

Series HIU 2

Indirect heat interface unit for hygienic domestic hot water (DHW) generation and heat distribution

Technical Data Sheet



Description



HIU 2 HK for unmixed heating circuits

For transferring heat from local or district heating networks to heating and domestic hot water (DHW) systems in single-family homes, apartment buildings, terraced housing or apartment blocks.

Direct connection to unmixed heating circuits such as radiators.

Indirect, hygienic domestic hot water generation by means of a plate heat exchanger (stainless steel or copper brazed).

Tap temperature freely adjustable between 20 and 70 °C, tap capacity 12, 17 or 22 L/min. Flow limiter is included. Includes a priority switch for domestic hot water generation.

Integrated adapters for heat and cold water meters.

Ready-to-fit, space-saving design with clear arrangement of all valves.

Uniform, modular design of connections and accessories.

Type	Part no.	DN	Model	Weight
HIU2 HK 12	10079852	20	Tap capacity 12 L/min, copper brazed	14.3 kg
HIU2 HK 12	10079891	20	Tap capacity 12 L/min, stainless steel brazed	14.3 kg
HIU2 HK 17	10078464	20	Tap capacity 17 L/min, copper brazed	15.0 kg
HIU2 HK 17	10079893	20	Tap capacity 17 L/min, stainless steel brazed	15.0 kg
HIU2 HK 22	10085285	20	Tap capacity 22 L/min, copper brazed	16.0 kg
HIU2 HK 22	10085286	20	Tap capacity 22 L/min, stainless steel brazed	16.0 kg



HIU 2 HKM for mixed heating circuits

For transferring heat from local or district heating networks to heating and domestic hot water (DHW) systems in single-family homes, apartment buildings, terraced housing or apartment blocks.

Direct connection to mixed heating circuits such as a radiant panel heating system.

Indirect, hygienic domestic hot water generation by means of a plate heat exchanger (stainless steel or copper brazed).

Tap temperature freely adjustable between 20 and 70 °C, tap capacity 12, 17 or 22 L/min.

Flow limiter is included. Includes a priority switch for domestic hot water generation.

Integrated adapters for heat and cold water meters.

Ready-to-fit, space-saving design with clear arrangement of all valves.

Uniform, modular design of connections and accessories.

Includes a domestic hot water and mixing unit with electronic fix-point control of the flow temperature.

Type	Part no.	DN	Model	Weight
HIU2 HKM 12	10079851	20	Tap capacity 12 L/min, copper brazed	14.7 kg
HIU2 HKM 12	10079892	20	Tap capacity 12 L/min, stainless steel brazed	14.7 kg
HIU2 HKM 17	10078463	20	Tap capacity 17 L/min, copper brazed	15.4 kg
HIU2 HKM 17	10079894	20	Tap capacity 17 L/min, stainless steel brazed	15.9 kg
HIU2 HKM 22	10085287	20	Tap capacity 22 L/min, copper brazed	18.0 kg
HIU2 HKM 22	10085288	20	Tap capacity 22 L/min, stainless steel brazed	18.0 kg

Technical features

Hydraulic data	HIU 2 HK / HIU 2 HKM
Max. operating pressure	10 bar (PN 10)
Max. ambient temperature	60 °C
Max. operating temperature	90 °C
Differential pressure (12 or 17 Liter)	Preset: 200 mbar. Adjustable range: 100 - 300 mbar
Differential pressure (22 Liter)	Preset: 250 mbar. Adjustable range: 100 - 300 mbar
Media	Water or water with glycol as per VDI (Association of German Engineers) 2035 / ÖNORM (Austrian standard) 5195
Actuator	
Power supply	230 V; +10 to -20 %; 50/60 Hz
Power consumption in operation	2.5 W
Power consumption at end positions	<1 W
Actuating force	100 N
IP rating	IP 54
Ambient temperature	0 - 60 °C
Dimensions	
Width x height x depth	
HK	490 X 705 X 130 mm
HKM	500 x 705 x 140 mm
Weight	
	see product tables
Pipework connections	
Transfer unit	1" and ¾" male thread, flat sealing
Meter connections	
Hot water meter connection	110 mm G ¾"
Cold water meter connection	110 mm G ¾"
Materials	
Pipework	Stainless steel, d = 22 mm & d = 27 mm
Fittings	Brass
Seals	AFM34/2 and EPDM
Plate heat exchanger	Stainless steel EN 1.4404/copper (brazed) option: stainless steel/stainless steel (brazed) For further information on the media to be used please refer to the appropriate technical datasheet.
Circulating pump, actuator and other electrical components	For technical data please refer to the appropriate technical documentation.

Technical data: DHW generation

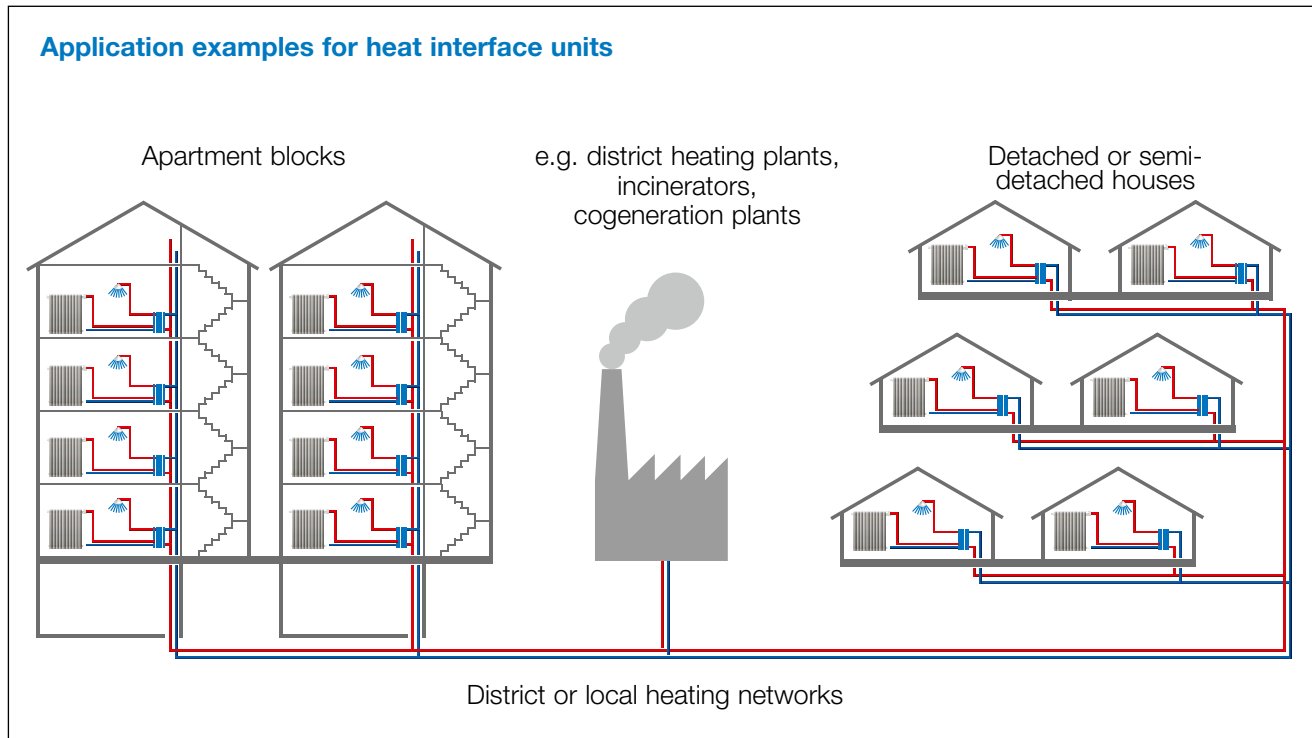
Heat exchanger	DHW capacity	Temperature (primary)		Temperature (secondary)		Pressure drop	Flow rate	
		Supply	Return	DCW	DHW		primary	secondary
26 plates	33 kW	65 °C	19 °C	9 °C	48 °C	19 kPa	11.2 L/min	12.0 L/min
36 plates	41 kW	65 °C	18 °C	11 °C	45 °C	19 kPa	13.4 L/min	17.1 L/min
60 plates	52 kW	65 °C	15 °C	11 °C	45 °C	25 kPa	14.0 L/min	22.0 L/min

