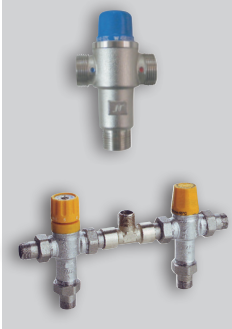


ANTARES

for water and fire



C.067.10

Thermostatic diverting valve 45°C body 1" M

C.067.03

Thermostatic diverting valve 45°C body 3/4" M

C.069.03

Diverter kit + regulating mixer for solar panel systems 3/4" M

C.069.02

Diverter kit + regulating mixer for solar panel systems 1/2" M

UK Thermostatic diverting valve 45°C for solar systems

Function

The solar diverter valve and regulation kit with diverter and ANTARES thermostatic mixer find application in solar heating systems, in all situations where one wants to deviate the flow route in function of instant temperature gained and supply adequate regularity. The thermostatic sensor submerged in the fluid "senses" the temperature and in function of the value of SET POINT (45°C) deviates the route. The thermostatic diverter does not present electric/electronic devices greatly benefiting in reliability, simple installing and energy saving. The value of SET POINT is preset at the factory at 45°C, it is not possible to vary set value.

Uses

One of the typical uses for the thermostatic diverter can be found in heating solar systems to optimize energy saving and improve home comfort. On days where solar radiation is scarce (spring - autumn) the solar panel is not able to warm the domestic water to acceptable temperature levels to be distributed to the consumer; at this point a heat generator becomes necessary to raise the fluid temperature. ANTARES' thermostatic diverter valve preset at 45°C is able to deviate the fluid directly to the system if the temperature is superior to 45°C or if inferior values to 45°C to the boiler/generator to raise the temperature to optimal levels (60°C). In this way the solar panel is used even with minimum rays and will work as a preheater of fluid, reducing expenditure of energy from the generator.

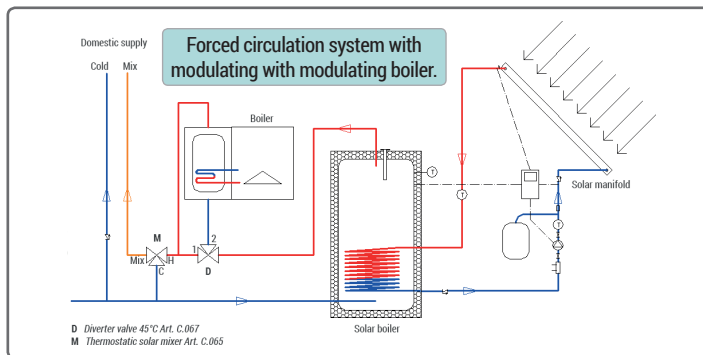
Water with temperature superior to 45°C coming from the diverter valve or from the boiler can be directed to entrance H of a thermostatic mixer, that mixing it cold water from the mains returns water to the preset temperature by the installer or by the consumer using the knob. All this is simply actioned by using the kit C.069.03 with 3/4" connection or kit C.096.02 with 1/2" connection that joins the thermostatic diverter to a thermostatic mix.

The proposed scheme presents many advantages especially when sunrays are scarce the boiler heats only the quantity of water that is strictly necessary to the consumer, without heating all the accumulated solar fluid. The diverter valve is employed in excluding the boiler circulation when the sun is bright exploiting completely the benefits of thermic solar systems with the security that if the temperature in the solar caldron is <45°C the boiler comes into action.

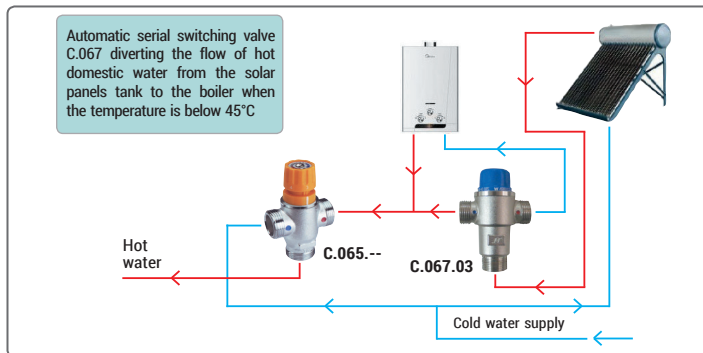
The scheme proposed is only one of the many solutions that can be realized in function of the different necessities in everyday use.

The use of the following devices advised with boilers/generators equipped even with small storage.

