 2	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg			✓
I-03	Probe 3	-42.0 – 128.0°C (-43.6 – 262.4°F)	0.1	Deg	✓	✓	
	Probe 3	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg			✓
I-04	Probe 4	-42.0 – 128.0°C (-43.6 – 262.4°F)	0.1	Deg	✓	✓	
	Probe 4	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg			✓
I-05	Probe 5	-42.0 – 128.0°C (-43.6 – 262.4°F)	0.1	Deg	✓	✓	
	Probe 5	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg			✓
I-06	Probe 6	-42.0 – 128.0°C (-43.6 – 262.4°F)	0.1	Deg	✓	✓	
	Probe 6	-98.0 – 128.0°C (-144.4 – 262.4°F)	0.1	Deg			✓
I-11	Defrost 1	0 (Off), 1 (On)			✓		
I-12	Defrost 2	0 (Off), 1 (On)			✓		
I-13	Defrost 3	0 (Off), 1 (On)			✓		
I-14	Defrost 4	0 (Off), 1 (On)			✓		
I-15	Defrost 5	0 (Off), 1 (On)			✓		
I-16	Defrost 6	0 (Off), 1 (On)			✓		
I-21	Plant Fault 1	0 (Ok), 1 (Alarm)			✓		✓
I-22	Plant Fault 2	0 (Ok), 1 (Alarm)			✓		✓
I-23	Plant Fault 3	0 (Ok), 1 (Alarm)			✓		✓
I-24	Plant Fault 4	0 (Ok), 1 (Alarm)			✓		✓
I-25	Plant Fault 5	0 (Ok), 1 (Alarm)			✓		✓
I-26	Plant Fault 6	0 (Ok), 1 (Alarm)			✓		✓
O-01	Alarm Relay	0 (Off), 1 (On)			✓		✓
O-11	Defrost Relay	0 (Off), 1 (On)			✓		
O-21	Relay 3	0 (Off), 1 (On)			✓		✓
O-22	Relay 4	0 (Off), 1 (On)			✓		✓
O-23	Relay 5	0 (Off), 1 (On)			✓		✓
S-01	Control State 1	0 (Off),1 (Stabilise), 2 (Normal), 3 (Defrost), 4 (Recovery), 5 (Alarm), 6 (Inhibit)			✓		
	Control State 1	0 (Off),1 (Stabilise), 2 (Normal), 3 (Alarm),					✓
S-02	Control State 2	0 (Off),1 (Stabilise), 2 (Normal), 3 (Defrost), 4 (Recovery), 5 (Alarm), 6 (Inhibit)			✓		
	Control State 2	0 (Off),1 (Stabilise), 2 (Normal), 3 (Alarm),					✓
S-03	Control State 3	0 (Off),1 (Stabilise), 2 (Normal), 3 (Defrost), 4 (Recovery), 5 (Alarm), 6 (Inhibit)			✓		
	Control State 3	0 (Off),1 (Stabilise), 2 (Normal), 3 (Alarm),					✓
S-04	Control State 4	0 (Off),1 (Stabilise), 2 (Normal), 3 (Defrost), 4 (Recovery), 5 (Alarm), 6 (Inhibit)			✓		
	Control State 3	0 (Off),1 (Stabilise), 2 (Normal), 3 (Alarm),					✓
S-05	Control State 5	0 (Off),1 (Stabilise), 2 (Normal), 3 (Defrost), 4 (Recovery), 5 (Alarm), 6 (Inhibit)			✓		
	Control State 5	0 (Off),1 (Stabilise), 2 (Normal), 3 (Alarm),					✓
S-06	Control State 6	0 (Off),1 (Stabilise), 2 (Normal), 3 (Defrost), 4 (Recovery), 5 (Alarm), 6 (Inhibit)			✓		
	Control State 6	0 (Off),1 (Stabilise), 2 (Normal), 3 (Alarm),					✓

Display Messages

The following alarms and messages can appear on the Mercury display.