Technical data: heating

Temperature difference	Heat output
10K	Q = 13 kW
20K	Q = 26 kW

Applications

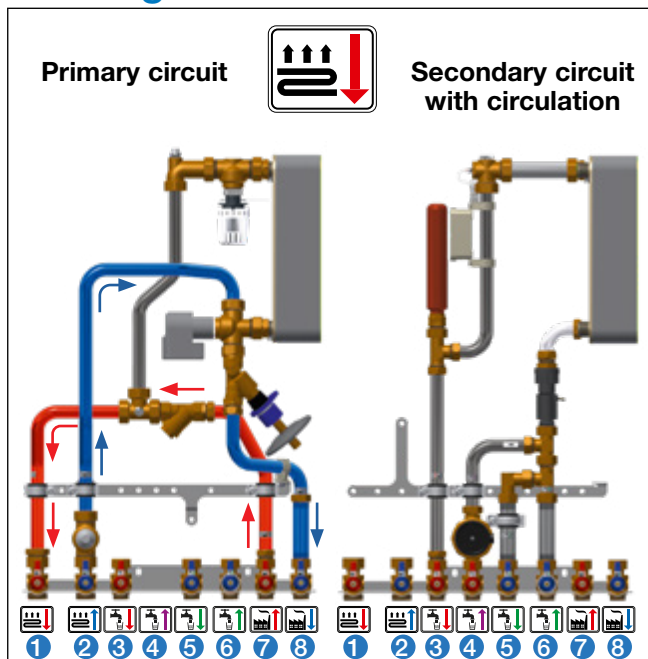
Ready-to-fit, compact heat interface unit for indirect, hygienic DHW generation with heat distribution in single-family homes, terraced housing and apartment blocks.



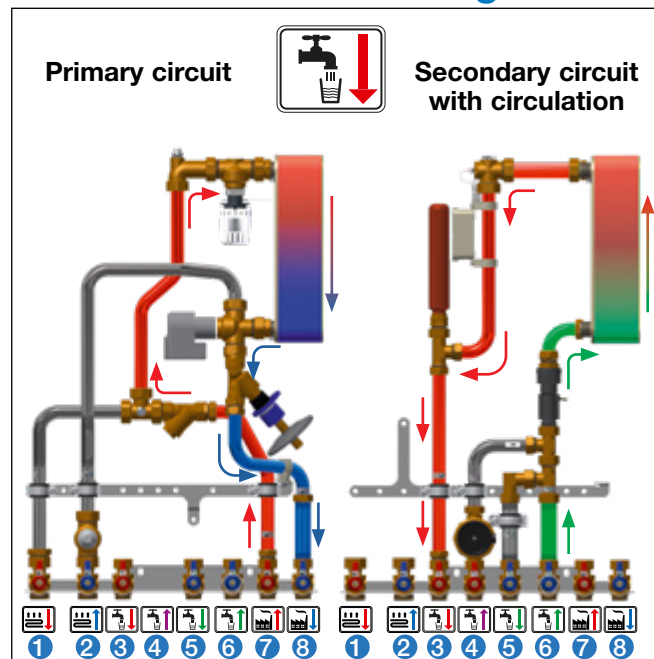
Function

The HIU 2 heat interface unit uses heat from local and district networks to operate the heating and to hygienically heat domestic water. The heating network circuit is kept separate from the heating and domestic water circuit by a heat exchanger. The HIU2 heat interface unit is designed in such a way that domestic hot water generation takes priority over the heating circuit. When water is being drawn from a tap, a flow switch activates an actuator which closes the heating line temporarily. This ensures that the required domestic water temperature (adjustable using the thermostatic valve) is quickly reached. A circulation bridge may be needed to quickly achieve the pre-set domestic hot water temperature in standby mode (heating off). The circulation bridge is to be provided by the customer.

Heating circuit



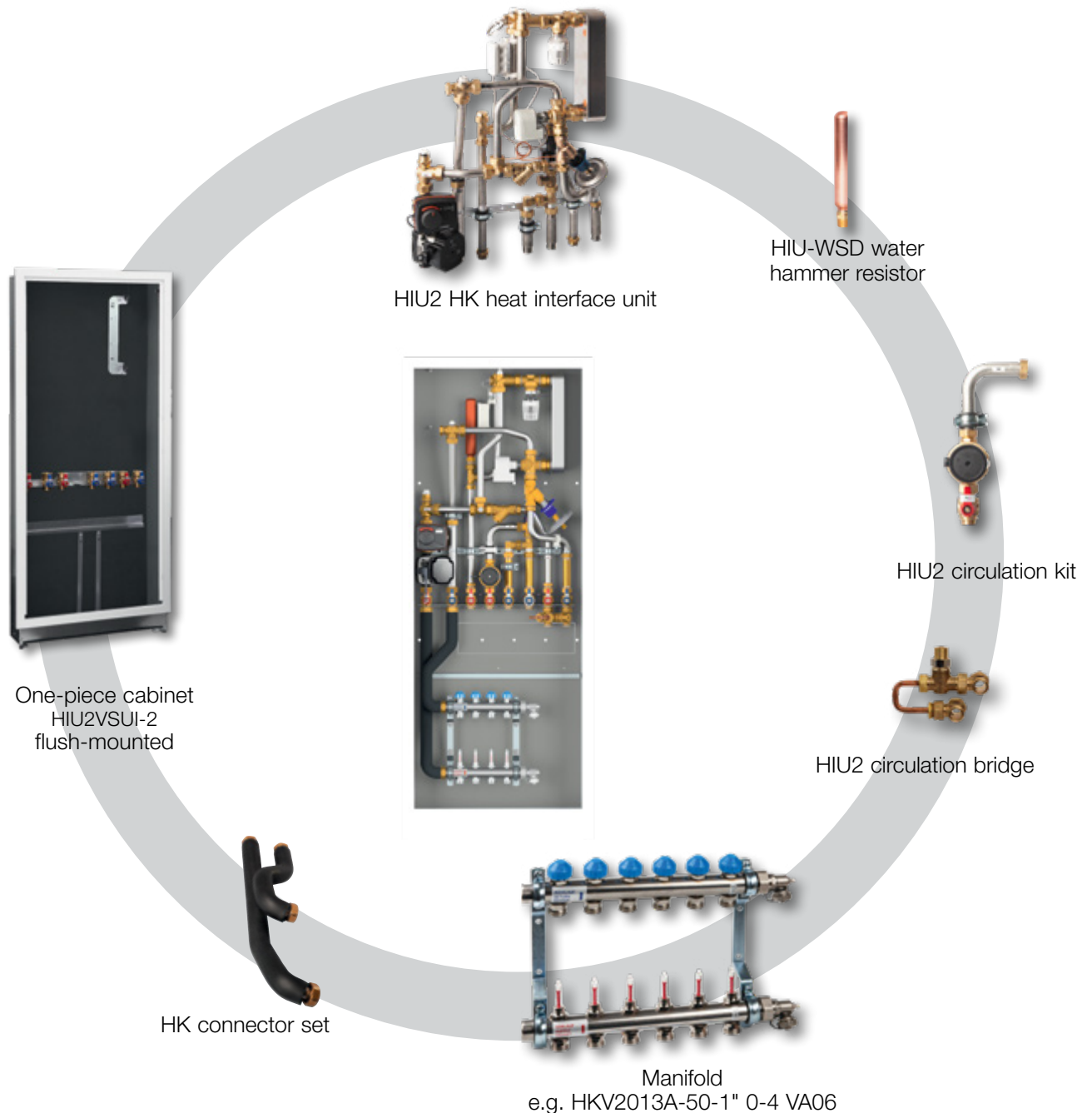
Domestic water heating



Product features

- For heating and DHW generation
- Hot water priority circuit
- Differential pressure adjustable from 100 to 300 mbar
- Pre-assembled adapters for heat and cold water meters
- Mixing module (HKM only)
- Designed to be installed in a system cabinet (wall- or flush-mounted)
- All system connections with 1" and ¾" male thread, and flat sealing
- Adjustable tap temperature
- DHW tap capacity of 12, 17 or 22 L/min when heating the DHW from 10 to 45° C, with a primary flow temperature of 65° C and 200 mbar Δp (12 and 17 L) or 250 mbar Δp (22 L)
- Easy-to-control; compact and space-saving design
- Suitable for connection to manifolds
- Modular design

Typical configuration



System components for extension



HIU 2 HK/HKM system cabinet

Includes a sturdy bracket for mounting the heat interface unit and a pre-installed connecting rail with ball valves for quick installation and easy removal at any time in the event of repair or exchange. Insulated in accordance with GEG (German Buildings Energy Act).

