

# Pressure Control Valves

## Back Pressure Regulators VRCA (UV 1.3)

Epoxy-coated Cast Valve for Pressure Relief Tasks Page



### Technical Data

Connection DN	50 - 200
Nominal Pressure PN	10, 16, 25
Inlet Pressure	0 - 25 bar in 3 setting ranges
K <sub>vs</sub> -Value	25 - 250 m <sup>3</sup> /h
Temperature	70 °C
Medium	water

### Description

Self-acting back pressure regulators are simple control valves offering accurate control while being easy to install and maintain. They control the pressure upstream of the valve without requiring pneumatic or electrical control elements.

The VRCA (UV 1.3) is a seat-controlled, spring-loaded backpressure regulator for the protection of pump systems or other pressurised vessels or pipes with high throughputs. The opening pressure is continuously adjustable from the outside. The valve works reliably for tasks to minimise pressure surge (pressure surge limitation).

One special characteristic is its very compact design. The valve cone is soft-sealed (special flat seal). The valve is made of spheroidal graphite iron with a continuous epoxy coating > 200 µm, providing excellent protection against corrosion.

Thanks to its bell shape the controller automatically empties, ensuring that the medium cannot freeze (frost protection without subsequent emptying).

### Standard

- » body made of spheroidal cast iron GJS 450-10 with epoxy coating in blue RAL 5005, thickness min. 250 µm
- » Seat control
- » Bell shape, self-emptying

### Options

- » Factory pre-set
- » Secured against unauthorised outside adjustment
- » Nominal pressure PN 40

### Capabilities

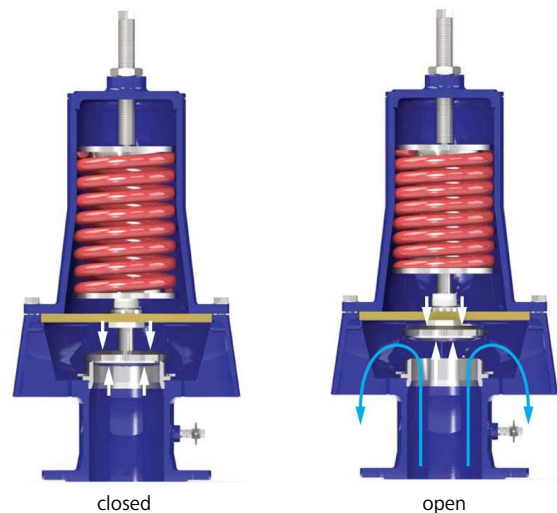
- » As a pump protection valve
- » As a surge limiting device

Operating instructions, know how and safety instructions must be observed. The pressure has always been indicated as overpressure. We reserve the right to alter technical specifications without notice.



Setting Ranges [bar]		
0 - 8	8 - 16	16 - 25

K <sub>vs</sub> -Values [m <sup>3</sup> /h]						
nominal diameter DN	50	65	80	100	150	200
seat ø mm	40	40	62	62	137	137
K <sub>vs</sub> -value m <sup>3</sup> /h	25	25	70	70	250	250



# Pressure Control Valves

## Back Pressure Regulators VRCA (UV 1.3)

Epoxy-coated Cast Valve for Pressure Relief Tasks Page



### Materials

Body	spheroidal cast iron epoxy coated*
Spring Cap	spheroidal cast iron epoxy coated
Spring	stainless steel 55SiCr6
Valve Seal	EU
Elastomers	Polyurethan

\* in accordance with KTW-recommendation and DVGW W270, thickness min. 250 µm

### Dimensions[mm]

size	nominal diameter DN			
	50/65	80/100	150	200
A	185	235	300	360
B	185	242	404	404
C	417	540	720	720
D	40	50	220	220

### Weights [kg]

nominal diameter DN				
50/65	80/100	150	200	
14	28	75	79	

### Customs Tariff Number

84814010

Special designs on request.

The pressure has always been indicated as overpressure.

Mankenberg reserves the right to alter or improve the designs or specifications of the products described herein without notice.

### Dimensional Drawing

