

ModuSat[®] XR Single Plate Direct Heating Unit

Heat inter face unit for direct heating and instantaneous domestic hot water with modulating pressure independent and differential pressure control valves.

Application

The ModuSat[®] XR SP-DH unit is a simple solution for providing instantaneous hot water and space heating in communal and district heating systems.

The ModuSat[®] XR SP-DH is a compact wall mounted unit that fits perfectly in an apartment utility room or kitchen cupboard, and is designed

to operate with the Evinox SmartTalk[®] two-way communication system for remote metering and diagnostics.

Heating

The heating circuit is fed directly via the primary network. The Unit features differential pressure control valve to protect the apartment heating circuit from high pressures. When fitted, the pump improves system efficiency by minimising primary return temperature.



ViewSmart room controller

With optional upgrade to provide ENE3 compliant smart metering.



Integrated PaySmart

technology ready for pre-payment billing upgrade.



Fully programmable

hot water "Keep warm" function, for energy saving.



Electronically controlled Valves

for primary flow rate modulation to match the demand, differential pressure control and energy shut-off.



Fast & Responsive Hot Water

The unit delivers fast and responsive domestic hot water performance, providing high levels of user comfort and convenience.



Excellent thermal efficiency

achieved using the latest technology and efficient brazed stainless steel PHE. Asymmetric DHW PHE minimise the pressure drop on the primary side to reduce pumping costs.



Integrated heat meter

MID approved and class 2 accuracy (BS EN 1434)

Also capable of reading:

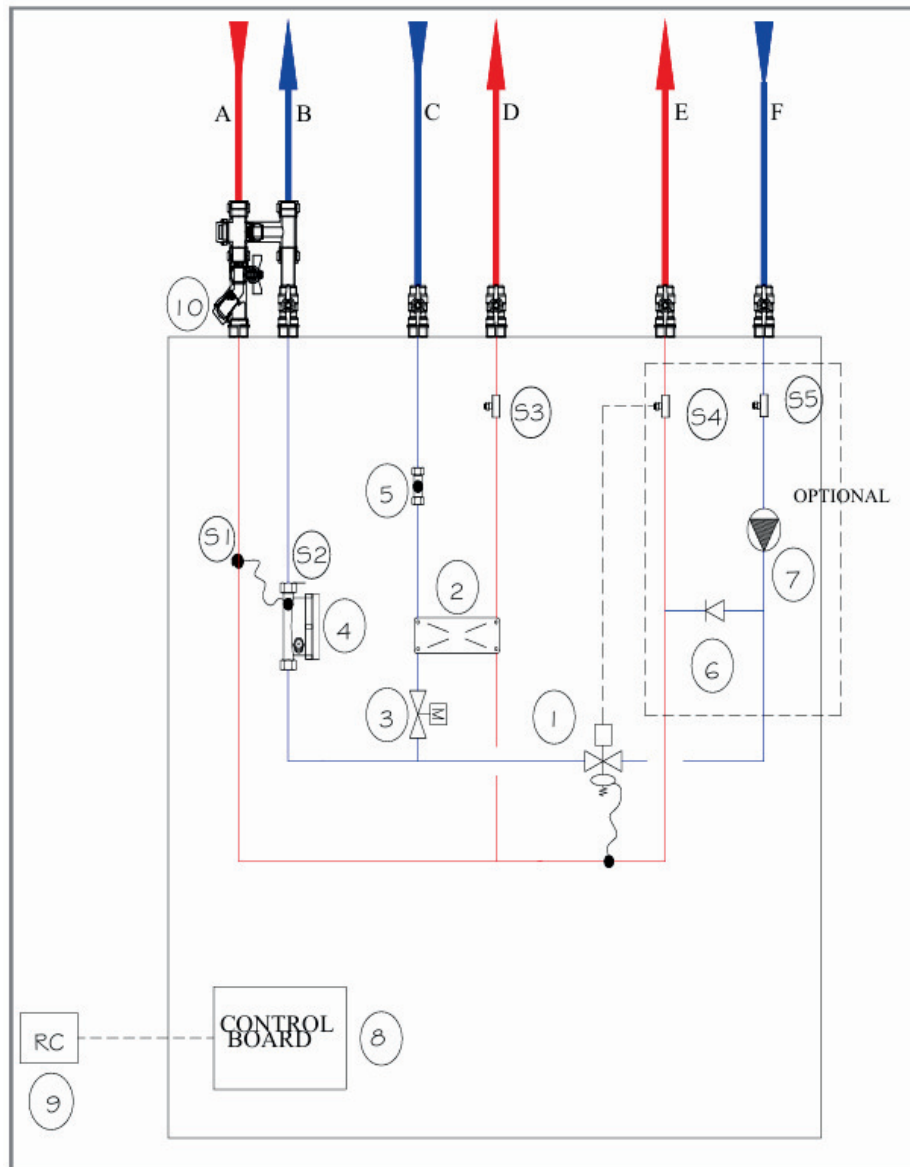
- Electrical Meter
- Cold Water Meter
- Chilled Water Meter (Optional extras).