Typ	Part no.	Model	Weight
HIU2U	10078499	flush-mounted	13.8 kg
HIU2A	10078486	wall-mounted	15.6 kg



One-piece cabinet

The stable housing made of galvanized sheet steel provides space for a HIU2 HKM home station in combination with heating circuit manifolds as well as all components and accessories. Consisting of body, front door, lock, stable bracket for hanging the home station, as well as a pre-mounted connection rail with shut-off set consisting of 7 ball valves. For quick removal of the home station at any time for replacement and repair work. The combination cabinet including door is insulated in conformity with the GEG (German Building Energy Law). Housing and front door painted white.

Typ	Part no.	Model	Circuits	Weight
HIU2VSUI-2	10085022	flush-mounted	max. 6	24.7 kg
HIU2VSUI-4	10085023	flush-mounted	7 - 12	33.2 kg
HIU2VSAI-2	10085020	wall-mounted	max. 6	26.5 kg
HIU2VSAI-4	10085021	wall-mounted	7 - 12	35.8 kg

HIU 2 thermally insulated system cabinets

Options for wall or flush mounting, suitable for all HIU 2 HK/ HKM heat interface units. Includes a pre-installed connecting rail and ball valves for connecting to the system and a sturdy bracket for mounting the heat interface unit to the connecting rail and easy connection to the system. Insulated in accordance with GEG (German Buildings Energy Act). regulations.



- ① Heating flow circuit
- ② Heating return circuit
- ③ DHW outlet
- ④ Domestic water circulation inlet
- ⑤ Domestic cold water outlet
- ⑥ Domestic cold water inlet
- ⑦ Primary flow
- ⑧ Primary return



Pre-installed connector block with ball valves



Connections to the underside of the housing

Hydraulic components and heating circuit manifolds



Water hammer resistor HIU-WSD

For optional installation in the HIU 2 heating interface units. Reduces pressure peaks in the drinking water network caused by fast-closing taps (domestic appliances, single-lever taps).

Threaded connection 3/4", operating pressure max. 10.0 bar, temperature range: 0-80 °C

Typ	Part no.	Weight
HIU-WSD	10079166	0.3 kg



HIU2 circulation bridge

For optional installation in the heat interface unit series HIU2 in the primary supply. The circulation bridge prevents the primary heating flow from cooling down during longer periods of heating standstill, e.g. in summer mode, and thus enables the set domestic hot water temperature to be reached quickly. Setting range of the bypass valve 40-60 °C.

Typ	Part no.	Weight
Zirkulationsbrücke HIU2	10079903	0.83 kg



Connector set HKM

Insulated pipework set for easy connection of the heat interface unit series HIU2 HKM to a Watts circuit heating manifold for supplying a panel heating system. The HKM-HT connection set also offers the option of connecting a high-temperature circuit (e.g. bathroom radiators).

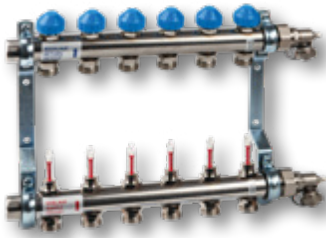
Typ	Part no.	Weight
Anschlusset HKM	10078465	0.80 kg
Anschlusset HKM-HT	10079905	with connection for high-temperature circuit 0.94 kg
Anschlusset 3/4"	10080314	T-piece for high-temperature circuit 0.18 kg



HIU2 circulation kit

For optional retrofitting of the heat interface unit series HIU2 with a domestic hot water circulation pump with control thermostat. Consisting of: DHW circulation pump with control thermostat, stainless steel pipe bend, shut-off ball valve, fixing, backflow preventer.

Typ	Part no.	Weight
HIU2- Zirkulationsset	10080335	with control thermostat 1.55 kg



Heating Circuit HKV2013A VA

Stainless steel round pipe manifold. Flat-sealing male thread on both sides. Low installation depth. Connection nipple G 3/4" with Eurocone. Pressure tested. The manifold can be adapted to the individual requirements on-site by using the modular accessories. Heating circuit connection 3/4" M with Eurocone. Supply branch on the top. Ready-to-mount with brackets. EN1264 Compliant. End sets KFE90 enclosed.

SUPPLY (bottom): Flowmeter 0 - 4 L/min with low pressure drop and shut-off function.
RETURN (top): Control and shut-off valve with adaption M30 x 1.5 (closing point: 11.8 mm).

Typ	Part no.		Weight
HKV2013A-50-1" 0-4 VA02	10081934	2 Heating circuits	1.84 kg
HKV2013A-50-1" 0-4 VA03	10081935	3 Heating circuits	2.14 kg
HKV2013A-50-1" 0-4 VA04	10081936	4 Heating circuits	2.54 kg
HKV2013A-50-1" 0-4 VA05	10081937	5 Heating circuits	2.84 kg
HKV2013A-50-1" 0-4 VA06	10081938	6 Heating circuits	3.25 kg
HKV2013A-50-1" 0-4 VA07	10081939	7 Heating circuits	3.70 kg
HKV2013A-50-1" 0-4 VA08	10081940	8 Heating circuits	4.00 kg
HKV2013A-50-1" 0-4 VA09	10081941	9 Heating circuits	4.26 kg
HKV2013A-50-1" 0-4 VA10	10081942	10 Heating circuits	4.66 kg
HKV2013A-50-1" 0-4 VA11	10081943	11 Heating circuits	5.01 kg
HKV2013A-50-1" 0-4 VA12	10081944	12 Heating circuits	5.42 kg



Stainless Steel Manifold with automatic flow control HKV2013A-AFC

Stainless steel round pipe heating circuit manifold according to EN 1264-4. Flat sealing connections 1" M. Low installation depth. Connection nipple G 3/4" with Eurocone, 50 mm distance. End set KFE90.

SUPPLY (bottom): Flowmeter with low pressure drop and shut-off function.

RETURN (return): Control and shut-off valve with adaption M30 x 1.5 with setting range: 30 to 300 L/h.

Typ	Part no.		Gewicht
HKV2013A-50-1"-AFC VA02	10084806	2 Heating circuits	1.76 kg
HKV2013A-50-1"-AFC VA03	10084807	3 Heating circuits	2.10 kg
HKV2013A-50-1"-AFC VA04	10084808	4 Heating circuits	2.48 kg
HKV2013A-50-1"-AFC VA05	10084809	5 Heating circuits	2.78 kg
HKV2013A-50-1"-AFC VA06	10084810	6 Heating circuits	3.21 kg
HKV2013A-50-1"-AFC VA07	10084811	7 Heating circuits	3.47 kg
HKV2013A-50-1"-AFC VA08	10084812	8 Heating circuits	3.85 kg
HKV2013A-50-1"-AFC VA09	10084813	9 Heating circuits	4.20 kg
HKV2013A-50-1"-AFC VA10	10084814	10 Heating circuits	4.57 kg
HKV2013A-50-1"-AFC VA11	10084815	11 Heating circuits	4.90 kg
HKV2013A-50-1"-AFC VA12	10084816	12 Heating circuits	5.22 kg

Room temperature control components



Actuator 22CX

Electrothermal OPEN/CLOSE actuator with position indicator. For regulating and shut-off valves with connection M30 x 1.5. Compatible with Watts heating circuit manifolds, thermostatic valves from the TV series, zone valves from the 2131, 3131 and 4131 series, etc. Max. stroke 3.5 mm / working stroke 2.5 mm. Stroke 3.5 mm / working stroke 2.5 mm. Power consumption 1.8 W. Cable length approx. 1 m. Protection class IP54.

Typ	Part no.		Weight
22CX230NC2	10029671	230V, NC,	0.17 kg
22CX230NA2	10029674	230V, NA,	0.17 kg



Bracket set for electrical controllers

for mounting electrical control distribution boxes in the system cabinets of the Watts heat interface unit series HIU2. Includes C-rails, top-hat rail and fixing material.

Typ	Part no.	Weight
Halterset	10082911	0.3 kg



Vision® Wireless and Vision® Wired

Watts also offers a wide range of components for wireless and wired room temperature control: Vision® Wireless and Vision® Wired series.
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<https://www.watts.eu/en/products/eu/smart-home-and-controls>

Online tools for system configuration

Do you need a quote for our heat interface unit series HIU2? With our online configurator, you can quickly put together a suitable HIU2 units including accessories and send the list directly to our specialist department.

<https://www.watts.eu/de/hiu>



Selection of one-piece cabinets



Selection of combi cabinets for connecting the heat interface unit series HIU2 HKM in combination with a panel heating system.

