

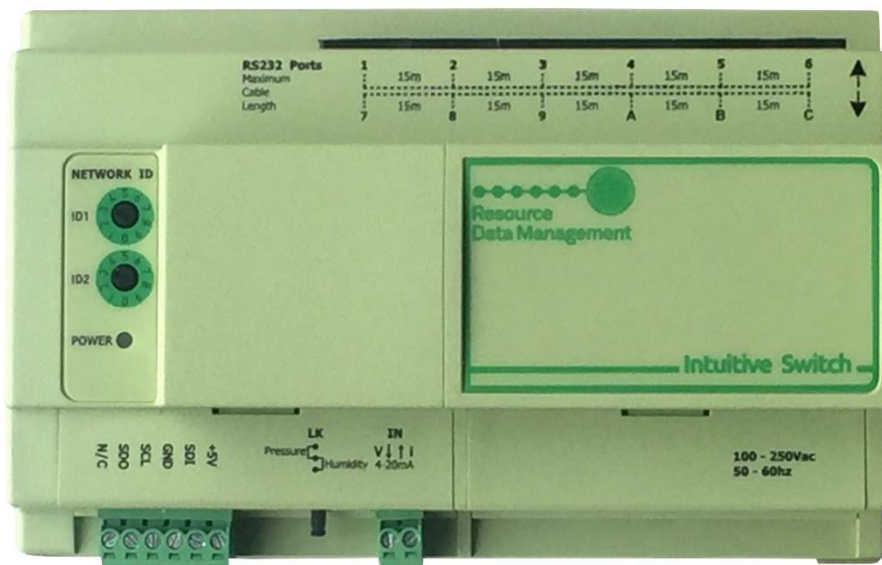


Resource
Data Management

Intuitive Switch

Commissioning/User Guide

Revision 4.9



PR0757 / PR0758

Contents

The Intuitive Switch.....	4
Description	4
Connections.....	4
Build Options and Ordering Information	5
Connection to Evaporator Controllers	6
RS232 Lead Lengths	6
Rotary Switches	6
ID for equipment with rotary switches.	6
Connection to other IP equipment.....	6
Connection to another Intuitive / Switch or Other Ethernet Hub / switch	6
Connection to a Data Manager.....	6
10/100 Base-T connectors.....	6
Fibre Optic connection	7
Network ID	8
Pressure/Humidity Input Variant PR0757/758-XXXX-PHI	8
Configuring the switch using the optional display (PR0445-LCD)	8
Setup Function Menu	9
Recommended set-up method	9
Set/View Type	9
Set/View Parameters (This can also be achieved at the network front end).....	9
ID	10
Network Configuration	10
IP-L (Local IP Address)	10
IP-r (IP Address issued by the DHCP server)	10
Parameters	11
Parameters Description	12
Input/Output table.....	14
EEV Control Operation.....	15
On board 4-20mA Suction Pressure Input Control Application	15
Remote Suction Pressure Application	15
To disable local transducer	15
Operation	15
Ref Weighting	15
Transducer Connection	16
MOP – Maximum Operating Pressure	16
Humidity Control Operation.....	16
GP Timer Set-up	17
Trim Heater Control via Mercury Case Controller Range	17
Network Alarms.....	18
Setup via Webpages.....	18
The default password	Error! Bookmark not defined.
Dimensions	23



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

Specification	24
Mains Cable.....	24
Mounting	25
Mounting on to a DIN rail.....	25
RS232 Cable Lengths	25
Ethernet Cable lengths	25
Disclaimer.....	26
Revision History	26



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

The Intuitive Switch

From Resource Data Management

Description

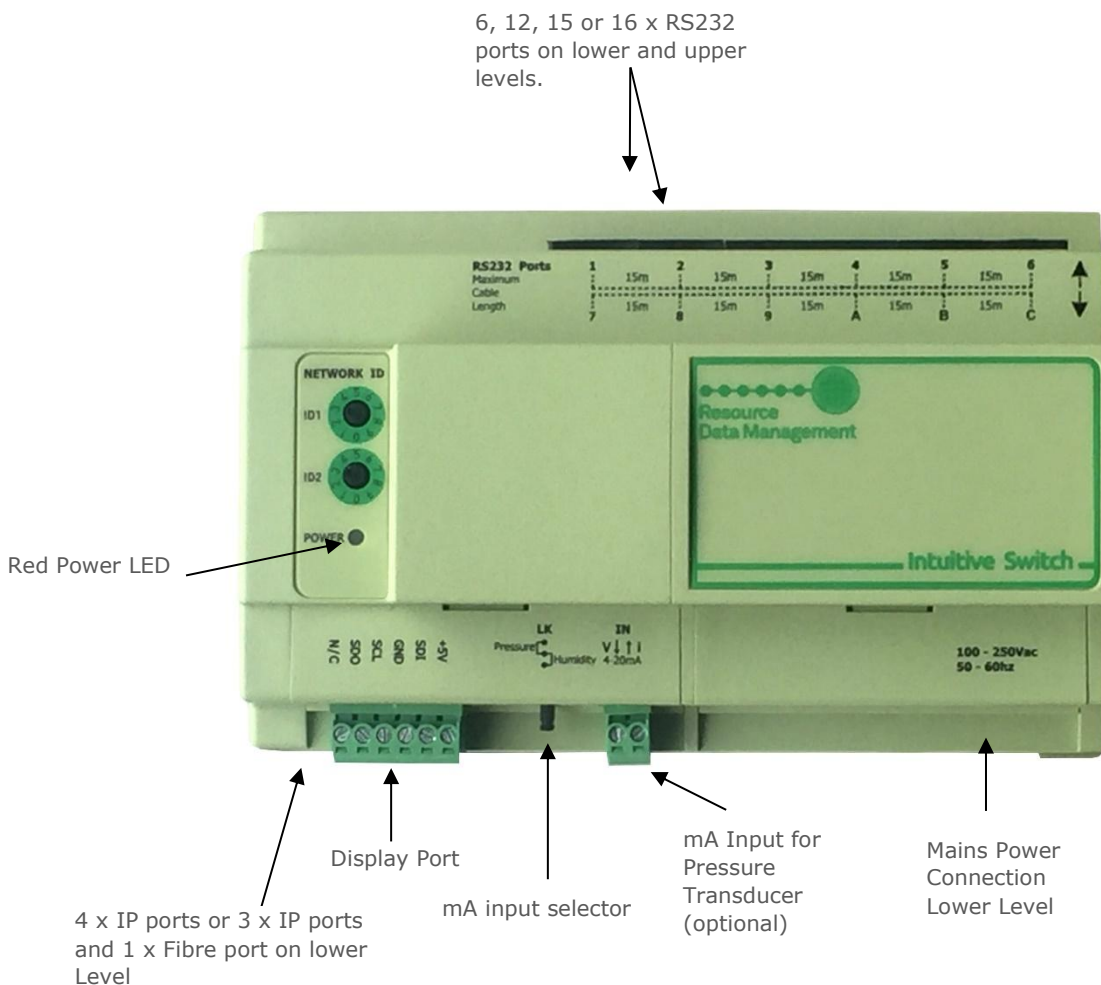
The Intuitive Switch range allows up to 16 RDM Mercury controllers to be connected to an IP network or fibre network without the need for individual IP Futura modules. There are multiple build options available with 6, 12, 15 or 16 RS232 connections for linking up to 16 RDM Controllers with RS232 ports and 3 or 4 standard Ethernet (10/100baseT) connections to other IP network devices or a single fibre connection. The Ethernet ports are self-configuring for uplinks and standard 10/100 BaseT device connections. Additionally, the Intuitive Switch can utilise optional communications over fibre optic to lengthen potential cable runs throughout sites. A fibre optic network is an alternative to an IP network, a single fibre optic cable can be up to 2000m in length without any additional hardware whereas a CAT 5 cable on an IP network can only be a maximum of 100m in length. As fibre optic cable uses light as a transmission medium instead of electricity it is immune to electromagnetic interference, contains no metal and cannot produce electrical sparks.

As well as the Switch functionality, there is the option for the switch to broadcast a single suction pressure to multiple compatible evaporator controllers connected to the switch. This can be achieved by using a transducer connected to the Intuitive Switch 4-20mA input or from a remote Suction pressure reading sent across an IP network from an Intuitive Plant Pack controller.