Features & Benefits

- Option of top, bottom or combination connections.
- SmartTalk[®] two way communication for remote monitoring, control, alarms and diagnostics.
- Ultrasonic heat meter MID approved and class 2 accuracy (BS EN 1434)
- A range of sizes available to suit small studio apartments or large family homes.
- WRAS approved components.
- Includes inbuilt TCP/IP technology to operate on an Ethernet network if required.
- Optional casing and pipework insulation available.

Typical ModuSat[®] XR Single Plate Direct Heating



Components

A Primary flow

B Primary Return

C Domestic Cold Water Inlet

D Domestic Hot Water Outlet

E Apartment Heating Flow

F Apartment Heating Return

1 Differential Pressure Control Valve With Modulating On/Off Actuator

2 DHW Heat Exchanger

3 Pressure Independent Control Valve (PICV) With Actuator

4 Heat Meter

5 Flow Sensor

6 Non-Return Valve

7 Circulation Pump

8 Electronic Control Board

9 Room Controller (Optional)

10 Flushing Bypass Kit

S1 LTHW Flow Sensor Temperature Sensor

S2 LTHW Return Temperature Sensor

S3 DHW Flow Temperature Sensor

S4 Heating Flow Temperature Sensor

S5 Heating Return Temperature Sensor

DHW Performances at 10/50°C

	ModuSat [®] SPDH 30				
Primary flow (°C)	80	70	65	60	55
Primary Return* (°C)	17.8	18.8	19.8	21.5	24.2
Power (kW)	55	45	40	35	27
DHW flow (l/min)	19.7	16.1	14.3	12.5	9.7
Primary pressure drop** (kPa)	50	50	51	52	50

	ModuSat [®] SPDH 55				
Primary flow (°C)	80	70	65	60	55
Primary Return* (°C)	17.1	17.9	18.8	20.4	23.2
Power (kW)	65	52	46	40	32
DHW flow (l/min)	23.3	18.7	16.5	14.3	11.5
Primary pressure drop** (kPa)	51	50	50	50	50

	ModuSat [®] SPDH 70				
Primary flow (°C)	80	70	65	60	55
Primary Return* (°C)	15.6	16.4	17.1	18.5	20.8
Power (kW)	75	64	57	50	40
DHW flow (l/min)	26.9	23.0	20.5	17.9	14.3
Primary pressure drop** (kPa)	50				

	ModuSat [®] SPDH 100				
Primary flow (°C)	80	70	65	60	55
Primary Return* (°C)	17.0	18.0	18.7	20.3	23.1
Power (kW)	120	100	85	75	60
DHW flow (l/min)	43.1	35.9	30.5	26.9	21.5
Primary pressure drop** (kPa)	50	51	50	50	50

DHW Performances at 10/55°C

	ModuSat [®] SPDH 30				
Primary flow (°C)	80	70	65	60	55
Primary Return* (°C)	19.5	21.2	23.0	25.1	
Power (kW)	55	43	37	25	
DHW flow (l/min)	17.5	13.7	11.8	8.0	
Primary pressure drop** (kPa)	52	50			

	ModuSat [®] SPDH 55				
Primary flow (°C)	80	70	65	60	55
Primary Return* (°C)	18.4	20.1	21.8	24.9	
Power (kW)	62	50	43	34	
DHW flow (l/min)	19.8	16.0	13.7	10.9	
Primary pressure drop** (kPa)	50				

	ModuSat [®] SPDH 70				
Primary flow (°C)	80	70	65	60	55
Primary Return* (°C)	16.7	18.3	19.8	22.7	
Power (kW)	75	62	55	45	
DHW flow (l/min)	23.9	19.8	17.5	14.3	
Primary pressure drop** (kPa)	50	51			

	ModuSat [®] SPDH 100				
Primary flow (°C)	80	70	65	60	55
Primary Return* (°C)	18.3	20.2	21.8	24.9	
Power (kW)	115	95	80	65	
DHW flow (l/min)	36.7	30.3	25.5	20.7	
Primary pressure drop** (kPa)	50				