

Chapter 9

Components for
renewable energy
systems

MMV-S - Thermostatic mixing valve



Thermostatic mixing valve
For high-temperature solar energy systems
Anti-scald safety

WATTS®

Chapter 9

Components for renewable energy systems

SOLAR THERMAL

SOLARKIT

Thermostatic unit for thermal integration of solar thermal systems and boilers, consisting of an MMV-S series mixing valve, a T-fitting and a diverter valve. CW602N DZR brass body. Setting positions: 5. Mixed water temperature: $30-65 \pm 2^\circ\text{C}$.

Flow rate at 3 bar: 63 l/min - Minimum flow rate: 5 l/min. PN 10. Operating pressure: $0.2\div 5$ bar. Mixing valve side hot water operating temperature: $52\div 110^\circ\text{C}$. Mixing valve side cold water operating temperature: $5\div 20^\circ\text{C}$. Diverter valve opening temperature: 45°C .



Part Number	DN	Setting	Qty/Box	Box/Carton
97590	1" M	5	1	1

Dimensions at the end of the section.

MMV-S

Thermostatic mixing valve for solar energy systems. Nickel-plated brass body.

Setting positions: 5. Mixed water temperature: $30-65 \pm 2^\circ\text{C}$. Flow rate at 3 bar: 63 l/min.

Minimum flow rate: 5 l/min. PN10. Operating pressure: $0.2\div 5$ bar.

Hot water operating temperature: $52\div 110^\circ\text{C}$. Cold water operating temperature: $5\div 25^\circ\text{C}$.

Compliant with EN1111/00 and EN 1287/02.

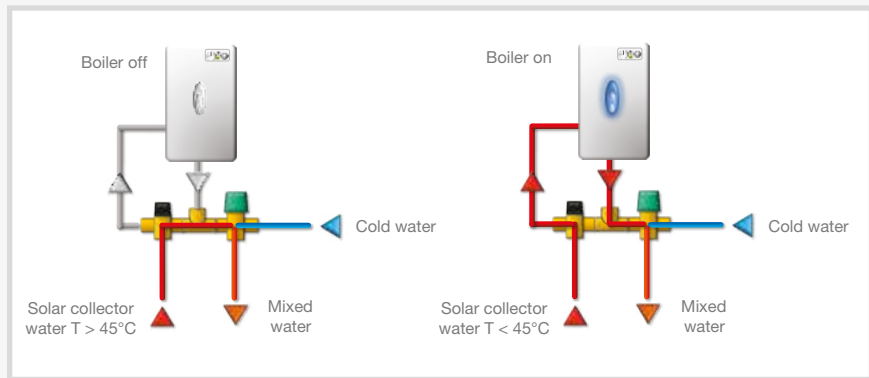


Part Number	DN	Finishing	Qty/Box	Box/Carton
97501	1" with fitting 3/4" M	Brass	1	1
97560	1" M	Brass	1	1

Dimensions at the end of the section.

TECHNICAL NOTE
SOLARKIT operation

The SOLARKIT 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.



SVE-SOL

Diaphragm safety valve for solar energy systems. CW617N brass body and cap, EN12165-99. Elastomer diaphragm. Pre-set and sealed discharge pressure.
Max. operating temperature: -10÷160°C. Fluids: water with glycol up to 50% as per DIN 4757 Part 1.
TÜV SOLAR certified. Compliant with PED Directive 2014/68/EU Identification number CE1115.



Part Number	DN	bar	Qty/Box	Box/Carton
0215835	1/2" x 3/4"	3,5	1	40
0215840	1/2" x 3/4"	4	1	40
0215860	1/2" x 3/4"	6	1	40
0215880	1/2" x 3/4"	8	1	40

Dimensions at the end of the section.

RIA/MV-SOL

Automatic shut-off valve for MV-SOL air vent valves. Makes it possible to change the valve with the system running. CW614N brass body, EN12164-01. Gasket: high-strength elastomer.
Plug: high-strength polymer. Spring: stainless steel. MF 3/8" and 1/2" DIN - ISO 228/1 connections.



Part Number	DN	Spring	Qty/Box	Box/Carton
0259315	1/2" x 1/2"	stainless steel	10	400

Dimensions at the end of the section.

QUICKFILL

Brass filling valve for solar circuits, equipped with double closure valve to facilitate filling and draining the system.
Quick to install, in any position.



Part Number	Description	Note	Qty/Box	Box/Carton
3499635	with compression fitting 22 mm	-	1	1

ST

Pt1000 temperature sensors:

- in silicone sheath, up to 105°C, length 3 metres (suitable for tank);
- in PVC sheath, up to 180°C, length 1.5 metres (suitable for solar collector).

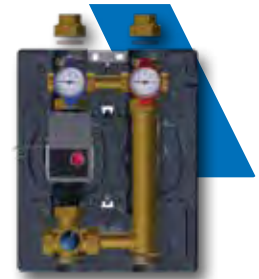


Part Number	Lenght	Max temp.	Qty/Box	Box/Carton
PPLELE00061	1,5 m	- 180 °C	1	1
PPLELE00060	3,0 m	- 105 °C	1	1

