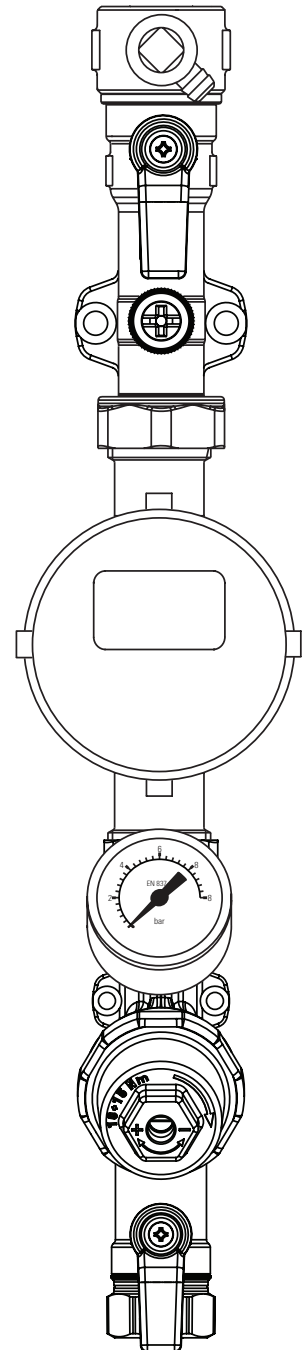


# 133-504

Apartment control assembly plus  
pressure reduction, metering &  
backflow prevention



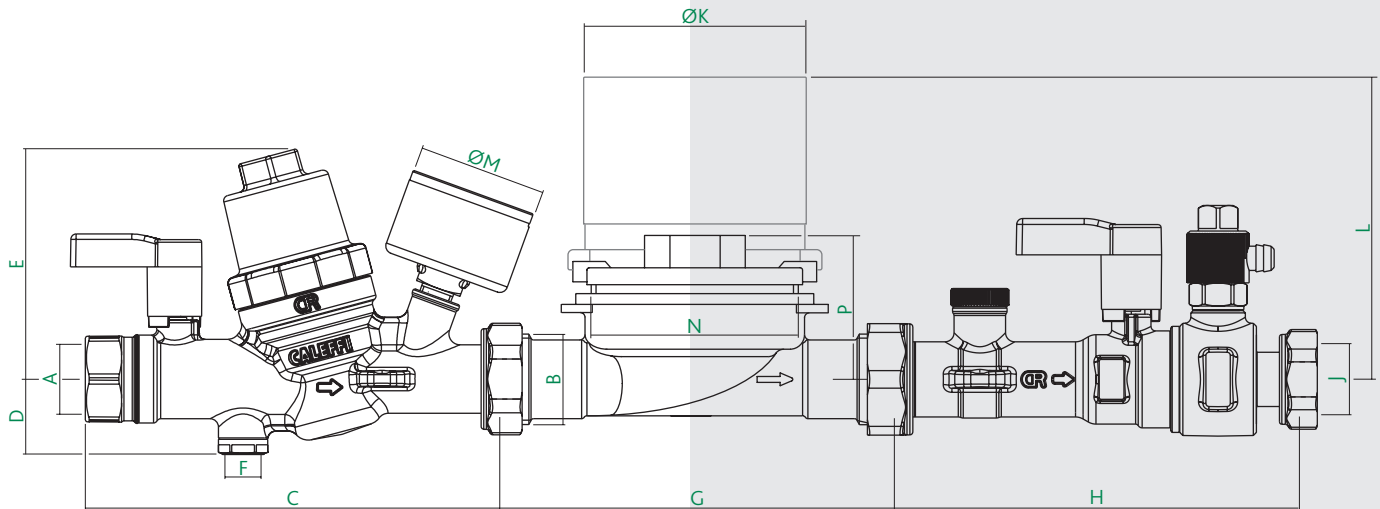
**altecnic**  
CALEFFI group

# 133-504 Apartment control assembly plus

## Introduction

The Altecnic 133-504 apartment control assembly plus combines several functions into two monobloc bodies with a carrier for an optional water meter for use in multi-occupancy buildings.

## Dimensions



Ref No	A	B	C	D	E	F	G	H	J	K	L	ØM	N	P	kg
133-5041	Rp <sup>3/4</sup>	G1	151.2	24.5	83.7	G <sup>1/4</sup>	130	130.2	G <sup>3/4</sup>	64	90	40	G2	42	2.320
133-5042	Rp1	G1	151.2	24.5	83.7	G <sup>1/4</sup>	130	131.2	G1	64	90	40	G2	42	2.410
133-5043	Rp <sup>3/4</sup>	G1	151.2	24.5	83.7	G <sup>1/4</sup>	130	130.2	G <sup>3/4</sup>	64	90	40	G2	42	2.705
133-5044	Rp1	G1	151.2	24.5	83.7	G <sup>1/4</sup>	130	131.2	G1	64	90	40	G2	42	2.800
133-5045	Rp <sup>3/4</sup>	G1	151.2	24.5	83.7	G <sup>1/4</sup>	130	130.2	G <sup>3/4</sup>	64	90	40	G2	42	2.705
133-5046	Rp1	G1	151.2	24.5	83.7	G <sup>1/4</sup>	130	131.2	G1	64	90	40	G2	42	2.800

## Design

The Altecnic apartment control assembly plus consists of;  
A monobloc pressure reducing valve assembly consisting of a ball isolating valve, pressure reducing valve, port for a pressure gauge, test port, threaded inlet connection, swivel outlet connection and pressure gauge (this is supplied with the assembly).

