

# Pressure Control Valves

## Burst Pipe Isolating Valves RS 219

Cast Valve for high Flow Rates



### Technical Data

Connection DN	32 - 100
Nominal Pressure PN	16 - 40
Cut Off Flow Rate	min. 15 % above operating flow
K <sub>vs</sub> -Value	14 - 65 m <sup>3</sup> /h
Temperature	130 °C
Medium	liquids and gases

### Description

Leaking or broken pipes or hoses may only result in flooding but can, if the escaping fluids are flammable, water-polluting or toxic, have catastrophic consequences. For this reason pipe break isolating valves are fitted on the inlet side of such systems. These valves are set to a certain flow volume and shut off reliably and without delay as soon as this flow volume is exceeded.

RS 219 is a piston-controlled spring-loaded pipe break isolating valve. Depending on the medium the valve cone can be fitted with a soft or metallic seal.

When the pipeline is depressurised the valve is open. Under operating conditions the small pressure drop caused by the pipe break isolating valve acts on the piston/spring system. If the flow volume increases beyond the set value, an imbalance is introduced between the pressure acting on the piston and the force of the spring causing the cone to close. The resulting increase in the flow resistance reinforces the closing force of the piston and causes the complete shutoff of the pipe section. The closing or shutoff speed may be adjustable. Once the fault has been removed the valve can be re-opened and re-activated by pushing the button on the pilot valve. Rotating the adjusting screw clockwise increases the shutoff trigger volume. In special cases an adjustable shutoff delay may be fitted.

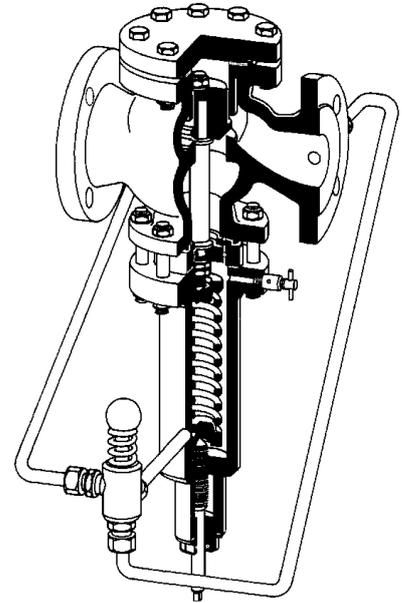
These valves are no shut-off elements ensuring a tight closing of the valve. In accordance with DIN EN 60534-4 and/or ANSI FCI 70-2 they may feature a leakage rate in closed position in compliance with the leakage classes III or V:

Leakage class III (metal sealing cone) = 0.1 % K<sub>vs</sub> value

Leakage class V (soft seal cone) =  $1.8 \times 10^{-5} \times \Delta p \times D^*$  [l/h]

\*D=seat diameter

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



### K<sub>vs</sub>-Values [m<sup>3</sup>/h]

nom. diam. DN	32	40	50	65	80	100
K <sub>vs</sub> -value m <sup>3</sup> /h	14	18	20	40	50	65

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### Materials

Temperature	80 °C	130 °C
Body	PN 16	up to DN 25 grey cast iron, ab DN 40 spheroidal cast iron
	PN 25/40	cast steel
Spring Cap	steel welded	steel welded
Internals	Cr-steel, CrNi-steel	Cr-steel, CrNiMo-steel
Adjusting Screw	steel	steel
Valve Seal	NBR or CrNiMo-steel	EPDM or CrNiMo-steel
Spring	CrNi-steel	CrNi-steel
O-Ring	NBR	EPDM
Pipework	CrNiMo-steel	CrNiMo-steel

### Dimensions [mm]

size	nominal diameter DN					
	32	40	50	65	80	100
A1	180	200	230	290	310	350
B	125	125	125	180	180	180
C	480	480	480	560	560	560
D	115	115	115	165	165	165

Weights on request.

### Customs Tariff Number

84811019

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

