

# GE556-SM



Energy  
Management

## Modular HIU with monolithic units and adjustable connections with fork locking

Datasheet/Instructions

1078EN 04/2025

047U59238



SM556B30200  
STANDARD VERSION



SM556B30C00  
COMPACT VERSION

GE556-SM HIUs are modular heat interface units for metering of thermal energy consumptions in autonomous heating and hot domestic water production (HDW) systems with centralized heat production (e.g. teleheating).

The HIUs can be configured based on the various system requirements, with primary circuit connections from top or bottom and a variety of exchangers for hot domestic water production.

The versions available are:

- **standard:** for low or low/high-temperature heating systems;
- **compact:** for high-temperature heating systems.

## ➤ Main characteristics

- Hydraulic connections: telescopic system with G 3/4" F swiveling flat-seat nut
- Primary circuit inlet: choice of top or bottom inlet
- 16, 26 or 36-plate exchanger for hot domestic water production
- Priority valve for domestic water production
- Thermostatic control valve for domestic water production
- Compact differential pressure control valve (40÷70 kPa) preset at 50 kPa
- Water hammer arrestor for domestic water circuit
- Insulation with polypropylene foam shell
- Fit for installation of thermal energy meter and domestic cold and hot water meter by replacing the brass spacers

### Optional characteristics

- Thermostatic by-pass to maintain constant the temperature of the exchanger hot domestic water
- White-varnished metal cover for HIU

## ➤ Technical data

- Max. working temperature of primary and secondary circuit (heating and hot domestic water): 90 °C
- Max. working pressure of primary circuit: 10 bar
- Max. differential pressure of primary circuit: 2 bar
- Max. differential pressure setting allowed for the differential pressure control valve: 50 kPa
- Max. working pressure of hot domestic water circuit: 10 bar (min 2,5 bar)
- Temperature range of heating secondary circuit: 20÷70 °C (Set-point 45 °C)
- Temperature range of hot domestic water secondary circuit: 20÷70 °C (Set-point 50 °C with limitation at 50 °C)
- Temperature range of thermostatic by-pass: 20÷70 °C (with limitation at 50 °C)
- Nominal flow rate of primary circuit (hot domestic water production):
  - With 16-plate exchanger: 540 l/h @ 80 °C for 34 kW; 12 l/min @  $\Delta T$  40 °C (10-50 °C)
  - With 26-plate exchanger: 625 l/h @ 80 °C for 42 kW; 15 l/min @  $\Delta T$  40 °C (10-50 °C)
  - With 36-plate exchanger: 725 l/h @ 80 °C for 50 kW; 18 l/min @  $\Delta T$  40 °C (10-50 °C)
  - With 50-plate exchanger: 680 l/h @ 80 °C for 50 kW; 18 l/min @  $\Delta T$  40 °C (10-50 °C)
- Nominal flow rate of low-temperature heating circuit: 1500 l/h @  $\Delta T$  7 °C (45-38 °C) for 12,5 kW
- Nominal flow rate of low/high-temperature heating circuit:
  - Primary circuit: 710 l/h @ 81-59 °C for 18 kW
  - Low-temperature secondary circuit: 1500 l/h @  $\Delta T$  7 °C (45-38 °C) for 12,2 kW
  - High-temperature secondary circuit: 480 l/h @  $\Delta T$  10 °C (80-70 °C) for 5,5 kW
- Nominal flow rate of high-temperature heating circuit: 565 l/h @  $\Delta T$  15 °C (80-65 °C) for 10 kW

**⚠ WARNING.** The HIU is fit for installation in indoor spaces and boiler rooms, and use with non-aggressive fluids (water, glycol-based water complying with VDI 2035/ÖNORM 5195).

## ➤ Versions and product codes

### Primary connections from top

PRODUCT CODE	MAIN COMPONENTS										
	PRIMARY CONNECTIONS FROM TOP	PRIMARY CONNECTIONS FROM BOTTOM	16-PLATE EXCHANGER (34 KW)	26-PLATE EXCHANGER (42 KW)	36-PLATE EXCHANGER (50 KW)	50-PLATE EXCHANGER (50 KW)	LOW-TEMPERATURE HEATING (STANDARD VERSION)	LOW/HIGH-TEMPERATURE HEATING (STANDARD VERSION)	HIGH-TEMPERATURE HEATING (COMPACT VERSION)	WITHOUT THERMO-STATIC BY-PASS *	WITH THERMO-STATIC BY-PASS
SM556A10100	✓		✓				✓			✓	
SM556A101B0	✓		✓				✓				✓
SM556A10200	✓		✓					✓		✓	
SM556A102B0	✓		✓					✓			✓
SM556A10C00	✓		✓						✓	✓	
SM556A10CB0	✓		✓						✓		✓
SM556A20100	✓			✓			✓			✓	
SM556A201B0	✓			✓			✓				✓
SM556A20200	✓			✓				✓		✓	
SM556A202B0	✓			✓				✓			✓
SM556A20C00	✓			✓					✓	✓	
SM556A20CB0	✓			✓					✓		✓
SM556A30100	✓				✓		✓			✓	
SM556A301B0	✓				✓		✓				✓
SM556A30200	✓				✓			✓		✓	
SM556A302B0	✓				✓			✓			✓
SM556A30C00	✓				✓				✓	✓	
SM556A30CB0	✓				✓				✓		✓
SM556A50100	✓					✓	✓			✓	
SM556A501B0	✓					✓	✓				✓
SM556A50200	✓					✓		✓		✓	
SM556A502B0	✓					✓		✓			✓
SM556A50C00	✓					✓			✓	✓	
SM556A50CB0	✓					✓			✓		✓

\* The thermostatic by-pass is sold separately and can be purchased at a later time with product code GE550Y040 (see completion codes table)

## Primary connections from bottom

PRODUCT CODE	MAIN COMPONENTS										
	PRIMARY CONNECTIONS FROM TOP	PRIMARY CONNECTIONS FROM BOTTOM	16-PLATE EXCHANGER (34 KW)	26-PLATE EXCHANGER (42 KW)	36-PLATE EXCHANGER (50 KW)	50-PLATE EXCHANGER (50 KW)	LOW-TEMPERATURE HEATING (STANDARD VERSION)	LOW/HIGH-TEMPERATURE HEATING (STANDARD VERSION)	HIGH-TEMPERATURE HEATING (COMPACT VERSION)	WITHOUT THERMO-STATIC BY-PASS *	WITH THERMO-STATIC BY-PASS
SM556B10100		✓	✓				✓			✓	
SM556B101B0		✓	✓				✓				✓
SM556B10200		✓	✓					✓		✓	
SM556B102B0		✓	✓					✓			✓
SM556B10C00		✓	✓						✓	✓	
SM556B10CB0		✓	✓						✓		✓
SM556B20100		✓		✓			✓			✓	
SM556B201B0		✓		✓			✓				✓
SM556B20200		✓		✓				✓		✓	
SM556B202B0		✓		✓				✓			✓
SM556B20C00		✓		✓					✓	✓	
SM556B20CB0		✓		✓					✓		✓
SM556B30100		✓			✓		✓			✓	
SM556B301B0		✓			✓		✓				✓
SM556B30200		✓			✓			✓		✓	
SM556B302B0		✓			✓			✓			✓
SM556B30C00		✓			✓				✓	✓	
SM556B30CB0		✓			✓				✓		✓
SM556B50100		✓				✓	✓			✓	
SM556B501B0		✓				✓	✓				✓
SM556B50200		✓				✓		✓		✓	
SM556B502B0		✓				✓		✓			✓
SM556B50C00		✓				✓			✓	✓	
SM556B50CB0		✓				✓			✓		✓

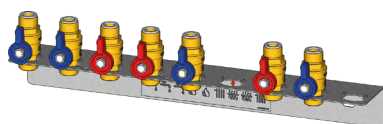
\* The thermostatic by-pass is sold separately and can be purchased at a later time with product code GE550Y040 (see completion codes table)



## Completion codes

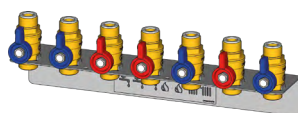
### GE551Y099

Template with 7 shut-off valves,  
for standard low-temperature HIU



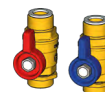
### GE551Y097

Template with 7 shut-off valves,  
for compact high-temperature HIU



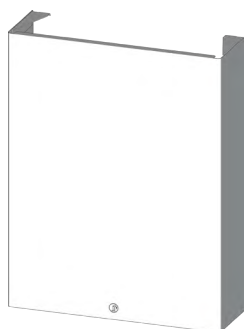
### GE500Y261

Pair of additional valves for supply and return  
of high-temperature heating circuits,  
for HIU with low/high-temperature heating



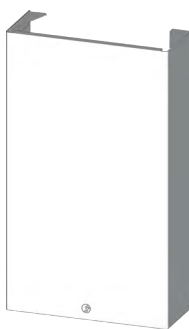
### GE551Y185

Metal cover  
for standard HIU



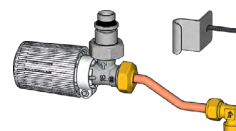
### GE551Y194

Metal cover  
for compact HIU



### GE550Y040

Thermostatic by-pass kit  
for standard and compact HIU



### R473/R473M

Thermo-electric actuator Normally Closed,  
for control of valves installed on HIUs

R473X221, R473MX221: 230 V  
R473X222, R473MX222: 24 V



### GE552, GE552-W

Thermal energy meter

GE552Y159: 3/4", volumetric, 1,5 m³/h, M-Bus  
GE552W159: 3/4", volumetric, 1,5 m³/h, Wireless M-Bus  
GE552Y122: 3/4", ultrasonic, 1,5 m³/h, M-Bus



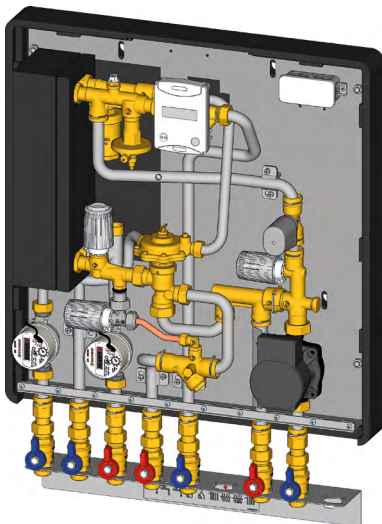
### GE552-2

Domestic water meter

GE552Y190: 3/4", cold domestic water  
GE552Y191: 3/4", hot domestic water



## Examples of possible layouts



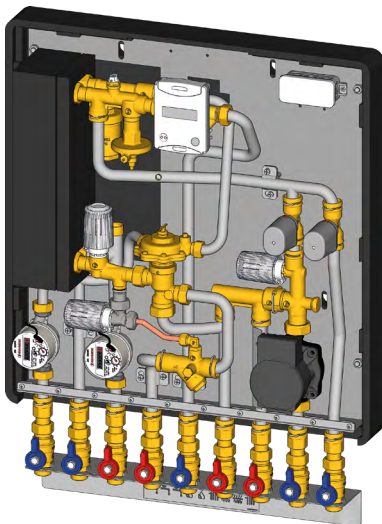
### SM556B301Bo (standard version)

The HIU shown includes the following components:

- primary connections from bottom
- 36-plate exchanger with 20-mm insulation
- hot domestic water production with thermostatic control
- low-temperature heating with 2-way zone valve, thermostatic head and electronic pump
- thermostatic by-pass kit
- complete insulation for HIU

#### Completion codes

- GE551Y099 template with 7 shut-off valves
- R473M thermo-electric actuator for control of 2-way zone valve installed on low-temperature heating circuit
- GE552 thermal energy meter
- GE552 domestic hot and cold water meters



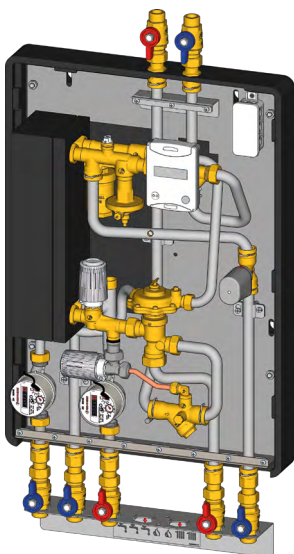
### SM556B302Bo (standard version)