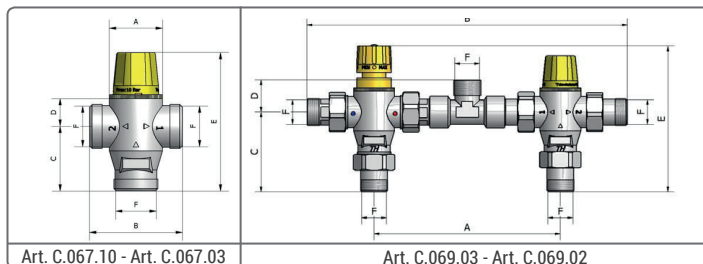
Boilers which produce instant domestic hot water must be of modulating power type.



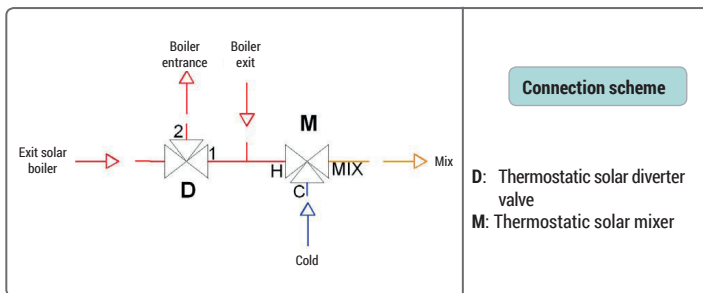
AN EXAMPLE OF ILLUSTRATED INSTALLATION SCHEME



AN EXAMPLE OF ILLUSTRATED INSTALLATION SCHEME



	C.067.10	C.067.03	C.069.03	C.069.02
A	Ø 40	Ø 34	182	159
B	70	60	310	275
C	49	52	80	80
D	21	20	32	27
E	105	104	112	106
F	1"	3/4"	3/4"	1/2"



Connection scheme

- D: Thermostatic solar diverter valve
- M: Thermostatic solar mixer

Materiali

- Body in coined brass UNI EN 12165 CW617N - sanded and chromed
- Valve and internal parts: brass UNI EN12165 CW614N
- Spring : stainless steel AISI 302
- Sealing elements: EPDM
- Thermosensitive element submerged in mixed fluid for high temp.
- Cap : nylon PA

Maintenance

- The diverter valve does not require particular periodical maintenance.
- In case abnormal function is noticed on deviation between exits, we advise to check the connection and clean the valve from eventual incrustations.
- It is advisable NOT TO disassemble the valve.

Conexiones

Diverter valve 1" Art C.067.10

- Fluid entrance, 1" M
- 1 Fluid exit > 45°C 1" M
- 2 Fluid exit < 45°C 1" M

Diverter valve 3/4" Art. C.067.03

- Fluid entrance, 3/4" M
- 1 Fluid exit > 45°C 3/4" M
- 2 Fluid exit < 45°C 3/4" M

To install regulating kit for solar panel systems 3/4" Art. C.069.03 adhere to connections:

- Connect the exit of domestic water from the solar boiler to entrance spigot of the diverter valve.(3/4" M)
- Connect spigot to exit 2 of the diverter valve(3/4" M) to the entrance of boiler/generator.
- Connect spigot to entrance C of the thermostatic mixer (3/4" M) to domestic water mains.
- Connect exit MIX of the thermostatic mixer (3/4" M) to domestic water system.
- Connect exit of hot water of boiler/generator to the T connection(3/4" M) preassembled in kit described between diverter valve and thermostatic mixer.

To install regulating kit for solar panel systems 1/2" Art C.069.02 adhere to connections:

- Connect entrance spigot of the diverter valve (1/2" M) to exit of domestic water from solar boiler.
- Connect spigot to exit 2 of the diverter valve(1/2" M) to entrance of boiler.
- Connect spigot to entrance C of the thermostatic mixer (1/2" M) cold water mains.
- Connect exit MIX of the thermostatic mixer (1/2" M) to domestic water system fo use.
- Connect the exit of hot water of the boiler/generator to connection T (1/2" M) preassembled in the kit described between diverter valve and thermostatic mixer.

After having installed kit regulate temperature of mixer as desired.

Hydraulic characteristics

Max working pressure	10 bar (1.000 KPa)
Recommended working pressure	1÷5 bar (100÷500 KPa)
N:B: For pressure above 5 bar install reducer	
Max incoming water temp.	100 °C
ΔT for changing diverter	4,5 °C
Thermostatic mix regulation range	20 ÷ 65°C
Pin point mixer	± 2 °C
Delivery version 1" (3 bar) exit 1	48,3 (l/min)
Delivery version 1" (3 bar) exit 2	41,6 (l/min)
Delivery version 3/4" (3 bar) exit 1	- (l/min)
Delivery version 3/4" (3 bar) exit 2	- (l/min)

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