Multiple trim heater control can also be achieved through the display port using a humidity temperature display (PR0445-LCD). To utilise either of these features then the PHI build option would be required.

The Intuitive Switch also has the capability for CO2 Load shedding when used in conjunction with an RDM Data Manager and RDM evaporator controllers. See RDM Data Manager User Guides for more information on CO2 Load Shedding.

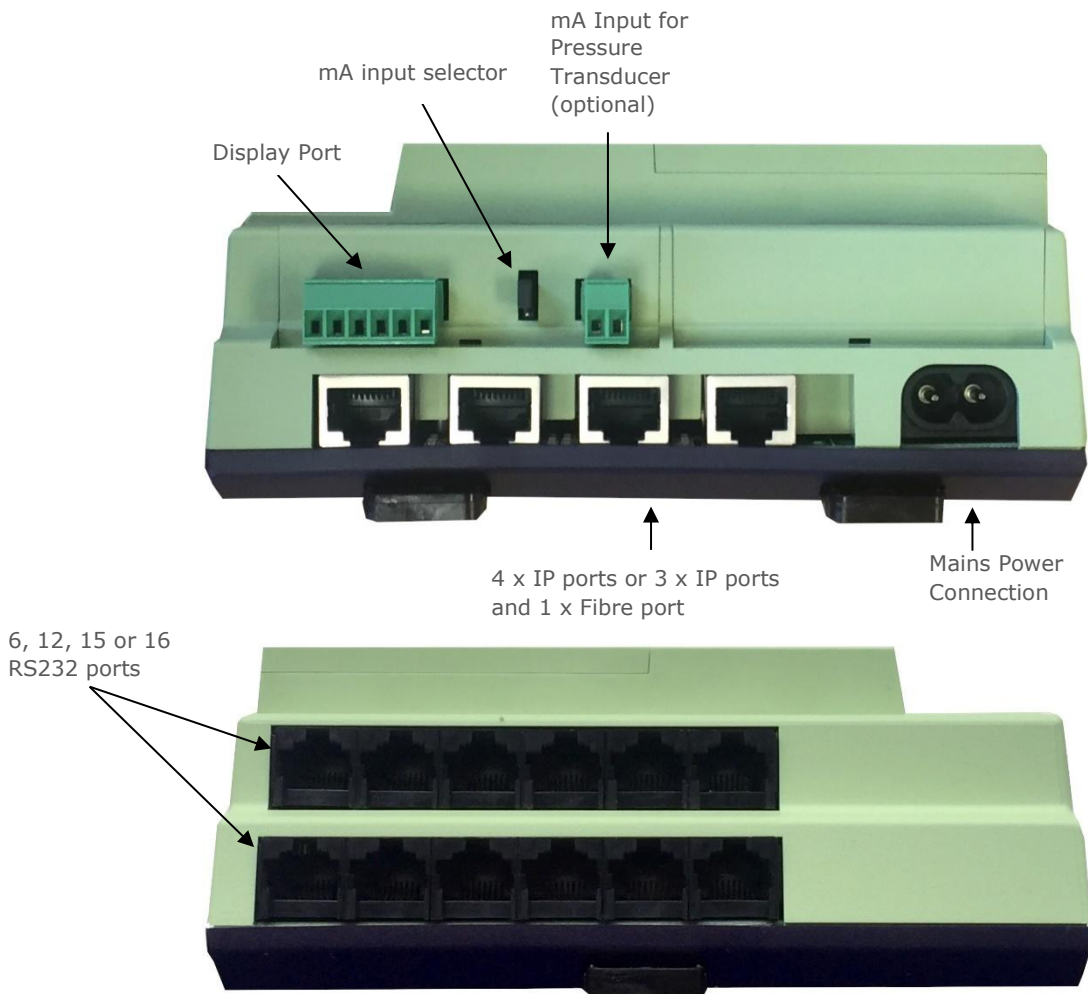
Connections



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.



On the PR0758-15P4E-PHI variants although 16 RS232 ports are fitted the port marked 0 is not functional and cannot be used.

A red LED at the port will indicate that it is not functional.

Note: The display port, mA input selector and mA input are fitted on the PHI build option only which is on the upper level. The mA input is available for Pressure applications only, for Humidity please use a PR0445-LCD connected to the display port.

Build Options and Ordering Information

Description	Part Number
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 15 x RS232 ports, 4 x Ethernet Ports and a 4-20mA Pressure Transducer connection.	PR0758-15P4E-PHI
Intuitive Switch with 16 x RS232 ports, 3 x Ethernet Ports and 1 x Fibre connection.	PR0757-16P3E-F
Intuitive Switch with 15 x RS232 ports, 3 x Ethernet Ports, 1 x Fibre connection and a 4-20mA Pressure Transducer connection.	PR0757-15P3E-F-PHI



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

Connection to Evaporator Controllers

Using a standard ethernet patch lead (CAT5 for example), connect the serial output of a compatible RDM Controller to one of the RS232 ports of the Intuitive Switch.

RS232 Lead Lengths

RS232 patch lead maximum length must not exceed 15 metres (RS232 Ports 1 – 6/12/15/16).

Rotary Switches

The 3-character address that will be seen on the system front end is determined by the position of the two Network ID rotary switches and the port the controller is connected to.

ID for equipment with rotary switches.

If the controller has its own [network ID](#) rotary switches, like a Brooklands controller or Power Tray, then the controller ID will override the Intuitive Switch settings.

Connection to other IP equipment

Use a standard CAT5 patch lead to connect other IP equipment to the Intuitive Switch (such as an RDM Pack controller or Mercury controller with a built in IP interface) into the 10/100 Base-T ports 1 – 3/4.

Connection to another Intuitive / Switch or Other Ethernet Hub / switch

Use a standard CAT5 patch lead from any of the three or four 10/100 Base-T ports into any of the 10/100 Base-T ports on the upstream Intuitive Switch. The 10/100 Base-T ports are all self-configuring.

Connection to a Data Manager

The Intuitive Switch can utilise any one of the 10/100 Base T ports to connect the Data Manager.

10/100 Base-T connectors

The four 10/100 Base-T connectors have 2 LED's adjacent to them. The green LED, when static, indicates that the connection to the device is good, the green LED then flickers when data is being transmitted.

When the amber LED is permanently on it indicates that the connection is full duplex and if there is an error or fault on that channel the LED flickers.

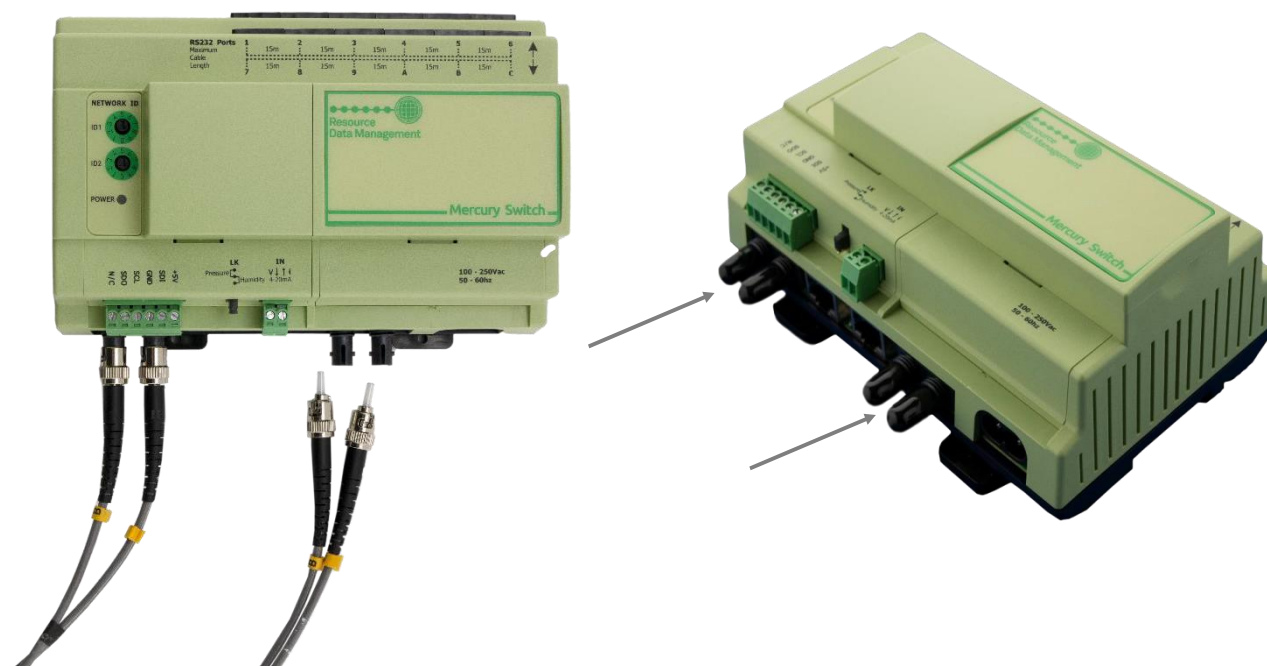


Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

Fibre Optic connection



Fibre Optic communications uses the RX/ TX 100 Base-FX ports on the front of the Intuitive Switch. Connect the other end of the cable to the RX/ TX 100 Base-FX ports on the side of the DM Touch.