The HIU shown includes the following components:

- primary connections from bottom
- 36-plate exchanger with 20-mm insulation
- hot domestic water production with thermostatic control
- high-temperature heating with 2-way zone valve with presetting
- low-temperature heating with 2-way zone valve, thermostatic head and electronic pump
- thermostatic by-pass kit
- complete insulation for HIU

#### Completion codes

- GE551Y099 template with 7 shut-off valves
- additional pair of GE500Y261 valves installed on template, for high-temperature heating supply and return
- R473M thermo-electric actuators for control of 2-way valve installed on low- and high-temperature heating circuits
- GE552 thermal energy meter
- GE552 domestic hot and cold water meters



### SM556A30CB0 (compact version)

The HIU shown includes the following components:

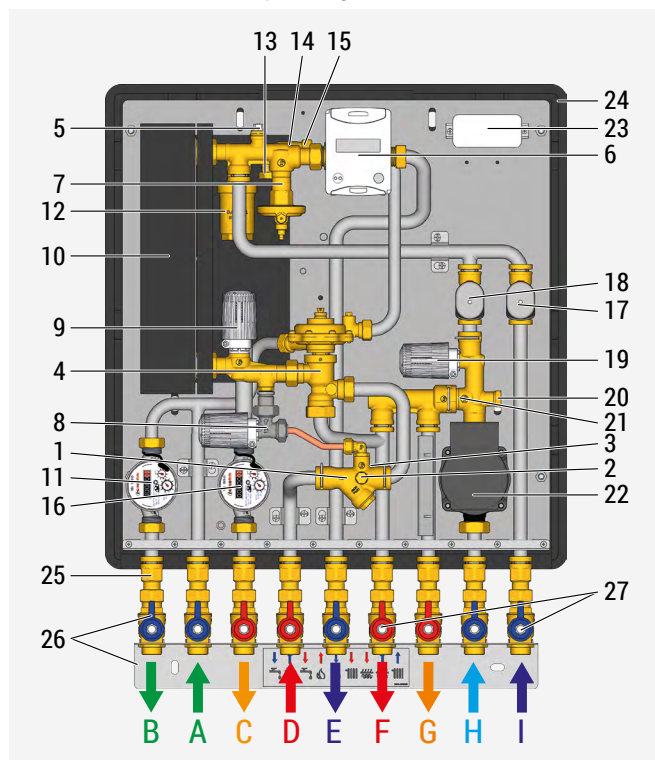
- primary connections from top
- 36-plate exchanger with 20-mm insulation
- hot domestic water production with thermostatic control
- high-temperature heating with 2-way zone valve with presetting
- thermostatic by-pass kit
- complete insulation for HIU

#### Completion codes

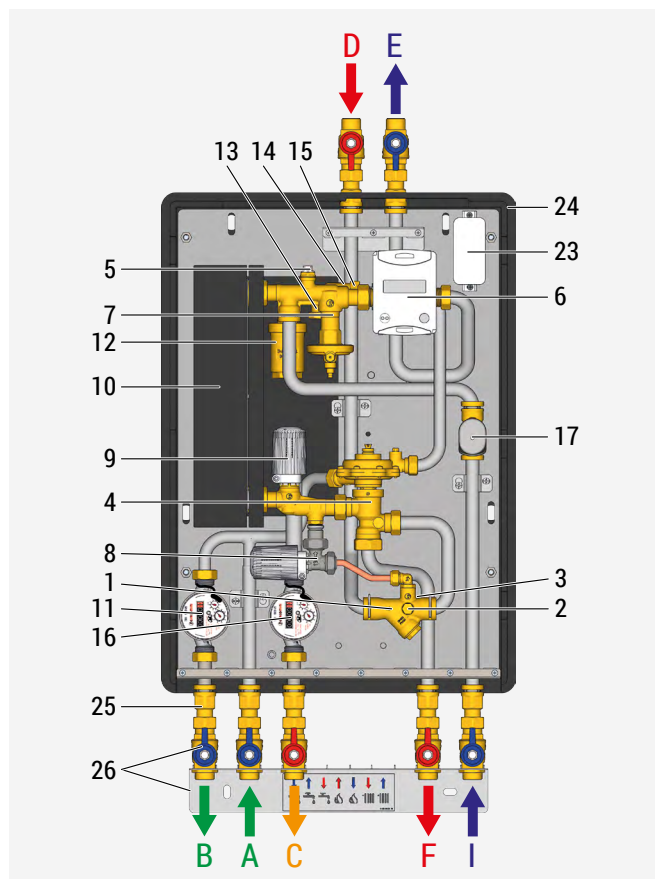
- GE551Y097 template with 7 shut-off valves
- R473M thermo-electric actuator for control of 2-way zone valve installed on high-temperature heating circuit
- GE552 thermal energy meter
- GE552 domestic hot and cold water meters

## Components

### Standard version with primary connections from bottom



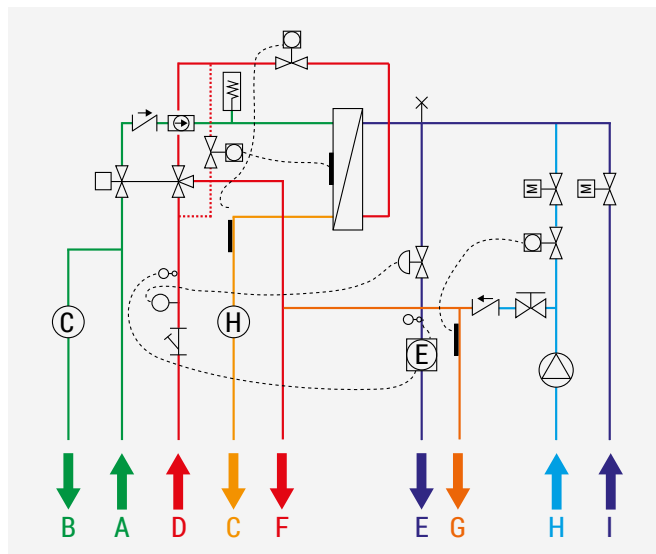
### Compact version with primary connections from top



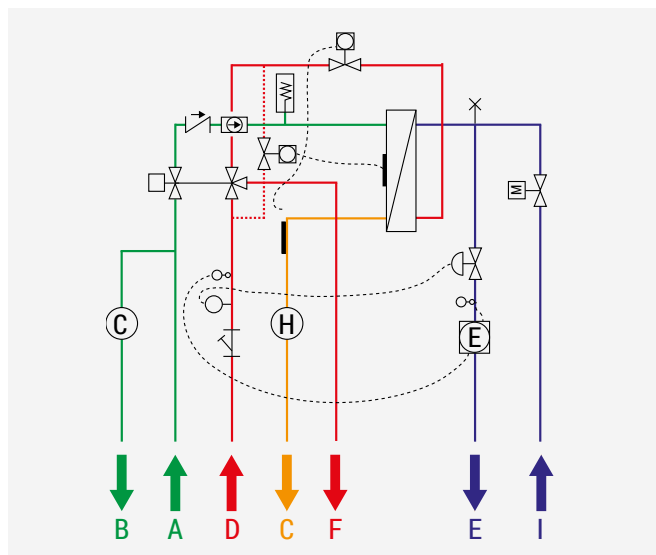
PRIMARY CIRCUIT	1	Filter
	2	Housing for supply temperature probe of thermal energy meter
	3	Housing for differential pressure control valve (on back of filter)
	4	Mechanical priority valve
	5	Manual air vent valve
	6	Removable brass spacer for installation of thermal energy meter (OPTIONAL)
	7	Compact differential pressure control valve (40÷70 kPa) preset at 50 kPa
PRIMARY AND DOMESTIC WATER SECONDARY CIRCUIT	8	Thermostatic by-pass kit (OPTIONAL)
	9	Thermostatic head for temperature control of domestic water circuit
	10	Heat exchanger
	11	Removable brass spacer for installation of cold domestic water meter (OPTIONAL)
	12	Water hammer arrestor
	13	G 3/4" M connection for installation of hot domestic water recirculation kit (NOT INCLUDED WITH THE HIU)
	14	Flow rate controller
HIGH-TEMP. HEATING SECONDARY CIRCUIT	15	Check valve
	16	Removable brass spacer for installation of hot domestic water meter (OPTIONAL)
LOW-TEMP. HEATING SECONDARY CIRCUIT	17	2-way zone valve with flow rate presetting controllable through R473/R473M N.C. thermo-electric actuator (OPTIONAL)
	18	2-way zone valve controllable through R473/R473M N.C. thermo-electric actuator (OPTIONAL)
	19	Thermostatic head for control of heating temperature
	20	Regulation lockshield
	21	Check valve
	22	Pump
OTHER COMPONENTS	23	Cabinet with electric connection terminals
	24	Back and front insulation for HIU
	25	Adjustable tail piece with G 3/4" F swiveling flat-seat nut
	26	Metal template with 7 shut-off valves for HIU installation
	27	Pair of additional valves for supply and return circuits of high-temperature heating (OPTIONAL)
HYDRAULIC CONNECTIONS	A	Cold domestic water inlet
	B	Cold domestic water outlet
	C	Hot domestic water outlet
	D	Primary inlet
	E	Primary outlet
	F	High-temperature heating supply
	G	Low-temperature heating supply
	H	Low-temperature heating return
	I	High-temperature heating return

## Operation

### Standard version

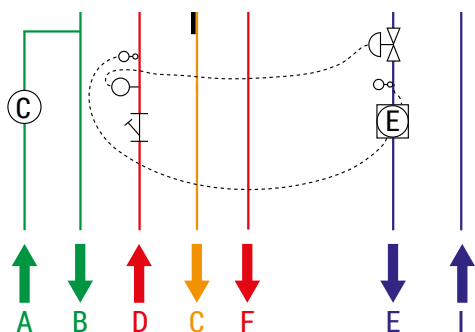


### Compact version



**⚠ WARNING.** An expansion vessel sized according to the recirculation system volume must be provided when installing a hot domestic water recirculation circuit. Also invert the domestic water inlet and outlet flows.

**🔧 NOTE.** In case a hot domestic water meter is not provided (but instead only a cold domestic water is included), reverse the domestic water inlet and outlet flows to properly measure the total flow rate of the water consumed.



	Filter
	Housing for thermal energy meter probes
	Housing for differential pressure control valve
	Mechanical priority valve
	Manual air vent valve
	Brass spacer for thermal energy meter
	Compact differential pressure control valve (40÷70 kPa) preset at 50 kPa
	Thermostatic head with temperature probe
	Heat exchanger
	Spacer for cold domestic water meter
	Water hammer arrestor
	Flow rate controller
	Check valve
	Spacer for hot domestic water meter
	Motorized 2-way zone valve with N.C. ON/OFF thermo-electric actuator
	Regulation lockshield (preset fully open)
	Pump
<b>A</b>	Cold domestic water inlet
<b>B</b>	Cold domestic water outlet
<b>C</b>	Hot domestic water outlet
<b>D</b>	Primary inlet
<b>E</b>	Primary outlet
<b>F</b>	High-temperature heating supply
<b>G</b>	Low-temperature heating supply
<b>H</b>	Low-temperature heating return
<b>I</b>	High-temperature heating return

**PRIMARY CIRCUIT: inlet: (D) and outlet (E).**

The primary circuit includes two zones: one for heating control and the other for hot domestic water production.

The primary circuit consists of a filter, a housing to install the probe of the differential pressure control valve, a mechanical priority valve, a manual air vent valve, a brass spacer and a differential pressure control valve.

The brass spacer (Components - Ref. 6) can be replaced with a thermal energy meter by installing its temperature probe in the corresponding housing (Components - Ref. 2).

The water from the boiler room enters the HIU and is generally channeled towards the heating secondary circuit.

When there is a demand for hot domestic water, the priority valve diverts the primary fluid towards the heat exchanger; a thermostatic head controls and sets the required flow rate (Components - Ref. 9).

**HDW: cold water inlet (A), cold water outlet (B), hot water outlet (C).**

The domestic water circuit includes a mechanical priority valve, a check valve, a flow rate controller, a water hammer arrestor, a heat exchanger and two brass spacers.

The two brass spacers (Components - Ref. 11 and 16) can be replaced with a domestic cold or hot water meter.

A thermostatic head (Components - Ref. 9) controls and sets the hot domestic water temperature.