Display Message	System status	Display Message	System status
on	Controller On	Inh4	Inhibit alarms for probe 4
Prb1	Probe 1 Fault	Inh5	Inhibit alarms for probe 5
Prb2	Probe 2 Fault	Inh6	Inhibit alarms for probe 6
Prb3	Probe 3 Fault	Ot 1	Over Temperature Alarm probe 1
Prb4	Probe 4 Fault	Ot 2	Over Temperature Alarm probe 2
Prb5	Probe 5 Fault	Ot 3	Over Temperature Alarm probe 3
Prb6	Probe 6 Fault	Ot 4	Over Temperature Alarm probe 4
Pd1	Control State in Recovery	Ot 5	Over Temperature Alarm probe 5
Pd2	Control State in Recovery	Ot 6	Over Temperature Alarm probe 6
Pd3	Control State in Recovery	Ut 1	Under Temperature Alarm probe 1
Pd4	Control State in Recovery	Ut 2	Under Temperature Alarm probe 2
Pd5	Control State in Recovery	Ut 3	Under Temperature Alarm probe 3
Pd6	Control State in Recovery	Ut 4	Under Temperature Alarm probe 4
deF1	Control State in Defrost	Ut 5	Under Temperature Alarm probe 5
deF2	Control State in Defrost	Ut 6	Under Temperature Alarm probe 6
deF3	Control State in Defrost	PLt1	Plant fault 1
deF4	Control State in Defrost	PLt2	Plant fault 2
deF5	Control State in Defrost	PLt3	Plant fault 3
deF6	Control State in Defrost	PLt4	Plant fault 4
Inh1	Inhibit alarms for probe 1	PLt5	Plant fault 5
Inh2	Inhibit alarms for probe 2	PLt6	Plant fault 6
Inh3	Inhibit alarms for probe 3		

Network Alarms

The table below shows the text and associated type number that is sent to the system "front end". The type number is normally used to provide different alarm actions.

Alarm text	Type # (index)
Probe 1 faulty	6
Probe 2 faulty	8
Probe 3 faulty	11
Probe 4 faulty	14
Probe 5 faulty	17
Probe 6 faulty	6
Channel 1 over temperature	4
Channel 2 over temperature	9
Channel 3 over temperature	12
Channel 4 over temperature	15
Channel 5 over temperature	18
Channel 6 over temperature	4
Channel 1 under temperature	5
Channel 2 under temperature	10
Channel 3 under temperature	13

Alarm text	Type # (index)
Channel 4 under temperature	16
Channel 5 under temperature	19
Channel 6 under temperature	5
Plant 1 fault	6
Plant 2 fault	8
Plant 3 fault	11
Plant 4 fault	14
Plant 5 fault	17
Plant 6 fault	6
Channel 1 defrost over-run	20
Channel 2 defrost over-run	20
Channel 3 defrost over-run	20
Channel 4 defrost over-run	20
Channel 5 defrost over-run	20
Channel 6 defrost over-run	20

Probe Offset

This feature allows each probe value to be modified by an 'offset'. Offset values are from -10^{O}C (-18^{O}F) to +10^{O}C (+18^{O}F) and on a channel basis. Example C1 = Probe 1.

Specification

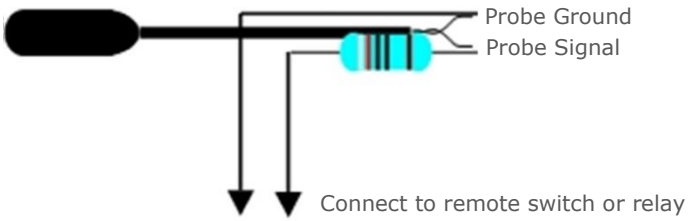
	Mercury Monitor PR0744
Power requirements	
Supply Voltage Range	100 – 240 Vac ±10%
Supply Frequency	50 – 60 Hz
Maximum supply current	1.2 Amps
Typical supply current	<1 Amp
General	
Operating temperature range	-10^{0}Cto 55^{0}C (14°F to 131°F)
Storage temperature range	-20^{0}Cto 65^{0}C (-4°F to 149°F)
Environmental	Indoor use at altitudes up to 2000m (6562ft), pollution degree 1, installation category II. Voltage fluctuations not to exceed ±10% of nominal voltage.
Size	78mm(W) x 36mm(H) x 110mm(D) 3.1" (W) x 1.42" (H) x 4.3" (D)
Approx. Weight	177 grams (6.2 oz)
Safety	EN60730-1, EN60730-2-9, UL607030-1, UL607030-2-9
EMC	EN61326; 2013
Ventilation	There is no requirement for forced cooling ventilation
Class 2 Insulation	Class II insulation is achieved when properly fitted with only the front side (Display) of the controller is accessible. **No** protective Earth is required and **none** should be fitted
Supply Fuse	The host equipment must provide a suitable external over-current protection device such as: - Fuse: 2A 240 Vac Anti-surge (T) HRC conforming to IEC 60127
Or MCB	2A, 240 VAC Type C conforming to BS EN 60898
Inputs	
Probe Input resistance	3.01K Ohms (for PTC or NTC type probes)
Probe Input type	Selectable. See: Units
Digital Inputs	Volt Free
Transducer Input mA	4-20mA current loop powered by 12vdc supply terminal provided.
Transducer Input V	0-10V dc signal.
Comms	
Serial Variant	RS232 with flow control
Ethernet Variant	IP comms

