



Product Summary & Overview

The Intuitive Switch is a new product that allows RS232 based RDM controllers to be connected to an IP network. This enables full communications of the equipment from a compatible front-end such as the DMTouch. The Intuitive Switch replaces and expands on the capabilities of the Mercury Switch, which will be discontinued as stock is depleted.

It is important to note that both the physical footprint and the capabilities of the new Intuitive Switch vary from those of RDM Mercury Switches. Customers should be advised to take this into account when planning for projects.

The new Intuitive Switch is housed in a similar plastic enclosure to that of the Mini Intuitive hardware platform, which offers a more compact footprint than that of the Mercury Switch. Capabilities have been expanded with several variant options. Whilst the Mercury Switch had three Ethernet ports and could accept a maximum of ten RS232 devices, the Intuitive Switch boasts four Ethernet connections and is available with 6, 12 or 16 RS232 ports. The Ethernet ports are self-configuring for uplinks and standard 10/100 BaseT device connections.

A fibre variant is available with one of the Ethernet ports being replaced by the fibre connection.

In addition to integrating RS232 devices, the Intuitive Switch implements software that offers added benefits for connected devices. Evaporator Superheat for EEV controllers can be calculated based on suction pressure, utilising a local pressure transducer connected to the Intuitive Switch or a remote suction pressure broadcast across an IP network from compatible RDM pack/rack controllers. Energy-saving features include trim heater (anti-sweat) control as well as compatibility with the DMTouch Intelligent Load Shedding feature. For further details on these features, please see the [Intuitive Switch User Guide](#).