The Fibre connection uses the ST Connector and uses a 1310nm

m Class 1 Laser*.

* Class 1 Laser safety IEC60825 compliant. Class 1. This class is eye-safe under all operating conditions.

- 125Mbps IEEE 802.3u 100Base-FX compliant.
- 125Mbps FDDI ISO/IEC 9314-1 compatible.
- Max length up to 2km on a multimode optical fibre.
- Can use 50/125-micron or 62.5/125-micron multimode fibre.
- Bend radius is dependent upon manufacturer, but a rule of thumb is 15x cable diameter.

Note: Fibre optic connectors and cables can be damaged from airborne particles, humidity and moisture, oils from the human body, and debris from the connectors they plug into. Always handle connectors and cables with care. Failure to do so may result in damage to the fibre optic connectors or cables. Before performing any maintenance, disconnect the fibre optic cables from the unit and turn off power. When disconnecting fibre optic cables, cover with the included dust caps to the ends to maintain their integrity. Before connecting fibre optic cables, clean the connector tips and in-line connectors.



Please ensure all power is switched off before installing or maintaining this product.

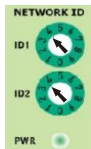


Veuillez couper le courant avant l'installation ou l'entretien.

Network ID

When a controller is connected to one of the RS232 ports on the switch it will automatically log onto the Data Manager Front End the switch is connected to (as long as DHCP is enabled on the Data Manager) and given a 3-character device name. The 3-character device name is made up from the positions of the 2 rotary switches followed by the RS232 connector number. The RS232 connectors are marked 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E and F although this will depend on how many ports a particular variant has (6, 12, 15 or 16)

As an example, if the 2 rotary switches are set to "4" and "4", the controller plugged into port "2" then the controller will be logged onto the Front End with device name "442".



If the rotary switches are set to "1" and "2", the controller plugged into port "A" then the controller will be logged onto the Front End with device name "12a".

If the switch is a PHI variant then the switch itself will log on as a separate device with a device name "120". This allows all the switch's parameters to be viewed and set using the Data Manager front end.

Important note on replacing a Mercury Switch with an Intuitive switch:

An existing Mercury Switch (PR0018-PHI) will log onto a Data Manager with the id comprised of the two rotary switches followed by the letter "a", for example "12a". A controller connected to the RS232 port marked "0" will log on as "120".

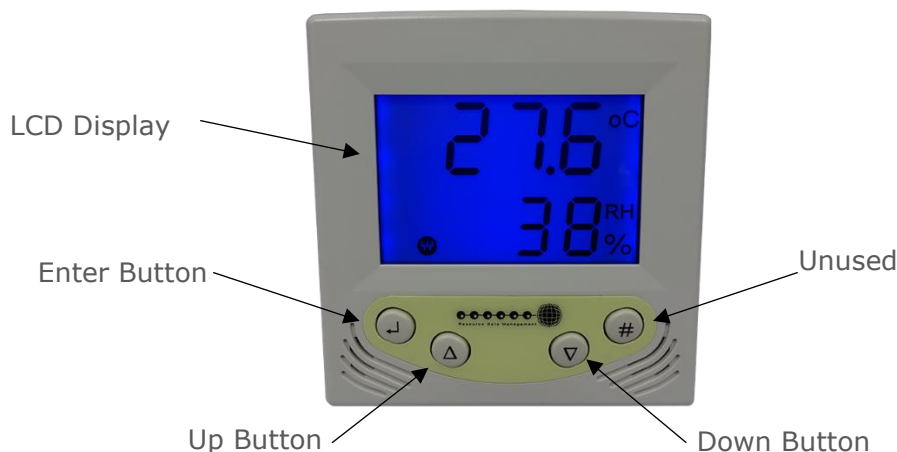
With the Intuitive switch, the switch itself will log on with an id of "120" and a controller connected to RS232 port "a" will log on as "12a". If replacing an existing Mercury Switch which has a controller connected to RS232 port "0" this controller will now log on as "12a" which is the existing id of the Mercury Switch and will appear as a duplicate device. The two duplicate devices should be removed from the Data Manager and allowed to log on with a new id and correct aliases.

Pressure/Humidity Input Variant PR0757/758-XXXX-PHI

The PHI hardware version of the Intuitive Switch allows for an optional pressure transducer and/or humidity display to be connected. The pressure transducer connection allows each Mercury evaporator controller connected to a single switch to use the pressure value to calculate its own superheat value.

The humidity display facilitates the use of the Trim Control energy feature which pulses the trim relay of a Mercury case controller based on the actual humidity level therefore minimising energy usage.

Configuring the switch using the optional display (PR0445-LCD)



Display: The display fits a standard UK single socket pattress.

Enter Button: Button used to enter/confirm values after a change.

Up Button: When in the software menu, the up button is used to scroll up through the menu items.



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

Down Button: When in the software menu, the down button is used to scroll down through the menu items

Button: No function

Icons:


Network



- Off
- Flashing
- Steady

No network attached
Attempting to log on to network
On-line

Alarm



The alarm bell icon is used to indicate a probe fault or alarm.

Setup Function Menu

To enter the software menu for setup mode, hold the **Enter** and **Down** buttons together for approximately 3 seconds until the message "Ent" appears on the display. Release both buttons and now press the Enter button again to enter the software menu. IO is the first item to be displayed. Scroll up or down to go through the menu items which are highlighted below.

Display	Option	Explained in Paragraph
IO	View Input and Output States	IO
PArA	View or change Parameters	PArA
ID	View or change ID	ID
tyPE	View or change Controller Type	type
nEt	View or change the Network Settings	Network Configuration
SoFt	View the Software version	
PASS	View default password	Default password
ESC	Escape the menu	

Recommended set-up method

Set/View Type

- a. From the function menu scroll to select type and press enter
- b. The current type is shown. Use the up/down buttons to scroll through the configuration types.
- c. Select the desired number and press enter.

There are 4 types: -

Type	Description
1	Degree C/ Bar
2	Degree C/ PSI
3	Degree F/ Bar
4	Degree F/ PSI

Set/View Parameters (This can also 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. 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 table to find what parameter number corresponds to which actual parameter. Pressing the Enter button will show the current value of the selected parameter. Press Up or Down to modify the value and press Enter again to save the value. The parameter list number will be displayed again. Two other options are present in the parameter menu – dFLt and ESC. Selecting ESC will exit setup mode. Selecting dFLt will reset all parameters back to the default values for the current type of controller.



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

ID

Allows the user to assign a unique three digit software address to the Intuitive Switch. Note this is only required when the Intuitive Switch is in IP-L mode.

- a. From the function menu scroll to select Id.
- b. The current id number will be shown. Use the up/down buttons to scroll through from 000 to 999.
- c. Select the desired number and press enter to save.

Network Configuration

Unlike the non-PHI (Standard Intuitive Switch version) when this product is used with a Data Manager it is registered on the system as a device. Once the PHI version of the Intuitive Switch is on-line, the Switch type and parameters can be set up. The switch comes online with the ID of the 2 rotary switch settings followed by the number 0. For example, with the first rotary switch set to 4 and the second switch set to 8 then the switch would appear as device "480". If a DHCP server is present on the IP network set the 2 rotary network switches to an appropriate setting, the Intuitive Switch has an auto-initialise function, which will automatically log the device onto the site network. If the wrong ID has been entered onto the network, you will have to reset the Switch ID by setting the ID to 0-0, power cycle and then re-enter the correct ID.

