

105 Commercial

radiator valve twin pack



TELL
Thermostatic Efficiency Label

Manufacturer: **Caleffi S.p.A.**
Model: **200000**
Registration number: **10429-20110827**



Information: www.tell-online.eu

A Label of EU United Valves
European Valve Manufacturers Association

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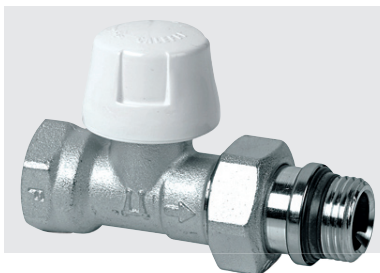
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028

altecnic
Caleffi group

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Application

The Altecnic commercial radiator valve range can be used with a thermostatic controller or a manual operator.

Thermostatic radiator valves are typically used for regulating the flow to radiators of central heating systems. They can also be used with a remote sensor to control the flow to heated ceilings and fancoils.

The thermostatic controller contains a liquid filled element which automatically controls the opening of the valve to keep the ambient temperature of the room at the set temperature.

This prevents temperature fluctuations in the room and achieves considerable energy savings.

Their aesthetic design satisfies the requirements of modern commercial buildings.

With chrome plated bodies and white controllers they match other valves in the Altecnic range and give an unobtrusive appearance and complements most decors.

Design

The thermostatic controller has a '0' setting which prevents flow but when positive isolation is required the manual cap must be used.

The frost setting prevents the radiator and pipework from freezing and causing damage from flooding to floor coverings and structural items.

Note: For the frost setting to operate the heating system must be switched on.

The inlet connection to all valves is a female pipe thread to BS EN 10226 for use with steel pipe or an adaptor for other pipe systems.

The outlet connection is a union tailpipe with an external pipe thread to BS EN 10226.

Supplied with manual cap for stem protection and manual isolation.

Altecnic thermostatic radiator valves are BS EN 215 certified.

Note: components marked * are approved under the CEN Keymark scheme for thermostatic radiator valves.

Product Range

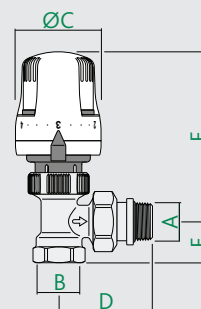
105-1505 1/2" angled twin pack consisting of a TRV body, thermostatic controller and lockshield valve.

105-1506 3/4" angled twin pack consisting of a TRV body, thermostatic controller and lockshield valve.

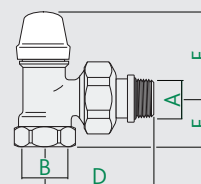
105-2205 1/2" straight twin pack consisting of a TRV body, thermostatic controller and lockshield valve.

105-2206 3/4" straight twin pack consisting of a TRV body, thermostatic controller and lockshield valve.

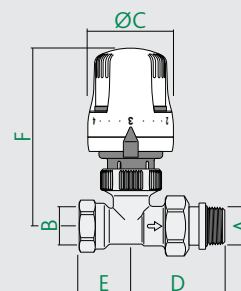
Dimensions



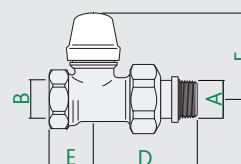
Code	A	B	C	D	E	F
105-1505	G½	G½	48	52.5	23	100
105-2205	G¾	G¾	48	62	26	100



Code	A	B	D	E	F
105-1505	G½	G½	53.5	23	38
105-2205	G¾	G¾	62.5	25	47



Code	A	B	C	D	E	F
105-2205	G½	G½	48	52.5	29	104
105-2206	G¾	G¾	48	62	35	104



Code	A	B	D	E	F
105-2205	G½	G½	52	22	44.5
105-2206	G¾	G¾	59.5	30	49.5

105 commercial radiator valve twin pack

Materials of Construction

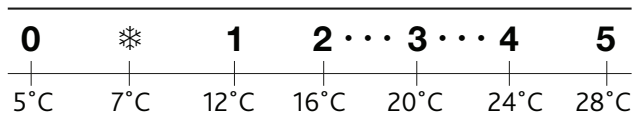
Body	Brass	BS EN 12165 CW617N
Union nut	Brass	BS EN 12164 CW617N
Tailpiece	Brass	BS EN 12164 CW614N
Stem	Stainless Steel	
Seals - 'O' rings	EPDM	
TRV controller cover	Thermoplastic	ABS (RAL 9010)
Body finish	Chrome Plated	

