



Eurofluid
HANDLING SYSTEMS

INNOVATIVE *HIU* PRODUCTS

INTELLIGENT HEAT INTERFACE UNITS

www.euro-fluid.com

-ETHER UNIT

TWIN PLATE HIU *Electronic CH + DHW with Ethernet*

Description

The Ether HIU is one of the new generation of HIUs, using electronic stepper motor controls. It is designed to deliver very low central heating loads under 5kW while maintaining low primary return temperatures. In addition the twin wall DHW heat exchanger provides complete protection from cross contamination in the case of a plate failure.

The ETHER provides an option that can be setup during commissioning to keep the Domestic Hot Water up to temperature continuously, or to allow it to go cold after 1 hour of inactivity. This option is desirable when the heat loss of the ETHER and its pipe work is greater than the perceived down-side of a longer delay during the first morning, or evening draw-off.



The ETHER uses an electronically controlled valve and flow sensor. During hot water demand the flow sensor will detect the draw-off rate and convey this to the electronic control. This ensures optimum opening of the valve, thus obtaining a water temperature of 60C. While hot taps are running the system provides hot water priority, closing off the supply to the central heating. When tapping stops the heat supply resumed to the heating circuit.

As an optional extra The Ether can be fitted with an industrial 8 port Ethernet switch, to establish a LAN across the site for use by billing and monitoring services. This is to provide a lower cost and more robust alternative to using GSM mobile connectivity and the increased traffic capabilities enable high resolution remote monitoring to become an option, without incurring significant increases in data costs.

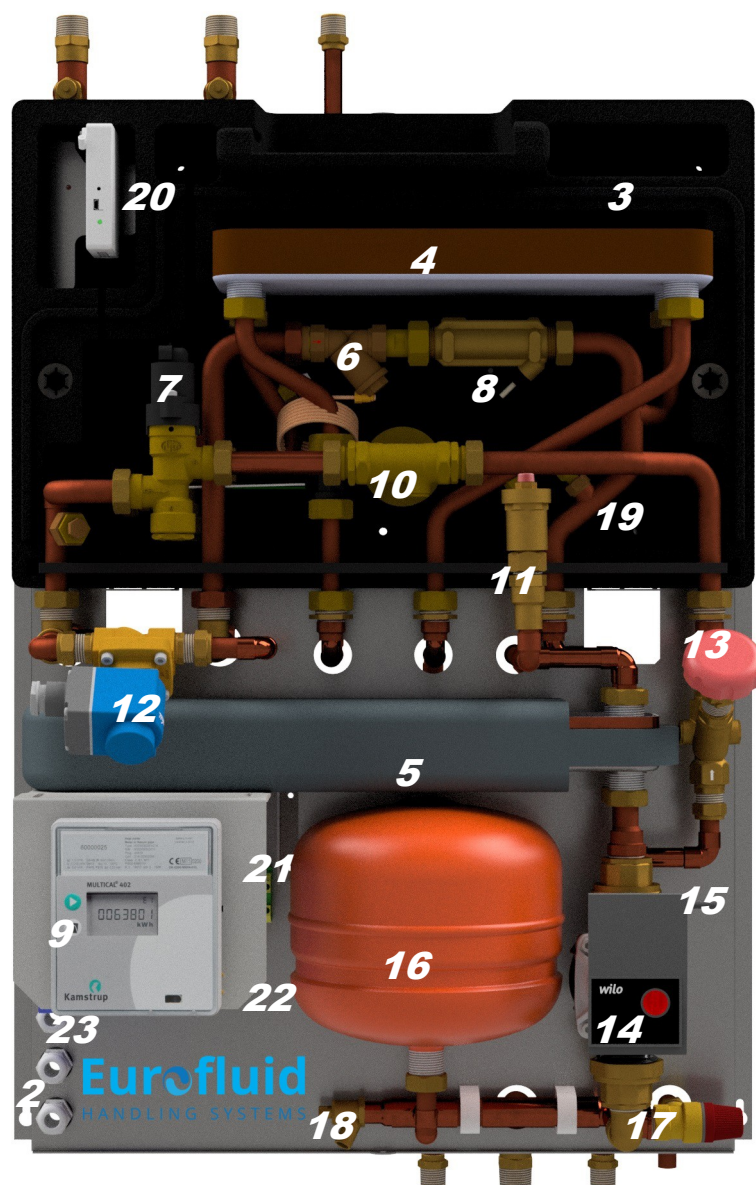


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Key Components:

