

SOLARKIT Series

Thermostatic unit for thermal integration

Technical Data Sheet



Description

In solar thermal systems, there is not always enough solar energy to deliver domestic hot water at the desired temperature, so a back-up boiler needs to be installed. Installed between the solar thermal system and the boiler, the **SOLARKIT Series** thermostatic unit regulates the temperature of the domestic hot water by automatically diverting the water to the back-up boiler when necessary.

SOLARKIT

Thermostatic unit for thermal integration of solar thermal systems and boilers. CW602N DZR brass body. Thanks to the 5 setpoint positions, the unit ensures accurate mixing of the water: mixed water temperature 30-65°C ±2°C. Flow rate at 3 bar: 63 l/min. Minimum flow rate: 5 l/min. Static pressure 10 bar. Operating pressure: 0.2-5 bar. Mixing valve side hot water operating temperature: 52-110°C. Mixing valve side cold water operating temperature: 5-20°C. Diverter valve opening temperature: 45°C.



Type	Part No.	DN	Weight (Kg)
SOLARKIT	97590	1" M	1.14

Technical features	
Max. static pressure	10 bar
Operating pressure	0.2-5 bar
Max. hot/cold water ΔP	1.5 bar
Nominal flow rate at 3 bar	63 l/min
Minimum flow rate	5 l/min
Mixed water temperature	30-65°C ±2°C
Mixing valve side hot water operating temperature	52-110°C
Mixing valve side cold water operating temperature	5-20°C
Diverter valve opening temperature	45°C

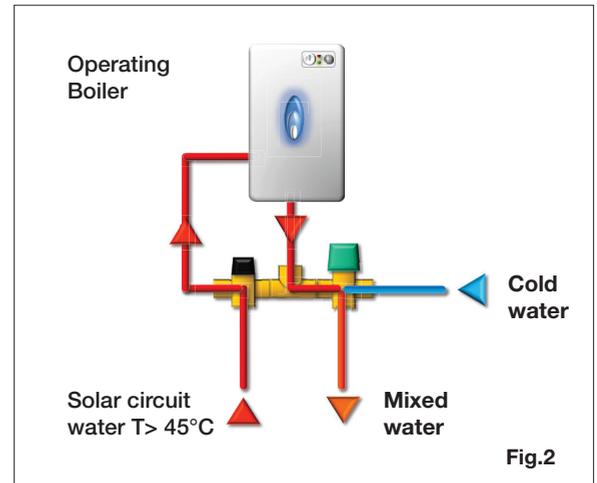
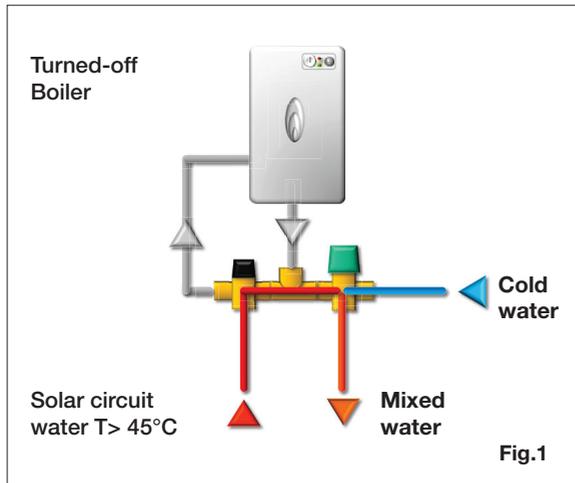
Features	
DZR brass body	DZR CW602N
Caps	Fibreglass-reinforced PA
Seals	EPDM
Other components	CW614N brass
Connections	1" M

Application

The **SOLARKIT Series** thermostatic unit for thermal integration of solar thermal systems and boilers is a fully automatic component for controlling solar thermal systems for domestic hot water production. Without drawing energy from any external sources, the unit uses thermostats to divert the water to a back-up boiler when there is not enough solar energy to heat the domestic hot water to the desired temperature.

Operation

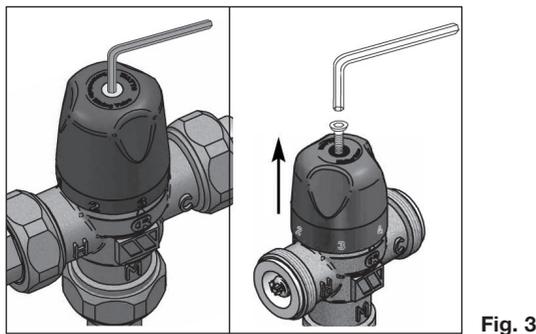
The **SOLARKIT Series** thermostatic unit consists of two thermostatic valves: the first acts as a diverter valve and the second as a mixing valve. If (**Fig.1**) the water from the circuit or solar storage tank has a temperature of more than 45°C, it enters the mixing valve directly, which adjusts its temperature and sends it to the user. If (**Fig.2**), however, the water from the circuit or solar storage tank has a temperature of less than 45°C, the diverter valve is actuated. The water is sent to a boiler, where it is heated, and then goes back to the SOLARKIT, from which it is sent to the user, via the mixing valve, at the desired temperature.



Adjustment

The mixed water temperature of the mixing valve is factory-set to 50°C. To change this setting, simply unscrew the retaining screw in the top of the cap (**Fig.3**), lift the cap slightly and adjust the temperature. Once you have set the desired temperature, lower the cap and re-tighten the retaining screw.

You are advised to run the mixed water for 1 minute before making the final adjustment.



Installation

The **SOLARKIT Series** thermostatic unit can be installed in any position, either vertical or horizontal:

- 1- Before installation, flush out the hot and cold water pipes to remove any debris that might adversely affect the correct operation of the thermostatic unit. You are advised to install filters on each inlet.
- 2- Make sure the inlet fitting seals are in good condition. You are advised not to use sealants.
- 3- Connect the thermostatic unit inlets correctly, as per the diagrams in the instruction manual.
- 4- Install the unit in such a way that it is accessible for future maintenance operations.