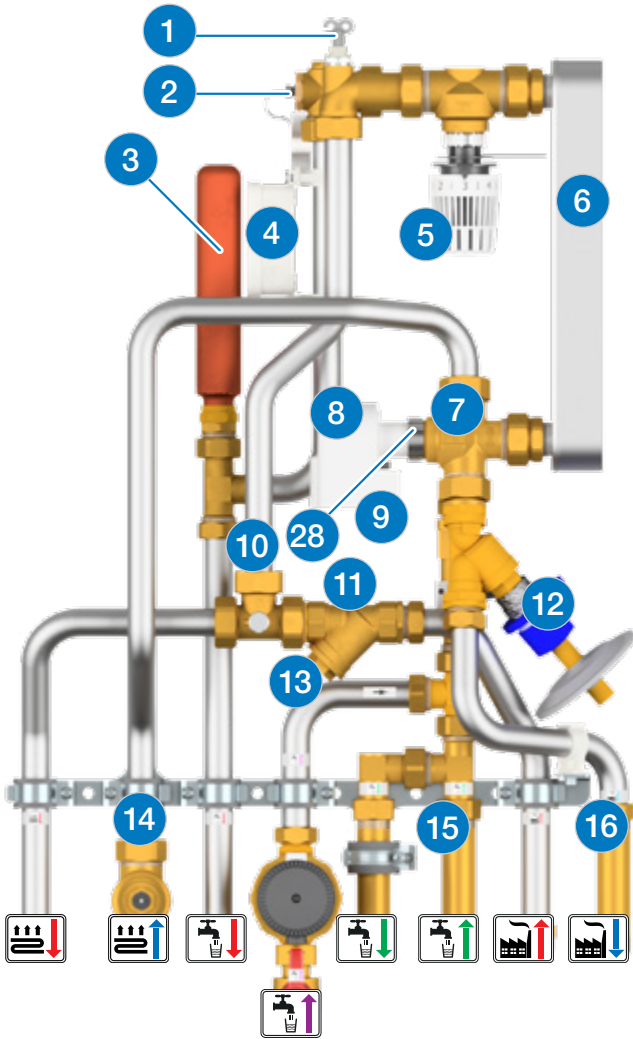
- 1 Heat interface unit series HIU2 HKM
- 2 One-piece cabinet HIU2VSUI / HIU2VSAI (flush or surface-mounted)
- 3 Connector set HKM or HKM-T
- 4 Heating circuit manifold 2013A VA orr HKV2013A AFC

Details of the circuit heating manifold			Details of the flush-mounted one-piece cabinet HIU2VSUI			
Number of heating circuits	Part no. HKV2013A VA	Part no. HKV2013A AFC	Frame width	Cabinet width	Part no.	Beschreibung
2	10081934	10084806	600 mm	550 mm	10085022	HIU2VSUI-2
3	10081935	10084807				
4	10081936	10084808				
5	10081937	10084809				
6	10081938	10084810				
7	10081939	10084811	900 mm	850 mm	10085023	HIU2VSUI-4
8	10081940	10084812				
9	10081941	10084813				
10	10081942	10084814				
11	10081943	10084815				
12	10081944	10084816				

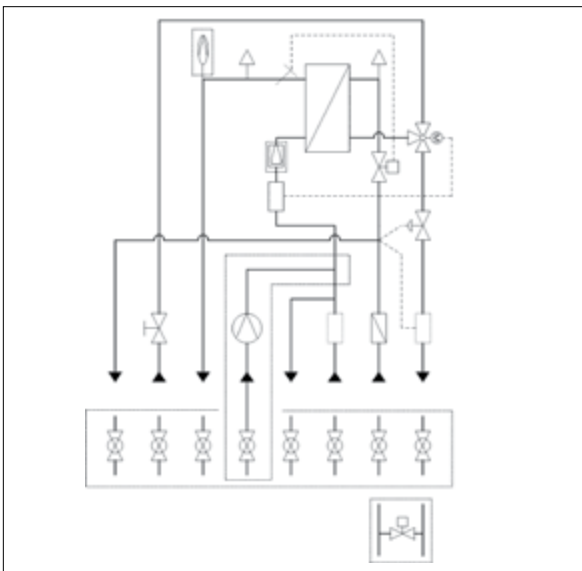
Details of the circuit heating manifold			Details of the surface-mounted one-piece cabinet HIU2VSAI		
Number of heating circuits	Part no. HKV2013A VA	Part no. HKV2013A AFC	Cabinet width	Part no.	Description
2	10081934	10084806	600 mm	10085020	HIU2VSUAI-2
3	10081935	10084807			
4	10081936	10084808			
5	10081937	10084809			
6	10081938	10084810			
7	10081939	10084811	900 mm	10085021	HIU2VSUAI-4
8	10081940	10084812			
9	10081941	10084813			
10	10081942	10084814			
11	10081943	10084815			
12	10081944	10084816			

Construction

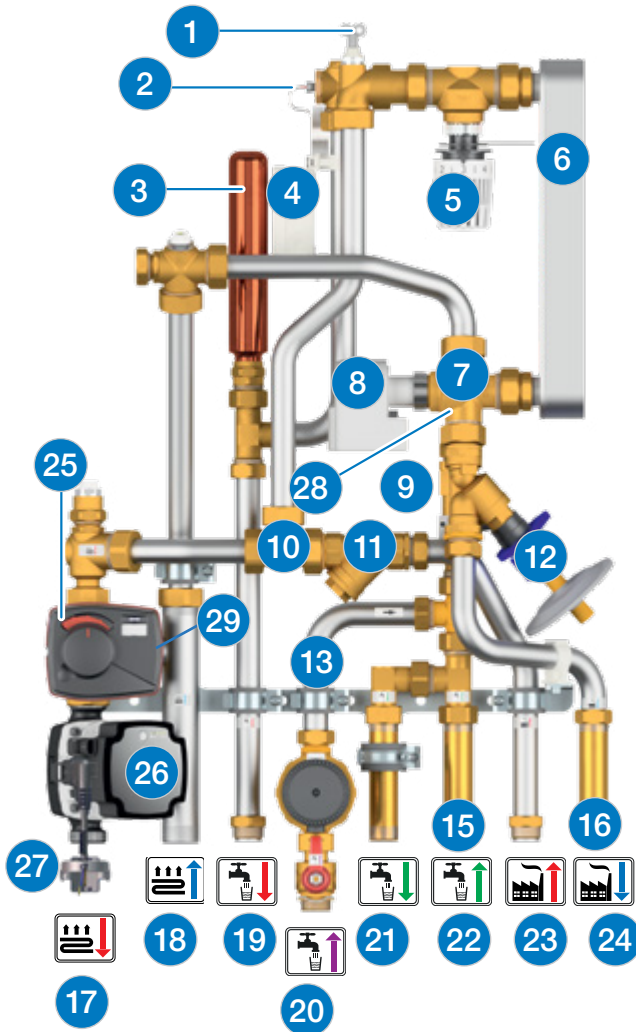
HIU2 HK



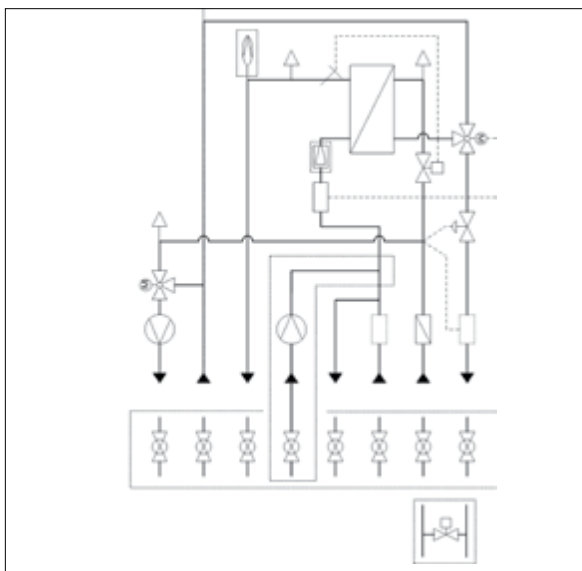
- 1 Air vent
- 2 Temperature sensor
- 3 Water hammer arrestor (optional)
- 4 Junction box
- 5 Thermostatic valve
- 6 Heat exchanger
- 7 Switch-over valve
- 8 Actuator
- 9 Flow monitor
- 10 Connection for flow temperature sensor on the heat meter
- 11 Strainer
- 12 Membrane regulator / Differential pressure regulator
- 13 Circulation set (optional)
- 14 Zone valve (heating circuit)
- 15 Adapter for cold water meter
- 16 Adapter for heat meter
- 17 Heating flow circuit
- 18 Heating return circuit
- 19 DHW outlet
- 20 Domestic water circulation inlet
- 21 Domestic cold water outlet
- 22 Domestic cold water inlet
- 23 Primary flow
- 24 Primary return
- 28 Flow regulator