Relay Specification

	Mercury Monitor PR0744
	Relay 1–4 Mechanical Type
Max current	**(EN60730)** 5A Resistive (CosØ = 1) Derated from 5A to 3A linearly from 35ºC to 55ºC 2A Inductive (CosØ = 0.4) Relays conform to EN60079-0 and EN60069-15 **(UL60730)** 2 FLA, 240 Vac, Motor load
Max voltage	240Vac
Relay Fuse	N/A
Relay Output Electrical Life	1,000,000 operations @ 3A 10,000 operations @ 5A
	Relay 5
Max current	**(EN60730)** 3 A Resistive Load **(UL60730)** 2 FLA, 240 Vac, Motor load
Max voltage	240Vac
Relay Action Type	Type 1.B micro disconnection

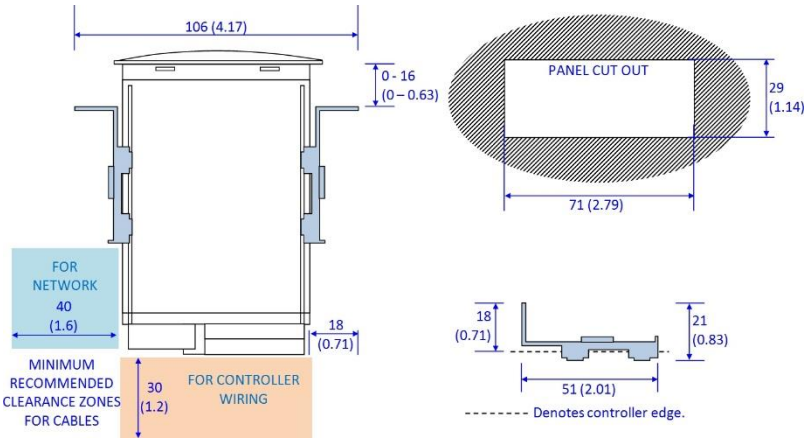
Switched Resistor Example Wiring

Example of resistor fitted on a probe input.



Installation& Dimensions

Panel Cut-out and Clearances

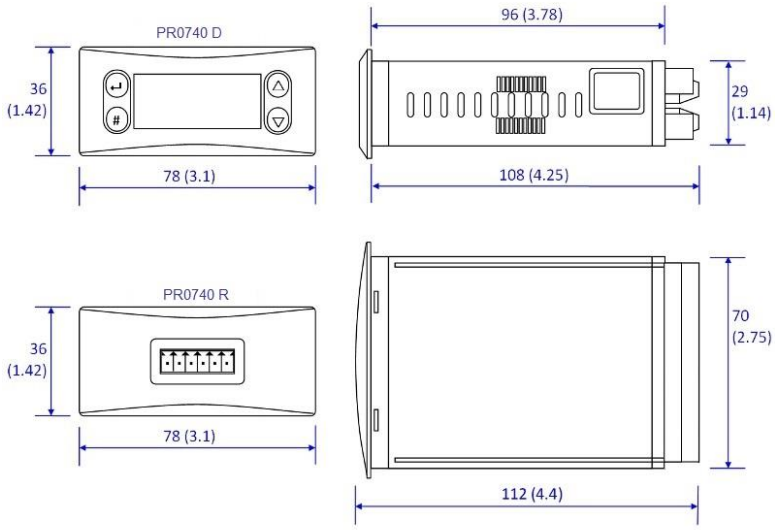


Fixing

The controller is fixed by sliding the 2 plastic retaining clips up to rear of the panel. These clips have a ratchet action and can be removed by holding in the clip sides and sliding back.

There is no requirement for forced cooling ventilation

Dimensions – PR0744 Range



Do not wet the controller when cleaning. Clean the front by wiping with slightly damped lint free cloth.

Appendix 3: Webpage Appearance

It is possible to view the controller across an IP connection using one of the methods outlined in the Network Configuration section

The following screens are samples of how values and settings appear when viewed through a PC/Laptop connection.

