CF2/CF3

2- and 3-way DIN-standard flanged valve

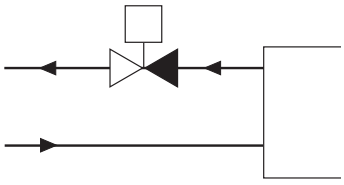
Control valves intended for use in heating, cooling and ventilation systems. They are intended to be used together with Regin's RVAN actuators. The valves have DIN-standard lengths.

- ✓ Size DN65…DN150
- ✓ Kvs value 52…300
- ✓ Rangeability 100:1
- ✓ Pressure rating PN16
- ✓ Media temperature -5…+120°C
- ✓ Face-to-face dimensions as per DIN
- ✓ Pressure balanced (2-way)

Function

2-way valve

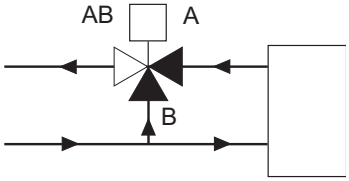
The valve is open when the stem is in its lowest position and closed when the stem is in its top position.



2-way valve

3-way valve

The 3-way valve is closed between port A and port AB (the ports opposite to one another) when the stem is in its highest position. In this position, the valve is also open between the bottom port B and the common supply port AB. When the stem is in its lowest position, the 3-way valve is completely open between port A and port AB and consequently closed between the bottom port B and the common port AB.

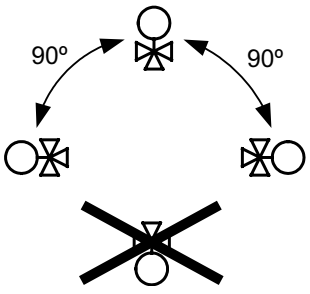


3-way valve

Installation

The 2-way valve should be mounted with port A on the inlet and port AB on the return (flow direction A in, AB out) to ensure that the plug closes tightly and to prevent any noise when closing.
The 3-way valve is of a mixing type and must therefore be mounted in the mixing point.

- Before installation of the control valve, ensure that the pipe is clean. Make sure that pipe scale, metal chips, welding slag and other foreign materials are removed.
- For maximum efficiency and minimum wear, install the valve in a vertical position with the stem pointing upward. If the valve is mounted with the actuator on the side, more wear is caused to the valve stuffing box. The valve should never be mounted at an angle of more than 90°.



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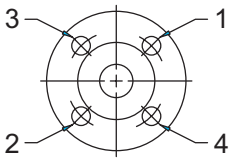
REGIN THE CHALLENGER

- Install the valve according to the fluid direction arrow shown on the valve.
- Make sure there is ample space above the valve to facilitate easy removal of the valve actuator.
- Adjust the connection between the valve and the counter flange to minimise the tension between them.
- Tighten the bolts crosswise, as shown in the picture below. Tighten one flange at a time. After conducting a test run, the bolts should be tightened crosswise once more.



Fit a strainer/filter upstream of the valve to prolong the equipment's life span.

A water quality according to VDI 2035 is recommended.

Technical data

Application	Heating systems, cooling systems, ventilation systems
Pressure rating	PN16
Connection	Flanged according to EN 1092-2
Flow characteristics	A - AB: 0-30 % open = linear, 30 - 100 % open = equal percentage B- AB: linear
Max. leakage	A - AB: DN65…DN80 = max 0.1 % of the kvs value, DN100…DN150 = max 0.2 % of the kvs value B - AB: Max 2 % of the kvs value
Media	Hot water, cold water, glycol-mixed water (max. 50 % glycol)
Media temperature	-5…+120 °C
Rangeability	100:1

Material

Body	Cast iron Grade 200
Seat	Cast iron Grade 200
Plug	Stainless steel 1.4301
Stem	Stainless steel 1.4301
Packing box	Brass CW 617N
Bonnet	Cast iron Grade 200
O-rings	EPDM
Packing	Aramid reinforced rubber

2-way valves

Article	Nominal diameter	Kvs	Stroke
CF265-52	DN65	52	20
CF280-79	DN80	79	20
CF2100-124	DN100	124	40
CF2125-200	DN125	200	40
CF2150-300	DN150	300	40

3-way valves

Article	Nominal diameter	Kvs	Stroke
CF365-52	DN65	52	20
CF380-79	DN80	79	20
CF3100-124	DN100	124	40
CF3125-200	DN125	200	40
CF3150-300	DN150	300	40

