



## Four-port Radiator Valves

for single-pipe systems

**VYC5...  
VUC515**

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**Radiator valve consisting of reversed angle valve and single-pipe valve for floor or wall connection and connecting pipe with matching fittings.**

### Use

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The radiator valves are used in hot water heating systems for individual room temperature control and limitation by means of thermostatic heads or electric actuators. They are basically recommended in all rooms, especially in rooms with heat gains or different temperature levels.

### Function

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All valves are supplied with a protective cover which allows shutoff and manual adjustment when the system is pressurized, or enables the plant to be temporarily operated during the construction phase.

## Type summary

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R dia.	Type reference	Description
½"	VYC515	Single-pipe valve for floor connection
½"	VYC525	Single-pipe valve for wall connection
½"	VUC515	Reversed angle valve
15	AVC515-60	Connecting pipe, copper, nickel-plated, 60 cm long, 15 mm dia.
15	AVC515-80	Connecting pipe, copper, nickel-plated, 80 cm long, 15 mm dia.
15	AVC515-90	Connecting pipe, copper, nickel-plated, 90 cm long, 15 mm dia.
15	AVC515-110	Connecting pipe, copper, nickel-plated, 110 cm long, 15 mm dia.
15	AV15-CC15	Compression fitting, integrated in the valves
12	AV15-CC12	Compression fitting for copper pipe, 12 mm dia., box with 50 pieces
14	AV15-CC14	Compression fitting for copper pipe, 14 mm dia, box with 50 pieces
15	AV15-CC15	Compression fitting for copper pipe, 15 mm dia, box with 50 pieces
16	AV15-CC16	Compression fitting for copper pipe, 16 mm dia., box with 50 pieces
12	AVC15-CP12	Compression fitting for plastic pipe, 12 mm dia., box with 50 pieces
16	AVC15-CP16	Compression fitting for plastic pipe, 16 mm dia., box with 50 pieces

## Equipment combinations

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Suitable for use with the thermostatic valve heads RT56.05, RT56.15, RT76.052 and RT86.2.

Refer to data sheets N2143, N2144 and N2156.

## Technical design

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- The pre-adjusted gland can also be replaced when the system is under pressure
- Using the AV225 mounting tool, the whole valve insert can be checked and / or replaced without draining the system
- Determination of the length of nickel-plated connecting pipe of 15 mm dia.: effective pipe length = distance of radiator threads minus 44 mm

## Mechanical design

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These valves allow the flow rate to be pre-adjusted by limiting the stroke (kv-value). A pre-adjusting screw with the reference numbers 1 to 7 is located under the protective cover.

The special design and material of the valve plug allow perfect flow control and tight shutoff.

## Engineering notes

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The valves come pre-adjusted or with a flow limitation by means of stroke limitation. Pre-adjustment facilitates proper hydraulic balancing of the system, which means that the radiator always will receive the right amount of water.

## Mounting notes

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The threads are coated with "stop-drop" sealing compound, facilitating straightforward fitting with no need for additional sealing materials.

## Installation notes

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- Observe the installation choices and conditions to ensure the thermostatic heads will function correctly
- Allow room air to freely circulate around the sensor
- The sensor may not be exposed to direct solar radiation
- The valves should be installed horizontally whenever possible
- When removing the radiators, remove the protective cover from the changeover valve and use an Allen key to turn the screw until the stop is reached, thus shutting down the return. The adjustment can also be used to limit the return flow. The flow is closed by the thermostatic valve

## Technical data

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General data	Flow temperature	2 °C to max.110 °C
	Operating pressure	max. 10 bar
	Closing pressure	max.1.5 bar
	Differential pressure	0.01-0.06 bar (recommended range)
	Material of valve body	brass Cu Zn 40 Pb2
	Material of tailpiece	brass Cu Zn 40 Pb2
	Radiator connection	R1/2"
	Max. flow rate	1.4 m <sup>3</sup> /h
	Surface	nickel-plated
	Tailpiece	nickel-plated, with "stop-drop" seal and O-ring
	Protective cover	polypropylene
	Length	DIN 3841
	Thread	DIN 2999
Medium	heating water with max. 40 % ethylene-glycol	