**LOW-TEMPERATURE HEATING: (standard version): supply (G) and return (H).**

The low-temperature circuit includes a pump, a thermostatic head that controls the supply temperature, a check valve and a regulation lockshield.

After flowing through the mechanical priority valve (Components - Ref. 4), the primary circuit hot water is dripped in the low-temperature secondary unit.

The 2-way zone valve (Components - Ref. 18), controlled by the thermo-electric actuator, prevents the high-temperature primary flow from entering the low-temperature circuit section when the pump is OFF.

**LOW + HIGH TEMPERATURE SIMULTANEOUS HEATING (standard version)**

The standard HIU can control the two low and high-temperature circuits at the same time.

A check valve (Components - Ref. 21) separates the two heating fluids.

**HIGH-TEMPERATURE HEATING: (standard version): supply (F) and return (I).**

The high-temperature heating circuit consists of a 2-way zone valve with presetting (Components - Ref. 17) and possible installation of an R473/R473M thermo-electric actuator normally closed.

After flowing through the mechanical priority valve (Components - Ref. 4), the primary circuit hot water is channeled directly into the high-temperature heating system.

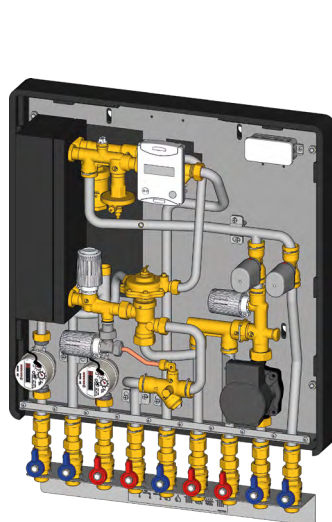


## MAIN COMPONENTS AND OPERATIONAL DATA

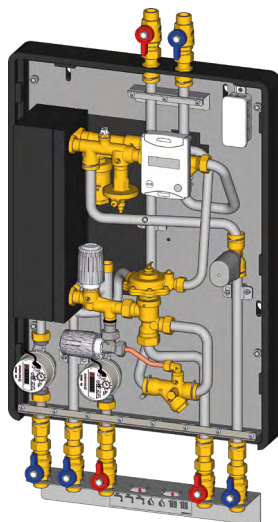
**⚠ WARNING.** Hydraulic characteristics determined with valves fully open and no regulation.

**⚠ WARNING.** The differential pressure control valve features a factory setting of 50 kPa (Components - Ref.7): max value admitted. For proper operation of the HIU, the differential pressure control valve cannot be set on values higher than 50 kPa.

### ➤ Primary circuit connections



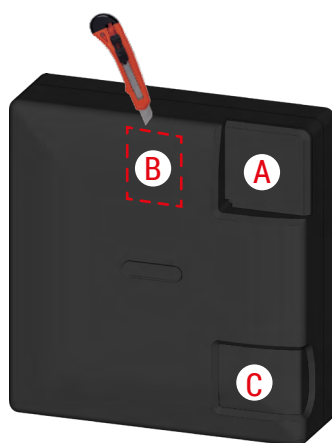
Primary connections from bottom



Primary connections from top

- Perforated metal frame
- Complete insulation
- Mechanical priority valve
- Brass spacers for energy and water meters
- Stainless steel pipes
- Inspectionable filter
- Manual air vent valve
- Water hammer arrestor

### ➤ Insulation

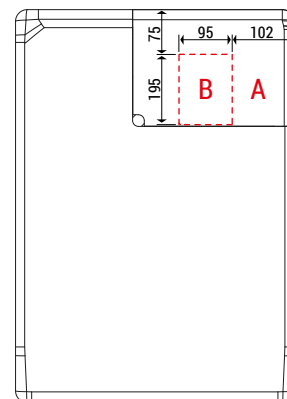
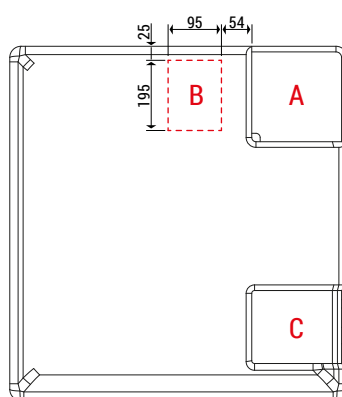


Insulation  
for standard HIU  
Dimensions: 601x631x189 mm



Insulation  
for compact HIU  
Dimensions: 673x477x189 mm

Polypropylene foam insulation (EPP 40 g/l) including factory-fitted back shell and removable clip-on front shell. The door (A) allows to separate the thermal energy meter display to fix it to the wall. Cut out the door (B) to install the thermal energy meter with non-splitable display. The door (C) gives access to the pump.



A Removable front door for installation of energy meter with splittable display

B Cut-out profile for installation of energy meter with non-splitable display

C Removable front door for low-temperature circuit pump

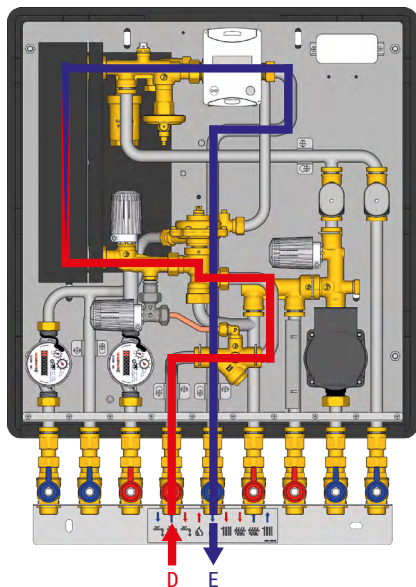
## ➤ Heat exchanger

### HDW production primary circuit with 16-plate exchanger



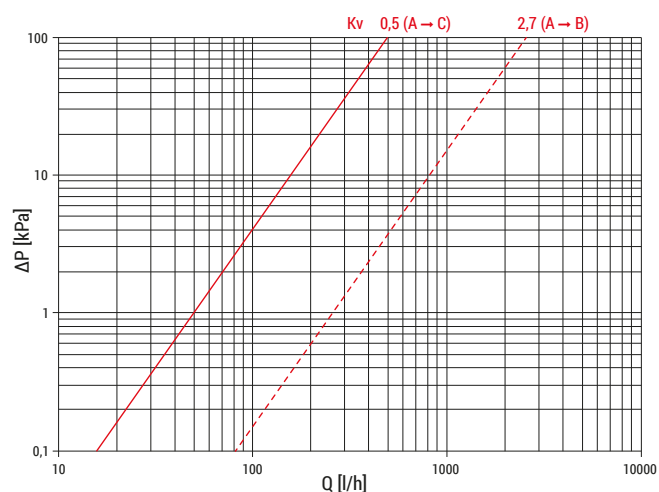
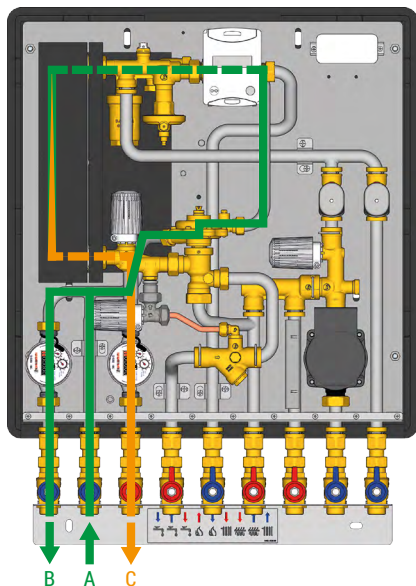
- Nominal flow rate of primary circuit (hot domestic water production):  
520 l/h @ 80 °C for 34 kW;  
12 l/min @  $\Delta T$  40 °C (10-50 °C)
- Kv: 1,1

⚠ Max hot domestic water flow rate limited by a 12 l/min control device.



HOT DOMESTIC WATER ( $\Delta T$ 10-50 °C)			PRIMARY CIRCUIT WORKING CONDITIONS		
FLOW RATE [l/min]	FLOW RATE [l/h]	POWER [kW]	INLET T [°C]	FLOW RATE [l/h]	OUTLET T [°C]
8	480	22	60	600	28
			65	560	28
			70	500	27
			75	430	26
			80	380	24
10	600	28	65	620	26
			70	550	26
			75	500	26
			80	450	26
12	720	34	70	650	25
			75	575	24
			80	520	24

### HDW production secondary circuit with 16-plate exchanger

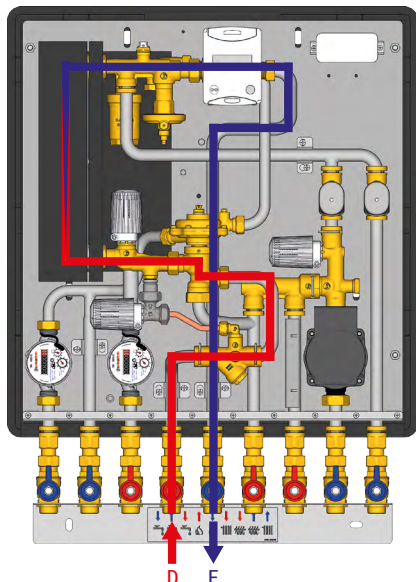


## HDW production primary circuit with 26-plate exchanger



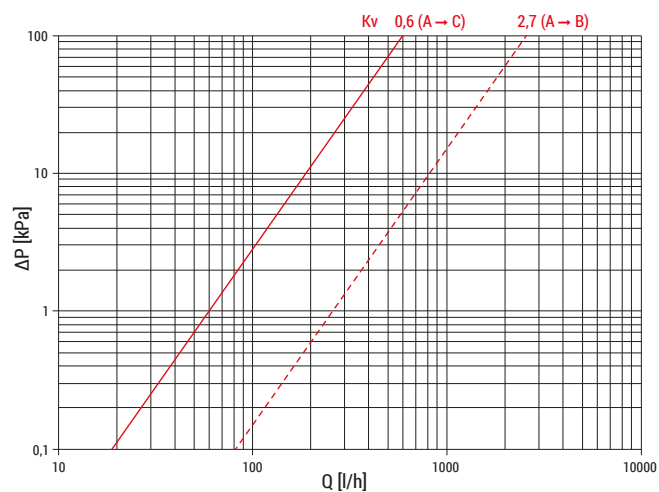
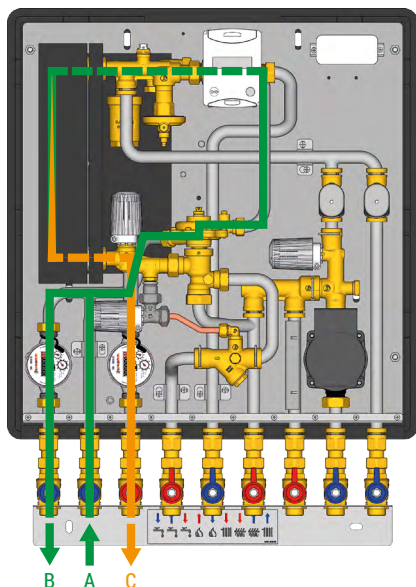
- Nominal flow rate of primary circuit (hot domestic water production):  
625 l/h @ 80 °C for 42 kW;  
15 l/min @  $\Delta T$  40 °C (10-50 °C)
- Kv: 1,2

▲ Max hot domestic water flow rate limited by a 15 l/min control device.