HIU2 HKM



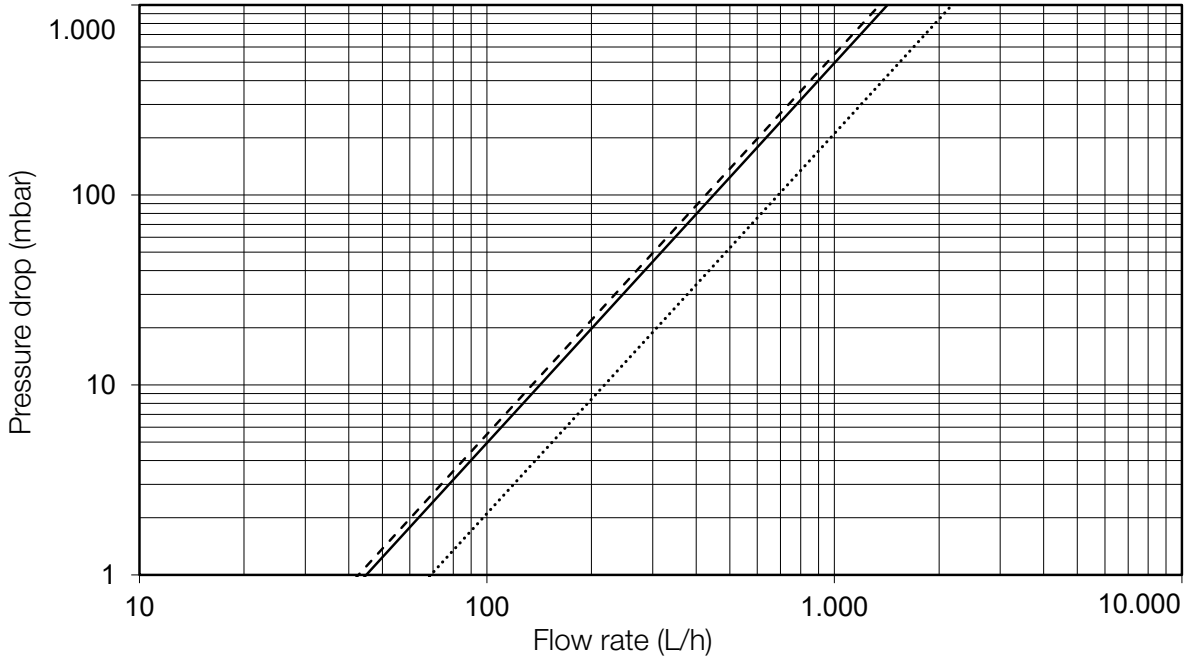
- 1 Air vent
- 2 Temperature sensor
- 3 Water hammer arrestor (optional)
- 4 Junction box
- 5 Thermostatic valve
- 6 Heat exchanger
- 7 Switch-over valve
- 8 Actuator
- 9 Flow monitor
- 10 Connection for flow temperature sensor on the heat meter
- 11 Strainer
- 12 Membrane regulator / Differential pressure regulator
- 13 Circulation set (optional)
- 15 Adapter for cold water meter
- 16 Adapter for heat meter
- 17 Heating flow circuit
- 18 Heating return circuit
- 19 DHW outlet
- 20 Domestic water circulation inlet
- 21 Domestic cold water outlet
- 22 Domestic cold water inlet
- 23 Primary flow
- 24 Primary return
- 25 Primary return
- 26 Heating circuit pump
- 27 Bracket, spring and thermally conductive paste for contact sensor of the actuator
- 28 Flow regulator
- 29 Check valve



Pressure drop for HIU2 HK/HKM

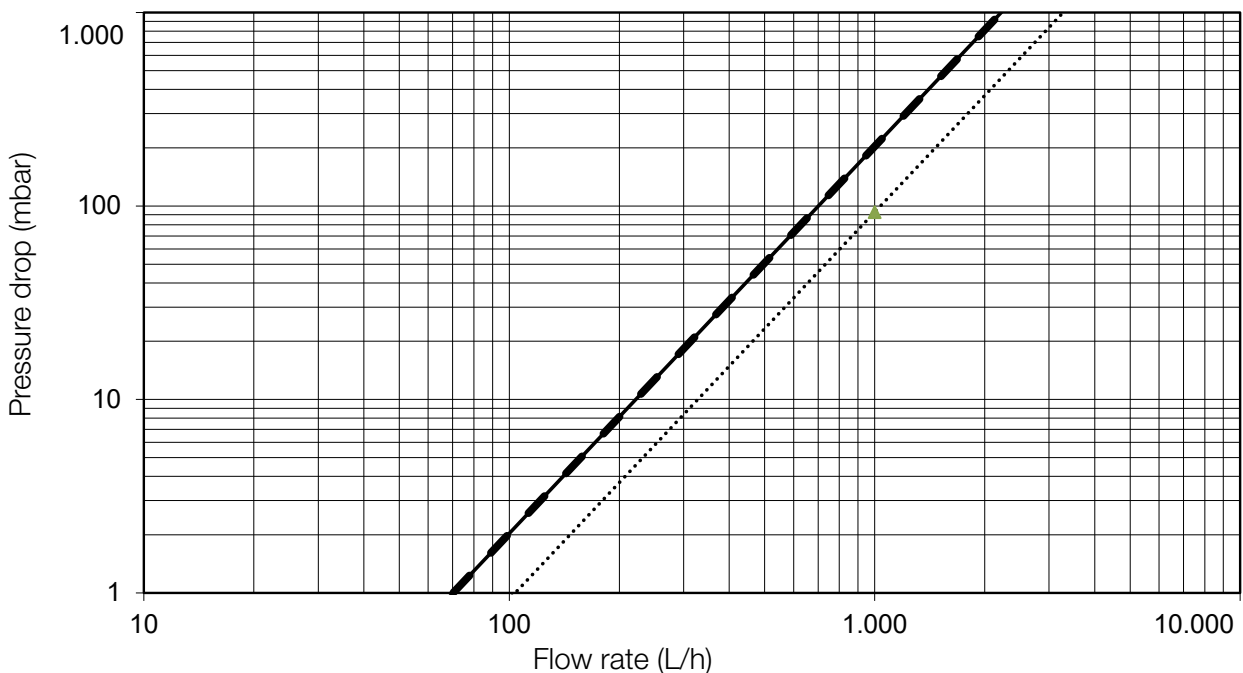
Primary side, domestic hot water generation by means of a heat exchanger

26 plates, 12 L/min., Kvs value: 1.35 m³/h (dotted line)
 36 plates, 17 L/min., Kvs value: 1.42 m³/h (solid line)
 60 plates, 22 L/min., Kvs value: 2.18 m³/h (solid line)



Secondary side, domestic hot water

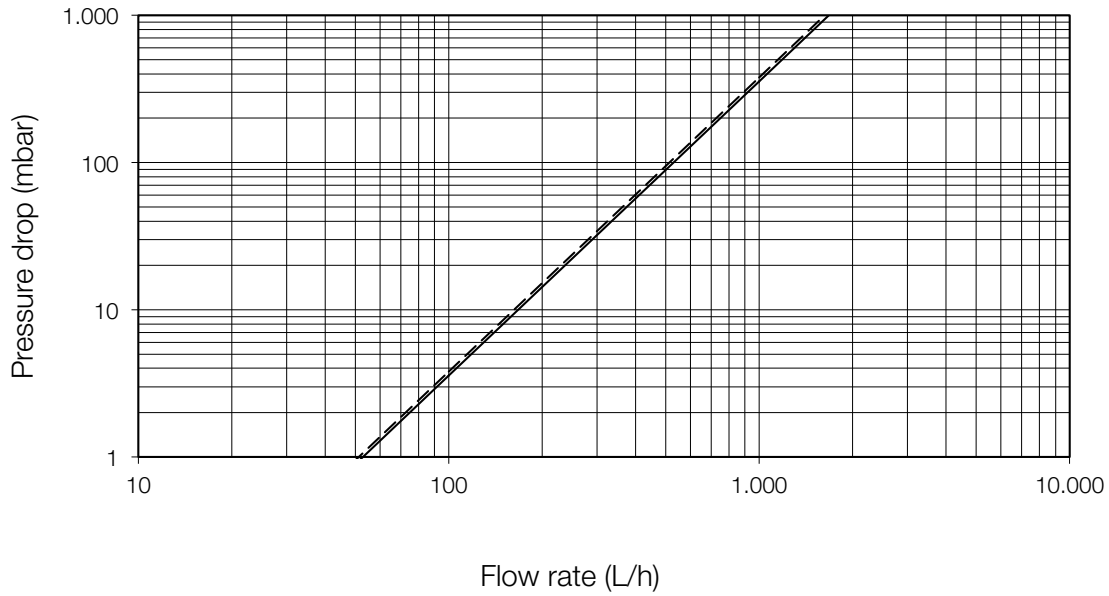
26 plates, 12 L/min. Kvs value: 2.2 m³/h (dotted line)
 36 plates, 17 L/min. Kvs value: 2.5 m³/h (solid line)
 60 plates, 22 L/min. Kvs value: 3.28 m³/h (solid line)



