



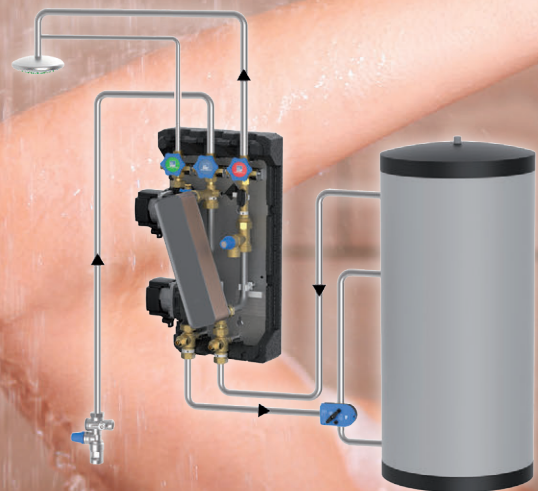
Friwa

Domestic hot water technology

Domestic hot water module - FriwaMini



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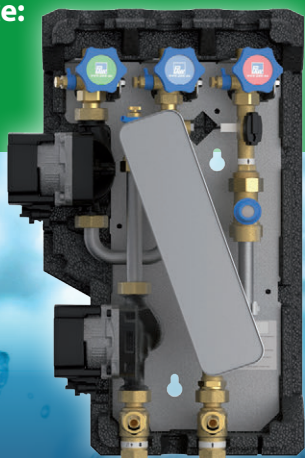
Domestic hot water module FriwaMini

Small, compact, powerful

Ideally suitable for the use in combination with solar thermal systems or low-temperature heating systems, such as heat pumps

Range of performance:

DN 15: FriwaMini
up to 28 l/min*



Characteristics of domestic hot water modules:

- ✓ Use in combination with heat pumps possible
- ✓ Optional circulation
- ✓ Small, compact, powerful
- ✓ Maintenance-free piston valves
- ✓ Faster response time thanks to a special control algorithm, greater comfort
- ✓ Ideal connection to the building control system via Modbus protocol
- ✓ Optional Internet module for a system monitoring and parametrisation
- ✓ Compliant with CE according to DIN EN 60335



Controller FC3.10 for FriwaMini

The controller FC3.10 sets the hot water temperature of the domestic hot water module via the rotation speed control of the primary pump. During operation, a special algorithm adjusts the control functions even faster to the given system conditions.

As additional functions, the controller performs the circulation control and the switching of the return distribution valve. Different circulation modes are available. They can be individually adapted to the requirements of the system.

An optionally available Internet module allows a monitoring and parametrisation of the system. The connection to the building control system is established via the Modbus protocol.

Function overview controller

Display	Full graphic display
Operation	4 push buttons
Relay outputs	3 x 230 V, semiconductor relay 2 x PWM signal for rotation speed control
Inputs	10 x Pt1000
Flow rate sensor	yes
Heat quantity balancing	yes
Circulation (depending on time / temperature)	yes
Return distribution	yes
Connection to the building control system (optional)	Modbus
I/O module (optional)	for the extension of the inputs/outputs

*Indication of performance as per SPF test procedure
LK 1 = performance indicator 1
at a set hot water temperature of 45 °C
at a primary flow temperature of 60 °C

FriwaMini – Technical data

Materials

Valves and fittings	Brass
Gaskets	AFM34 / EPDM
Insulation	EPP
Check valves	Brass
Heat exchanger	Plates + connecting pieces: 1.4401 (AISI 316) Solder: 99.99 % copper

Technical data

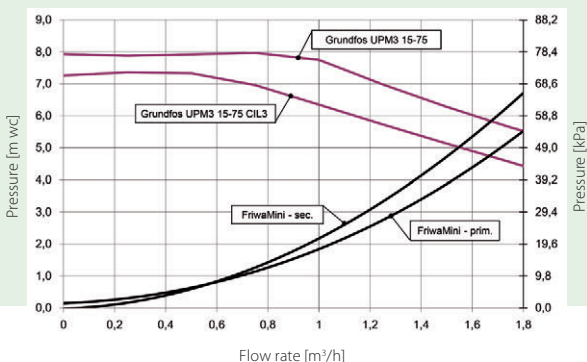
Maximum pressure	prim. / sec.: 10 bars
Max. operating temperature	prim. / sec.: 95 °C
Kvs value	prim.: 2.6 / sec.: 2.3

Dimensions

Connections	prim.: ¾" int. thread / sec.: 1" ext. thread
Width	306 mm
Height	543 mm
Depth	314 mm

Equipment


Heat exchanger	50 plates XB05
Check valves	primary: 1 x 400 mm wc
Flow rate measurement	VFS sensor, measuring range: 2-40 l/min
Sensors	2 Pt1000
Controller	FC3.10
Safety valve	sec.: 10 bars
Circulation	optional






Design data, cold water entry temperature = 10 °C

Set Temperature	Withdrawal capacity of hot water of 45 °C at a preset hot water temperature	Transfer capacity	Required primary flow temperature
45 °C	31 l/min 40 l/min	75 kW 97 kW	60 °C (LK 1)* 70 °C
60 °C	25 l/min	87 kW	70 °C (LK 2)*

FriwaMini up to 28 l/min – Order data

Illustration	Item	Item no.
	FriwaMini Pump prim.: Grundfos UPM3 15-75	
	FriwaMini – up to 28 l/min	6401510
	FriwaMini with circulation Pump prim.: Grundfos UPM3 15-75 Pump sec.: Grundfos UPM3 15-75 CIL3	
	FriwaMini with circulation – up to 28 l/min	6401515

Accessories FriwaMini - DN 15

	Return distribution set, 1" int. thread 3-way valve with actuator, Kvs value: 11	
	Return distribution set, 1" int. thread	640425
	Safety group For hot water storage tank, with shutoff device and adjustable non-return valve	
	Safety group	563907
	Withdrawal valve Flame-treated valves for sterile withdrawal of water. For the subsequent installation inside the Friwa module, on each piston valve of the domestic hot water circuit.	
	Withdrawal valve	640422



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