Technical Specification

Medium:	water, glycol solution
Max. percentage glycol:	30%
Max. differential pressure with head fitted:	1 bar
Max. working pressure (static):	10 bar
Max. temperature range:	5 to 100 °C
Certified to:	BS EN 215
Keymark company identity number:	48

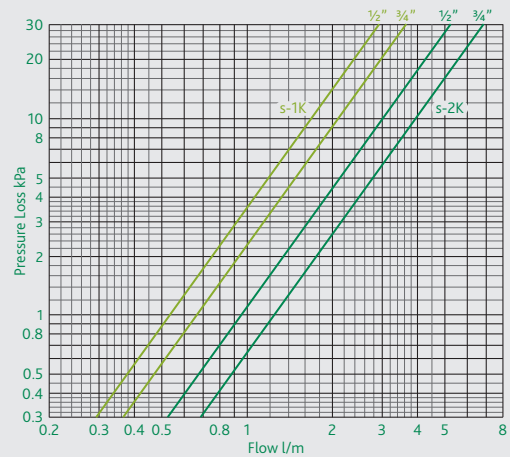
Technical Specification 20001 thermostatic controllers

Scale of adjustment:	* to 5
Temperature adjustment range:	7 to 28 °C
Frost setting:	7 °C
Max. ambient temperature:	50 °C
Liquid filled element	



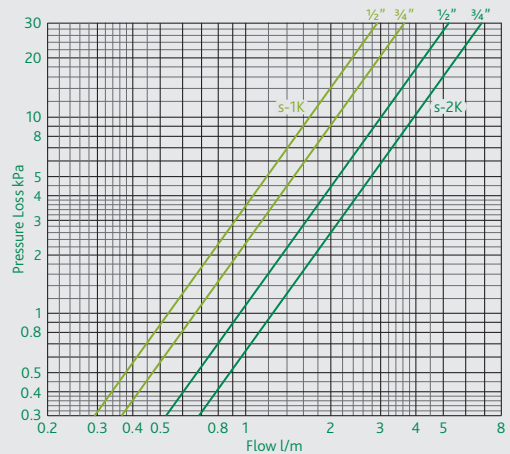
Code	Hysteresis °C	Influence of differential pressure D	Influence of water temperature W	Response time minutes Z
200001	0.4 K	0.5 K	1 K	18 minutes

Hydraulic characteristics



Code - TRV	Size	Kv - m ³ /h Proportional band - K				Kvs
		1	1.5	2	3	
Angle	in	1	1.5	2	3	Kvs
220402	1/2	0.32	0.49	0.57	0.85	2.39
210522	3/4	0.40	0.63	0.81	1.09	3.19

Code - TRV Angled	Size	Nominal flow rate - l/m	Obturator authority	Max. diff. press - bar
220402	1/2	3.0	0.91	0.1
210522	3/4	4.0	0.93	0.1



Code - TRV	Size	Kv - m ³ /h Proportional band - K				Kvs
		1	1.5	2	3	
Straight	in	1	1.5	2	3	Kvs
221402	1/2	0.32	0.49	0.57	0.85	1.52
211522	3/4	0.40	0.63	0.76	1.00	2.20

Code - TRV Straight	Size	Nominal flow rate - l/m	Obturator authority	Max. diff. press - bar
221402	1/2	3.0	0.6	0.1
211522	3/4	4.0	0.86	0.01

Kv = Volume flow in m³/h producing a pressure drop of 1 bar.
Kvs = Kv with valve fully open (thermostatic controller removed).

Valve Sizing

Valves are normally selected using the required pressure drop in accordance with the flow on the s-2K flow charts, this gives regulation with a proportional band of 2K.

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Lockshield Radiator Valves

The lockshield radiator valve supplied in the twin pack can be used fully open as the thermostatic radiator valve will control the flow rate and temperature in the room.

