

Solar station FlowCon C+ Evolution II with integrated controller

3/4"/DN 20

USE in closed loop design only. The circulation unit is used on the primary circuit of solar heating systems to control the temperature in the hot water storage. The pump inside the unit is activated by the signal from the differential temperature controller. In addition, this unit contains the functional and safety devices for optimum circuit control.

Features:

All medium-bearing parts are made of brass.

All connections 3/4" compression fitting.

With pre-assembled steel wall bracket.

Full port ball valve in return pipe.

Check valve inside the flow and return ball valve, manual opener, thanks to 45° position of the ball valve handle, 200 mm wc (7.9" head) each, special design for solar thermal systems, avoids gravity circulation.

Large ball valve handles easy grip and visible closing position.

Airstop in the supply line
for a permanent deaeration of the heat transfer medium.

Function-optimized design insulation made of durable elastic EPP;
100% insulation of the fittings – excellent pump ventilation and cooling.

Solar controller integrated into the insulation, pre-wired and splash-proof.

Solar safety assembly
pressure relief valve 87 psi/6 bar, high-temperature pressure gauge 0-87 psi/0-6 bar, shut off valve, drain valve for flushing and filling, flat sealing connection for expansion tank.

Full metal solar temperature gauges, 32-320°F/0-160 °C
can be pulled off, with immersion sleeve integrated in the ball valve.

Fully assembled with flat sealing union connections

With 3-speed solar circulation pump by Wilo or Grundfos (without wire).

Pump can be completely isolated, no draining necessary during servicing.

Flowmeter

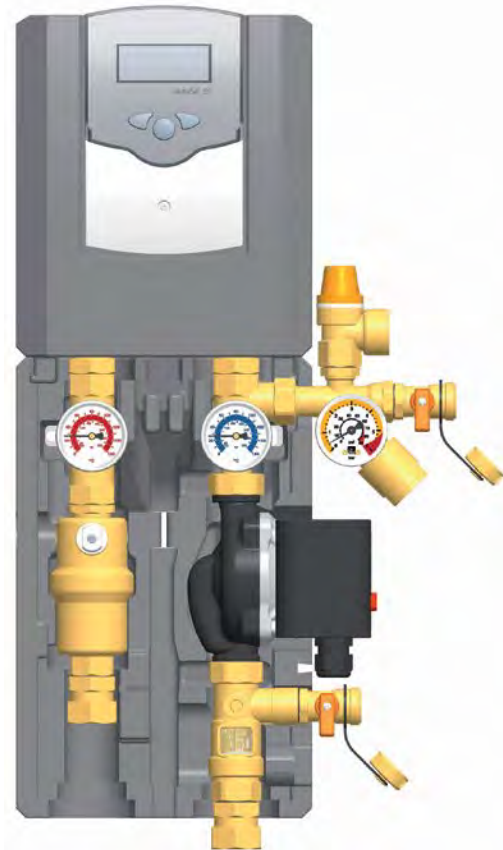
Flow quantity measuring device with adjustable flow quantity gauge and function control device, installed in the (cold) return - up to 266 °F/130 °C heat resistant – two measurement ranges: 0.8-6 USgpm or 3-22 l/min.

Flushing and filling unit integrated

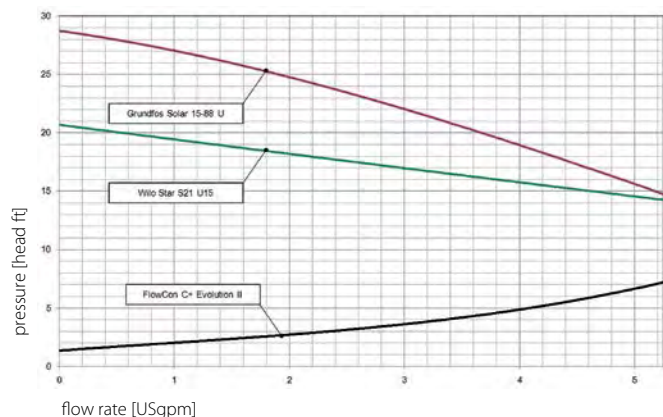
two drain valves (at the flow meter and at the safety assembly) permit filling and flushing the system.