Primary side, heating requirement, heat interface unit

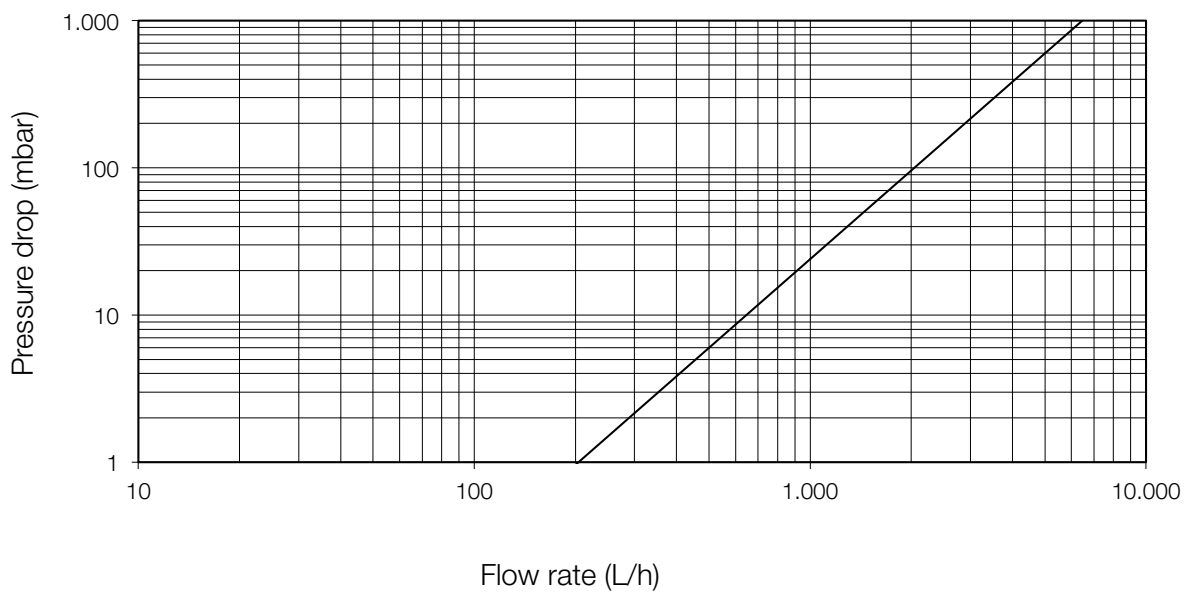
HIU 2 HKM, Kvs value: 1.6 m³/h (dotted line)

HIU 2 HKM, Kvs value: 1.7 m³/h (solid line)