HOT DOMESTIC WATER ( $\Delta T$ 10-50 °C)			PRIMARY CIRCUIT WORKING CONDITIONS		
FLOW RATE [l/min]	FLOW RATE [l/h]	POWER [kW]	INLET T [°C]	FLOW RATE [l/h]	OUTLET T [°C]
10	600	28	60	730	26
			65	630	25
			70	560	23
			75	505	23
			80	450	21
12	720	34	65	700	23
			70	630	23
			75	560	22
			80	530	21
15	900	42	70	790	21
			75	690	21
			80	625	22

## HDW production secondary circuit with 26-plate exchanger



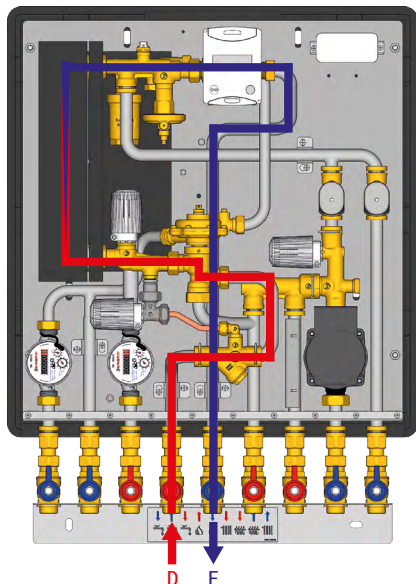


## HDW production primary circuit with 36-plate exchanger



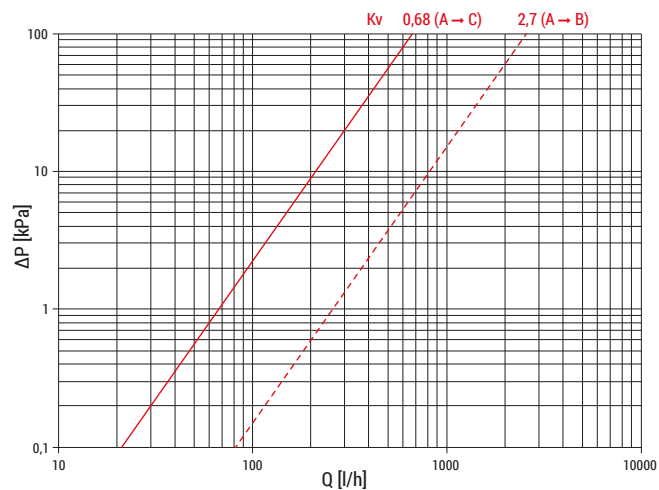
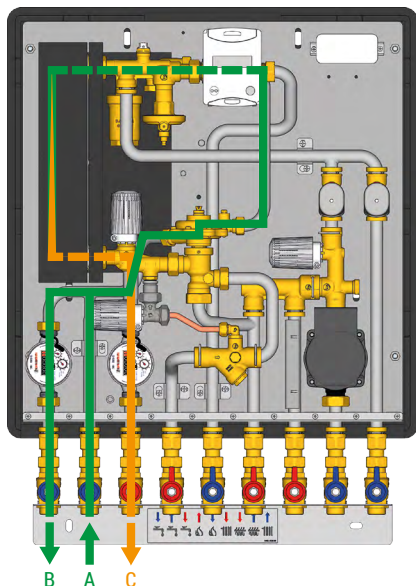
- Nominal flow rate of primary circuit (hot domestic water production):  
725 l/h @ 80 °C for 50 kW;  
18 l/min @  $\Delta T$  40 °C (10-50 °C)
- Kv: 1,45

▲ Max hot domestic water flow rate limited by a 18 l/min control device.



HOT DOMESTIC WATER ( $\Delta T$ 10-50 °C)			PRIMARY CIRCUIT WORKING CONDITIONS		
FLOW RATE [l/min]	FLOW RATE [l/h]	POWER [kW]	INLET T [°C]	FLOW RATE [l/h]	OUTLET T [°C]
12	720	34	60	780	22
			65	685	22
			70	600	21
			75	580	21
			80	520	21
14	840	39	65	770	21
			70	690	21
			75	630	20
			80	590	19
16	960	45	70	780	20
			75	690	19
			80	650	19
			70	900	22
18	1080	50	75	790	20
			80	725	19

## HDW production secondary circuit with 36-plate exchanger

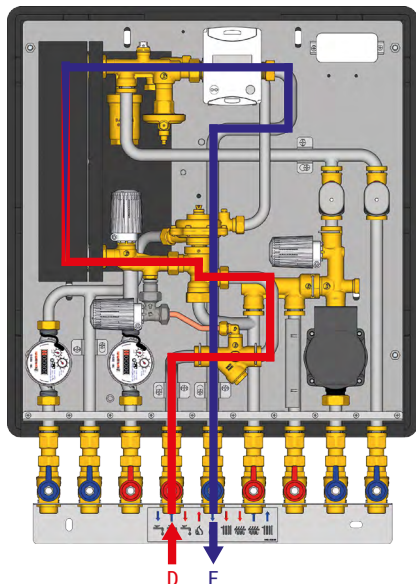


## HDW production primary circuit with 50-plate exchanger



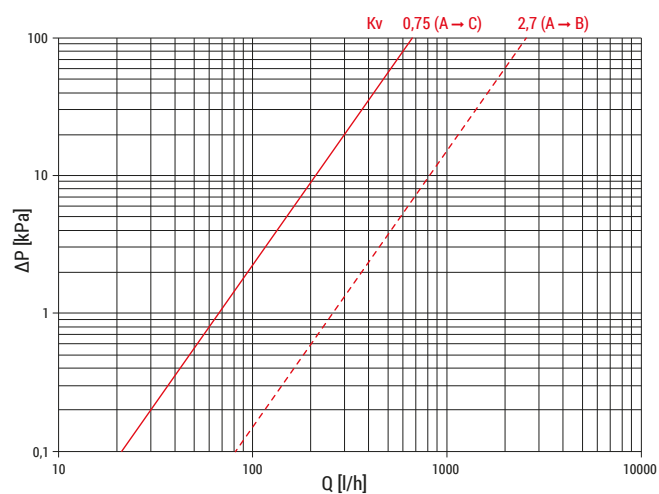
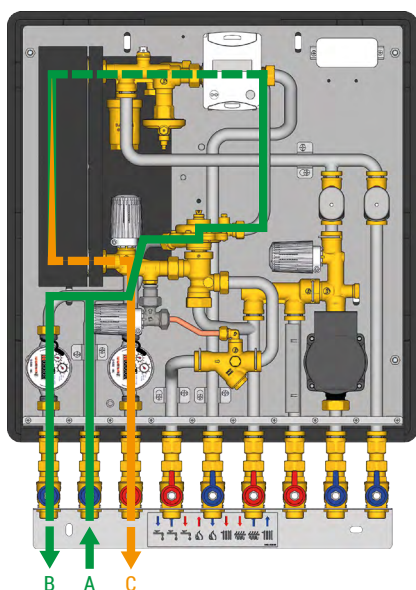
- Nominal flow rate of primary circuit (hot domestic water production):  
680 l/h @ 80 °C for 50 kW;  
18 l/min @  $\Delta T$  40 °C (10-50 °C)
- Kv: 1,55

▲ Max hot domestic water flow rate limited by a 18 l/min control device.



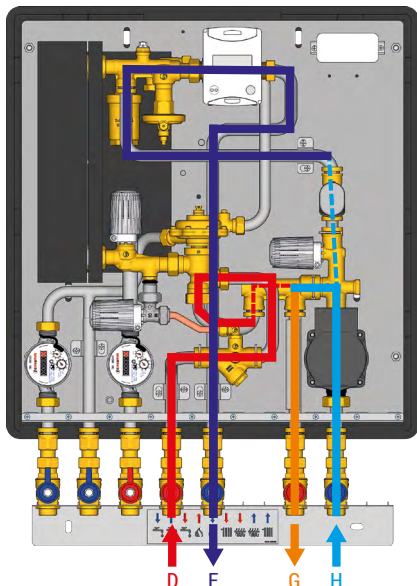
HOT DOMESTIC WATER ( $\Delta T$ 10-50 °C)			PRIMARY CIRCUIT WORKING CONDITIONS		
FLOW RATE [l/min]	FLOW RATE [l/h]	POWER [kW]	INLET T [°C]	FLOW RATE [l/h]	OUTLET T [°C]
12	720	34	55	790	17
			60	690	17
			65	610	17
			70	550	16
			75	520	16
			80	480	16
14	840	39	60	795	15
			65	700	14
			70	630	14
			75	580	14
			80	530	13
16	960	45	65	800	16
			70	720	16
			75	650	15
			80	600	15
18	1080	50	70	820	17
			75	740	16
			80	680	15

## HDW production secondary circuit with 50-plate exchanger

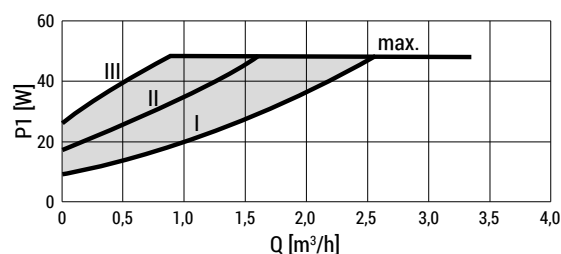
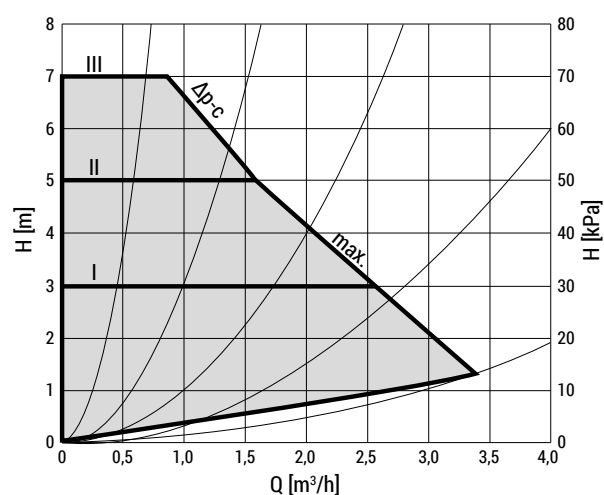
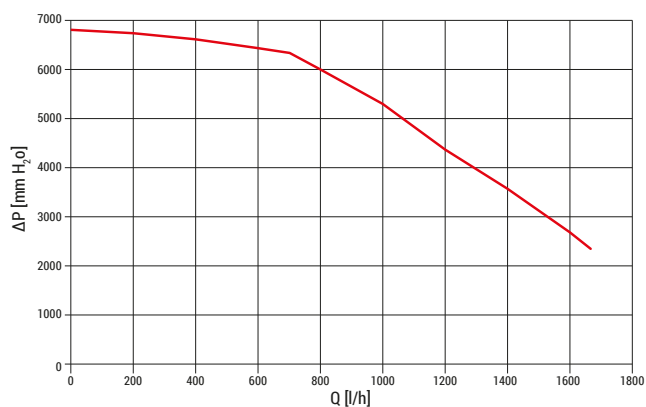



## ➤ Low-temperature heating (standard version)

- 2-way zone valve controlled by a thermo-electric actuator
- Thermostatic head for temperature control of low-temperature heating
- Wilo Para 15-130/7 electronic pump
- Nominal flow rate of LT heating circuit:  
1500 l/h @  $\Delta T$  7 °C (45-38 °C) for 12,5 kW