Combination options (valves and actuators) and differential pressure

Type	ΔPs (RVAN5…)	ΔPs (RVAN10…)	ΔPs (RVAN18…)	ΔPs (RVAN25…)
CF265-52	800 kPa	1600 kPa	1600 kPa*	1600 kPa*
CF280-79	800 kPa	1600 kPa	1600 kPa*	1600 kPa*
CF2100-124	N/A	N/A	1600 kPa	1600 kPa
CF2125-200	N/A	N/A	1600 kPa	1600 kPa
CF2150-300	N/A	N/A	1600 kPa	1600 kPa
CF365-52	100 kPa	200 kPa	400 kPa*	400 kPa*
CF380-79	75 kPa	150 kPa	300 kPa*	300 kPa*
CF3100-124	N/A	N/A	200 kPa	260 kPa
CF3125-200	N/A	N/A	130 kPa	160 kPa
CF3150-300	N/A	N/A	80 kPa	120 kPa

* The washer 02133011 is required in order to use the RVAN18… or RVAN25… actuators together with the DN65 or DN80.

ΔPs constitutes the max. permitted differential pressure at which the valve actuator can safely close against the pressure.

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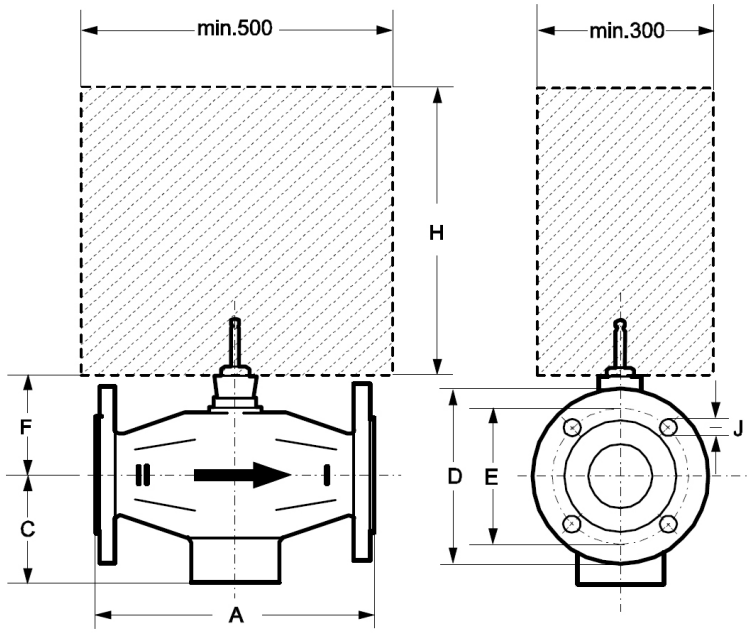
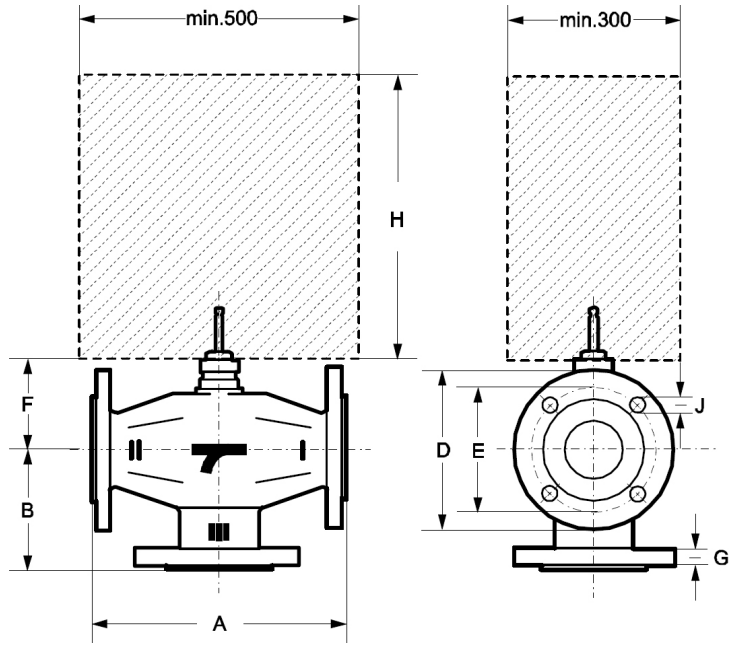
Dimensions



Type	DN	A	B	C	øD	øE	F	øJ	G	Hmin	Stroke	Weight (kg)
CF265-52	65	290	140	134	185	145	106	19 (x4)	20	500	20	16.5
CF280-79	80	310	150	144	200	160	107	19 (x8)	22	500	20	19
CF2100-124	100	350	150	144	220	180	150	19 (x8)	24	500	40	27
CF2125-200	125	400	170	162	250	210	165	19 (x8)	26	500	40	49.5
CF2150-300	150	480	200	200	285	240	179	24 (x8)	26	500	40	66.5



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CF280-79	80	310	150	144	200	160	107	19 (x8)	22	500	20	23
CF2100-124	100	350	150	144	220	180	150	19 (x8)	24	500	40	31
CF2125-200	125	400	170	162	250	210	165	19 (x8)	26	500	40	53
CF2150-300	150	480	200	200	285	240	179	24 (x8)	26	500	40	69.5

Measurements in mm unless otherwise specified.