This Switch does not require an external communications module.

IP-L (Local IP Address)

To configure the Intuitive Switch for IP-L, set both rotary switches to zero.

1. nEt. From the function menu you can now select nEt
 - Press enter and the display will show "IP-L", press enter
 - You 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
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

IP-r (IP Address issued by the DHCP server)

To configure the Intuitive Switch for IP-r, set the two rotary switches to give each controller a unique identifier. The controller should then be connected to the network.

2. nEt. From the function menu you can now select nEt
 - Press enter and the display will show "IP-r", press enter
 - You can now view only the address given by the DHCP server

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:



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

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

Parameters

No.	Parameter	Range Bar (psi)	Step	Units	Default Bar (Psi)
P-01	Refrigerant	None (0). Custom (1). R32 (2). R134a (3). R142b (4). R227EA (5). R401A (6). R401B (7). R401C (8). R402A (9). R402B (10). R404A (11). R407A (12). R407B (13). R407C (14). R500 (15). R502 (16). R503 (17). R507A (18). R717 (19). R290 (20). R744 (21). R407F (22). R410A (23). R449A (24). R513A (25). R454C (26). R455A (27). R448A (28). R449B (29). R450A (30). R452B (31). R454A (32). R471A (33). R515B (34). R600a (35). R1234yf (36). R1234ZEE (37). R1270 (38).		N/A	None
P-02	Span	-3.4 to 180.0 (-49.3 to 2610)	0.1	Bar (Psi)	13.8 (200)
P-03	Offset	-3.4 to 180.0 (-49.3 to 2610)	0.1	Bar (Psi)	0.0 (0.0)
P-04	Glide	-15 to 15	0.1	°C	0.0
P-05	Pressure Type	Absolute (0), Gauge (1)	1		0
P-06	Ref weight	0 to 100	1	%	0
P-11	Evap 1 offset	0.0 to 5 (0 to 72.5)	0.1	Bar (Psi)	0.1
P-12	Evap 2 offset	0.0 to 5 (0 to 72.5)	0.1	Bar (Psi)	0.1
P-13	Evap 3 offset	0.0 to 5 (0 to 72.5)	0.1	Bar (Psi)	0.1
P-14	Evap 4 offset	0.0 to 5 (0 to 72.5)	0.1	Bar (Psi)	0.1
P-15	Evap 5 offset	0.0 to 5 (0 to 72.5)	0.1	Bar (Psi)	0.1
P-16	Evap 6 offset	0.0 to 5 (0 to 72.5)	0.1	Bar (Psi)	0.1
P-17	Evap 7 offset	0.0 to 5 (0 to 72.5)	0.1	Bar (Psi)	0.1
P-18	Evap 8 offset	0.0 to 5 (0 to 72.5)	0.1	Bar (Psi)	0.1
P-19	Evap 9 offset	0.0 to 5 (0 to 72.5)	0.1	Bar (Psi)	0.1
P-20	Evap 10 offset	0.0 to 5 (0 to 72.5)	0.1	Bar/Psi	0.1
P-21	Evap 11 offset	0.0 to 5 (0 to 72.5)	0.1	Bar/Psi	0.1
P-22	Evap 12 offset	0.0 to 5 (0 to 72.5)	0.1	Bar/Psi	0.1
P-23	Evap 13 offset	0.0 to 5 (0 to 72.5)	0.1	Bar/Psi	0.1
P-24	Evap 14 offset	0.0 to 5 (0 to 72.5)	0.1	Bar/Psi	0.1
P-25	Evap 15 offset	0.0 to 5 (0 to 72.5)	0.1	Bar/Psi	0.1
P-26	Evap 16 offset	0.0 to 5 (0 to 72.5)	0.1	Bar/Psi	0.1
P-31	Transducer Fault Delay	00:00 to 99:00	01:00	Mins	01:00
P-32	Alarm Delay	00:00 to 99:00	01:00	Mins	01:00
P-33	HP Alarm	-3.4 to 180.0 (-49.3 to 2610)	0.1	Bar (Psi)	4.0 (58.0)
P-40	MOP	-3.4 to 180.0 (-49.3 to 2610)	0.1	Bar (Psi)	3.4 (50.0)
P-41	MOP Diff	-3.4 to 180.0 (-49.3 to 2610)	0.1	Bar (Psi)	0.3 (5.0)
P-42	Recovery Count	0 - 10	1		2
P-43	MOP Delay	00:00 to 02:00	00:01	min:sec	00:05



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

No.	Parameter	Range Bar (psi)	Step	Units	Default Bar (Psi)
P-50	Humidity Low	0-100	1	Rh	20
P-51	Humidity High	0-100	1	Rh	60
P-52	Trim Low	0-100	1	%	30
P-53	Trim High	0-100	1	%	100
P-54	Trim Off Level	0-100	1	%	30
P-55	Trim Mode	0 = Off 1 = On 2 = Remote	1		On
P-56	Broadcast ID	0 - 999	1		0
P-57	Evaporator Type	0 = Local 1 = Remote 1 2 = Remote 2 3 = Remote 3	1		0

* Span and Offset allows for the full range of the transducer to be used by the Intuitive Switch.

Span is the full range of the transducer

Offset is the value below zero.

An example transducer setup is: RDM PR0160 with range: -1 Bar to 20 Bar

Span would be 21 Bar Offset would be -1 Bar

Parameters Description

Number	Parameter	Description
P-01	Refrigerant	Select the gas type used within the refrigeration system.
P-02	Span	Total range of transducer. See: To Disable Local Transducer
P-03	Offset	Value below zero*
P-04	Glide	Allows a glide value to be applied for a particular refrigerant mix where the component gases have different boiling points (at the same pressure).
P-05	Pressure Type	Select between Absolute or Gauge pressure
P-06	Ref weight	When using a local pressure transducer or a transmitted pressure from a pack controller is used to calculate superheat, the switch can use a weighted average of liquid pressure and vapour pressure to calculate the temperature. When the refrigerant weight parameter is set to 0% then the liquid pressure is used (bubble), when set to 100% the vapour pressure is used (dew). For example, when the Ref Weight parameter is set to 50%, then the Hub will use a weighted average of 50% liquid pressure and 50% vapour pressure. Any percentage from 1 to 99% will give an appropriate weighted average between the two pressures.
P-11	Evap 1 offset	Pressure difference between suction transducer and evaporator 1
P-12	Evap 2 offset	Pressure difference between suction transducer and evaporator 2
P-13	Evap 3 offset	Pressure difference between suction transducer and evaporator 3
P-14	Evap 4 offset	Pressure difference between suction transducer and evaporator 4
P-15	Evap 5 offset	Pressure difference between suction transducer and evaporator 5
P-16	Evap 6 offset	Pressure difference between suction transducer and evaporator 6
P-17	Evap 7 offset	Pressure difference between suction transducer and evaporator 7
P-18	Evap 8 offset	Pressure difference between suction transducer and evaporator 8
P-19	Evap 9 offset	Pressure difference between suction transducer and evaporator 9
P-20	Evap 10 offset	Pressure difference between suction transducer and evaporator 10
P-21	Evap 11 offset	Pressure difference between suction transducer and evaporator 11
P-22	Evap 12 offset	Pressure difference between suction transducer and evaporator 12
P-23	Evap 13 offset	Pressure difference between suction transducer and evaporator 13
P-24	Evap 14 offset	Pressure difference between suction transducer and evaporator 14
P-25	Evap 15 offset	Pressure difference between suction transducer and evaporator 15
P-26	Evap 16 offset	Pressure difference between suction transducer and evaporator 16
P-31	Transducer Fault Delay	Alarm generated, once transducer fault delay expires, if the transducer fails.
P-32	Alarm Delay	Delay before the HP alarm is generated.
P-33	HP Alarm	If the pressure exceeds this value then a High Pressure alarm is generated once the alarm delay expires.
P-40	MOP	If the pressure exceeds this value the valves on controllers connected to



