

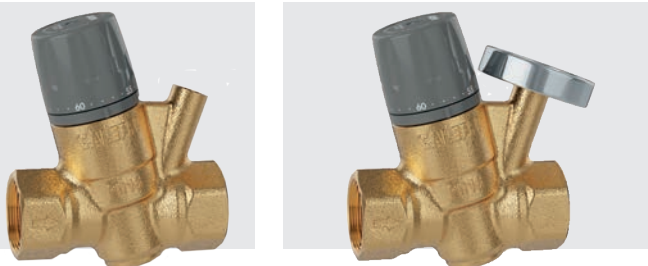
1164

thermostatic regulator for
hot water recirculation



altecnic
CALEFFI group

1164 thermostatic regulator for hot water recirculation



Introduction

The Altecnic thermostatic regulator for domestic hot water re-circulation systems automatically maintains the specified water temperature.

Function

The thermostatic regulator is intended to be installed in the return pipe of each re-circulation circuit, automatically maintaining the specified water temperature.

The regulator controls the flow rate in accordance with the inlet water temperature by means of a dedicated internal thermostatic cartridge.

When the water temperature approaches the set value, the obturator progressively close and reduces the flow passage reducing the amount of water re-circulating.

The water supplied by the re-circulation pump is available to be distributed to other branches in the system, resulting in effective automatic thermal balancing.

Temperature gauge available.

Insulation shell available upon request

Product Range

- 116441 Rp $\frac{1}{2}$ regulator with temperature gauge
- 116440 Rp $\frac{1}{2}$ regulator probe pocket for temperature gauge
- 116450 Rp $\frac{3}{4}$ regulator probe pocket for temperature gauge
- 116415 15mm regulator probe pocket for temperature gauge
- 116420 22mm regulator probe pocket for temperature gauge
- 116010 Temperature gauge
- CBN116040 Insulation shell - optional

Materials of Construction

Component	Material	Grade
Body	DZR - low lead	BS EN 12165 CW724R
Adjustable cartridge	PSU polymer	
Seals	Elastomer	EPDM
Adjustment knob	ABS polymer	
Springs	Stainless steel	BS EN 10270-3 AISI 302
Compression nut	Brass	
Olive	Brass	

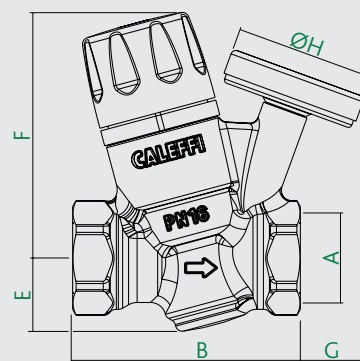
Note: Dezincification resistant low lead brass with lead content below 0.25% lead content.

Insulation Shell

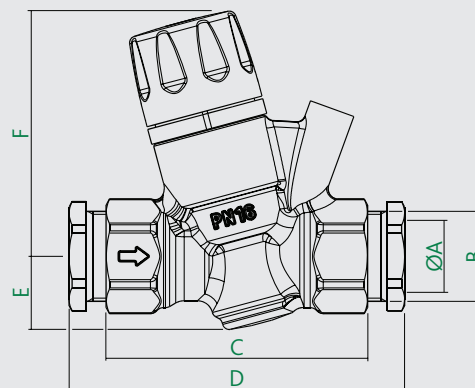


CBN116440
Insulation shell

Dimensions



Ref No	A	B	E	F	G	H
116440	Rp $\frac{1}{2}$	66.5	21.4	71.7		
116441	Rp $\frac{1}{2}$	66.5	21.4	71.7	18.3	40
116450	Rp $\frac{3}{4}$	76.5	21.4	71.7		



Ref No	A	B	C	D	E	F
116415	15	G $\frac{1}{2}$	66.5	95.5	21.4	71.7
116420	22	G $\frac{3}{4}$	76.5	98.1	21.4	71.7

Technical Specification

Kv maximum:	1.8 m ³ /h
Kv min @ 58°C (1/2" & DN15):	
Kv min @ 58°C (3/4" & DN20):	0.12±20% m ³ /h
Kv (Dt = 5K):	0.45 m ³ /h
Max. working pressure:	10 bar
Max. differential pressure:	1 bar
Temperature adjustment range:	40 to 65°C
Factory setting:	58°C
Temperature gauge (code 116010):	Scale 0 to 80°C Ø 40 mm

Connections -

Rp 1/2" but with 15mm conversation to compression supplied as standard - for use with R250 (half hard) copper tube.