The pressure reducing valve has a self-contained cartridge which is factory set at 3 bar but is adjustable between 1 to 5.5 bar.

The test port is suitable for use with a pressure gauge, temperature probe or for monitoring purposes.

A water meter carrier with blanking cap. Along with optional cold or hot MBUS meters cartridges.

A monobloc assembly consisting of a double check valve with test port, a ball isolating valve, a drain/air vent and two swivel connections. The drain cock is rotatable 360° on 2 axes, around the operating stem and the monobloc body.

The pressure reducing valve and double check valve assemblies are made from a dezincification resistant low lead brass alloy to BS EN 12165 CW724R, which is 4MS compliant.

\* Both monobloc's (PRV and double check valve) are WRAS and Kiwa Reg4 approved.

## Product Range

Ref Nos	Description
133-5041	¾" Apartment Control Assembly Plus Blanked
133-5042	1" Apartment Control Assembly Plus Blanked
133-5043	¾" Apartment Control Assembly Plus c/w Cold Cartridge
133-5044	1" Apartment Control Assembly Plus c/w Cold Cartridge
133-5045	¾" Apartment Control Assembly Plus c/w Hot Cartridge
133-5046	1" Apartment Control Assembly Plus c/w Hot Cartridge

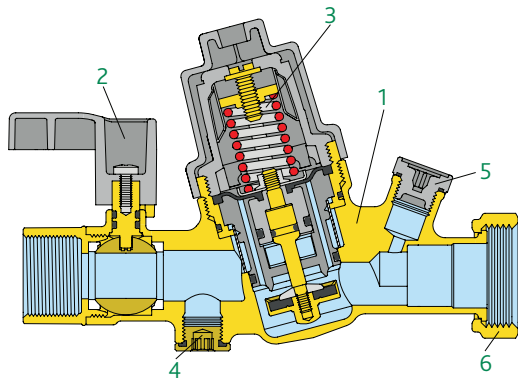
## Technical Specification

Max. pressure:	16 bar
Max. temperature:	80°C
Test ports:	G <sup>1/4</sup>
<b>Pressure reducing valve</b>	
Pressure adjustment range:	1 to 5.5 bar
Factory set pressure:	3 bar
Strainer mesh:	0.51 mm
Designed to:	BS EN 1567
<b>Pressure gauge</b>	
Range:	0 to 10 bar
<b>Water meter cartridges</b>	
Max. temperature with cold meter:	30°C
Max. temperature with hot meter:	80°C
<b>Double Check Valve</b>	
Designation: family E,	type A
Designed to:	BS EN 13959
Minimum opening pressure Δp:	0.5 kPa

# 133-504 Apartment control assembly plus

## Pressure Reducing Valve

### Components - PRV



- 1 Monobloc body
- 2 Ball isolating valve
- 3 Pressure reducing valve cartridge with filter (BS E1567)
- 4 Upstream test port
- 5 Downstream test port
- 6 Swivel nut

### Materials and Construction

Component	Material	Grade
Body	DZR	BS EN 12165 CW724R

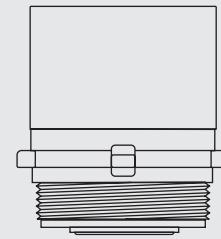
### Ball Valve

Ball	DZR	BS EN 12165 CW724R
Ball seat	PTFE	
Stem	DZR	BS EN 12164 CW724R
Stem seals	EPDM	
Lever	Nylon	PA6G30

### Pressure Reducing Valve

Inner cover	Nylon	PA66GF30
Outer cover	Nylon	PA66GF30
Control stem	Stainless Steel	BS EN 10088-3
Cartridge	Polymer	PPSG40
Spring	Steel	BS EN 10270-1
Internal components	Polymer	PSU
Diaphragm	EPDM	
Seals	EPDM	
Strainer screen	Stainless steel	BS EN 10088-3

## Water Meter Cartridges



### Design

The Altecnic water meter cartridges for hot and cold water applications offer a dependable and accurate reading of water consumption and is ideally suited for use in domestic premises and small commercial buildings.

The Altecnic water meter has a dry multi-jet register with shielded magnetic coupling.

The water meter cartridges have a rotating dial and should be installed in vertical pipe with the flow from below.

No parts of the register are in contact with the water flow.

The meter is not sensitive to magnetic fields reducing the risk of tampering.

