

# Pressure Control Valves

## Burst Pipe Isolating Valves RS 659

Burst Pipe Isolating Valve for Hazardous Media



### Technical Data

Connection DN	15 - 50
Connection G	1/2 - 2
Nominal Pressure PN	16
Cut Off Flow Rate	min. 15 % above operating flow rate
K <sub>vs</sub> -Value	4 - 18 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 659 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 the VDI/VDE guideline 2174 a leakage rate of 0.05 percent of the constant volume flow is permitted for the valve in closed position.

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.	G	1/2	3/4	1	1 1/4	1 1/2	2
	DN	15	20	25	32	40	50
K <sub>vs</sub> -value	m <sup>3</sup> /h	4	5	6	12	16	18

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### Materials

Temperature	80 °C	130 °C
Body	CrNiMo-steel	CrNiMo-steel
Spring Cap	CrNiMo-steel	CrNiMo-steel
Internals	CrNiMo-steel	CrNiMo-steel
Adjusting Screw	CrNiMo-steel	CrNiMo-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					
	G 1/2	G 3/4	G 1	G 1 1/4	G 1 1/2	G 2
	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
A	85	91	85	130	145	185
A <sub>1</sub>	130	150	160	180	200	230
B	76	76	76	88	88	88
C	~ 400	~ 400	~ 400	~ 400	~ 400	~ 400
D	135	135	135	135	135	135

### Weights on request.

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