Monitor

Mercury 3 Monitor v3.0

Time	11:24:51 01/06/20

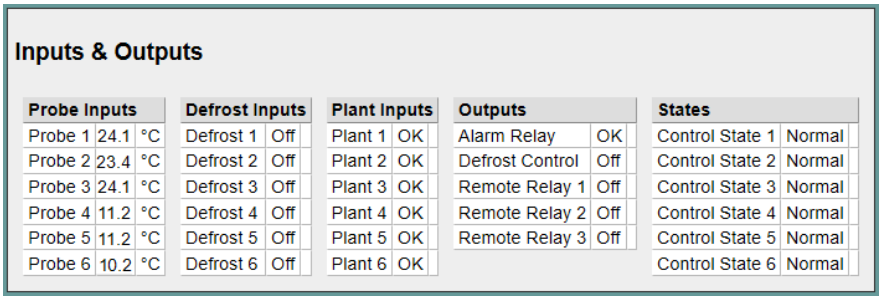
Current Status	
Control State 1	Normal
Control State 2	Normal
Control State 3	Normal
Control State 4	Normal
Control State 5	Normal
Control State 6	Normal

Current Alarms
None

Inputs & Outputs | Parameters | Alarms | Logs | Configure

The user has a choice of entering the following pages: - **Inputs & Outputs, Parameters, Alarms, Logs & Configure.**

Inputs & Outputs

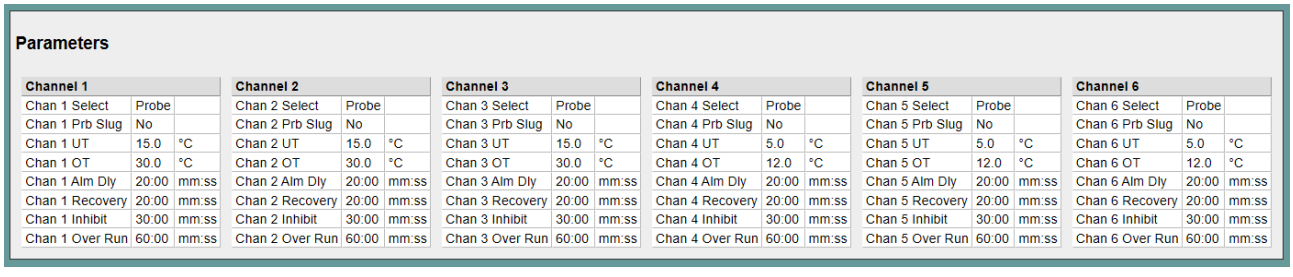


Inputs & Outputs

Probe Inputs			Defrost Inputs		Plant Inputs		Outputs		States	
Probe 1	24.1	°C	Defrost 1	Off	Plant 1	OK	Alarm Relay	OK	Control State 1	Normal
Probe 2	23.4	°C	Defrost 2	Off	Plant 2	OK	Defrost Control	Off	Control State 2	Normal
Probe 3	24.1	°C	Defrost 3	Off	Plant 3	OK	Remote Relay 1	Off	Control State 3	Normal
Probe 4	11.2	°C	Defrost 4	Off	Plant 4	OK	Remote Relay 2	Off	Control State 4	Normal
Probe 5	11.2	°C	Defrost 5	Off	Plant 5	OK	Remote Relay 3	Off	Control State 5	Normal
Probe 6	10.2	°C	Defrost 6	Off	Plant 6	OK			Control State 6	Normal

This is view only screen and shows the states of the inputs and outputs.