The lockshield valves only need to be regulated when the differential pressure in the circuit is excessive (1 bar or higher) for example on the most favoured circuits closest to the pump.

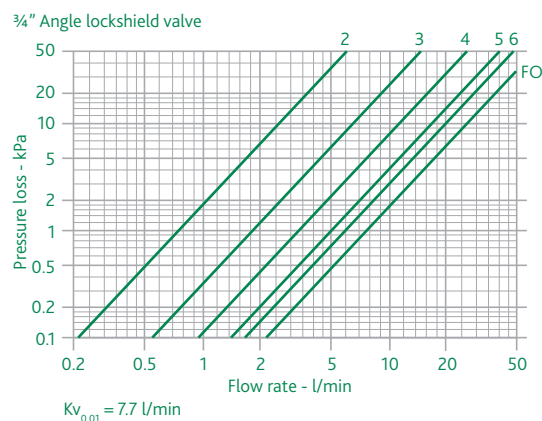
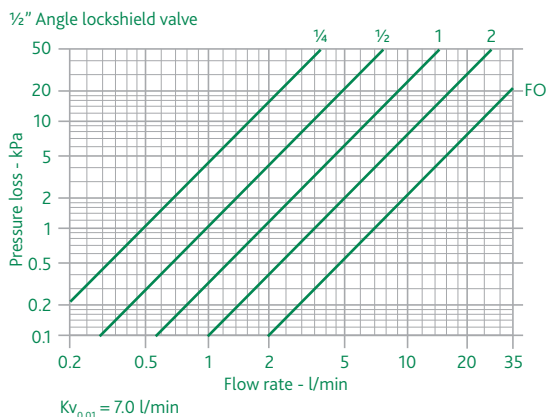
Installation

The lockshield radiator valves must be installed on the return from the radiator and can be installed in any orientation to suit site conditions.

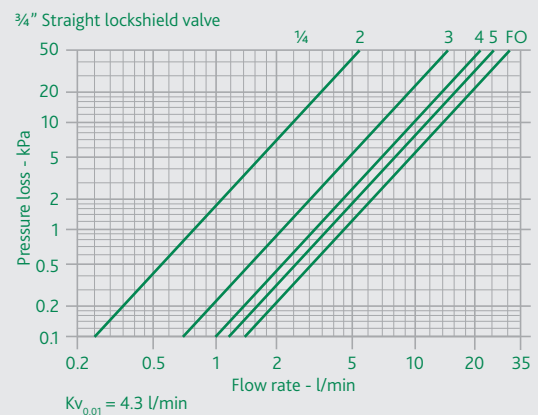
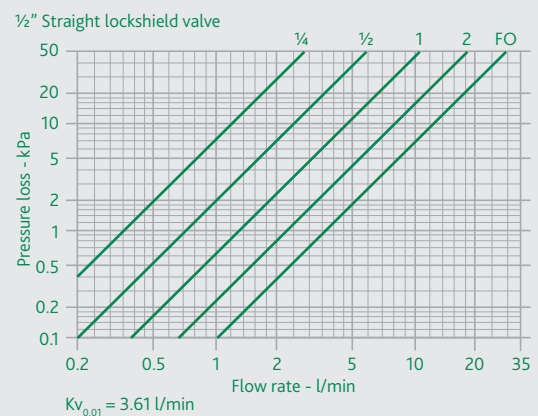
Adjustment

Unscrew the lockshield cover and using a 5mm hexagon wrench open, close or regulate the valve.

Hydraulic Characteristics



Hydraulic Characteristics



TRV Accessories

A range of accessories are available to compliment the Altecnic radiator valve range, to suit site conditions or applications.

- Remove sensor with 2m capillary - used when the thermostatic head is situated behind curtains or furniture.
Product Code: 2m 201000
- Remote transmitter with 2m capillary - the thermostatic element is mounted away for the valve body which may be concealed or in the ceiling space.
Product Code: 2m 472000
- 220v thermoelectric actuator
Product Code: 656102
- 24v thermoelectric actuator
Product Code: 656104
- Tamperproof guard - for addition securing between the valve body and thermostatic head.
Product Code: CA-100793

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