



Technical description

Application:

Heating and cooling waterborne system control.

Function:

CV 216 Z: Two-way control valve

CV 316 Z: Three-way mixing valve

Characteristics:

CV 216 Z: equal %

CV 316 Z: A→AB, equal %
B→AB, linear

Stroke: 8 mm

Range ability: ≥30:1

Pressure class: PN 16

Temperatures:

Min. working temperature: 0 °C

Max. working temperature: 110 °C

For lower and higher temperatures please contact IMI International.

Materials:

Body: Bronze CC491K

Plug: Brass CW614N

Stem: CrNi-steel 1.4305

Stem sealing: O-rings EPDM

Marking:

DN, PN, flow direction

(in case of CV 316 Z names of ports also – A, B, AB)

Leakage rate:

EN 1349 – seat-leakage VI G 1 (tight sealing)

Connection type:

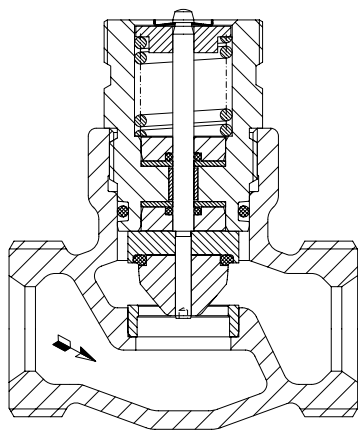
Body with external thread according to ISO 228/1

With internal thread connection parts according to ISO 7/1, union nuts and gaskets.

Features:

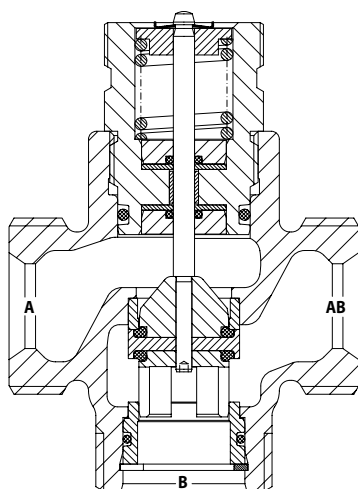
- Suitable for the control of hot and chilled water in HVAC systems and individual room or zone control of heating plants
- Tight shut-off in the closed position
- Microprocessor controlled
- Automatic self-calibration on start-up

CV 216 Z



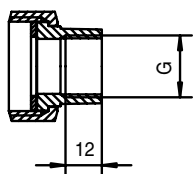
Order Code	DN	Kvs (m ³ /h)	Stroke (mm)
60-231-115	15	0,16	8
60-231-215	15	0,25	8
60-231-315	15	0,4	8
60-231-415	15	0,63	8
60-231-515	15	1	8
60-231-615	15	1,6	8
60-231-715	15	2,5	8
60-231-815	15	4	8

CV 316 Z



Order Code	DN	Kvs (m ³ /h)	Stroke (mm)
60-331-115	15	0,63	8
60-331-215	15	1	8
60-331-315	15	1,6	8
60-331-415	15	2,5	8
60-331-515	15	4	8

Connections



Order Code	DN	Dimension
68-001-216	G	Rp 1/2 Internal thread connection parts for two-way valve (2 pcs)
68-001-316	G	Rp 1/2 Internal thread connection parts for three-way valve (3 pcs)

Actuators

Order Code	Type	Power supply	Actuating thrust (kN)	Input signal
61-025-001	MC25/24	24 VAC	0,25	3-point
61-025-002	MC25/230	230 VAC	0,25	3-point
61-025-003	MC25Y	24 VAC	0,25	0(2)-10 V

Actuator technical data

Type		MC 25/24	MC 25/230	MC 25Y
Actuating time ¹⁾	s/mm	16* . 11	16* . 11	16* . 11
Actuating thrust	kN	0,25	0,25	0,25
Stroke	mm	9	9	5,5 or 8
Power supply	VAC	24 ±10%	230 +6% -10%	24 ±10%
Frequency	Hz	50/60 ±5%	50/60 ±5%	50/60 ±5%
Power consumption	VA	2,5	5,5	2,5
Input signal ²⁾		3-point	3-point	0(2)...10 VDC 70 kOhm
Hysteresis	V	0,3	0,3	0,3

Enclosure protection:

Automatic operation: IP 54

Manual operation: IP 30

Resolution of MC25Y:

Electric: 0,04 VDC

Mechanical: 0,016 mm

Mains connection:

1,5 m flexible cable, 0,5 mm², with wire end ferrule.