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

Number	Parameter	Description
		the Intuitive Switch will closed or be reduced to a predetermined percentage. A MOP alarm is also created. (See MOP)
P-41	MOP Diff	When the pressure reduces below this value valves on controllers connected to the Switch will recover to their normal operational
P-42	Recovery Count	When the Switch comes out of MOP, the valves will come on at one minute intervals and turn "this" number of valves on per minute.
P-43	MOP Delay	Delay after the MOP value has been exceeded before the MOP actions and alarm occurs.
P-50	Humidity Low	Sets humidity low level.
P-51	Humidity High	Sets humidity high level.
P-52	Trim Low	Sets trim low level.
P-53	Trim High	Sets trim high level.
P-54	Trim Off Level	When the timer is in the off period the trims will be pulsed at this value. Note if the humidity sensor fails the trim relays will be pulsed at this level.
P-55	Trim Mode	<ul style="list-style-type: none"> ➤ Off – Pulsed the controller trim relays at the Trim Off Level. ➤ On – trim control feature will continuously pulse the controller trim relays dependant on the measured humidity. ➤ Remote – Uses Data Manager GP Timer channel to determine when to control. See GP Timer Setup
P-56	Broadcast ID	ID of Intuitive Plant Controller being used to broadcast Suction Pressure The Broadcast ID is derived from the Rotary Switch positions set on the Intuitive Plant controller which is providing the remote suction pressure. Note: no two Intuitive Plant controllers on a local area network can have the same rotary switches positions set. This will have adverse effects on control.
P-57	Evaporator Type	Select one of the following to determine the source of the pressure value used to calculate the remote evaporator temperature. <ul style="list-style-type: none"> ➤ Local – Uses Intuitive Switch on board 4-20mA Input ➤ Remote 1 – Uses the Remote Intuitive Plant controller's Transducer Input 1 ➤ Remote 2 – Uses the Remote Intuitive Plant controller's Transducer Input 2 ➤ Remote 3 – Uses the Remote Intuitive Plant controller's Transducer Input 3 Note: Intuitive Switch pressure units must match that of the Intuitive Plant Pack controller it is mapped to e.g. both devices have to be set to Bar or PSI See Note : EEV Control
P-n0	Custom A1	If the refrigerant used is not listed (P-01) a custom gas lookup table can be generated by RDM and the relevant values entered here.
P-n1	Custom B1 Hi	
P-n2	Custom B1 Lo	
P-n3	Custom C1	
P-n4	Custom A2	
P-n5	Custom B2 Hi	
P-n6	Custom B2 Lo	
P-n7	Custom C2	



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

Input/Output table

Number	IO	Range Bar (Psi)	Units
I-01	Evap Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-02	Evap 1 Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-03	Evap 2 Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-04	Evap 3 Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-05	Evap 4 Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-06	Evap 5 Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-07	Evap 6 Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-08	Evap 7 Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-09	Evap 8 Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-10	Evap 9 Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-11	Evap 10 Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-12	Evap 11 Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-13	Evap 12 Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-14	Evap 13 Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-15	Evap 14 Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-16	Evap 15 Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-17	Evap 16 Press	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-18	Humidity	0 to 100	rH
I-19	Sensor Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
I-20	Remote 1 Pressure	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-21	Remote 1 Pressure	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
I-22	Remote 1 Pressure	-3.4 to 180.0 (-49.3 to 2610)	Bar (Psi)
O-01	Evap Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-02	Evap 1 Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-03	Evap 2 Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-04	Evap 3 Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-05	Evap 4 Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-06	Evap 5 Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-07	Evap 6 Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-08	Evap 7 Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-09	Evap 8 Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-10	Evap 9 Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-11	Evap 10 Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-12	Evap 11 Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-13	Evap 12 Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-14	Evap 13 Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-15	Evap 14 Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-16	Evap 15 Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-17	Evap 16 Temp	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-21	MOP	Off (0) or On (1)	
O-31	Trim Level	0 to 100 %	%
O-32	Remote Trim	Off (0) or On (1)	
O-33	Remote 1 Temperature	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-34	Remote 2 Temperature	-49.0 to 60 (-56.2 to 140.0)	°C (°F)
O-35	Remote 3 Temperature	-49.0 to 60 (-56.2 to 140.0)	°C (°F)



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

EEV Control Operation

Intuitive Switches with the PHI option is intended for EEV control on a multiple evaporator basis and can be implemented in two ways.

1. Using the on board 4-20mA Input to measure the suction pressure going to the evaporator group.
2. Using a remote suction pressure sent from an Intuitive Plant Controller (PR0650-PACK) on the same IP network. Note this remote pressure can be shared by more than one Intuitive Switch.

On board 4-20mA Suction Pressure Input Control Application

- Ensure parameter P-57 is set to "Local".
- Configure the remaining parameters.
- Connect the suction pressure transducer for the Island to the 4-20mA input on the Intuitive Switch.
- Ensure the transducer is correctly connected and the mA input selector jumper is in the Pressure position.
- Ensure each evaporator controller has been configured to accept the calculated remote evaporator temperature. See relevant evaporator user guide for further details.

Remote Suction Pressure Application

- Ensure parameter P-57, Evaporator Type, is set to Remote 1 or Remote 2 or Remote 3.
- Set parameter P-56, Broadcast ID, to match the ID of the desired Intuitive Plant Pack Controller.
- Configure the remaining parameters.
- Configure the desired Intuitive Plant Pack controller to broadcast the Suction pressure. See RDM Intuitive Plant Controller user guide for further information on how to broadcast pressure.

Note: If the Intuitive Plant Pack Controller being read from is set to Bar then the Intuitive Switch has to be set for Bar (Type 1 or 3)

If the Controller being read from is set to PSI then the Intuitive Switch has to be set for PSI (Type 2 or 4).

To disable local transducer

To disable the local pressure input if it is not being used and stop it alarming transducer fault.
Set P-02 (Span) = 0.

Operation

Once the Switch has been correctly setup, it will pass values to each of the evaporator controllers connected to ports 1 through 16. In an EEV application the evaporator in temperature probe reading for a case controller can be obtained from the Intuitive Switch on which the controller is connected. A suction pressure transducer fitted to a common suction line is connected to the 4-20mA input of the Intuitive Switch or the pressure broadcast from a remote Intuitive plant controller. This pressure is then converted to a temperature based on the gas type being used by the system. This temperature is transmitted to each controller connected to the switch and along with the suction temperature probe local to the controller the superheat is calculated. Please see the Mercury Case controller user document from the RDM website for further details. (P-51 Minimum valve opening) RDM recommend that this parameter be set to 0% when using the Intuitive Switch to calculate Superheat. Please note that RDM recommend that the evaporator in temperature probe is fitted as the controller will use this to calculate the superheat in the event of a communication loss with the Intuitive Switch. (Or the remote Intuitive Plant Controller) The Mercury Case controllers require to have P17 (Evaporator control) set to 1 (Remote) for this feature to function.

Ref Weighting

When using a local pressure transducer or a transmitted pressure from a pack controller is used to calculate superheat, the Intuitive Switch can use a weighted average of liquid pressure and vapour pressure to calculate the temperature. When the refrigerant weight parameter is set to 0% then the liquid pressure is used (bubble), when set to 100% the vapour pressure is used (dew).

For example, when the Ref Weight parameter is set to 50%, then the controller will use a weighted average of 50% liquid pressure and 50% vapour pressure. Any percentage from 1 to 99% will give an appropriate weighted average between the two pressures

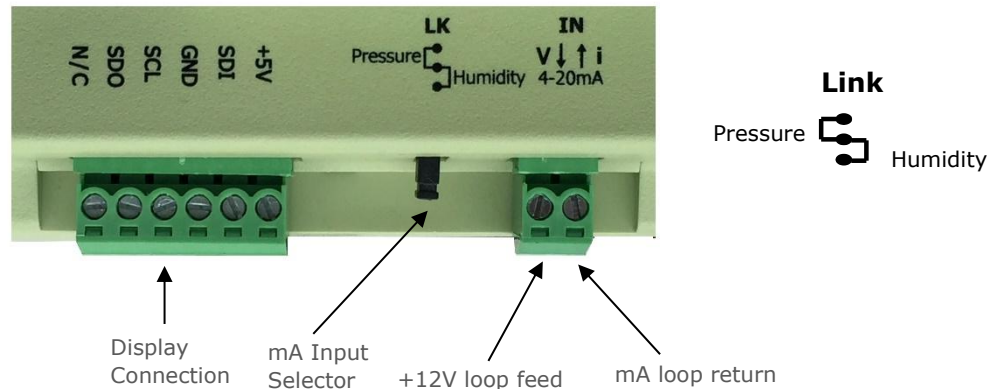


Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

Transducer Connection



Note:- Pressure/Humidity Link. The mA input is available for Pressure applications only, for Humidity please use a PR0445-LCD connected to the display port.