The unit components enable:

- Medium circulation with specific pump
- Safety against pressure increase
- Accurate flow rate control
- Filling/draining the circuit
- Measuring the supply and return line temperature
- Separating the air contained in the circuit
- Shutting off the circuits and anti thermosyphoning
- Thermal insulation



Pressure drop FlowCon C+/Pump characteristic



TECHNICAL DATA FlowCon C+

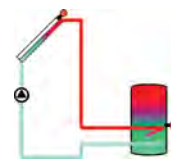
Dimension	3/4" - DN 20	
Material	fittings	brass
	gaskets	EPDM/NBR
	insulation	EPP
	check valves	brass
Techn. data	max. pressure	145 psi/10 bar
	max. temperature	266 °F/130 °C, temporarily 320 °F/160 °C
	equipment	check valves 2 x 200 mm wc
Equipment	flow meter range	0.8-6 USgpm or 3-22 l/min
	pressure relief valve	87 psi/6 bar, f. solar thermal systems
	pressure gauge	0-87 psi/0-6 bar, resistant to high temperatures
	temperature gauges	32-320 °F/0-160 °C, full metal
Dimensions	controller	Type BS plus
	connections	3/4" compression fitting
	pipe-center distance	100 mm/3.94"
	width of insulation	334 mm/13.15"
	height of insulation (without controller)	383 mm/15"
	height of insulation (with controller)	560 mm/22"

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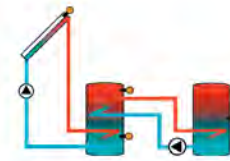
3/4"/DN 20

The **controller Type BS Plus** is integrated in the insulation. It is designed for the application in various basic systems. This controller has 2 standard relay outputs and 4 sensor inputs for Pt1000 temperature sensors. The illuminated display with system monitoring (with blinking symbols for a clear allocation of the indicated data) permits a simple and clear appliance and function control. The controller is equipped with a storage temperature limit, an operation hours' count, a thermostat function, a heat metering as well as (selectable) pipe collector functions. V-Bus. UL/CSA certified. Supplied with 4 Pt1000 sensors (Ø6 mm, 1 with silicon wire).

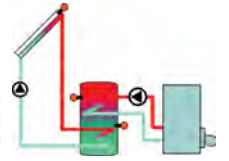
Overview of the functions	Controller type BS Plus
Indication	combined display as system monitor
Appliance	3 press buttons
Relay outputs	2 x standard
Sensor inputs	4, Pt1000
Operation hours' count	yes
Heat quantity count	yes
System choice	9 basic systems
Thermostat function	yes
Emergency shut-down	yes
Recooling function	yes
Solar collector cooling function	yes
Frost protection	yes
Special function for solar pipe collectors	yes



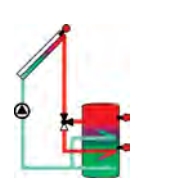
Solar thermal system with 1 storage



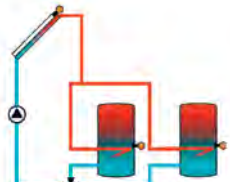
Solar thermal system with 1 storage and heat exchange control



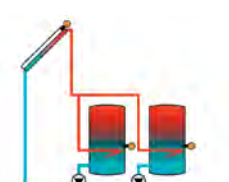
Solar thermal system with 1 storage and backup control



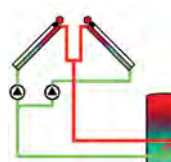
Solar thermal system with stratified storage



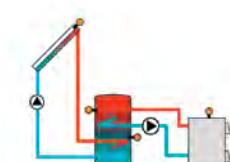
Solar thermal system with 2 storages, valve logic



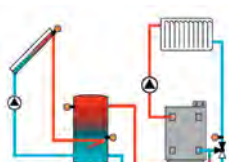
Solar thermal system with 2 storages, pump logic



Solar thermal system with east/west roof and 1 storage



Solar thermal system with 1 storage and a solid fuel boiler



Solar thermal system with temperature offset for heating circuit return

FlowCon C+ Evolution II				
FlowCon C+ Evolution II	Operating flow rate in solar loop		Performance	
	0.5 G/ft ² collector surface x h	20 l/m ² collector surface x h	25 kW	85.3 kBTU/h
	1 G/ft ² collector surface x h	40 l/m ² collector surface x h	12.5 kW	42.7 kBTU/h

Illustration	Options	Pumps	Item #
	FlowCon C+ Evolution II metric Flowmeter 3-22 l/min, temperature gauges in °C	3-speed pump: Grundfos Solar 15-88 U, 3/4" compression fitting Wilo-Star-S21 U-15-130, 3/4" compression fitting	7655219GS8NA 7655219WS7NA
	FlowCon C+ Evolution II imperial Flowmeter 0.8-6 USgpm, temperature gauges in °F	3-speed pump: Grundfos Solar 15-88 U, 3/4" compression fitting Wilo-Star-S21 U-15-130, 3/4" compression fitting	7655219GS8US 7655219WS7US