Ambient temperature: 0 - 60 °C

Weight: 0,4 kg

Operating mode:

S3-50% ED c/h 1200: EN 60034-1

End position switch-off:

MC25/24 and MC25/230:

Lower end position: Load-dependent

Upper end position: Load-dependent

MC25Y:

Lower end position: Load-dependent

Upper end position: Travel-dependent

Actuator variants:

Voltage: 24 VDC ³⁾ or 115 VAC

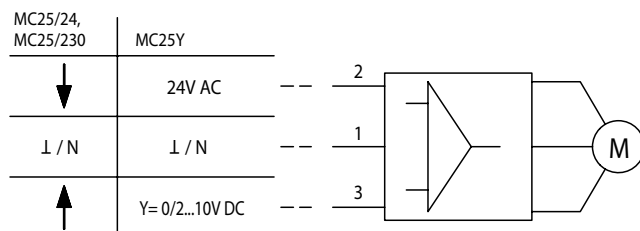
Notices

1) Actuating time freely adjustable, presetting is marked with *

2) Invertible input signal

3) Direct-current rectified alternating voltage

Circuit diagram



Technical data - Valve with actuator

CV 216 Z

DN			15							
Kvs-value		m ³ /h	0,16	0,25	0,4	0,63	1,0	1,6	2,5	4
Stroke		mm	8							
MC25/24 MC25/230 MC25Y	Actuating time ¹⁾	s	130*							
			90							
Closing pressure		kPa	1000	1000	1000	600	600	600	400	400

CV 316 Z

DN			15				
Kvs-value		m ³ /h	0,63	1,0	1,6	2,5	4
Stroke		mm	8				
MC25/24 MC25/230 MC25Y	Actuating time ¹⁾	s	130*				
			90				
Closing pressure		kPa	200	200	200	100	100

1) Actuating time freely adjustable, presetting is marked with *

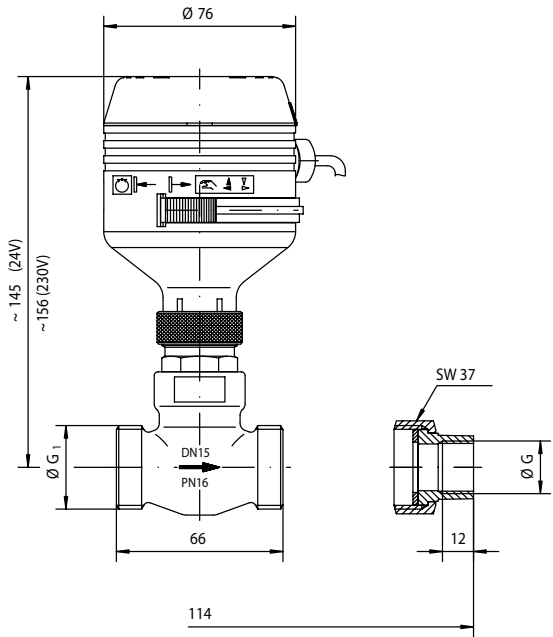
100 kPa = 1 bar = 10 mWS

Installation instruction

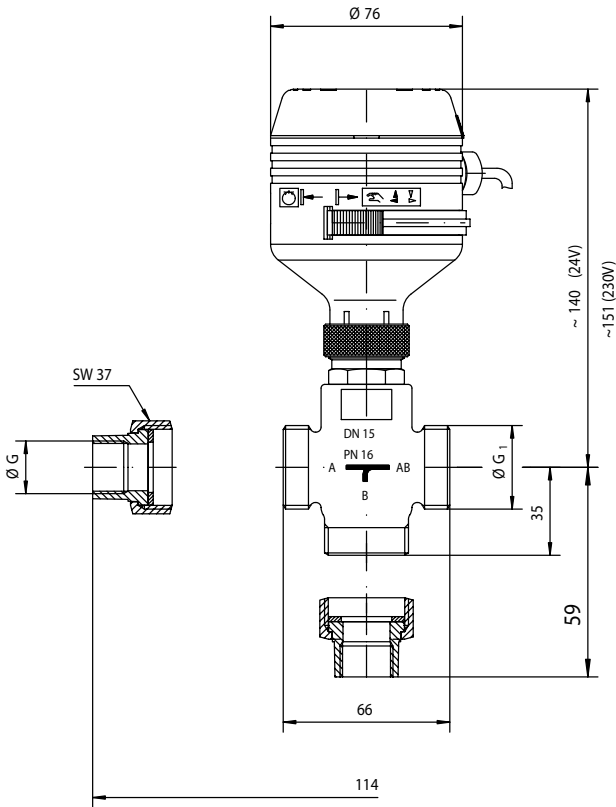
Valve trim could be damaged by dirt in the pipe system. Therefore we recommend the installation of strainers.

Drawings

CV 216 Z
MC25/24
MC25/230
MC25Y



CV 316 Z
MC25/24
MC25/230
MC25Y



Dimensions

DN			15	Remarks
G			Rp ½	Internal thread connection parts
	MC25/CV 216 Z	kg	1,1	
	MC25/CV 316 Z	kg	1,3	



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