MOP – Maximum Operating Pressure

When the MOP alarm is created a valve off command is sent to the Mercury Evaporator controllers connected to the Intuitive Switch. The percentage that the valve shuts down to is dependent on the "Div Value" parameter in the Mercury case controller. When the Intuitive Switch generates the MOP alarm the controller reduces the maximum valve opening to this percentage. For example, if the Div Value parameter is set to 50% and the MOP alarm is generated then the maximum valve opening will be limited to 50%. This feature only applies to evaporator controllers with electronic expansion valves (EEV) or stepper valves.

If using evaporator controllers with mechanical expansion valves then the LLVs will be closed when the MOP alarm is created and return to normal operation when the alarm clears. When the pressure reduces below the MOP diff the valves will revert to normal operation at 1 minute intervals. The number of controllers coming back to normal operation per minute depends on the "recovery count" value.

Humidity Control Operation

To utilise this feature a Humidity/Temperature Display is required (PR0445-LCD). Connect the Humidity/Temperature display to the display port on the Intuitive Switch. The control algorithm will use the humidity reading from the display in calculating the percentage at which the trim relays are to be pulsed.

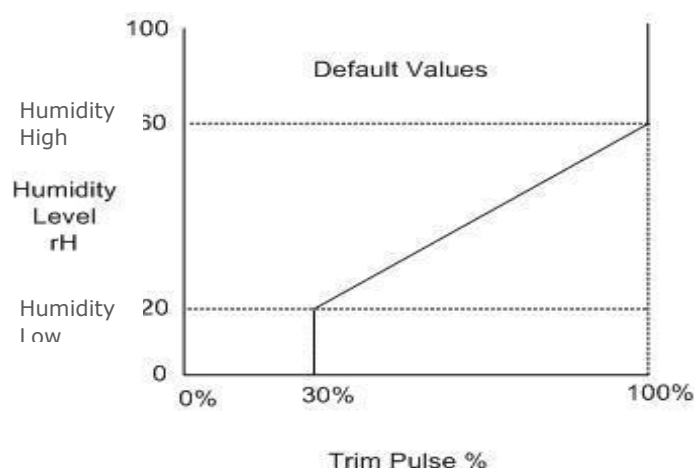
When the measured rH is below the "Humidity Low" parameter the Intuitive Switch will pulse the Mercury case controller trim relays to the duration set by the "Trim Low" parameter. When the measured rH is above the "Humidity Low" parameter but below the "Humidity High" parameter the Intuitive Switch will pulse the Mercury case controller trim relays in proportion to the line drawn between the low and high levels. When rH goes above the "Humidity High" level the Intuitive Switch will pulse the Mercury case controller trim relays at the "Trim High" setting. Setting the trim high parameter to 70% will result in 30 % energy savings as the controller trim relays will never pulse on for more than 70%. The trims are pulsed over a 5 minute period. If the Intuitive Switch calculates the trim percentage as 50% then the trim relay will be on for 2 and a half minutes and then off for 2 and a half minutes.



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.



GP Timer Set-up

It is possible to set the Intuitive Switch humidity control to operate at specific times. For this operation to occur set the parameter "Trim Mode" to "Remote". A GP Timer channel must be set up to control the timer on/off periods of the Intuitive Switch. For GP Timer set up please refer to the Data Manager User guide found on the RDM website. The following settings should be followed in the GP setup.

- Output Type - This should be set to "General".
- Output Mask - This should match the "Controller Name" e.g. "450"
- Output Channel - Set to "13". This will allow the GP Timer to control the state of the timer.

When the parameter "Trim Mode" is set to "Remote" and the Data Manager GP timer channel directed to the Intuitive Switch is in the on period the humidity control will operate as described above. During the Data Manager GP timer channel off period the relay will pulse to the preset "Trim Off Level" parameter, for example if the trim off level is zero then the trims will be completely off. This allows the user to save energy when the store isn't trading and the trims are not required.

Note: if you wish the Mercury controller trim relay to follow the Data Manager Trim Control feature and not the Intuitive Switch settings then please see the Mercury Controller user document (Parameter P-12).

Trim Heater Control via Mercury Case Controller Range

Energy savings via the Mercury controller range can be achieved in a number of ways. One of which is pulsing the trim heater relay off for a given period of time. One way to pulse the trim heater relay in the Mercury case controller range is by setting the parameter "Trim Level". This sets a percentage level, of a 5-minute period, to pulse the trim heater relay off/on. Using this parameter pulses the trim relay irrespective of the actual shop floor humidity. For greater energy savings the Data Manager Energy feature trim control or the Intuitive Switch trim control feature can be used. These two options pulse the trim relay dependant on the actual shop floor humidity levels, if the shop floor humidity is relatively low the trim heaters can be pulsed off for longer durations. Please see the relevant user guides for further details.

RDM recommend that the trim heater pulse module is used in all instances (PR0723). This module is fitted in between the trim heater of the case and the relay output of the Mercury Controller which is pulsing the heater. The trim heater module output provides a smoother power distribution, compared to using the relay output direct, as it switches at the zero voltage crossover point. Switching the trim heater on and off via a normal relay, without using the RDM trim heater pulse module, may damage the trim heater and reduce the operational life of the heater. RDM recommend the use of this module in every trim heater control application.



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

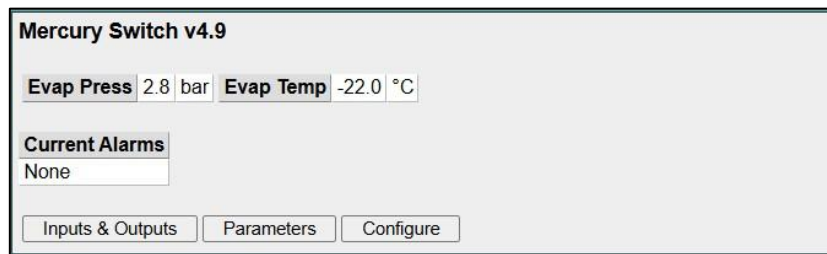
Network Alarms

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)
Transducer Fault	6
High Pressure Alarm	8
MOP Alarm	3
Remote Pressure	6

Setup via Webpages

The Intuitive Switch can be configured by navigating to the Intuitive Switch Web Pages. This can be achieved by using the Controller Info page in the Data Manager. Find the IP address assigned to the Intuitive Switch in question from the list. Now connect a laptop onto the IP network on which the Intuitive Switch is connected. Using a web browser navigate to the IP address of the Intuitive Switch. The homepage of the Intuitive Switch is shown below: -



Intuitive Switch Passcode

The configure menu allows access to all the settable parameters and requires a password to access.

Due to increased cyber security protection, implemented from April 2025 onwards, the Intuitive Switch has a firmware update which removes the previous shipping default legacy password and replaces it with a unique passcode from the factory. This unique passcode can be changed by the engineer, if required, using a PC connection and the controller display.

Any version of Intuitive Switch will log onto a Data Manager front end as before, the April 2025 update only affects the Data Manager's ability to change parameters on the Intuitive Switch. At the Intuitive Switch itself the normal method of accessing the "Para" menu using its display remains unchanged.

Action Overview

There are three possible actions to take when networking an Intuitive Switch, these are fully documented later in this application note, below is a summary table.

Combinations	Action
New Intuitive Switch (post-April 2025) and new Data Manager (V4.2.3 or newer)	No action needed. Logon and network as before.
Older Intuitive Switch (pre-April 2025) and any Data Manager software version	No action needed. Logon and network as before.
New Intuitive Switch (post-April 2025) and older Data Manager (V4.2.2 or earlier)	Navigate to "PASS" via display and set to "OLD". Logon and network as before.



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

Using a new Intuitive Switch with a recent Data Manager

If connecting a new Intuitive Switch (Manufactured on April 2025 or later) with a Data Manager with firmware version V4.2.3 or newer (Manufactured on September 2023 or later), then there will be no compatibility issues.