COMPONENTS FOR BIOMASS SYSTEMS

KLS 8180-FLOWBOX

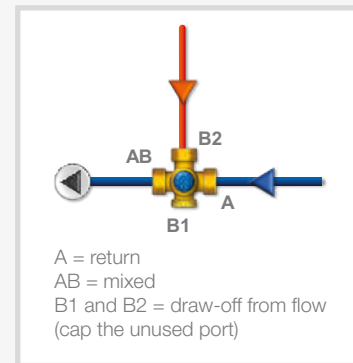
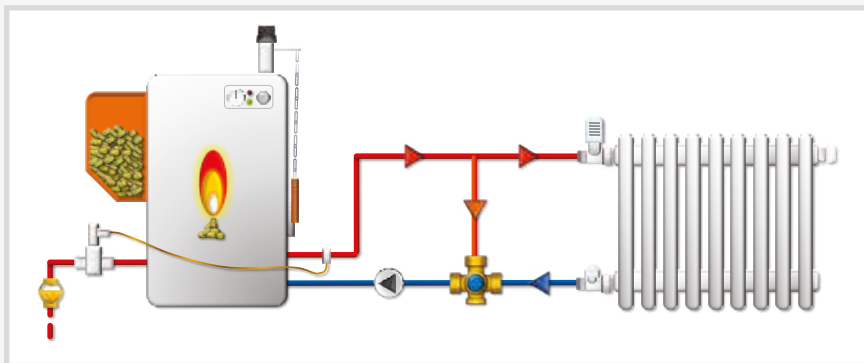
Compact circulation unit for solid-fuel-fired boilers with thermostatic anti-condensation unit. Pre-wired circulation pump (centre distance 180mm), dynamic anti-condensation bypass with boiler return temperature of 58±2°C. Shut-off valves with built-in thermometer and manual/automatic check valve. 1”M union connections and wall-mounting bracket. EPP insulation. Suitable for heat output of up to 50 KW.



Part Number	Description	Connection	Qty/Box	Box/Carton
10026343	GRUNDFOS ALPHA 2L 25-60	1”	1	1

TECHNICAL NOTE - KLV thermostatic anti-condensation valve

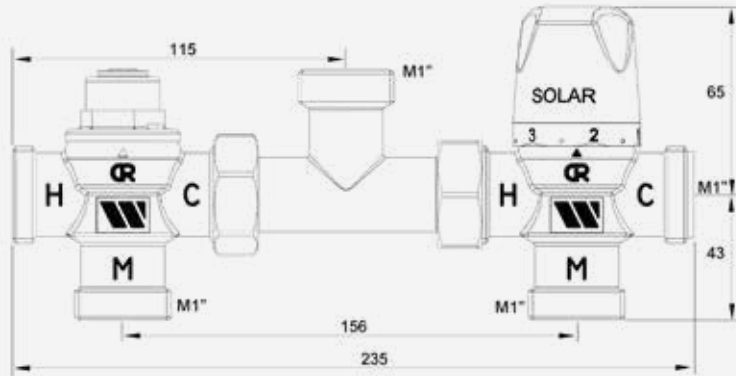
During combustion in a boiler, the moisture naturally present in biomass is released into the flue gases in the form of water vapour. If cooled at a temperature below the dew point, this vapour (which is often acidic) condenses, causing the boiler to corrode and drastically reducing its service life. When the boiler starts up, the KLV thermostatic anti-condensation valve brings the system rapidly up to temperature, and if the water in the return circuit gets too cold during normal operation, the KLV valve mixes it with flow water before it reaches the boiler.



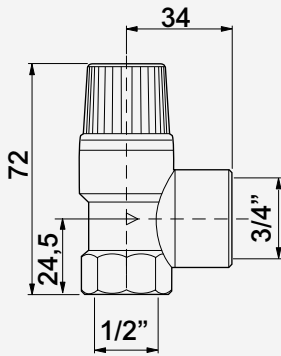
For HK Pumps see section 5.

OVERALL DIMENSIONS

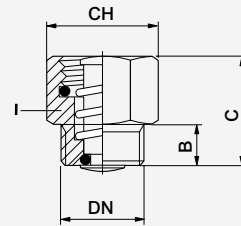
SOLARKIT



SVE-SOL

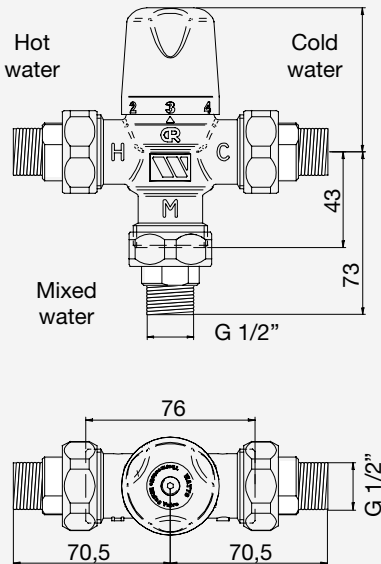


RIA/MV-SOL

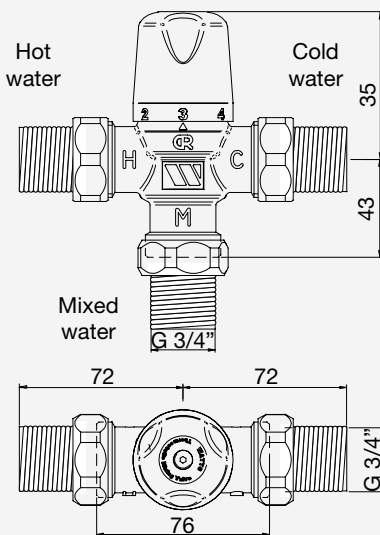


DN	B	C	CH
3/8"	8	11	19
1/2"	8	11	24

MMV-S 1/2"



MMV-S 3/4"



MMV-S 1"