Applications

Networking of compatible RDM devices

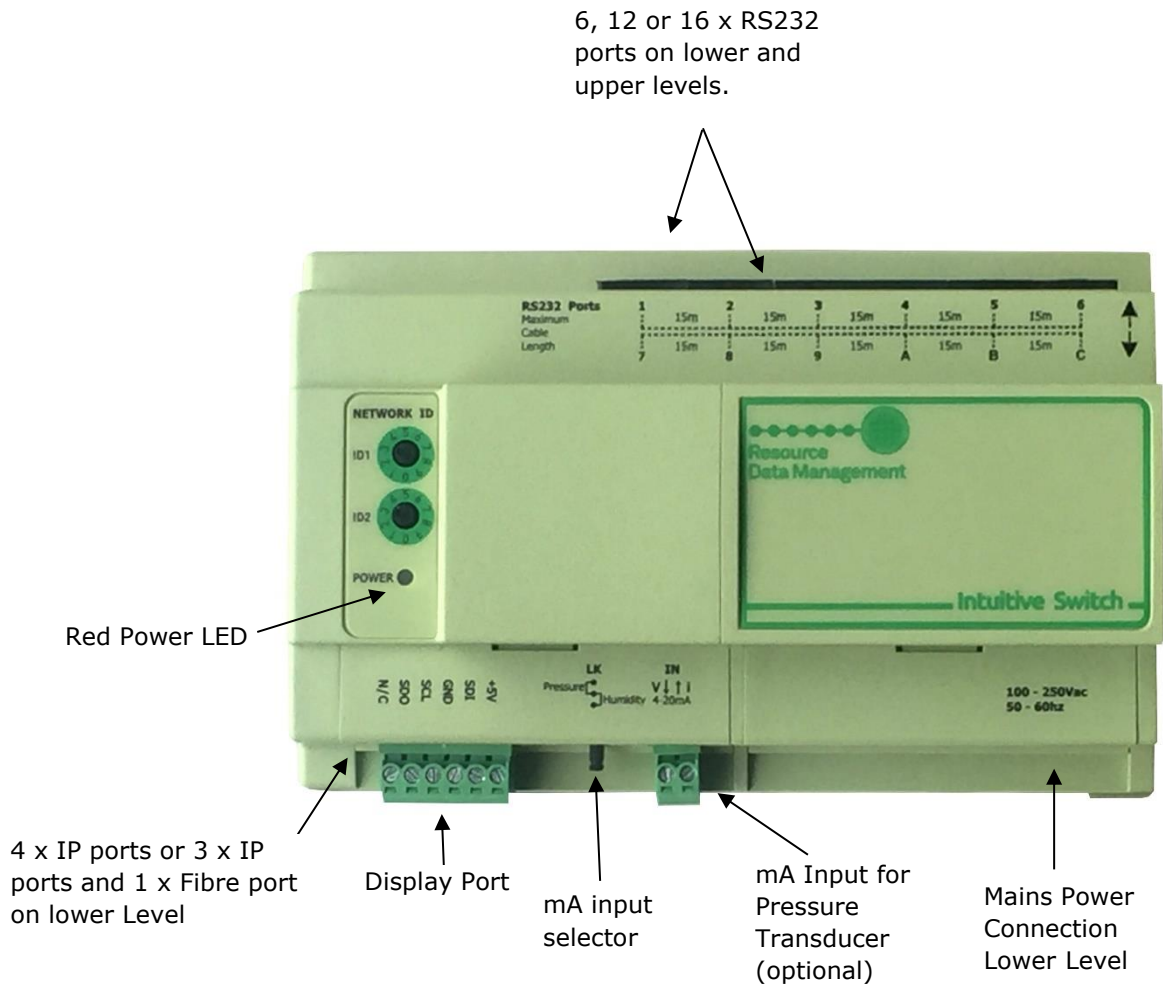
Summary of New Features

- Compact DIN enclosure design similar to the Mini Intuitive, providing a smaller footprint compared to the Mercury Switch
- Variants offering 6, 12 or 16 x RS232 ports (upgrade from previous maximum of 10 to allow greater flexibility)
- Four Ethernet ports (10/100 BaseT) on non-fibre variants, an upgrade from three
- Network ID formatting updated to support 12 and 16-port models
- DIN rail mounting capabilities in addition to existing backplate mounting options.

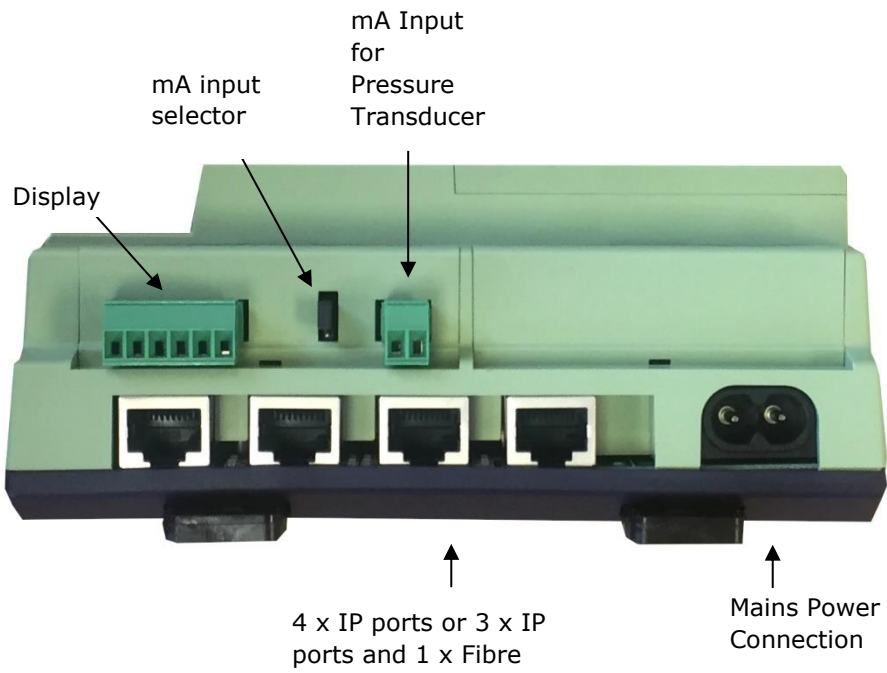
Cont.