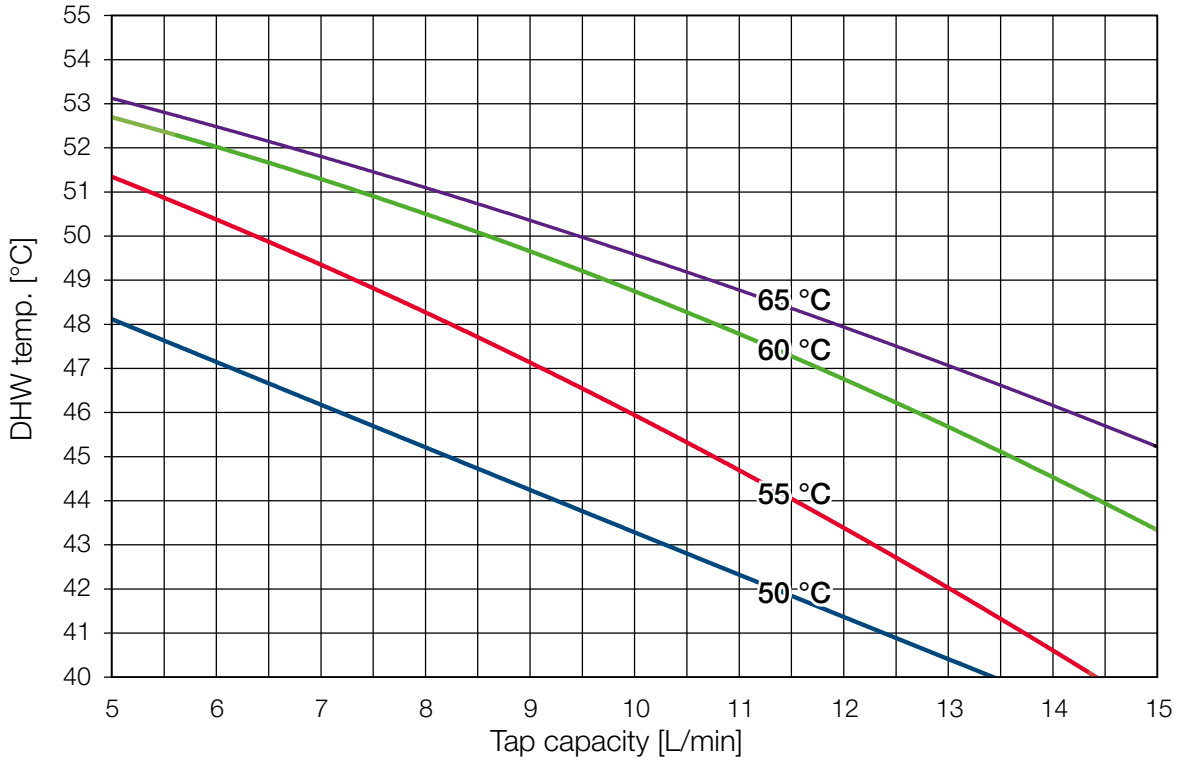
Secondary side, domestic cold water

Kvs value: 6.53 m³/h

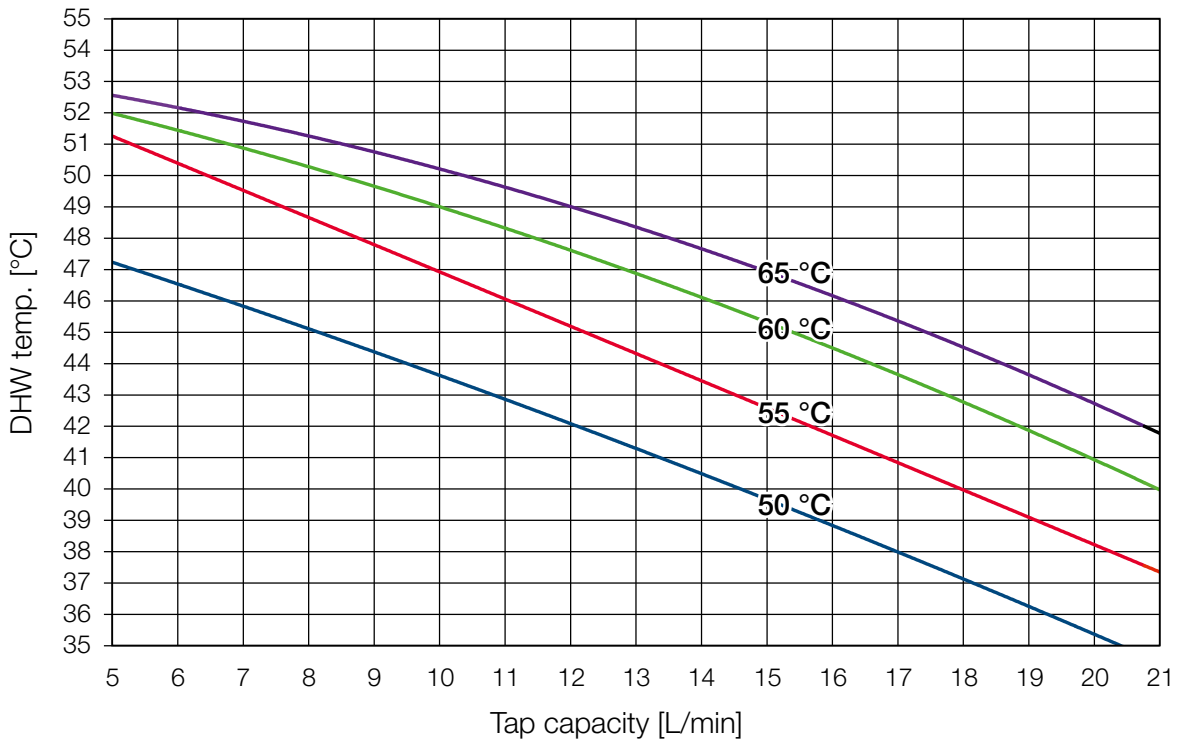


Performance characteristics for HIU2 HK/HKM

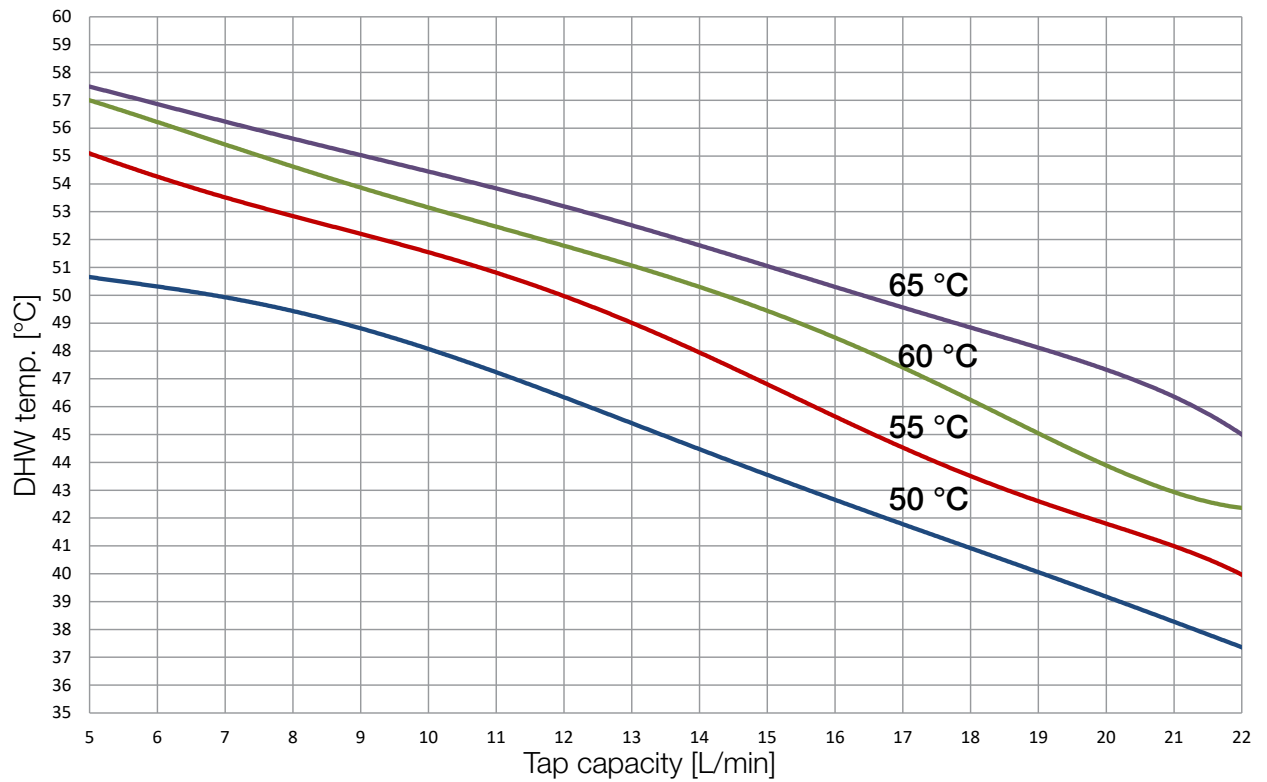
HIU 2 heat interface unit, 26 plates, 12 L/min., 200 mbar
DHW temperature of secondary circuit, at various primary flow temperatures



HIU 2 heat interface unit, 36 plates, 17 L/min., 200 mbar
DHW temperature of secondary circuit, at various primary flow temperatures

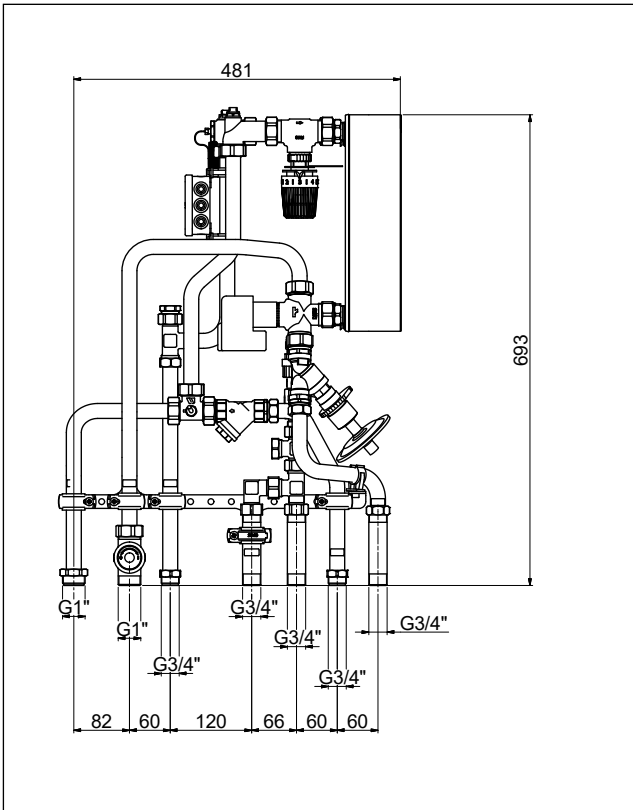


HIU 2 heat interface unit, 60 plates, 22 L/min., 250 mbar
DHW temperature of secondary circuit, at various primary flow temperatures