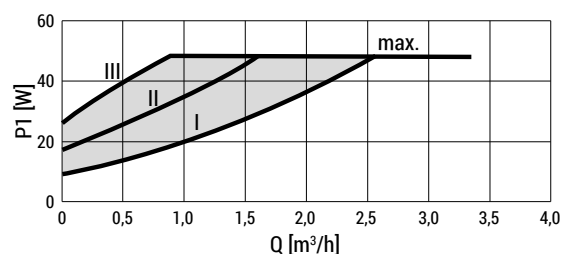
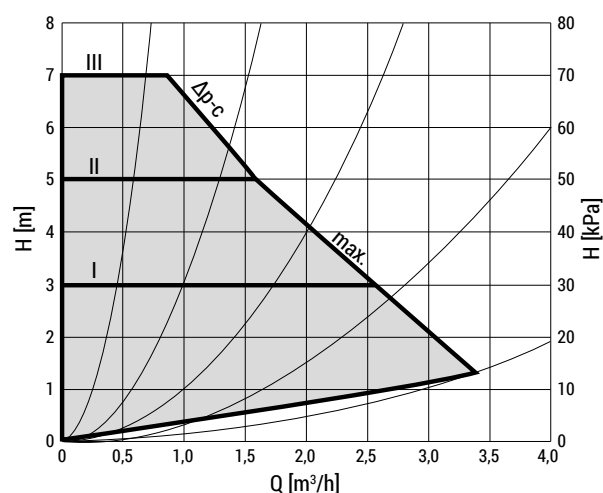
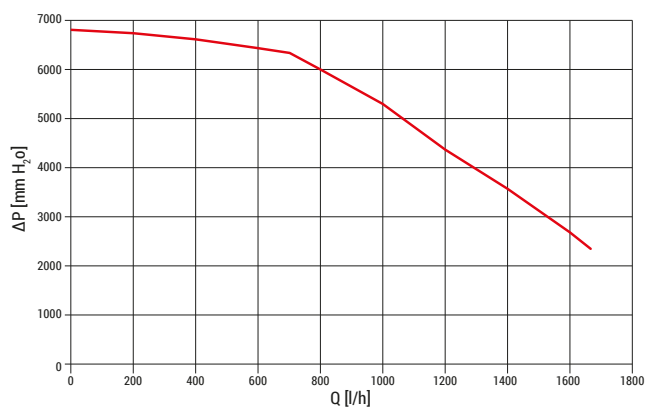
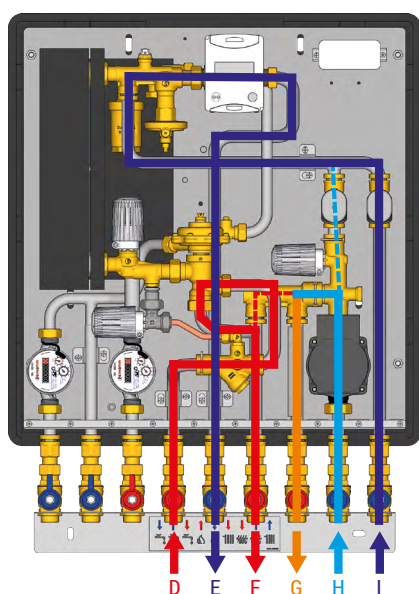
LOW-TEMPERATURE HEATING ( $\Delta T$ 45-38 °C)			PRIMARY CIRCUIT WORKING CONDITIONS		
PUMP SPEED	FLOW RATE [l/h]	POWER [kW]	INLET T [°C]	FLOW RATE [l/h]	OUTLET T [°C]
Max	1500	12,5	80	265	37
			75	304	37
			70	347	38
			65	411	38
			60	490	37



NOTE. Pump with automatic operation at constant pressure . Lockshield in fully-open position.

## ➤ Low/high-temperature heating (standard version)

- 2-way zone valve with presetting on high-temperature heating circuit controlled by thermo-electric actuator
- 2-way zone valve on low-temperature heating circuit controlled by thermo-electric actuator
- Thermostatic head for temperature control of low-temperature heating
- Wilo Para 15-130/7 electronic pump
- Nominal flow rate of LT-HT heating circuit:
  - Primary circuit: 710 l/h @ 81-59 °C for 18 kW
  - LT secondary circuit: 1500 l/h @  $\Delta T$  7 °C (45-38 °C) for 12,2 kW
  - HT secondary circuit: 480 l/h @  $\Delta T$  10 °C (80-70 °C) for 5,5 kW

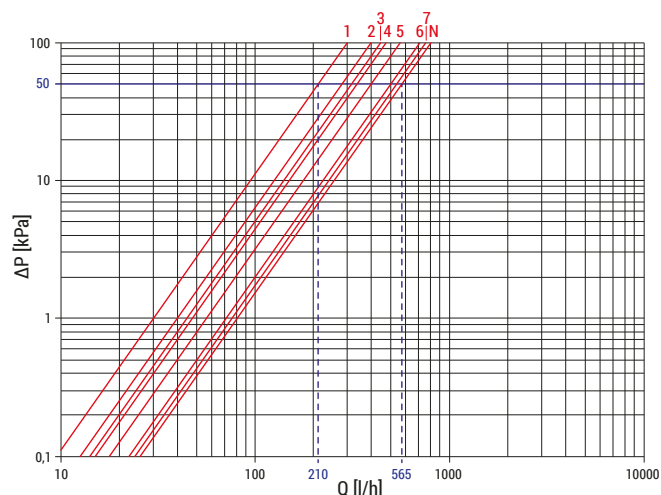
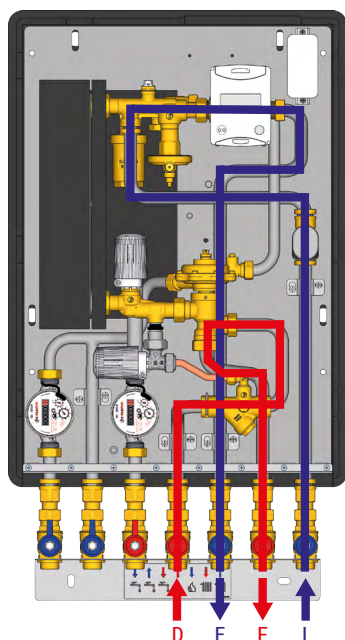


NOTE. Automatic pump with constant pressure Lockshield in fully-open position.

PRIMARY CIRCUIT WORKING CONDITIONS (ΔT 81-59 °C)				HIGH-TEMPERATURE HEATING (HT) (ΔT 80-70 °C)				LOW-TEMPERATURE HEATING (LT) (ΔT 45-38 °C)				LT + HT
INLET T [°C]	OUTLET T [°C]	FLOW RATE [l/h]	POWER [kW]	INLET T [°C]	OUTLET T [°C]	FLOW RATE [l/h]	POWER [kW]	INLET T [°C]	OUTLET T [°C]	FLOW RATE [l/h]	POWER [kW]	POWER [kW]
81	59	710	18	80	70	480	5,6	45	38	1500	12,2	17,8

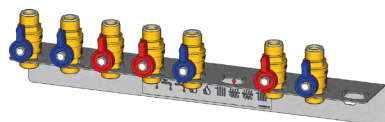
## ➤ High-temperature heating (compact version)

- 2-way zone valve with presetting on high-temperature heating circuit controlled by thermo-electric actuator
- Nominal flow rate of HT heating circuit: 565 l/h @  $\Delta T$  15 °C (80-65 °C) for 10 kW

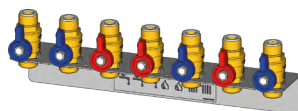


PRESETTING VALVE POSITION	1	2	3	4	5	6	7	N (Fully Open)
Kv (R402PTG 3/4")	0,3	0,4	0,43	0,47	0,55	0,7	0,75	0,8

## ➤ GE551Y099, GE551Y097 template and GE500Y261 pair of additional valves



**GE551Y099**  
Template with 7 shut-off valves,  
for standard low-temperature HIU



**GE551Y097**  
Template with 7 shut-off valves,  
for compact high-temperature HIU

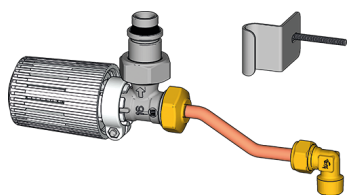


**GE500Y261**  
Pair of additional valves for supply and return circuits  
of high-temperature heating,  
for standard HIU with low/high-temperature heating

**NOTE.** See 1083ML and 1084ML datasheets to fit the HIU on the templates on site.



## ➤ GE550Y040 thermostatic by-pass kit



The thermostatic by-pass kit maintains the exchanger temperature for the production of hot domestic water.

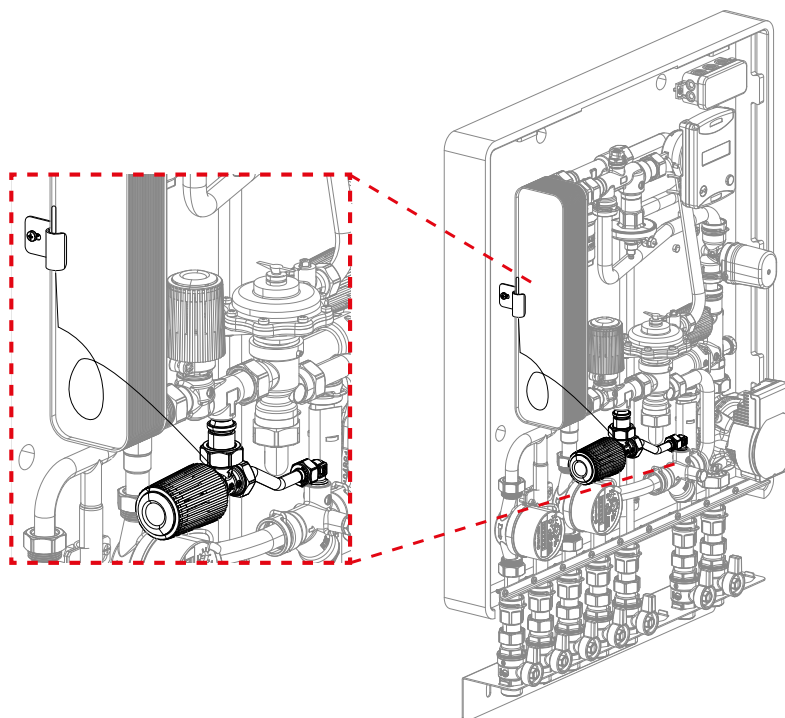
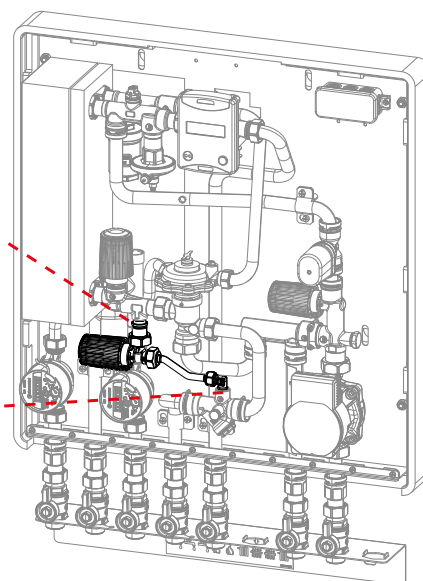
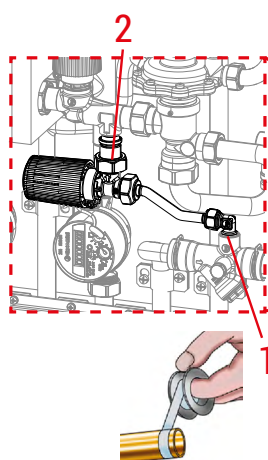
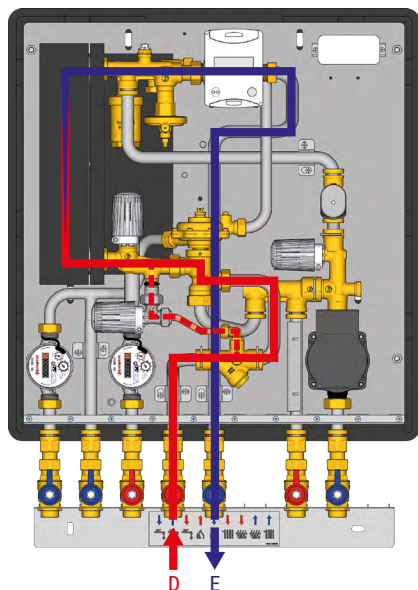
The kit can be ordered preassembled on the HIU (see product codes table) or installed at a later moment as a completion code (GE550Y040).

Fit the kit on the HIU, screwing the components on the HIU fittings (Ref. 1 and 2) to ensure the hydraulic seal.

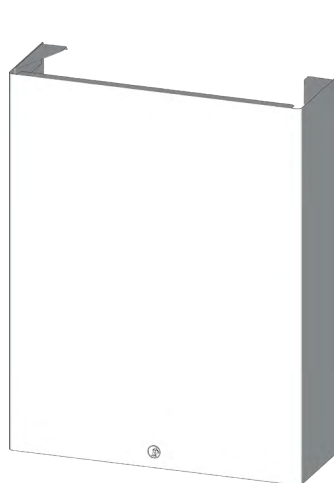
Also screw on the metal bracket to insert the thermostatic head temperature probe as shown below.

Temperature range of thermostatic by-pass: 20÷70 °C (with limitation at 50 °C)

**NOTE.** When using hot domestic water for extended periods of time, set the thermostatic head on the minimum temperature to prevent energy waste.



## ➤ GE551Y185, GE551Y194 metal cover



**GE551Y185**  
Metal cover  
for standard HIU  
Dimensions: 779x609x201 mm



**GE551Y194**  
Metal cover  
for compact HIU  
Dimensions: 831x485x201 mm

The GE551Y185/GE551Y194 cover kit can be installed on GE556-SM HIUs.