1. Metal back plate
2. Wall fixing point
3. Inner moulded insulation
4. DHW plate heat exchanger
5. Central heating plate heat exchanger
6. Primary strainer
7. Stepper motor control valves
8. Heat meter flow sensor 110mm x 3/4" – 1.5 m3/h
9. Heat meter, fitted in flow, with M-Bus, direct sensors (Model Kamstrup 402)
10. Differential pressure controller (Factory set 12kPa)
11. Automatic air vent for central heating
12. Security isolation valve (Danfoss EV250B 1/2" Belimo 1/2")
13. Primary balancing valve for central heating
14. Circulating pump for central heating
15. Pump isolating valves
16. Expansion vessel, 5 litres
17. Pressure relief valve, 3 bar
18. Drain cock for central heating
19. Temperature sensor
20. Electronic controller
21. Din rail terminals
22. Power supply and optional ethernet switch
23. Cable entry glands



Features:

- ✓ Hot Water Priority
- ✓ Electronic Stepper Controller (ensure optimum valve opening)
- ✓ 5kw Heat OutPut
- ✓ Twin Wall Heat Exchanger
- ✓ Costant differential pressure control
- ✓ Eco+Comfort Mode
- ✓ Anti Legionella Cycle
- ✓ Landlord Control Valve–Controlled Remotely

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Features & Benefits

- ✓ The latest stepper motor valve technology allows the system to react rapidly, thereby maintaining accurate control over DHW temperatures;
- ✓ Each HIU has two domestic hot water keep hot modes, **Economy or Comfort**
Comfort Mode – Primary circuit trickle flow can be set during commissioning to maintain heat within the unit.
When in Economy Mode it allows the unit to go cold following one hour of inactivity, preventing unnecessary use of metered energy;
- ✓ Compact design with no need for clearance either side for servicing. Allowance made for extra options, yet small enough to fit into a standard kitchen cupboard – 'Slim' dimension is only 240mm (W) x 420mm (H) x 90mm (D);
- ✓ Anti Legionella Sterilisation programme raises the DHW temperature periodically; preventing the development of Legionella bacteria;
- ✓ Instantaneous hot water up to 65kW (Standard Model) 80kW (PLUS Model – at 70kPa Primary Differential Pressure) Temperature adjustable from 45–60°C;
- ✓ Indirect central heating up to 20kW (@ 11° Delta T) Temperature adjustable from 50–80°C (To suit radiators or underfloor heating applications);
- ✓ Primary return temperature limitation, settable at commissioning requiring lower boiler kW output + smaller pipe sizes;
- ✓ Heat-up boost, enabling the HIU to get up to temperature with maximum power before ramping down to maintain a steady Output;
- ✓ Option for Inter-networking of all HIU units within a development to enable site wide adjustments to match loads to primary circuit heat availability;
- ✓ Unique energy meter, offering simultaneous metering of Heat, Power, MWS and CWS;



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Features & Benefits

- ✓ Option for browser based interface and online dashboard for remote commissioning, monitoring, control adjustments, performance visualisation, fault detection and diagnosis using pc, tablet or phone;
- ✓ Sensors for temperature, pressure and flow rate allow the system to monitor performance and detect fault conditions locally, or on the district heat network;
- ✓ Pre-install plumbing jig complete with isolation valves to allow pipework on site to be completed prior to HIU installation;
- ✓ Insulated removable EPP casing with less than 50 Watts standing heat loss; ensures the unit can be maintained at temperature with little impact of metered energy use;
- ✓ Casing and Heat Meter tamper-proof fixings;
- ✓ Option for Built-in security valve feature for remote control landlord valve isolation;
- ✓ Pump exercise function;
- ✓ Option for integral hammer arrestor;
- ✓ Option for integral DHWR pump;
- ✓ Site specific factory calibration of controls to predefined settings;
- ✓ Customised connections top/bottom (standard connections:
 - TOP – Primary flow & return and Mains Cold Water;
 - BOTTOM – Central heating flow & return and Domestic Hot Water);
- ✓ WRAS approved (components).



WRAS
APPROVED
PRODUCT