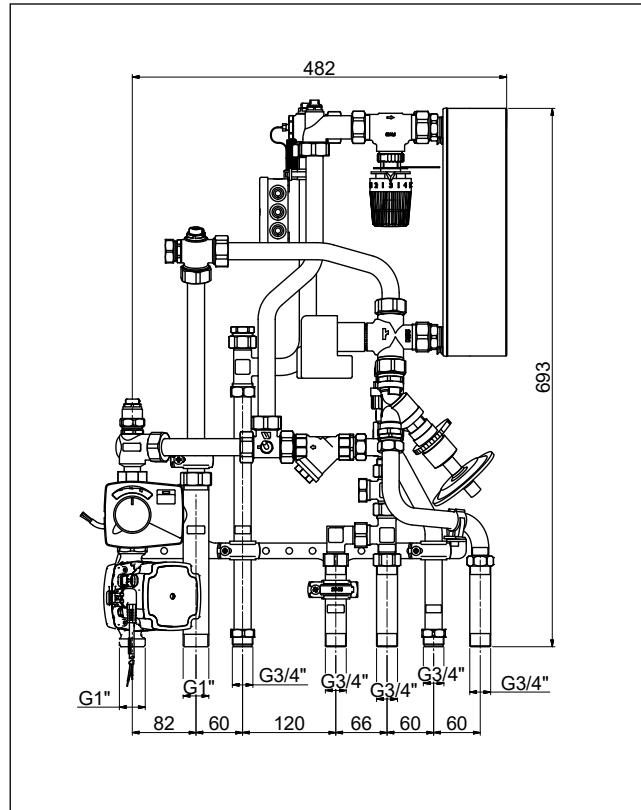


Dimensions

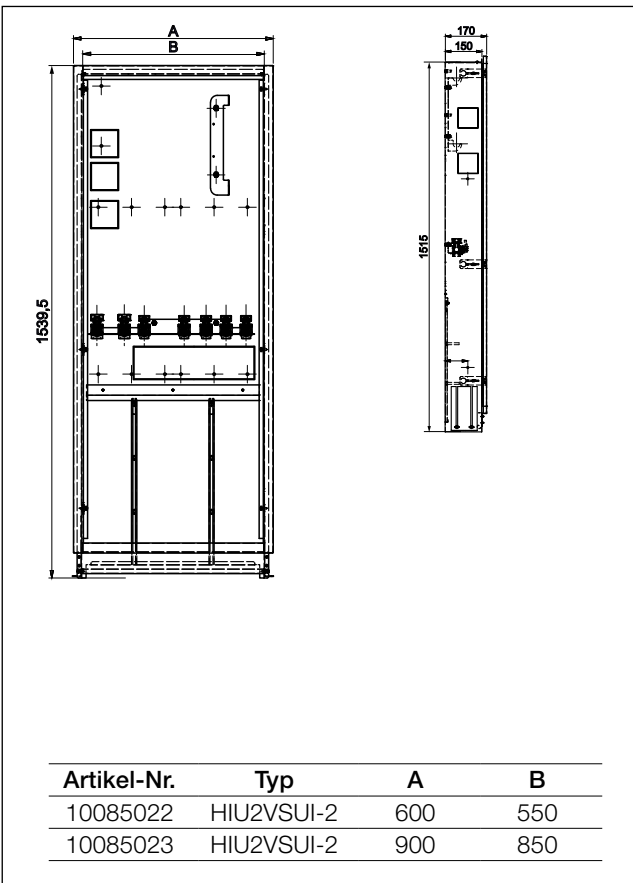
HIU2 HK



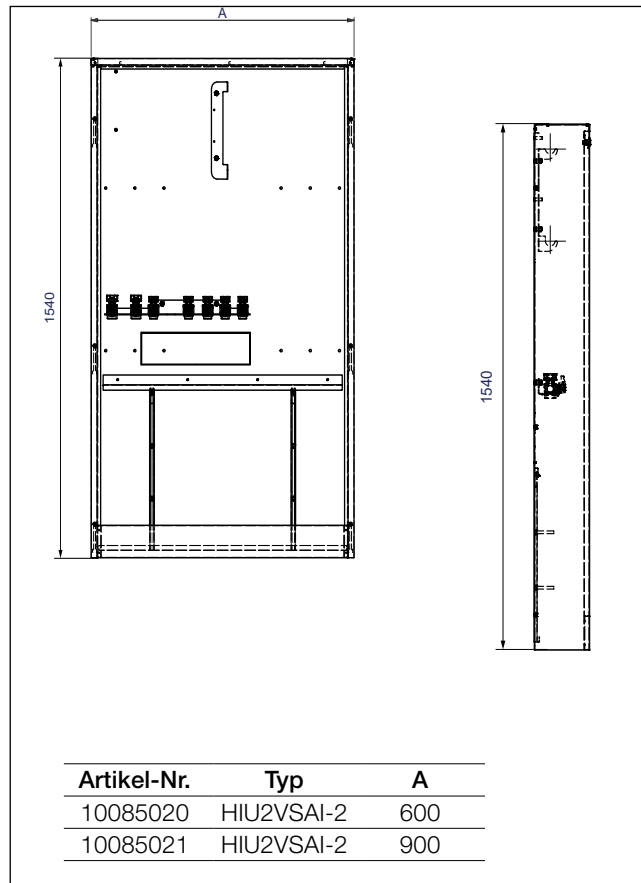
HIU2 HKM



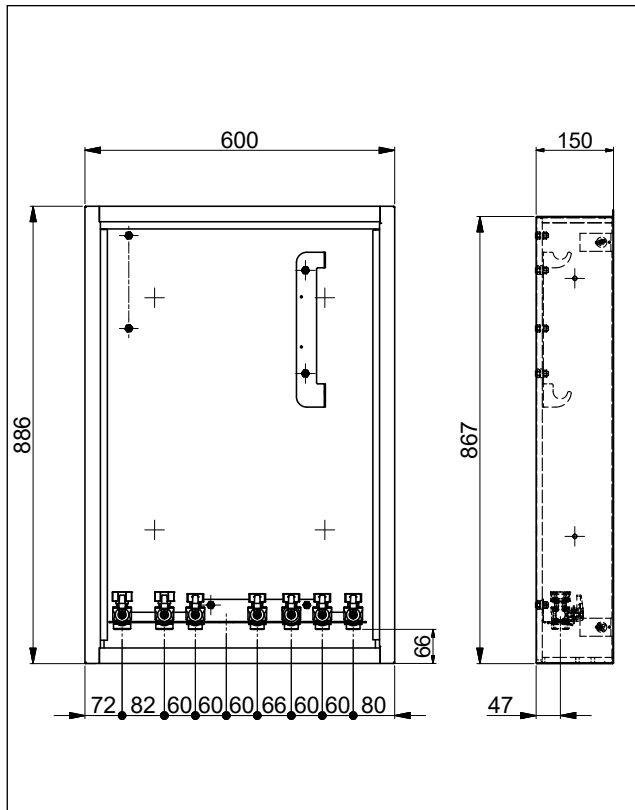
HIU2VSUI



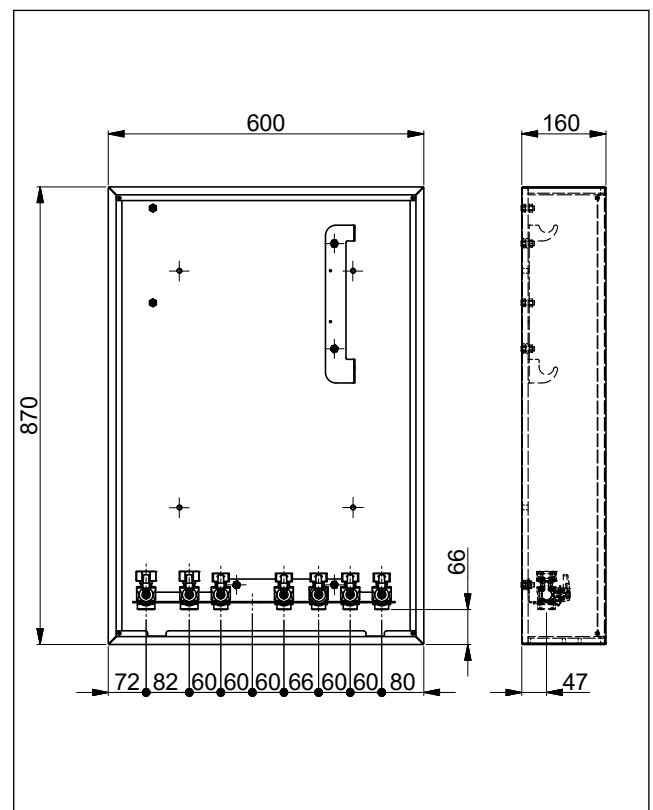
HIU2VSAI



HIU2U



HIU2A



Specification text

HIU 2 HK for unmixed heating circuits

For transferring heat from local or district heating networks to heating and domestic hot water (DHW) systems in single-family homes, apartment buildings, terraced housing or apartment blocks.

Direct connection to unmixed heating circuits such as radiators. Decentralised, hygienic domestic hot water generation by means of a plate heat exchanger (stainless steel or copper soldering).

Tap temperature freely adjustable between 20 and 70 °C, tap capacity 12, 17 or 22 L/min.

Includes a priority switch for domestic hot water generation. Integrated adapters for heat and cold water meters. Ready-to-fit, space-saving design with clear arrangement of all valves. Uniform, modular design of connections and accessories.

HIU 2 HKM for unmixed heating circuits

For transferring heat from local or district heating networks to heating and domestic hot water (DHW) systems in single-family homes, apartment buildings, terraced housing or apartment blocks. Direct connection to mixed heating circuits such as a radiant panel heating system. Decentralised, hygienic domestic hot water generation by means of a plate heat exchanger (stainless steel or copper soldering). Tap temperature freely adjustable between 20 and 70 °C, tap capacity 12, 17 or 22 L/min.

Includes a priority switch for domestic hot water generation. Integrated adapters for heat and cold water meters. Ready-to-fit, space-saving design with clear arrangement of all valves. Uniform, modular design of connections and accessories.

Includes a pump mixer subassembly with electronic fixed set point control of the flow temperature.

HIU2A system cabinet, wall-mounted

The robust housing is made of zinc-plated steel plate and has been designed to accommodate an HIU2 HK/HKM heat interface unit with all necessary components and accessories. The system cabinet consists of the body with front door, closure, a sturdy bracket for mounting the heat interface unit, and a pre-installed connecting rail with a shut-off unit comprising 7 ball valves. For quick removal at any time in the event of repair or exchange. The system cabinet and door are insulated in accordance with GEG (German Building Energy Law). Body and front doors are painted white.

HIU2U system cabinet, flush-mounted

The robust body is made of zinc-plated steel plate and has been designed to accommodate an HIU2 HK/HKM heat interface unit with all necessary components and accessories. The system cabinet consists of the body, a push-on frame with front door, closure, a sturdy bracket for mounting the heat interface unit and a pre-installed connecting rail with a shut-off unit comprising 7 ball valves. For quick removal at any time in the event of repair or exchange. The system cabinet and front door are insulated in accordance with GEG (German Building Energy Law). Push-on frames and front doors are painted white.

For detailed information on Watts heat interface units visit our website:

<https://www.watts.eu/en/products/eu/heat-interface-units>



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