Parameters

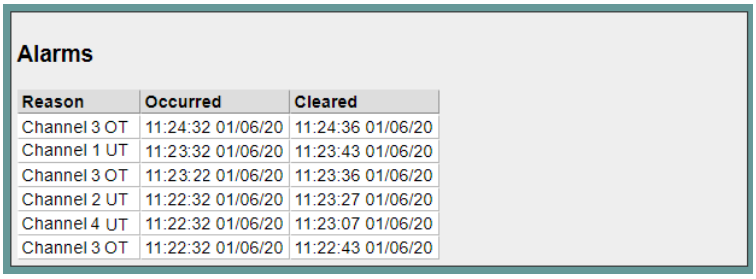


Parameters

Channel 1			Channel 2			Channel 3			Channel 4			Channel 5			Channel 6		
Chan 1 Select	Probe		Chan 2 Select	Probe		Chan 3 Select	Probe		Chan 4 Select	Probe		Chan 5 Select	Probe		Chan 6 Select	Probe	
Chan 1 Prb Slug	No		Chan 2 Prb Slug	No		Chan 3 Prb Slug	No		Chan 4 Prb Slug	No		Chan 5 Prb Slug	No		Chan 6 Prb Slug	No	
Chan 1 UT	15.0	°C	Chan 2 UT	15.0	°C	Chan 3 UT	15.0	°C	Chan 4 UT	5.0	°C	Chan 5 UT	5.0	°C	Chan 6 UT	5.0	°C
Chan 1 OT	30.0	°C	Chan 2 OT	30.0	°C	Chan 3 OT	30.0	°C	Chan 4 OT	12.0	°C	Chan 5 OT	12.0	°C	Chan 6 OT	12.0	°C
Chan 1 Alm Dly	20:00	mm:ss	Chan 2 Alm Dly	20:00	mm:ss	Chan 3 Alm Dly	20:00	mm:ss	Chan 4 Alm Dly	20:00	mm:ss	Chan 5 Alm Dly	20:00	mm:ss	Chan 6 Alm Dly	20:00	mm:ss
Chan 1 Recovery	20:00	mm:ss	Chan 2 Recovery	20:00	mm:ss	Chan 3 Recovery	20:00	mm:ss	Chan 4 Recovery	20:00	mm:ss	Chan 5 Recovery	20:00	mm:ss	Chan 6 Recovery	20:00	mm:ss
Chan 1 Inhibit	30:00	mm:ss	Chan 2 Inhibit	30:00	mm:ss	Chan 3 Inhibit	30:00	mm:ss	Chan 4 Inhibit	30:00	mm:ss	Chan 5 Inhibit	30:00	mm:ss	Chan 6 Inhibit	30:00	mm:ss
Chan 1 Over Run	60:00	mm:ss	Chan 2 Over Run	60:00	mm:ss	Chan 3 Over Run	60:00	mm:ss	Chan 4 Over Run	60:00	mm:ss	Chan 5 Over Run	60:00	mm:ss	Chan 6 Over Run	60:00	mm:ss

This is a view only screen and shows the parameter settings

Alarms

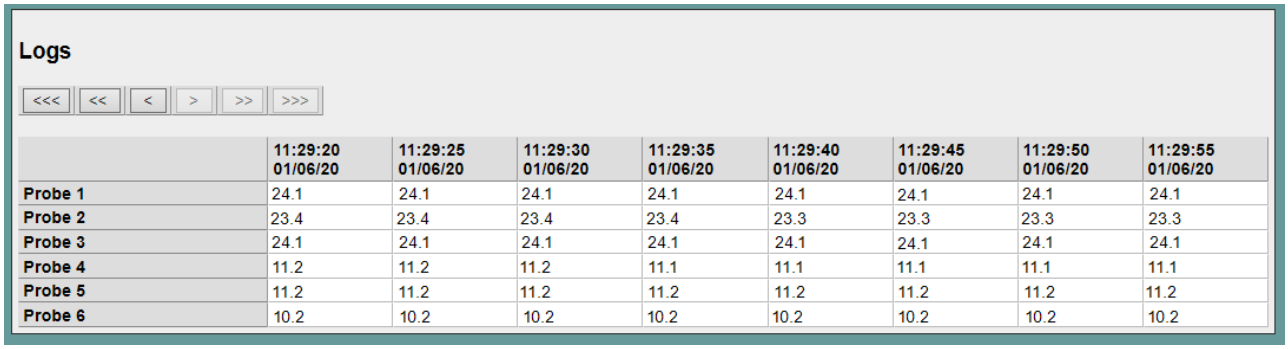


Alarms

Reason	Occurred	Cleared
Channel 3 OT	11:24:32 01/06/20	11:24:36 01/06/20
Channel 1 UT	11:23:32 01/06/20	11:23:43 01/06/20
Channel 3 OT	11:23:22 01/06/20	11:23:36 01/06/20
Channel 2 UT	11:22:32 01/06/20	11:23:27 01/06/20
Channel 4 UT	11:22:32 01/06/20	11:23:07 01/06/20
Channel 3 OT	11:22:32 01/06/20	11:22:43 01/06/20

This is a view only screen showing the alarm log.