The marked area above the valve in the drawings is the minimum area of empty space required to facilitate easy removal of the valve actuator.

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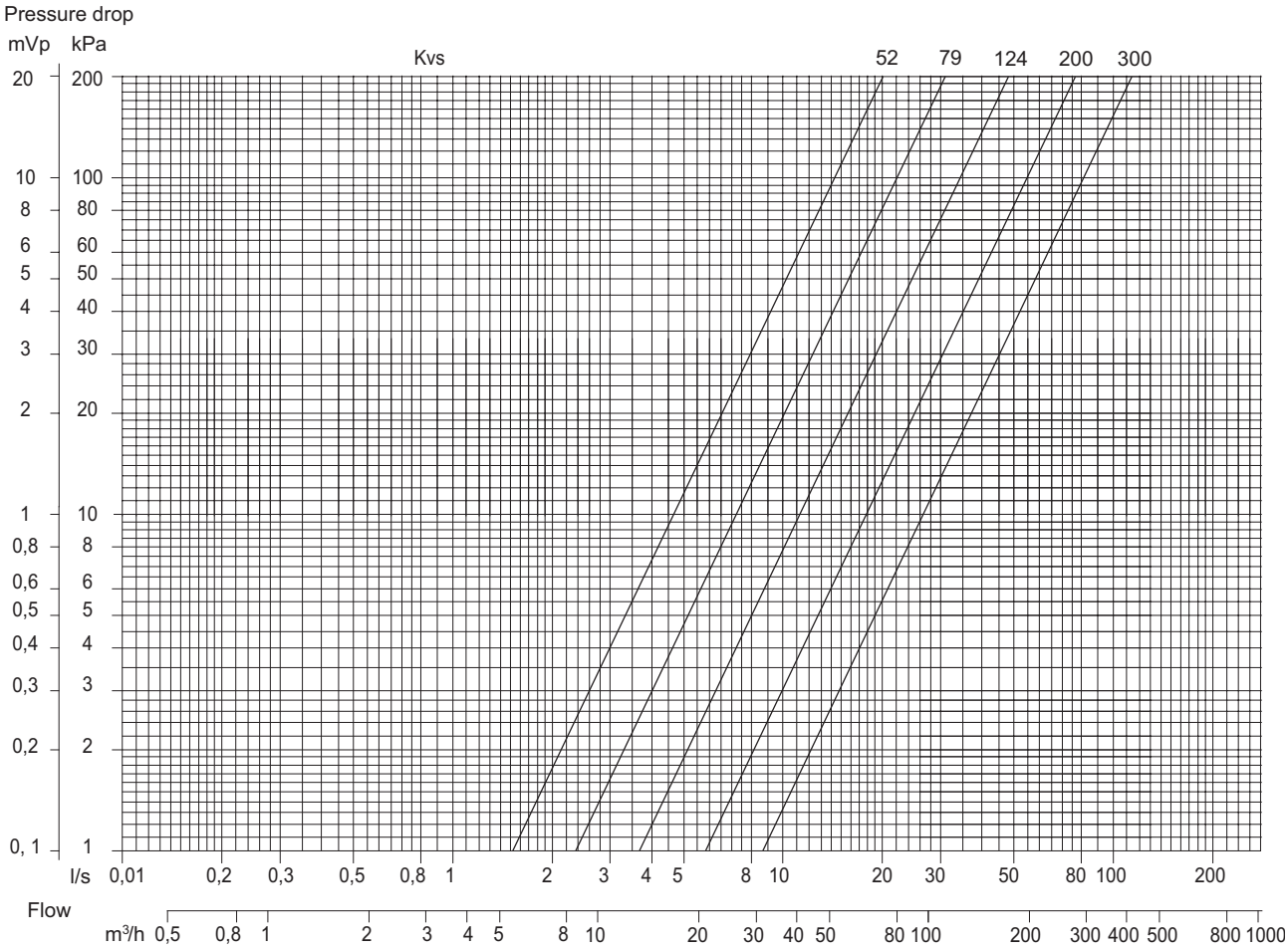
Pressure drop curves



Example, pressure drop curves

If the pressure drop is 4 kPa (A) and the flow is 40 m³/h (B), a valve with the kvs value 200 (C) is preferably selected. See the markings in the picture to the right.