A quick way to determine if an Intuitive Switch is legacy or not is the "PASS" menu being present,

see: [Setting the legacy passcode on a new Intuitive Switch](#) later on in this document. If the "PASS" menu is **not** present then the controller is classed as a legacy controller (pre April 2025).

If connecting a PC directly to the Intuitive Switch the previous default legacy password will not work and a new passcode will need to be set up. The Intuitive Switch requires a display to be connected to enable this.

Using a legacy Intuitive Switch with a Data Manager

If connecting a legacy Intuitive Switch (Manufactured **before** April 2025) with any Data Manager then there will be no compatibility issues.

If connecting a PC directly to the Intuitive Switch the legacy default password will work as before.

Using a new Intuitive Switch with a legacy Data Manager

If connecting a new Intuitive Switch (Manufactured on April 2025 or later) with a Data Manager with firmware version V4.2.2 or earlier, then the Intuitive Switch will require the unique factory shipping passcode to be changed to enable the legacy Data Manager to make parameter changes in the controller.

If connecting a PC directly to the new Intuitive Switch the previous default legacy password will not work and a new passcode will need to be configured. The Intuitive Switch requires a built-in display or remote display (PR0725 for example) to enable this.

Setting the legacy passcode on a new Intuitive Switch

If using a new Intuitive Switch with a legacy Data Manager (V4.2.2 or earlier) a PC connection is not required and a legacy default passcode can be set using the controller's display.

To enter the setup menu on the Intuitive Switch press and hold the Enter and Down keys for 3 seconds, the display will show "Ent", release both keys and press the Enter key and the display will show "IO", this is the Input/Output menu.

Press the Up or Down keys to scroll through the set up menus until the "PASS" menu is shown, press the Enter key to select. The display will show "Hi".



Pressing the Up key again will show "Lo" on the display, pressing the Up key again will show "Old".



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

Pressing the Enter key on "Old" will show "dFLt", this allows the legacy default passcode to set in the controller, pressing the Enter key again will set the legacy passcode and the display will return to "PASS".

The Legacy passcode is now set. Navigate to "Esc" and press the Enter key to save the setting otherwise the display will timeout after 60 seconds after no user interactions.

The Data Manager will now be able to set parameters in the Intuitive Switch.

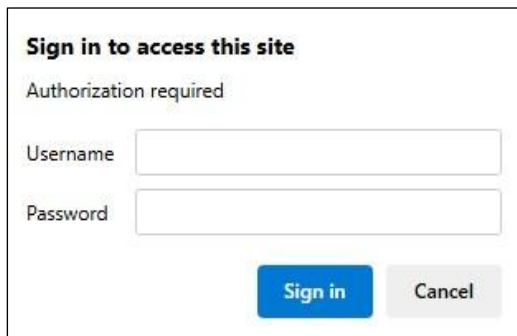
Setting a PC or Laptop passcode.

A PC can be connected by surfing to the IP address of the Intuitive Switch, this address can be obtained from the Device info page on the Data Manager front end or by entering the "Net" menu on a local display connected to the Intuitive Switch.

The home page will be shown, similar to the one below.



Select the "Configure" option.



The username "service" and an 8 digit passcode is required to be entered in the Response field. The passcode is comprised of the "Hi" an "Lo" values which can be obtained from the Intuitive Switch display as follows:

Enter the setup menu on the local display connected to the Intuitive Switch by pressing and holding the Enter and Down keys for 3 seconds, the display will show "Ent", release both keys and press the Enter key and the display will show "IO", this is the Input/Output menu.

Press the Up or Down keys to scroll through the set up menus until the "PASS" menu is shown, press the Enter key to select. The display will show "Hi".



Press the Enter key again and the "Hi" code will be shown, 4499 for example, make a note of this code.



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

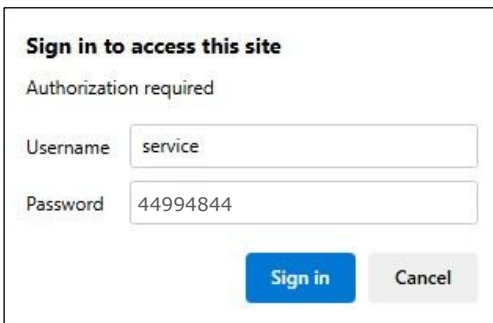


Press the Enter key again to return to the "Hi" menu, press the Up key to select the "Lo" menu.



Press the Enter key again and the "Lo" code will be shown, 4844 for example, make a note of this code.

The "Hi" code followed by the "Lo" code, 44994844 for example, can now be entered into the "Password" field in the PC interface.



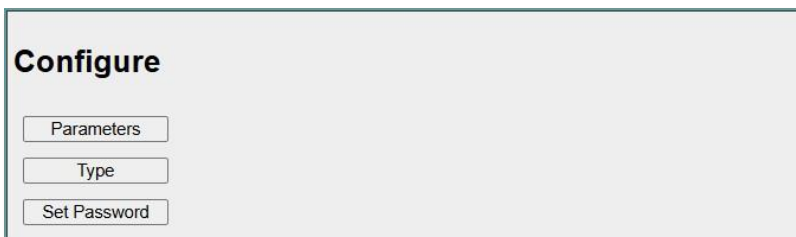
The Intuitive Switch's password is now reset and all the service menu options are now accessible.

Setting a user defined Passcode

In most cases setting the legacy passcode is all that is required, however there is an option to set a unique user defined passcode in the Intuitive Switch.

Setting a user definable passcode is not essential but it allows the user to have their own unique passcode and does not require access to the Intuitive Switch's display (if fitted) to access the "Hi" and "Lo" values.

In the main "Configure" menu select "Set Password".



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

A new passcode can now be set, this should be a number between 4 and 8 digits in length.

Set Password

DO NOT change the password if you are unsure of the effect it may have.
Note: RDM frontends running earlier versions of software may require the old default password.

Enter Password:

Re-enter Password:

Configure Menu

Click on 'Configure' and then 'Type' to change the type;

Configure

Set Type

Use the drop-down selection to select the type required and then click "Set Type". Parameters can be changed using the connection as illustrated above or through the normal Data Manager change parameter routes or through the display if fitted (PR0445-LCD)

