

PRESSURE CONTROL

Surge relief valves SAV 820E

Surge anticipation valve for high to very high flow rates

MANKENBERG

Technical data

Connection DN	40 - 150
Nominal pressure PN	up to 160
Response pressure	10 - 70 bar
Outlet pressure	Relief line, unpressurized
K_{vs} value	20 - 250 m ³ /h
Temperature	-30 up to 130 °C
Medium	liquids

Description

Surge relief valves are used for the decay of pressure surges and of permanent overpressures within pipeline systems.

Designed for installation in a bypass line, the SAV820E prevents harmful pressure surges that can develop in pumping systems during sudden pump stoppage. Unlike conventional pressure relief valves that open only when a high-pressure surge is encountered, the SAV820E already senses the preliminary stage of the high-pressure surge (pump failure or low-pressure surge) and opens in anticipation of the subsequently returning high-pressure surge. By pre-opening, the SAV820E inhibits the pressure rise before it occurs.

The SAV820E is a self-acting valve with two adjustable* response pressures and adjustable closing behavior. It consists of the main valve with two adjustable pilot valves and a throttle valve. It operates without auxiliary or external energy.

When the upper or lower response pressure is reached, the valve opens. At a pressure between the response pressures, the valve remains closed.

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, optional IV.

Standard

- » All stainless steel construction
- » ANSI or EN flanges
- » Transport lugs
- » Pressure gauge

Options

- » Special materials such as Duplex steel
- » Different materials for O-rings and gaskets, suitable for your medium
- » Special connections
- » Filter in the sense line
- » Customized special versions on request, such as:
 - straightway valve
 - control by solenoid valve
 - diaphragm-operated
 - dome-loaded

Product



Picture similar

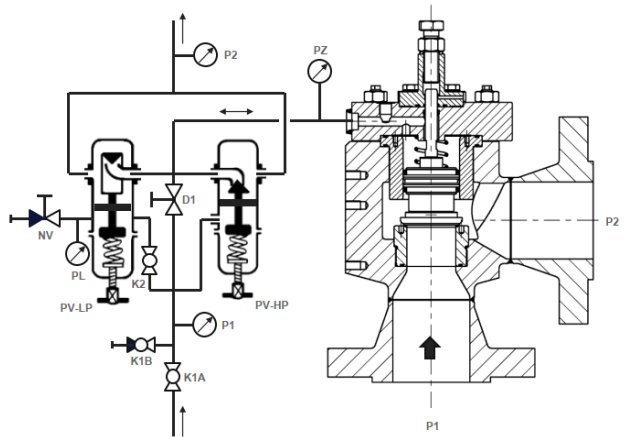
Technical specification

K_{vs} values m³/h

nominal diameter DN	40	50	65	80	100	125	150
K_{vs} value m ³ /h	20	32	50	60	70	150	250

Adjustable response pressures [bar]

PV-LP opens below	10 - 50 bar
PV-HP opens above	50 - 70 bar



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Materials

Materials	
Body	Welded steel or stainless steel
Internals	stainless steel
Sealing elements	PTFE, HNBR, EPDM, NBR, FKM
Pressure springs	Spring steel or stainless steel

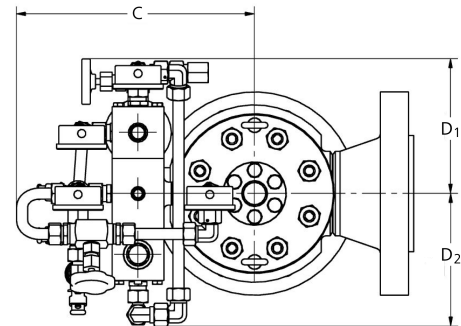
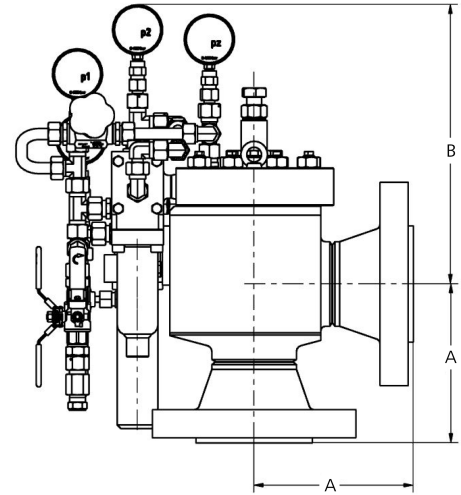
Dimensions and weights

Dimensions [mm]								
Nominal pressure PN	size	nominal diameter DN						
		40	50	65	80	100	125	150
10 - 16	A*	115	125	145	155	175	200	225
25 - 40	A*	115	125	145	155	175	200	225
63 - 100	A*	130	150	170	190	215	250	275

*overall length tolerances in acc. with DIN EN 558

Dimensions B, C, D₁, D₂ and weights on request.
 Since the valve is individually designed to your operating data and can vary considerably in design, we cannot provide exact information on dimensions and weights here. Please let us have your enquiry!

Customs tariff number
84814010



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Please send us your enquiry and allow us to advise you. Special designs on request.
 The pressure has always been indicated as overpressure. Mankenberg reserves the right to alter technical specifications without notice.