Logs



Logs

<<< << < > >> >>>

	11:29:20 01/06/20	11:29:25 01/06/20	11:29:30 01/06/20	11:29:35 01/06/20	11:29:40 01/06/20	11:29:45 01/06/20	11:29:50 01/06/20	11:29:55 01/06/20
Probe 1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1
Probe 2	23.4	23.4	23.4	23.4	23.3	23.3	23.3	23.3
Probe 3	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1
Probe 4	11.2	11.2	11.2	11.1	11.1	11.1	11.1	11.1
Probe 5	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
Probe 6	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2

This is a view only screen showing the device's log.

Configure

Alternatively, click on the **Configure** button to access the setup menu.

Note: login credentials required to access Configure menu are as follows;

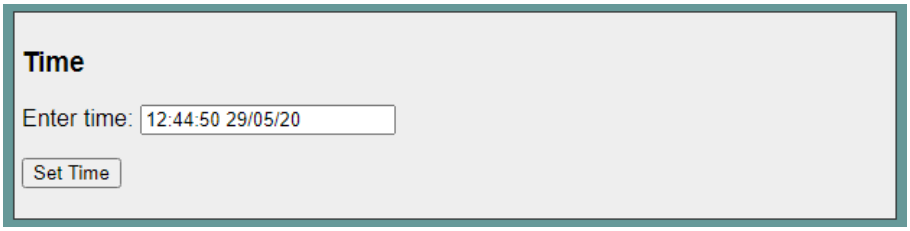
Username: 'service'
Password: '1234'

Configure

Time
Parameters
Controller Type
Temperature Units
Name
Logging
Asset Information
Probe Offsets

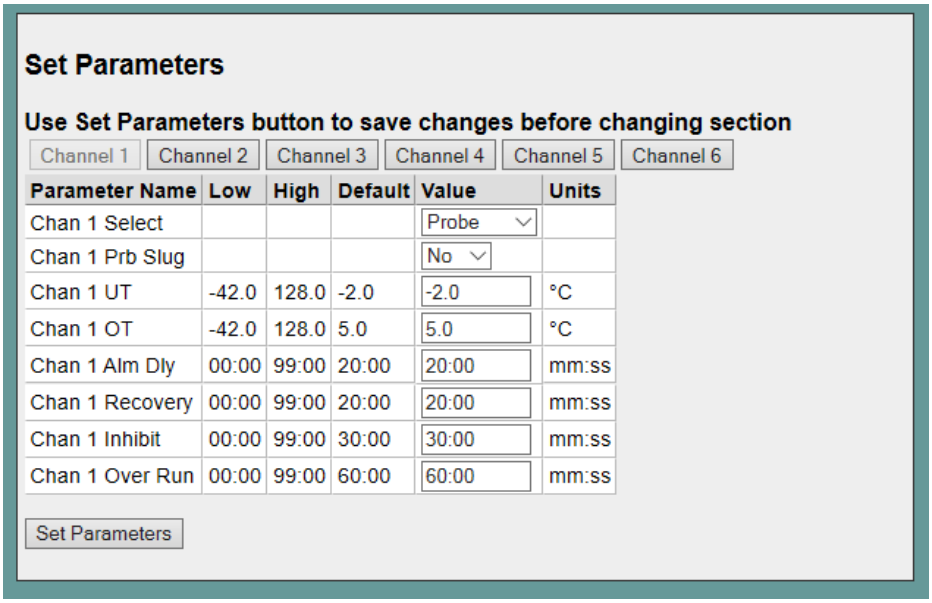
This screen allows the user to configure the controller and set-up the following: - Time, Parameters, Controller Type, Name, Logging, Asset Information and Probe Offsets.

Time Screen



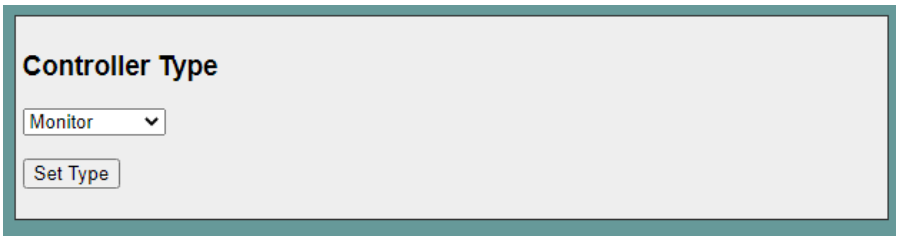
Enter the time and date in the format displayed and press "Set Time" to update the controller. A screen showing the set time will be displayed, and then revert to the initial (Home) screen.