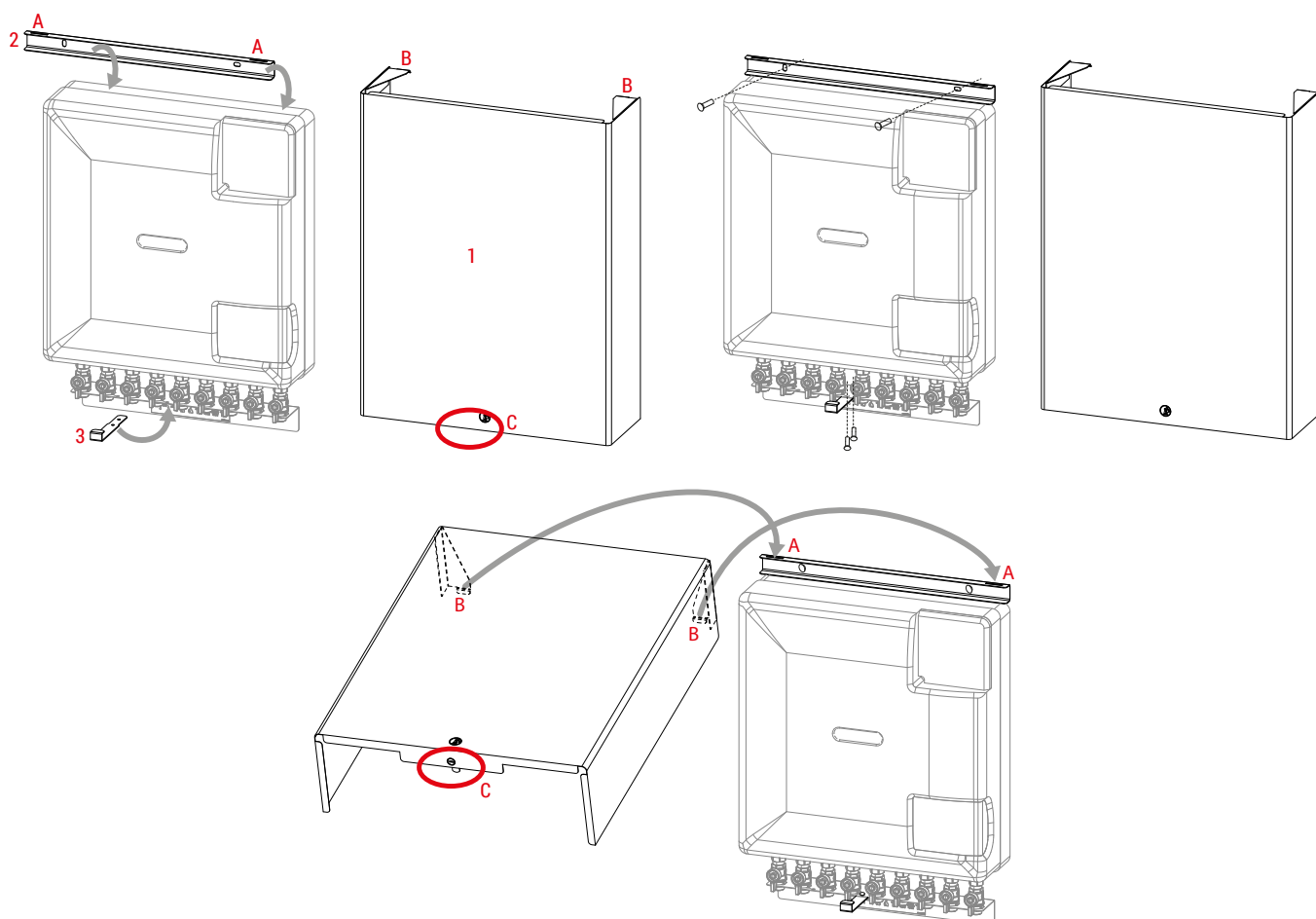
The kit includes a RAL 9010 white varnished metal cover (Ref. 1), an upper bracket to snap on the cover (Ref. 2) and a lower bracket to lock the HIU (Ref. 3).

Follow the steps below to install the cover kit:

- 1)** fix the upper bracket to the wall (Ref. 2) placing it against the insulation and making sure the holes (Ref. A) are facing up. Use screw anchors fit for the type of wall and weight of the equipment.
- 2)** fix the lower bracket (Ref. 3) on the template using the self-locking screws included and making sure the fold is facing up.
- 3)** snap the metal cover (Ref. 1) on the upper bracket (Ref. 2), inserting the special metal flaps (Ref. B) in the upper bracket holes (ref. A).

The HIU is now ready to be closed using the special lock on the lower section of the metal cover (Ref. C).

To access the HIU for inspection and/or maintenance, remove the metal cover completely, tilting it slightly and sliding it off the upper bracket.



## ➤ Installation

**⚠ IMPORTANT WARNING.** Vibrations during transport may loosen the connections. Check all flat-housing connections before start up and tighten if necessary.

**⚠ WARNING.** Risk of burns and electric shocks.

Installation must be carried out by qualified operators authorized by the building manager.

Refer to specific standards for use (installation, fixing, etc...), operation, recalibration and replacement of meters.

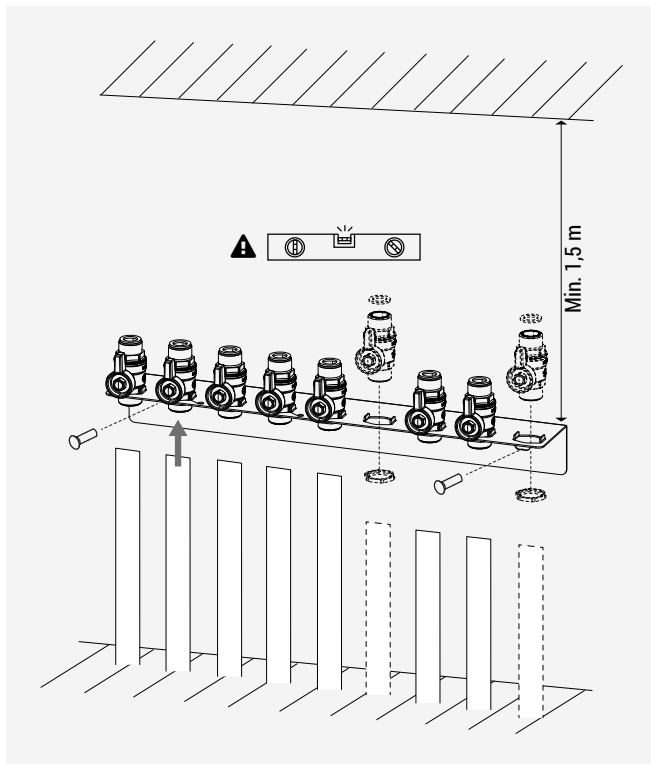
Also refer to the assembly instructions provided with each meter.

**⚠ WARNING.** Before flushing the pipes, remove the plastic protective plugs on each nut.

**⚠ WARNING.** Flush all pipes before installing the HIU on the template.

**⚠ WARNING.** Unused connections and ball valves must be closed with a cap.

### Wall mounting of GE551Y097/99 template

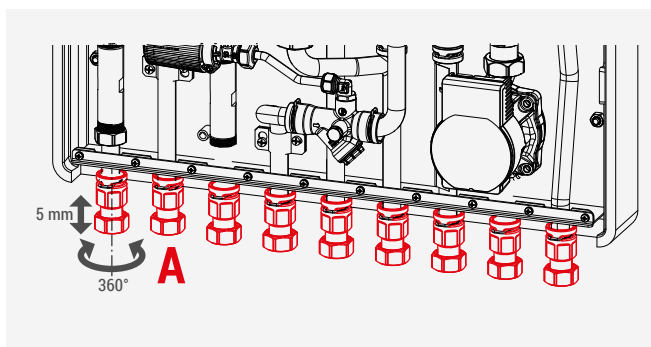


- Mount the template on the wall using screw anchors fit for the type of wall and weight of the equipment, leaving a distance of at least 1,5 m between the template base and the ceiling.
- Install the ball valves in the template holes and fix them with the washers using a wrench.  
If GE500Y261 additional valves are needed, install them on the template in the same way.
- Connect the system pipes to the template ball valves provided with G 3/4" M connections using suitable adapters. Refer to the template label for proper installation of the pipes.

**⚠ WARNING.** Make sure the template is installed correctly and forming a 90° angle with the floor; if failing to do so, proper spacers will have to be installed on the HIU and the template to align them with the floor.

**🔗 NOTE.** Refer to the 1083ML datasheet for correct installation of the GE551Y099 template; refer to the 1084ML datasheet for correct installation of the GE551Y097 template.

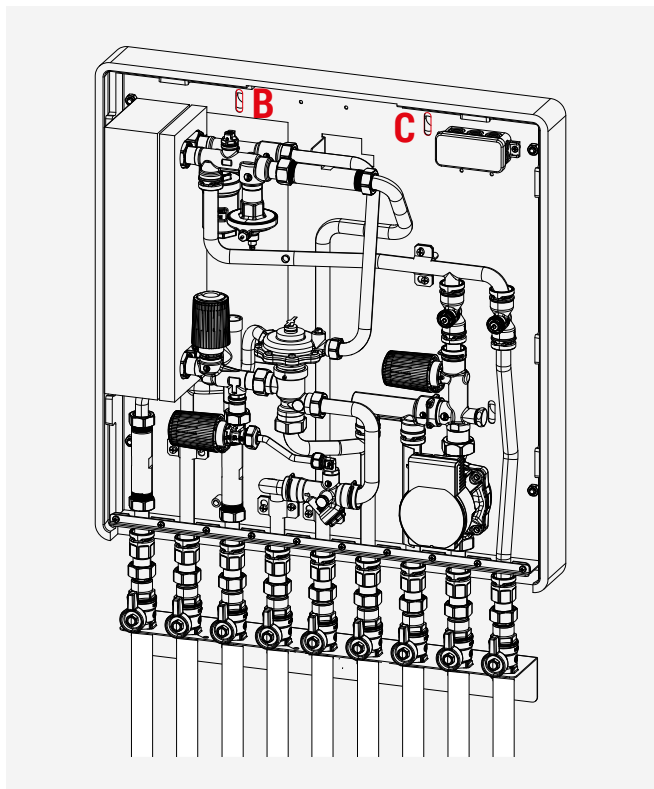
### Installing the HIU on the template



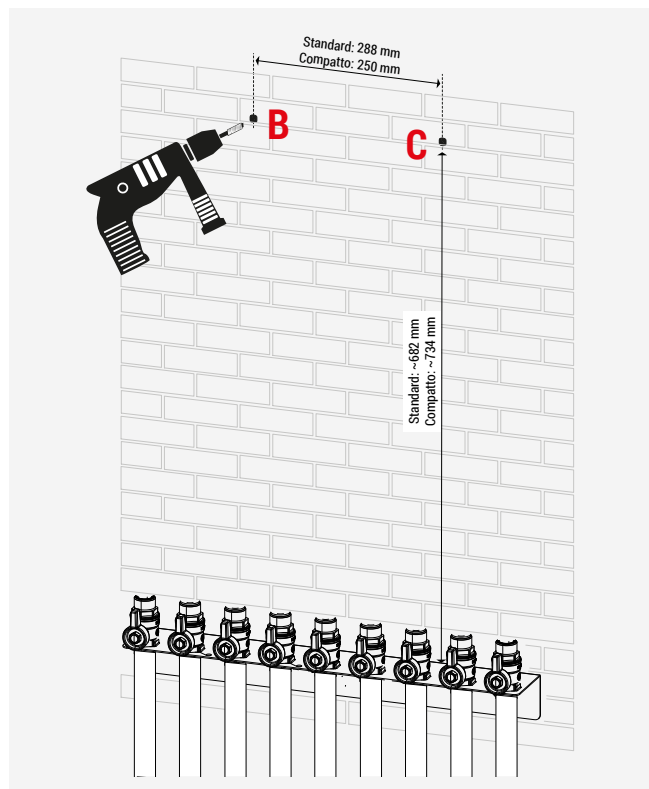
The HIU is provided with adjustable connections (5-mm excursion) and G 3/4" F flat-seat swiveling nut for simplified installation.

This enables to compensate any length difference in the pipes and easily fit the template to the valves.