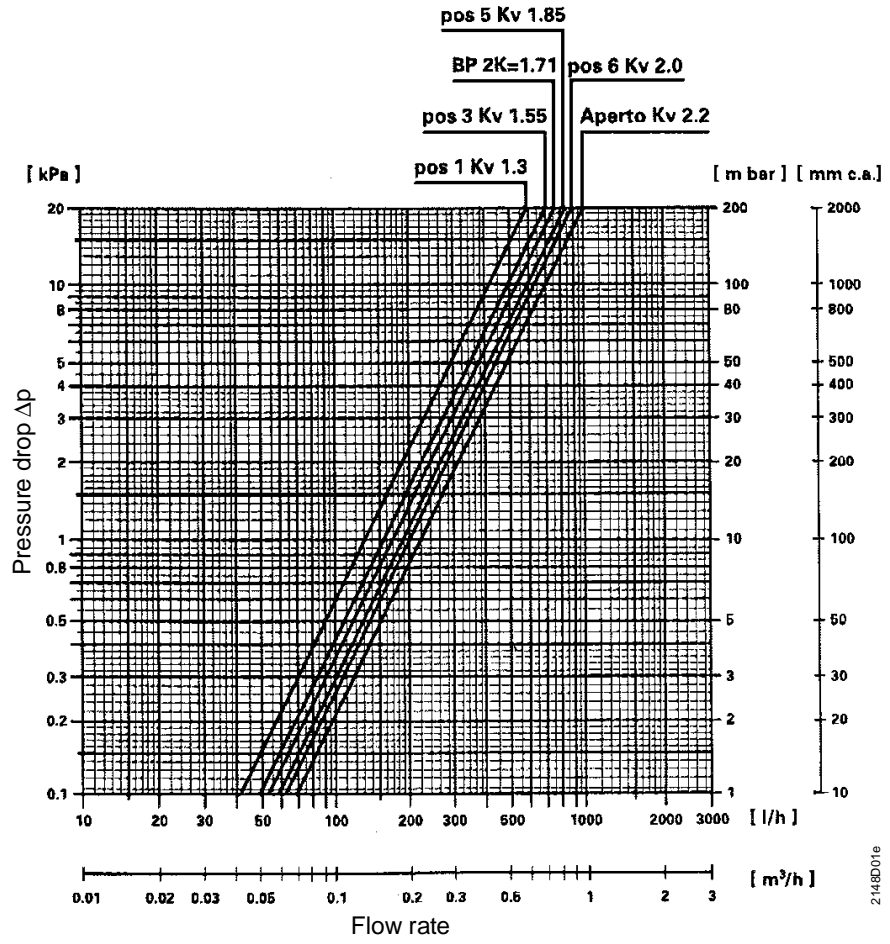
## Valve sizing

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Flow rate of the complete radiator valve as a function of the pre-adjustment and the percentage proportion of flow through the radiator with the VUC515 angle valve.

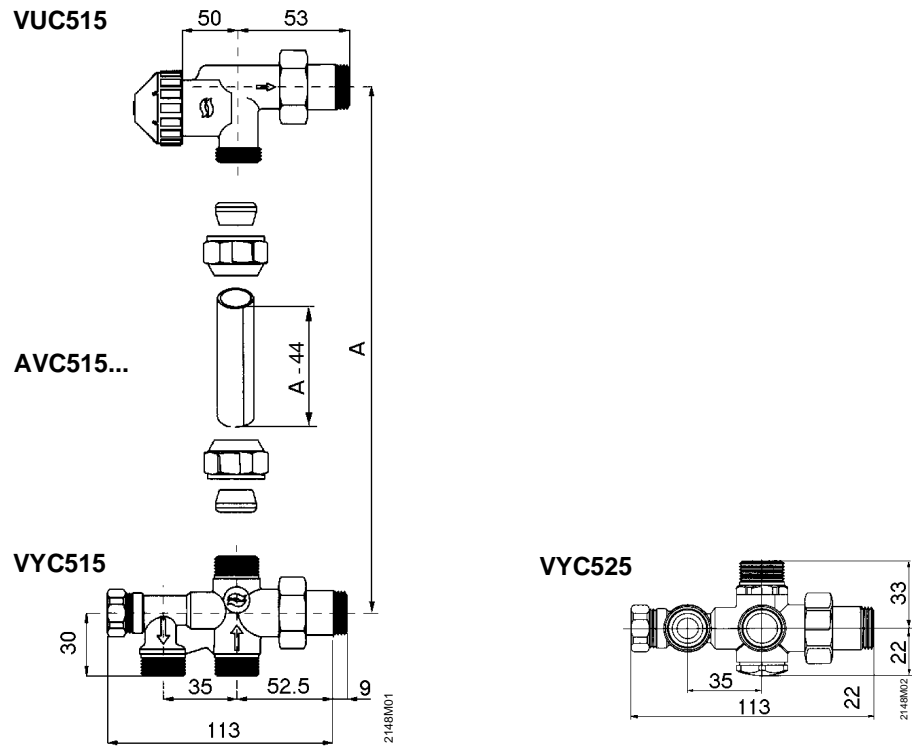
Pre-adjustment	1	2	3	4	5	6	7	Fully open
Total flow rate	1.3	1.4	1.55	1.6	1.85	2.0	2.1	2.2
Flow rate through the radiator with the VUC515	15 %	22 %	30 %	35 %	40 %	45 %	48 %	50 %

# Sizing chart



2148D01e

# Dimensions



2148M01

2148M02

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Subject to change