Parameter Screen



This screen allows the parameters to be changed. Once the values are changed, the "Set Parameter" button must be clicked to set the parameters into the controller.
A screen will show the number of parameters and the number changed, then revert back to the Home screen.

Controller Type

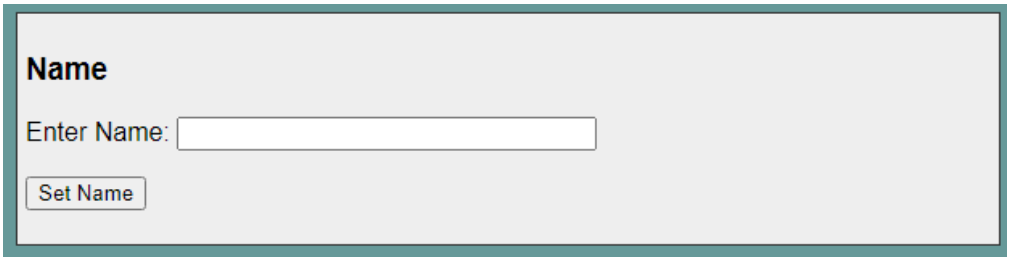


This screen allows the controller type to be changed. For this controller, there are 3 types (Monitor, Probe Tester and LT Monitor.

Temperature Units

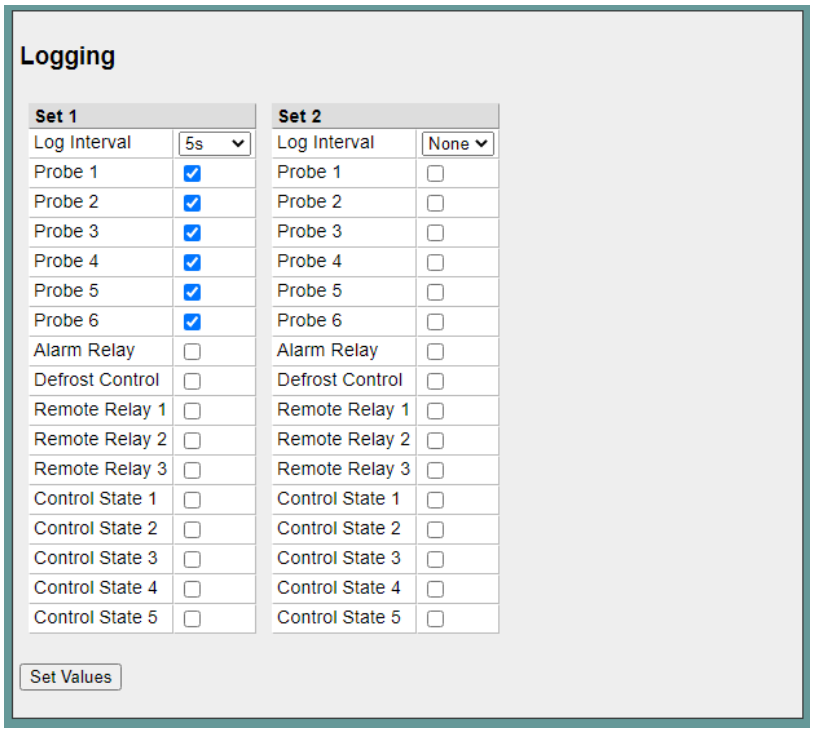
This screen allows the user to set the probe type for the controller and if it's in degrees Celsius or Fahrenheit.

Name



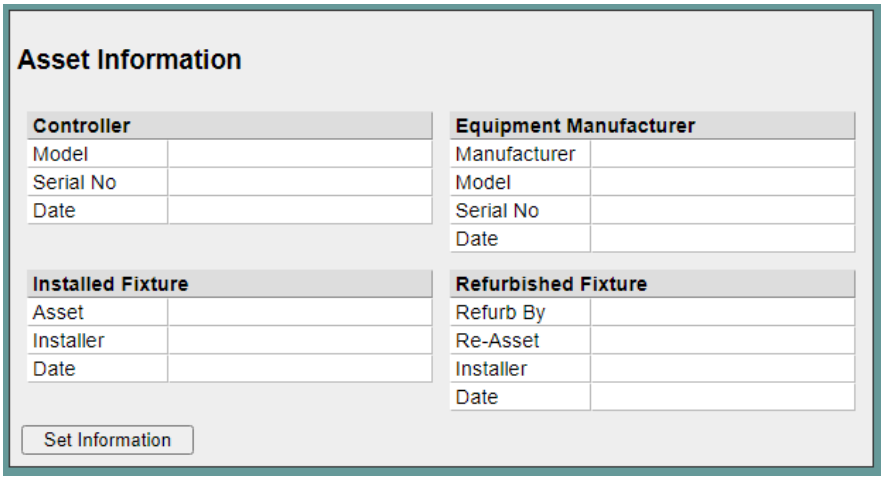
This screen allows the user to give the controller a name. Type in a name of your choice (upper- or lower-case alpha-numeric) up to 32 characters. Click "Set Name" to load into the controller. A screen will show the name has been set and then revert back to the home screen. (The Home screen will also now show the controller's name.)