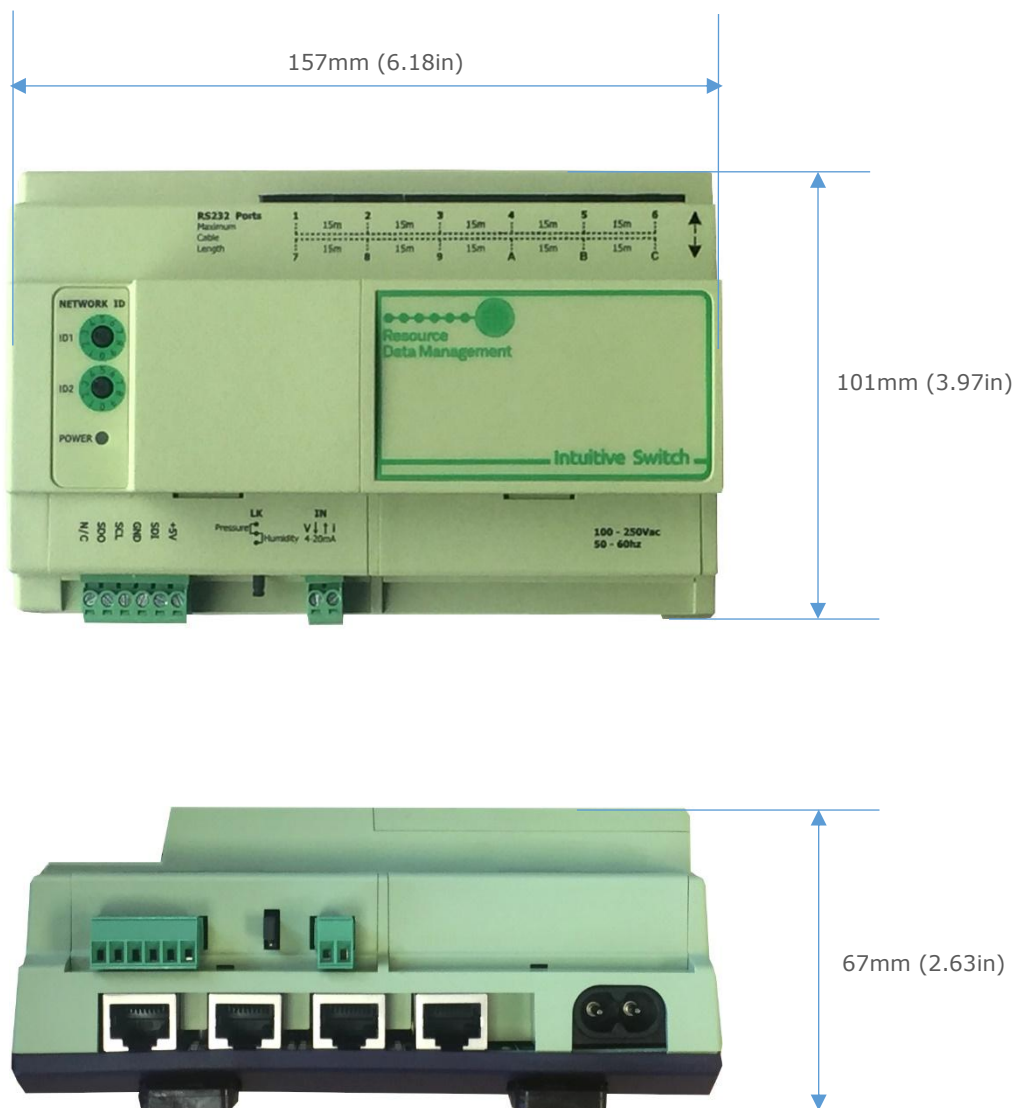


Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

Dimensions



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

Specification

Intuitive Switch PR0757/758	
Power Requirements	
Supply Voltage Range	100 – 250 Vac ±10%
Supply Frequency	50 – 60 Hz ±10%
Typical Supply Current	<1 A
Connector	IEC 60320 type C8.
General	
Operating Temperature Range	0°C to +50°C (32°F to +122°F).
Operating Humidity	80% maximum
Storage Temperature Range	0°C to +65°C (32°F to +149°F).
Environmental	Indoor use at altitudes up to 2000m, Pollution Degree II, Installation Category II.
Size	101mm (3.97in) x 157mm (6.18in) x 67mm (2.63in).
Weight	375g.
Safety	CE– [EN 62368]
EMC	CE Emissions [EN 55032] Immunity [EN 55035] FCC Emissions [FCC Title 47 CFR parts 15B 107 & 109]
IP Rating	IP20
Disposal	Please observe local legislation with regards to electrical products
Origins	Product designed in the UK manufactured in Taiwan
Ventilation	There is no requirement for forced cooling ventilation
Class 2 Insulation	No protective Earth is required and none should be fitted
The host equipment must provide a suitable external over-current protection device such as:	
Fuse	1A 240 Vac Anti-surge (T) HRC conforming to IEC 60127
Or MCB	1A, 240 VAC Type C conforming to BS EN 60898
Communication Ports	
RS232	Max cable length must not exceed 15m.
Ethernet	Conforms to 10Base-T & 100Base-T with Auto MDI/MDIX. Max cable length must not exceed 100m.

Mains Cable

The Intuitive switch is supplied with an IEC 60320 type C8 connection lead with 3 pin UK mains plug.

Any units shipped outside the UK are supplied without a mains cable and a suitable cable to fit an IEC 60320 type C8 socket should be sourced locally.



Please ensure all power is switched off before installing or maintaining this product.



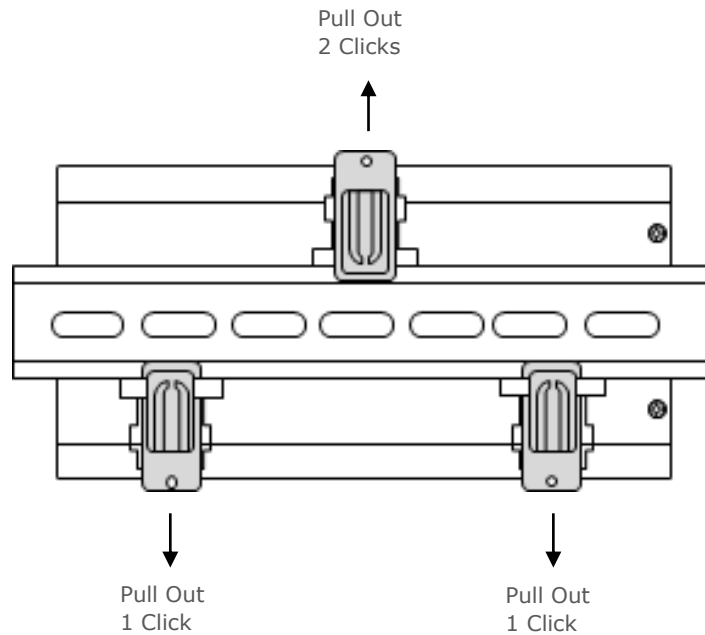
Veuillez couper le courant avant l'installation ou l'entretien.

Mounting

Mounting on to a DIN rail

The PR0757 and PR0758 range of Intuitive switches can be mounted on standard 35mm DIN rail in any orientation, vertical or horizontal. There are three DIN rail mounting feet which can slide in and out to three different positions, sliding into each position is accompanied by a 'click' which locks the foot into that position.

To install the hub onto a DIN mounting rail, from the fully pushed in position slide the top mounting foot out by 2 clicks so that the foot is clear of the DIN rail channel. Slide the bottom two feet out by one click so that they are protruding slightly into the DIN rail channel. The controller can now be inserted onto the DIN rail by inserting the bottom lip of the DIN rail behind the two bottom mounting feet



The controller can now be pushed flat onto the DIN rail and the top foot pushed in 2 clicks to hold the controller in place. Finally, push the bottom two feet in by one click to secure the controller.

The mounting feet also have M3 holes for direct mounting where DIN rail is not being used.

RS232 Cable Lengths

All RS232 connections must not exceed 15 metres/connection.

Ethernet Cable lengths

Port number	Intuitive Switch
1	Refer to Cat5 standard
2	Refer to Cat5 standard
3	Refer to Cat5 standard
4	Refer to Cat5 standard



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

Disclaimer

The specifications of the product detailed in this document may change without notice. RDM shall not be liable for errors or omissions, for incidental or consequential damages, directly or indirectly, in connection with the furnishing, performance or misuse of this product or document.

Revision History

Revision	Date	Changes
4.2	27/05/2021	First Issue.
4.2a	09/06/2021	Note added regarding mains cable supplied.
4.2b	01/08/2022	Note added on DIN rail mounting orientation.
4.2c	24/07/2023	Note added regarding not using port 0 on some variants and new 15 port part numbers added.
4.7	14/02/2024	Improvements made for 4 x 232 daughter card.
4.7a	20/05/2024	Images added for Fibre variant.
4.8	11/09/2024	Support added to allow remote overrides to controllers connected to Intuitive Switch.
4.9	14/04/2025	Refrigerant table updated. Support added for remote overrides via DM 4.3.3. Password security update.



Please ensure all power is switched off before installing or maintaining this product.



Veuillez couper le courant avant l'installation ou l'entretien.

Group Offices

RDM Group Head Office

80 Johnstone Avenue
Hillington Industrial Estate
Glasgow
G52 4NZ
United Kingdom

+44 (0)141 810 2828
support@resourcedm.com

RDM Inc.

9441 Science Center Drive New
Hope
Minneapolis, MN
55428
United States

+1 612 354 3923
usasupport@resourcedm.com

RDM Asia

Sky Park at One City
Jalan USJ 25/1
47650 Subang Jaya
Selangor
Malaysia

+60 3 5022 3188
asiatech@resourcedm.com



Visit www.resourcedm.com/support for more information on RDM solutions, additional product documentation and software downloads.

While every effort is made to ensure the information given within this document is accurate, Resource Data Management Ltd shall not be liable for errors or omissions, for incidental or consequential damages, directly or indirectly, in connection with the furnishing, performance or misuse of this product or document. All specifications are subject to change without notice.

See www.resourcedm.com for terms and conditions of sales.

Copyright © Resource Data Management