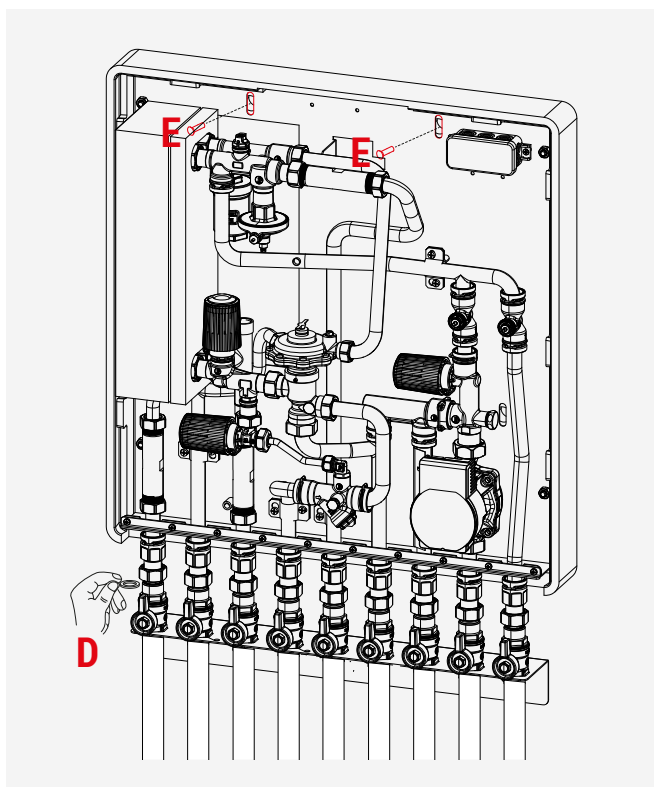




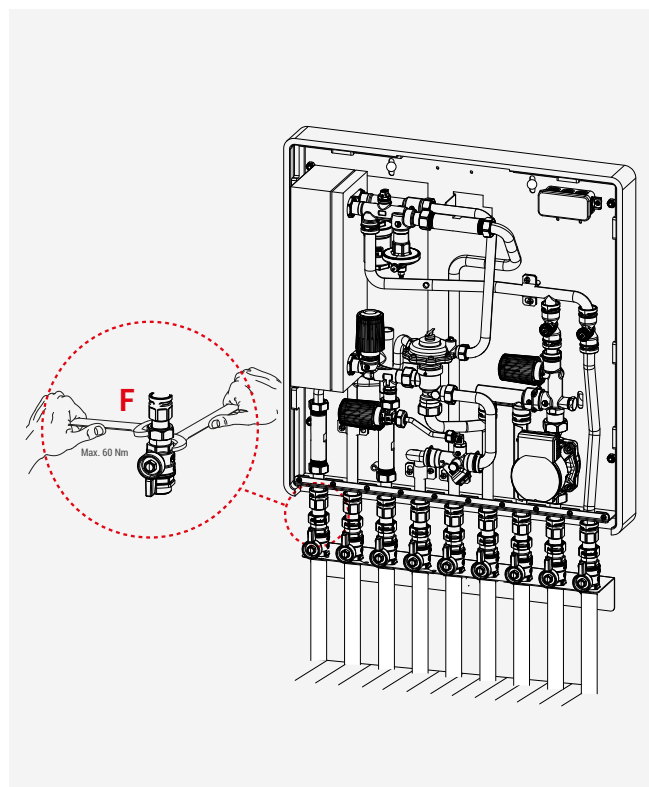
After fitting the template, lay the HIU over it and mark the position of the holes **(B and C)** on the wall, also considering a 2-mm thickness for the connection gaskets.



Drill the wall in the positions previously measured **(B e C)**. Use screw anchors fit for the type of wall and weight of the equipment.



Once the gaskets are fitted, place the HIU over the template and tighten slightly **(D)**. Continue by fixing the HIU to the wall with the special screw anchors **(E)**.



Complete the installation by tightening the HIU nuts on the G 3/4" M connections of the template ball valves (max torque 60 Nm) using a backup spanner **(F)**.

## ➤ Settings

### Hot domestic water temperature

Set the hot domestic water temperature by turning the thermostatic head (Components - Ref. 9).

Use a thermometer for the output water to set the temperature at a medium flow rate based on the exchanger.

Turn the thermostatic head to increase or decrease the mixed water temperature using the handwheel graduated scale for reference. Factory setting 50 °C with limitation at 50 °C.

🔧 **NOTE.** We recommend installing a thermostatic mixer downstream to the HIU.

### Low-temperature heating

Set the LT heating water temperature by turning the thermostatic head (Components - Ref. 19).

Turn the thermostatic head to increase or decrease the mixed water temperature using the handwheel graduated scale for reference. Factory setting 45 °C.

⚠ **WARNING.** Install a safety thermostat for LT heating applications so as to turn OFF the pump and close the zone valve. Include a timer relay to make sure the pump always turns on at start up.

🔧 **NOTE.** When the heating nominal temperature is higher than the thermostatic head setting, the primary flow rate may be too high and prevent the thermostatic head from closing. The heating power may be balanced by adjusting the pump speed (Components - Ref. 22).

## ➤ Electric connections

There is an IP55 electric box (Components - Ref. 23) in the upper right corner of the HIU, including a terminal strip for electric connection of the pump, the optional thermostats and the M-Bus networks for data centralization.

### Electric technical data of the standard HIU with LT heating

Power supply: 230 V / 50 Hz

Electric power: 8,2÷50 W

### M-Bus

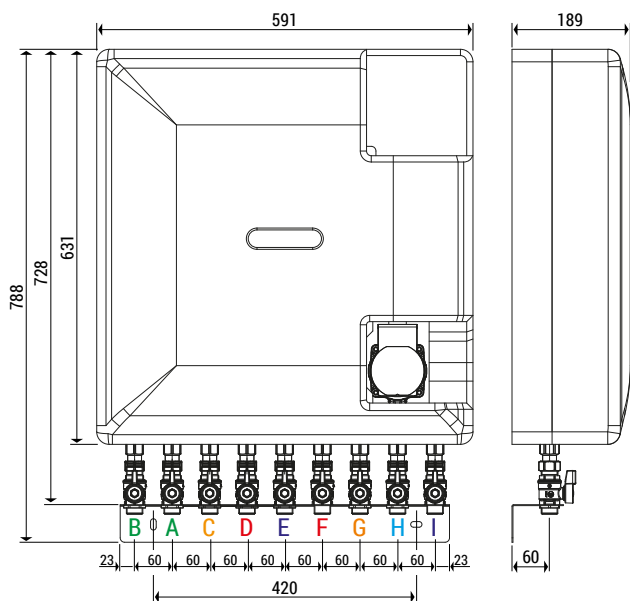
To connect the M-Bus data transmission cable to the concentrator, refer to the datasheet of the thermal energy meter used.

## ➤ Periodical inspections and maintenance

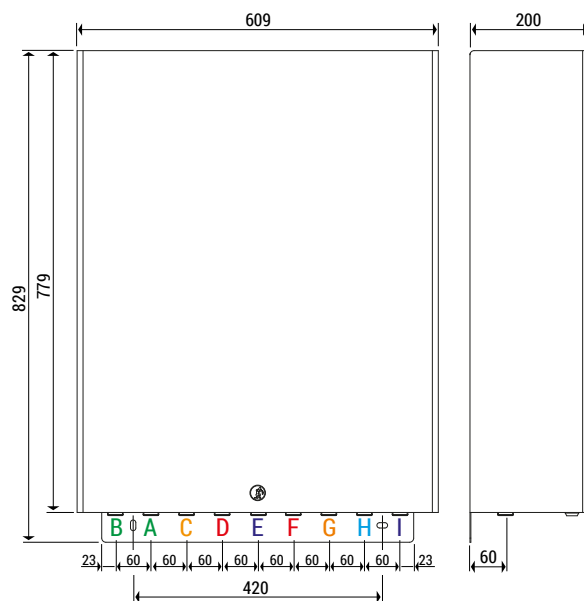
- Periodically check the primary circuit pressure value through the boiler room gauge: it must be kept above 1 bar (pressure values lower than 1 bar may damage the pump by cavitation).
- Periodically check the sealing elements making sure there are no leaks from the joints (recommended every two years).
- Periodically check the proper hydraulic operation (recommended every two years).
- Periodically check the efficiency of the electric and electronic components (recommended every two years).

## ➤ Dimensions

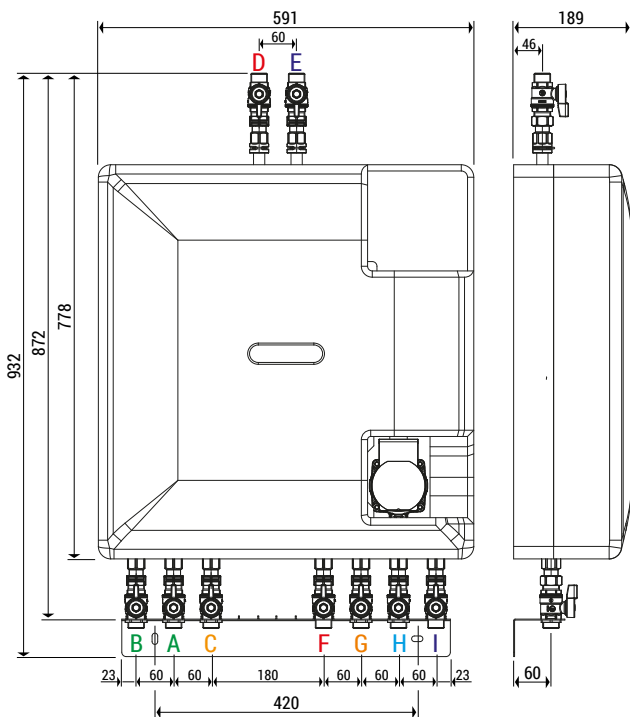
Standard GE556-SM with connections from the bottom, GE551Y099 template and insulation



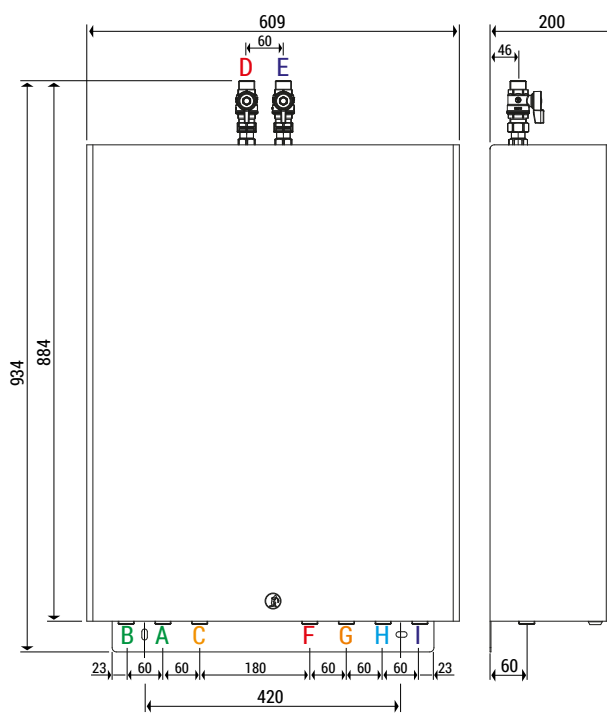
Standard GE556-SM with connections from the bottom, GE551Y099 template, insulation and GE551Y185 cover



Standard GE556-SM with connections from the top, GE551Y099 template and insulation



Standard GE556-SM with connections from the top, GE551Y099 template, insulation and GE551Y185 cover

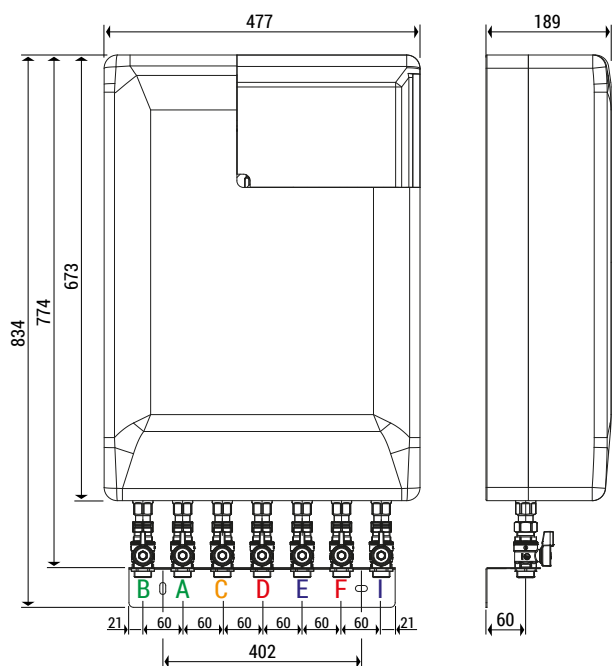


- A Cold domestic water inlet
- B Cold domestic water outlet
- C Hot domestic water outlet
- D Primary inlet
- E Primary outlet