Rp 3/4" but with 22mm conversation to compression supplied as standard - for use with R250 (half hard) copper tube.

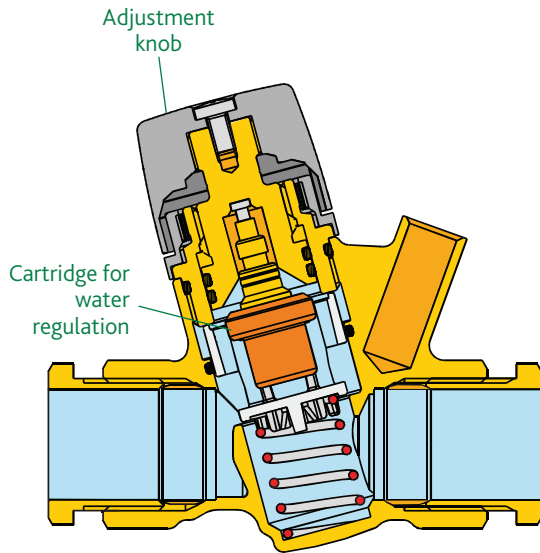
Temperature Gauge - Code 116010



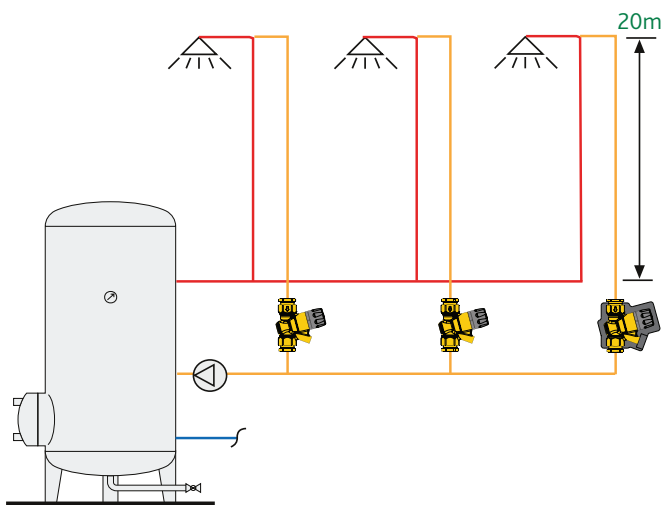
Scale:	0 to 80°C
Diameter:	Ø 40 mm
Stem diameter:	Ø 9 mm

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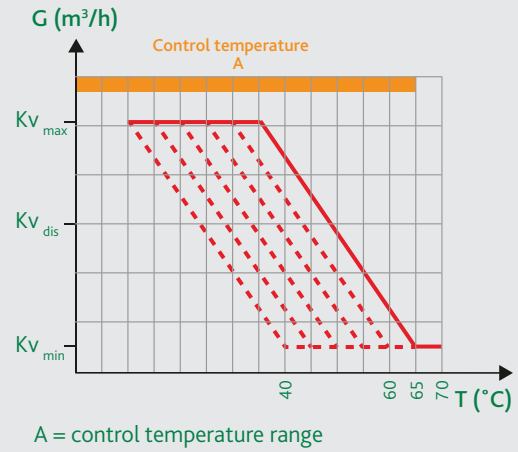
Construction



Typical Installation

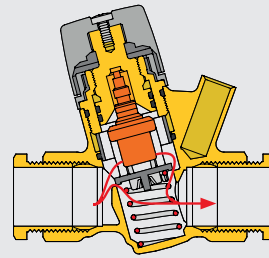


Regulating Characteristics

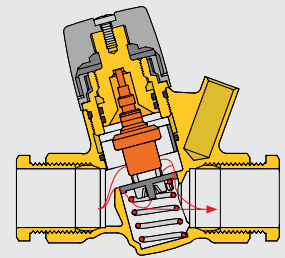


Regulating Characteristics

1 - Thermostatic regulation



2 - Minimum flow rate



1 Thermostatic Regulation

On reaching the set temperature, the obturator governed by the thermostatic sensor, modulates and reduces the flow path and flow through the valve. If the temperature decreases, there is the opposite action and the passage reopens, so as to ensure that all the branches of the system reach the required temperature.

2 Minimum Open Position

As the temperature approaches 65°C the obturator enters fully into the seat bore and this is the minimum open position. In this position the valve does not isolate the flow but allows a small flow through the seat to maintain hot water re-circulation.

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Registered in England No: 2095101

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AL 324 10-12-20

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