Connections

Top View



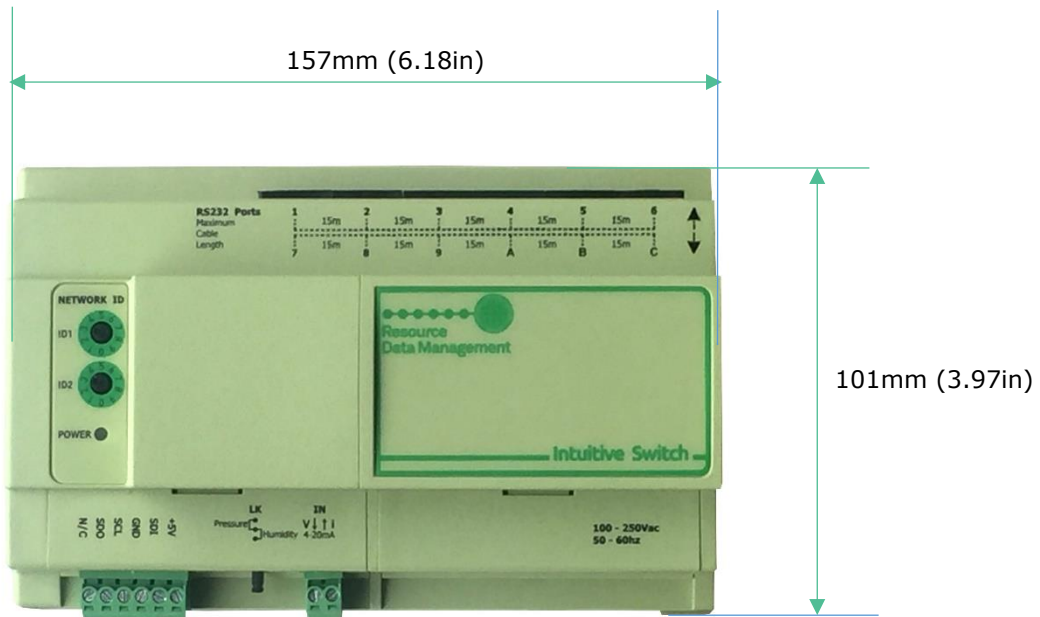
Side View



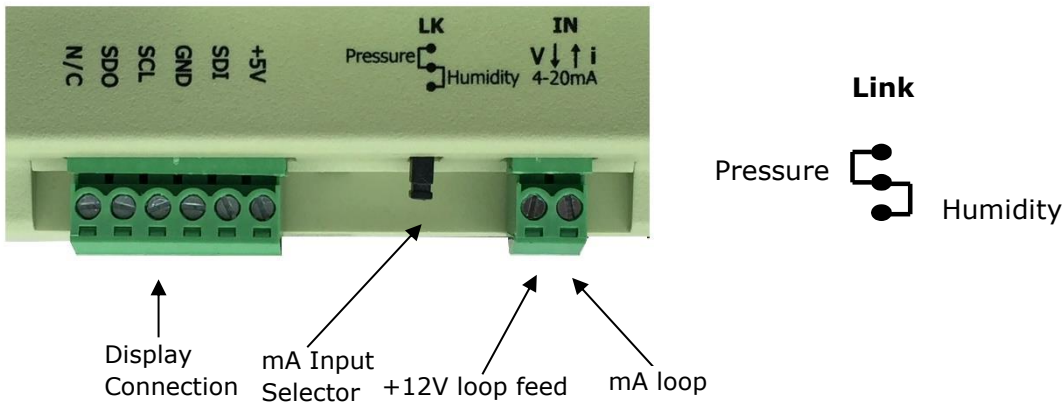
Side View



Dimensions



Transducer & Humidistat Display Connections

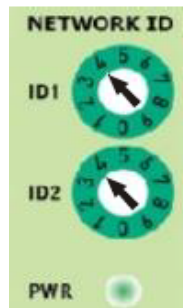


Note: The mA Input is currently available for Pressure applications only. Therefore, the mA Input Selector Link should remain in the configuration for Pressure Input. For Humidity a PR0445-LCD must be used and connected to the display port.

Network ID

When a valid Network ID is set and DMTouch settings are configured for DHCP, any controller connected to an RS232 port on the Switch will automatically log onto the DMTouch. However, with the increased capacity of RS232 connections on the Intuitive Switch, some changes have been made to the formatting of Network IDs.

The three-character device name is made up from the positions of the two rotary switches followed by the RS232 port number. The RS232 ports are marked 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E and F. This will depend on how many ports a particular variant has (6, 12 or 16).



For example, 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".

For PHI variants, the Intuitive Switch itself will log on as a separate device, allowing the Intuitive Switch parameters to be viewed and set using the DMTouch. Using the above example for a PHI variant, the Intuitive Switch would log on with device name "120".

NOTE: If the above example is applied to a Mercury Switch, the switch would log on to the DMTouch as "12a", while a controller connected to the RS232 port marked "0" will log on as "120".

If replacing an existing Mercury Switch which has a controller connected to the RS232 port "0", this controller will now log on as "12A" and will appear as a duplicate device as this matches the existing ID of the Mercury Switch. The two duplicate devices should be removed from the DMTouch and allowed to log on with a new Network ID and correct aliases.

Software Features

The existing Evap offset feature has been updated. Where previously parameters were available for up to ten evaporators, the parameters below have been added to account for use of the 12 and 16-port Intuitive Switch models.

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

Comparison Table - Intuitive Switch / Mercury Switch

Description	Intuitive Switch (Standard)	Intuitive Switch (PHI)	Mercury Switch (Standard)	Mercury Switch (PHI)
Number of RS232 Controllers Supported	6 / 12 / 16	6 / 12 / 16	10	10
Number of Ethernet ports	4*	4*	3	3
Fibre Capabilities	●**	●	●	●
Island (Multi-Evaporator) EEV control with local transducer		●		●
Island (Multi-Evaporator) Local Trim /Anti-Sweat Control		●		●
Remote Pack/Rack Pressure Broadcast Support	●	●	●	●
Maximum Operating Pressure (MOP) Alarms		●		●
Setup via PR0445-LCD display (or web interface)		●		●

* Only three Ethernet ports on Fibre variants

**Currently 16 port variant only

Full Technical Specifications can be found in the [Intuitive Switch User Guide](#)

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 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