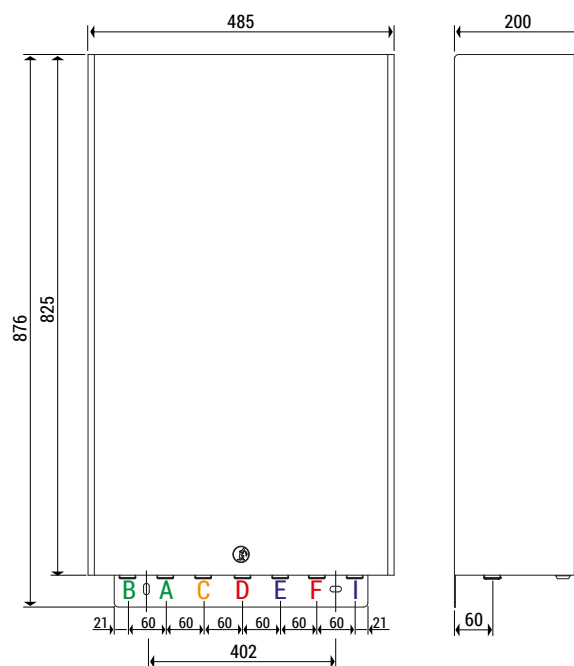
- F High-temperature heating supply
- G Low-temperature heating supply
- H Low-temperature heating return
- I High-temperature heating return

Dimensions in mm

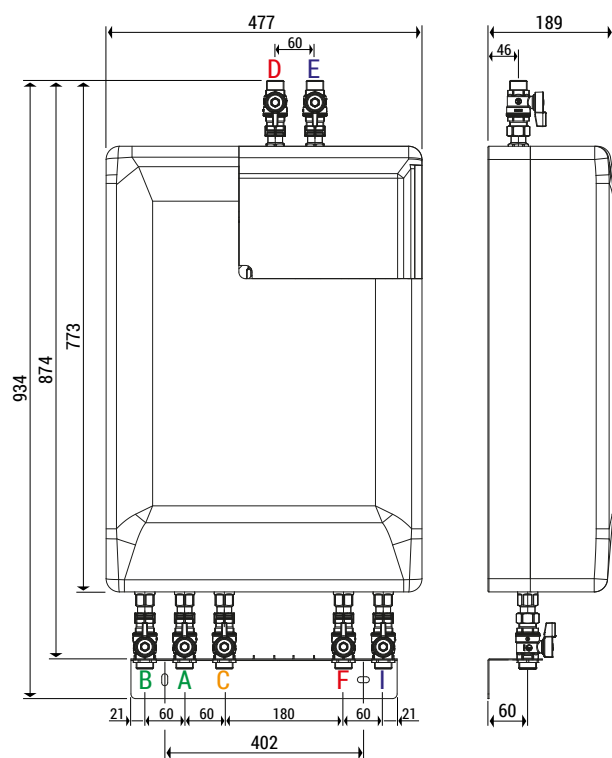
Compact GE556-SM with connections from the bottom, GE551Y097 template and insulation



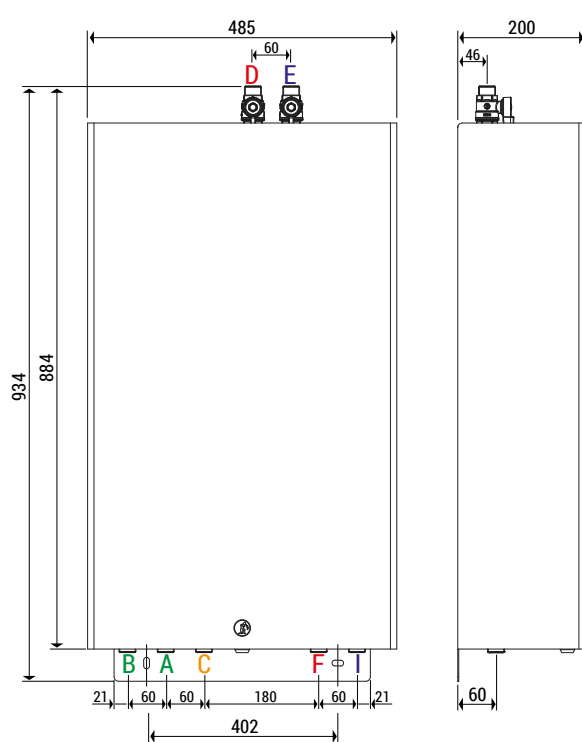
Compact GE556-SM with connections from the bottom, GE551Y097 template, insulation and GE551Y194 cover



Compact GE556-SM with connections from the top, GE551Y097 template and insulation



Compact GE556-SM with connections from the top, GE551Y097 template, insulation and GE551Y194 cover



- A Cold domestic water inlet
- B Cold domestic water outlet
- C Hot domestic water outlet
- D Primary inlet

- E Primary outlet
- F High-temperature heating supply
- I High-temperature heating return

Dimensions in mm

## ➤ Normative di riferimento

- UNI EN 1434
- Measuring Instruments Directive 2014/32/UE (MID)
- ErP Directive 2009/125/CE

### IT AVVERTENZE PER IL CORRETTO SMALTIMENTO DEL PRODOTTO

Questo prodotto rientra nel campo di applicazione della Direttiva 2012/19/UE riguardante la gestione dei rifiuti di apparecchiature elettriche ed elettroniche (RAEE).

L'apparecchio non deve essere eliminato con gli scarti domestici in quanto composto da diversi materiali che possono essere riciclati presso le strutture adeguate.

Informarsi attraverso l'autorità comunale per quanto riguarda l'ubicazione delle piattaforme ecologiche atte a ricevere il prodotto per lo smaltimento ed il suo successivo corretto riciclaggio. Si ricorda, inoltre, che a fronte di acquisto di apparecchio equivalente, il distributore è tenuto al ritiro gratuito del prodotto da smaltire.

Il prodotto non è potenzialmente pericoloso per la salute umana e l'ambiente, ma se abbandonato nell'ambiente impatta negativamente sull'ecosistema.

Leggere attentamente le istruzioni prima di utilizzare l'apparecchio per la prima volta. Si raccomanda di non usare assolutamente il prodotto per un uso diverso da quello a cui è stato destinato, essendoci pericolo di shock elettrico se usato impropriamente.



Il simbolo del bidone barrato, presente sull'etichetta posta sull'apparecchio, indica la rispondenza di tale prodotto alla normativa relativa ai rifiuti di apparecchiature elettriche ed elettroniche. L'abbandono nell'ambiente dell'apparecchiatura o lo smaltimento abusivo della stessa sono puniti dalla legge.

### EN IMPORTANT INFORMATION FOR CORRECT DISPOSAL OF THE PRODUCT

This product falls into the scope of the Directive 2012/19/EU concerning the management of Waste Electrical and Electronic Equipment (WEEE).

This product shall not be disposed in to the domestic waste as it is made of different materials that have to be recycled at the appropriate facilities.

Inquire through the municipal authority regarding the location of the ecological platforms to receive the product for disposal and its subsequent correct recycling.

Furthermore, upon purchase of an equivalent appliance, the distributor is obliged to collect the product for disposal free of charge.

The product is not potentially dangerous for human health and the environment, but if abandoned in the environment can have negative impact on the environment. Read carefully the instructions before using the product for the first time. It is recommended that you do not use the product for any purpose rather than those for which it was intended, there being a danger of electric shock if used improperly.



The crossed-out wheeled dustbin symbol, on the label on the product, indicates the compliance of this product with the regulations regarding Waste Electrical and Electronic Equipment. Abandonment in the environment or illegal disposal of the product is punishable by law.

### FR AVERTISSEMENTS POUR L'ÉLIMINATION CORRECTE DU PRODUIT

Ce produit entre dans le champ d'application de la directive 2012/19 / UE relative à la gestion des déchets équipements électriques et électroniques (DEEE).

L'appareil ne doit pas être jeté avec les ordures ménagères car il est fait de différents matériaux pouvant être recyclés dans des centres appropriés.

Renseignez-vous auprès de l'autorité locale concernant l'emplacement des plates-formes écologiques appropriées pour recevoir le produit pour sa destruction et son recyclage correct ultérieur. Il convient également de rappeler que, en cas d'achat d'un appareil équivalent, le distributeur est tenu de collecter le produit à détruire. Le produit n'est potentiellement pas dangereux pour la santé humaine et l'environnement, mais s'il est abandonné dans l'environnement, il a un impact négatif sur l'écosystème.

Lisez attentivement les instructions avant d'utiliser l'appareil pour la première fois.

Il est interdit d'utiliser le produit pour un usage différent de celui auquel il était destiné, il y a risque de choc électrique si utilisé incorrectement.



Le symbole de la poubelle barrée sur l'étiquette de l'appareil indique sa correspondance produit à la législation relative aux déchets d'équipements électriques et électroniques. L'abandon dans l'environnement de l'équipement ou l'élimination illégale de l'équipement est punissable par la loi.

### DE WICHTIGE HINWEISE ZUR KORREKTEN ENTSORGUNG DES PRODUKTS

Dieses Produkt fällt in den Anwendungsbereich der Richtlinie 2012/19/EU über die Entsorgung von Elektro- und Elektronik - Altgeräten (WEEE).

Dieses Produkt darf nicht in den Hausmüll entsorgt werden, da es aus verschiedenen Materialien besteht, die in entsprechenden Einrichtungen recycelt werden müssen. Erkundigen Sie sich bei Ihrer Gemeinde nach dem Standort des nächsten Recyclinghofs bzw. der nächsten Annahmestelle, um das Produkt dem Recycling zuzuführen bzw. fachgerecht zu entsorgen. Darüber hinaus ist der Händler verpflichtet, das Produkt beim Kauf eines gleichwertigen Geräts kostenlos zu entsorgen. Das Produkt ist für die menschliche Gesundheit und die Umwelt potenziell nicht gefährlich. Diese können sich aber, falls sie in der Umwelt gelangen, negativ auf diese auswirken. Lesen Sie daher vor dem ersten Gebrauch des Produkts die Inbetriebnahme-, Bedienungs- und Entsorgungsanweisungen sorgfältig durch. Es wird empfohlen, dass Sie das Produkt nur für den vorgesehenen Zweck verwenden.

Bei unsachgemäßer Verwendung bzw. Fehlgebrauch besteht die Gefahr eines elektrischen Schlags.



Das Symbol der durchgestrichenen Mülltonne auf dem Etikett des Produkts weist auf die Konformität dieses Produkts zu den Vorschriften für Elektro- und Elektronik-Altgeräte hin. Das Ablagern in der Umwelt oder die illegale Entsorgung des Produkts ist strafbar.

**⚠ Safety Warning.** Installation, commissioning and periodical maintenance of the product must be carried out by qualified operators in compliance with national regulations and/or local standards. A qualified installer must take all required measures, including use of Individual Protection Devices, for his and others' safety. An improper installation may damage people, animals or objects towards which Giacomini S.p.A. may not be held liable.

**♻ Package Disposal.** Carton boxes: paper recycling. Plastic bags and bubble wrap: plastic recycling.

**ℹ Additional information.** For more information, go to [giacomini.com](http://giacomini.com) or contact our technical assistance service. This document provides only general indications. Giacomini S.p.A. may change at any time, without notice and for technical or commercial reasons, the items included herewith. The information included in this technical sheet do not exempt the user from strictly complying with the rules and good practice standards in force.

**♻ Product Disposal.** Do not dispose of product as municipal waste at the end of its life cycle. Dispose of product at a special recycling platform managed by local authorities or at retailers providing this type of service.



**GIACOMINI**  
WATER E-MOTION



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