

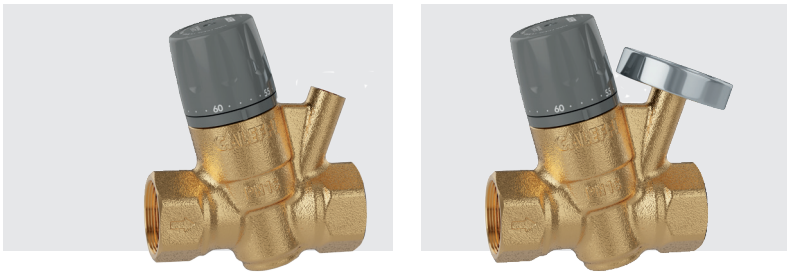
1164

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 Rp½ regulator with temperature gauge
- 116440 Rp½ regulator probe pocket for temperature gauge
- 116450 Rp¾ 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	

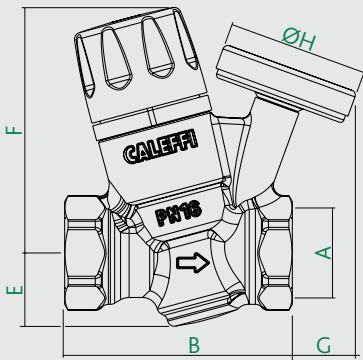
Note: Dezincification resistant low lead brass with lead content below 0.25% lead content.

Insulation Shell

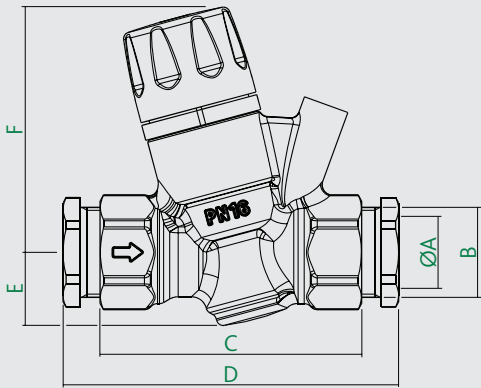


CBN116440
Insulation shell

Dimensions



Ref No	A	B	E	F	G	H
116440	Rp½	66.5	21.4	71.7		
116441	Rp½	66.5	21.4	71.7	18.3	40
116450	Rp¾	76.5	21.4	71.7		



Ref No	A	B	C	D	E	F
116415	15	G½	66.5	95.5	21.4	71.7
116420	22	G¾	76.5	98.1	21.4	71.7

Technical Specification

Kv maximum:	1.8 m³/h
Kv min @ 58°C (½" & DN15):	
Kv min @ 58°C (¾" & DN20):	0.12±20% m³/h
Kv (Dt = 5K):	0.45 m³/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 ½" but with 15mm conversion to compression supplied as standard - for use with R250 (half hard) copper tube.
- Rp ¾" but with 22mm conversion to compression supplied as standard - for use with R250 (half hard) copper tube.

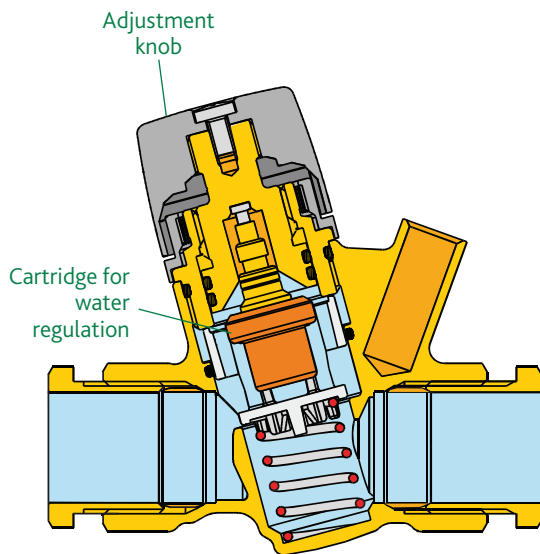
Temperature Gauge - Code 116010

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

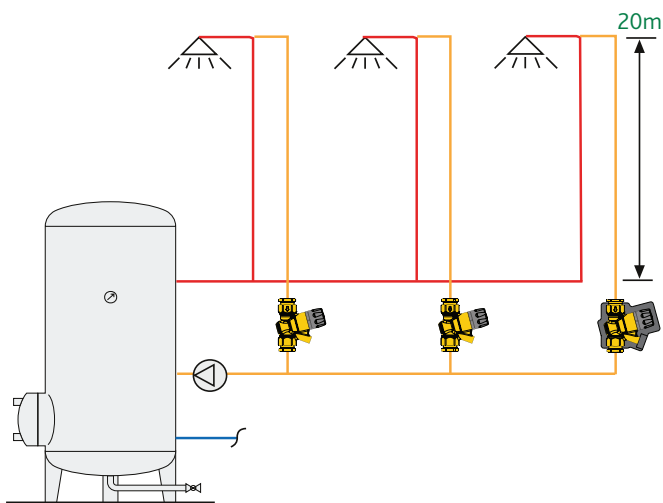


1164 thermostatic regulator for hot water recirculation

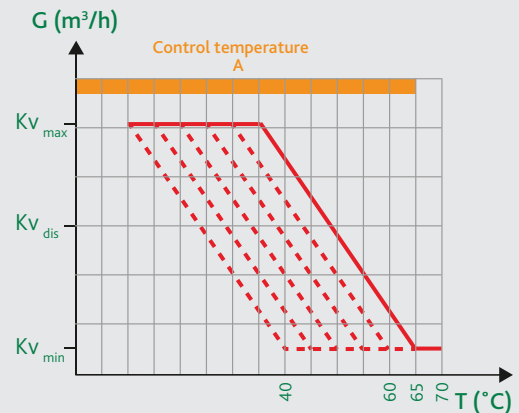
Construction



Typical Installation



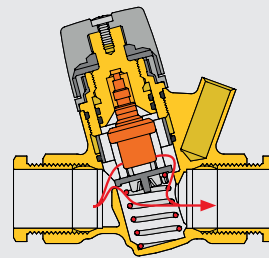
Regulating Characteristics



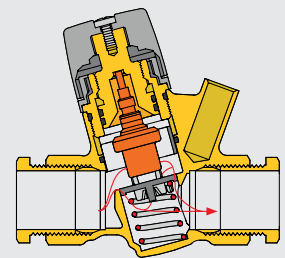
A = control temperature range

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.

© Patents & Design Altecnic 2025

Altecnic Ltd retains all rights (including patents, designs and copyrights, trademarks and any other intellectual property rights) in relation to all information provided on or via the website, brochures or any other documents, including all texts, graphics and logos, contained on the website, in brochures or in any other documents published in the name of or on behalf of Altecnic Ltd in any form, without prior written consent of Altecnic Ltd.

Altecnic Ltd Francesco House, Staples Close, Stafford ST16 1WQ

T: +44 (0)1785 218200 E: sales@altecnic.co.uk

Registered in England No: 02095101

altecnic.co.uk

AL 324 11-03-25

E & O.E

© Altecnic Limited. 2025

ALTECNIC™

altecnic
CALEFFI group