The white dials with black numerals and red indicators makes reading easier, even when light conditions are poor.

Supplied with Wireless MBUS connectivity as standard

### Technical Specification

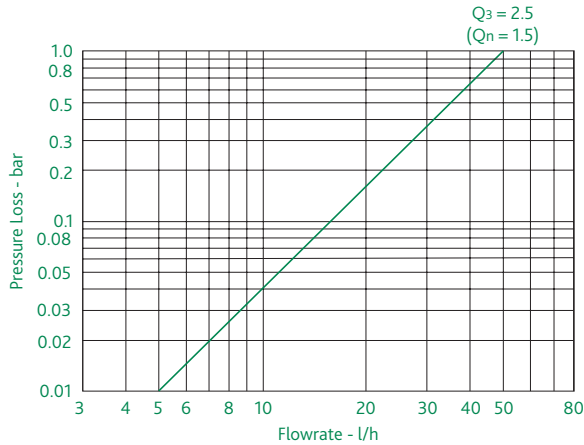
MID approved according to European Directive 2014/32EU

	Size	2"
Q <sub>3</sub>	Continuous flow rate	m <sup>3</sup> /hr 2.5
Q <sub>n</sub>	Comparable to normal flow (EWG)	m <sup>3</sup> /hr 1.5
Q <sub>4</sub>	Max. flow rate for short periods	m <sup>3</sup> /hr 3.125
Q <sub>2</sub>	Transitional flow rate	l/h 100
Q <sub>1</sub>	Min. flow rate	l/h 62.5
Q <sub>3</sub> / Q <sub>1</sub>	Standard measuring range	R 40V
	Typical starting flow rate	l/h 24
	Display value minimum	l 0.05
	Display value maximum	m <sup>3</sup> 9.999
	Measurement accuracy class	
	Cold and hot water - Q <sub>1</sub> ≤ Q < Q <sub>2</sub>	±5%
	Cold - Q <sub>2</sub> ≤ Q ≤ Q <sub>4</sub>	±2%
	Hot water - Q <sub>2</sub> ≤ Q ≤ Q <sub>4</sub>	±3%
MAP	Operating pressure	bar 10

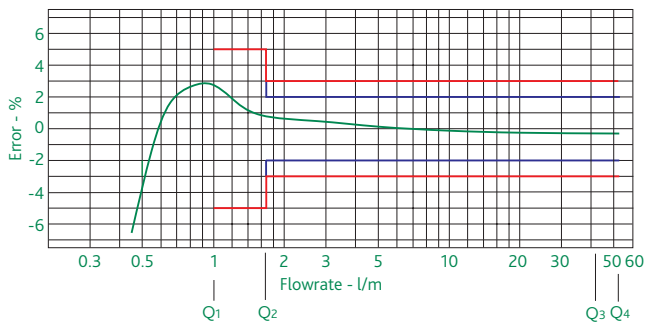
# 133-504 Apartment control assembly plus

## Water Meter Continued

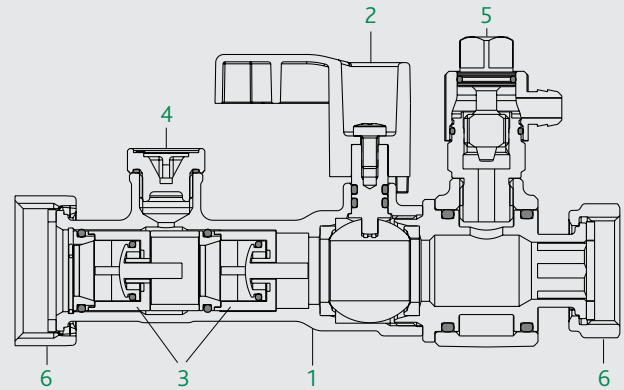
### Pressure Loss Chart



### Accuracy Curve



## Components - DCV



- 1 Monobloc body
- 2 Ball isolating valve
- 3 Double check valve
- 4 Test port
- 5 Drain valve/air vent
- 6 Swivel nut

### Materials and Construction

Component	Material	Grade
Body	DZR	BS EN 12165 CW724R
Check Valve		
Cartridge		Polypropylene
Spring	Stainless St	BS EN 10088-3
Seals	EPDM	
Ball Valve		
Ball	DZR	BS EN 12165 CW724R
Ball seat	PTFE	
Stem	DZR	BS EN 12164 CW724R
Stem seals	EPDM	
Lever	Nylon	PA6G30
Drain Valve		
Stem	DZR	BS EN 12164 CW724R
Stem housing	DZR	BS EN 12164 CW724R
Hose outlet	Polymer	

© Patents & Design Altecnic 2023

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 Mustang Drive, Stafford, Staffordshire ST16 1GW

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

Registered in England No: 02095101

altecnic.co.uk

AL 494 19-10-2023

E & O.E

© Altecnic Limited. 2023

ALTECNIC™

**altecnic**  
CALEFFI group