Logging



This screen allows the user to set the logging features. There are two sets so that values can have different log intervals. Set the interval required on set1 and set 2, tick the required values to be logged, then click "Set Values" to load into the controller. A screen will display "Log configuration set" then revert back to the Home page.

Asset Information

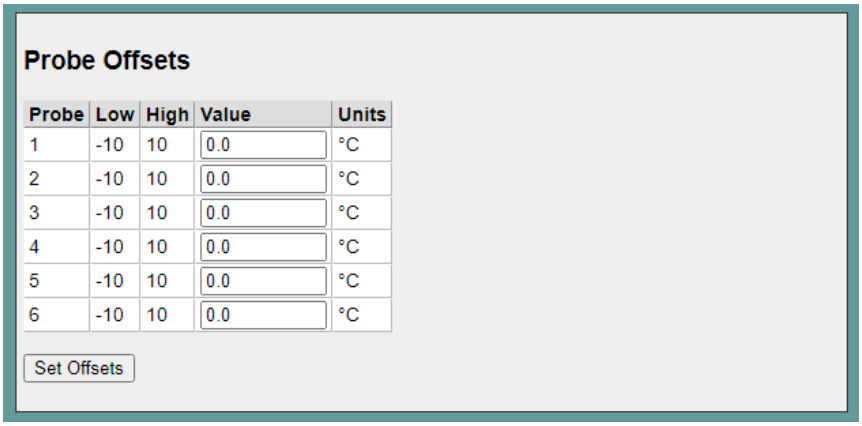


This screen allows the user to set asset information into the controller.

Caution: This is a once only operation.

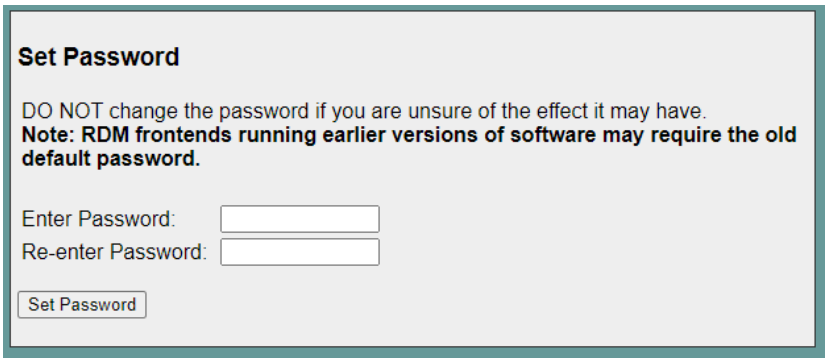
Click "Set Information" and follow the on-screen instructions to set up your asset information.

Probe Offsets



This screen allows the user to set a probe offset between -10 – +10 degrees to any of the six probes connected to the controller.

Set Password



This screen allows the user to change the password from the default '1234'. Please be aware that this could have an adverse effect on communications between a RDM frontend running an older software version. Please contact RDM Technical Support for more information.

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Revision History

Revision	Date	Changes
3.0a	08/05/2015	Introduction of Mercury 3 range.
3.0b	03/11/2015	Connections drawing updated.
3.0c	16/06/2016	Update to ordering information.
3.0d	06/03/2017	New documentation format.
3.0e	17/05/2017	Operating temperature amended.
3.0f	01/05/2018	Amended part numbers.
3.0g	31/05/2019	I/O table updated, contact details updated.
3.0h	30/08/2019	Intuitive Mercury hardware added
3.0i	30/01/2020	Update to specification
3.0j	05/06/2020	Added Webpage appearance Appendix
3.0k	08/04/2022	PR0750 part number added
3.0l	28/12/2023	PR0744 variant added and separate user guide created.
3.2	17/01/2024	Ability to change the password from default added. Bluetooth support added.

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