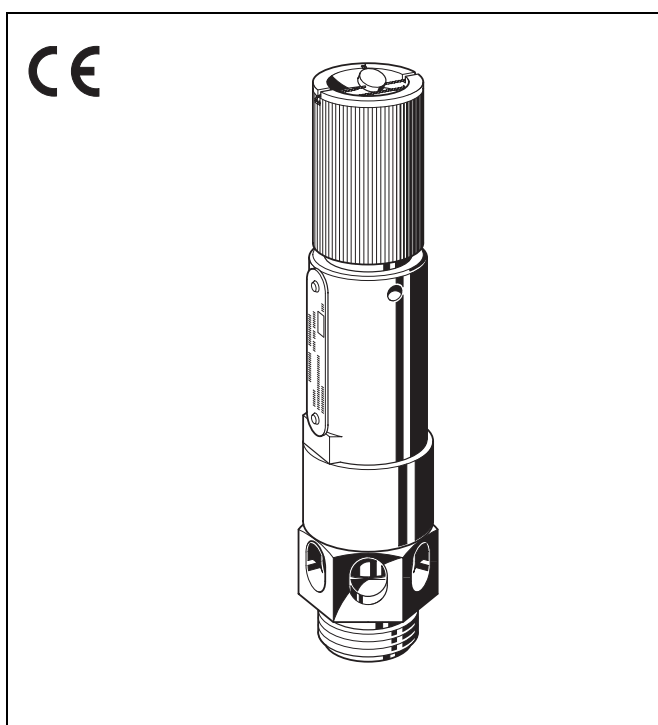


S245B

Safety Valve

High performance valve for compressed air

Product specification sheet



Construction

The safety valve comprises:

- Housing
- Spring bonnet
- Valve cone
- Spring

Materials

- Brass housing
- Bonnet of brass (sizes 1/2" to 1")
- Bonnet of cast iron (sizes 1 1/4" to 2"), powder coated
- Valve cone of brass
- Spring of stainless steel or spring steel
- Disc seal of Viton

Application

Safety valves of this type are direct loaded high performance safety valves with lifting device. They protect pressurized compressed air vessels (cylinders, tanks) against excessive pressure.

Safety valves of this type are used for compressors and other industrial purposes.

Special Features

- Sturdy metal construction
- Shakeproof lifting mechanism admitting no additional load
- Approved by VdTÜV for pressure range from 0.5 - 30.0 bar
- Approved by ASME (American Society of Mechanical Engineers) for pressure range 2.8 - 30.0 bar (41 - 435 PSI)
- Certified to Pressure Equipment Directive 97/23/EC, Reference No. CE 0035
- Set pressure adjustment at factory
- Set pressure settings possible between 0.5 and 30 bar in steps of 0.1 bar
- Light weight

Range of Application

Compressed air.

Non-toxic, non-corrosive and non inflammable gases which may be discharged to atmosphere.

Not suitable for oxygen and steam.

Technical Data

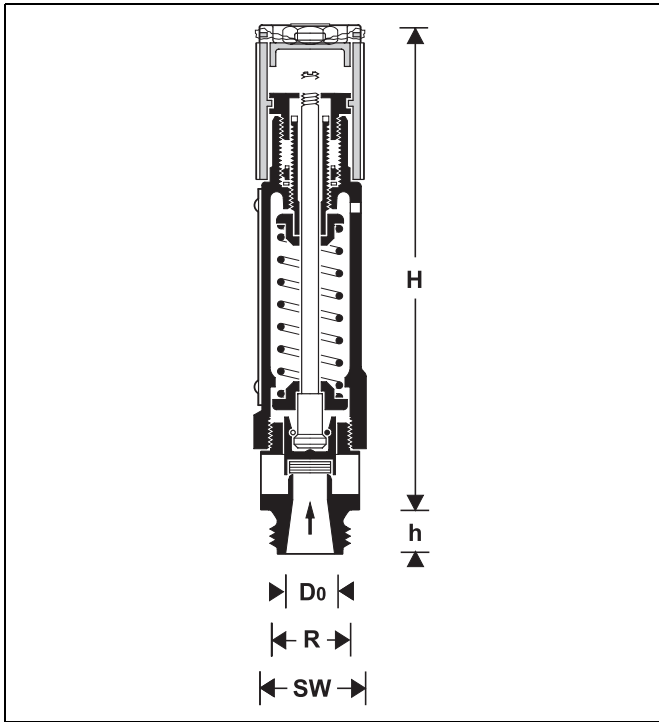
Max. operating temperature	180 °C ASME 260 °C TÜV / CE
Approval No.	TÜV · SV · ..* - 340 D ₀ D/G 0.73 · p P = set pressure D ₀ = nozzle diameter

ASME approval reference 30.492

Discharge rate
TÜV $\alpha_w = 0.73$
ASME $K_d = 0.863$

Connection size G 1/2" - G 2"

..* valid Approval No.



Method of Operation

Safety valves are direct-acting. The disc seal is pushed up by the pressure from the system against a spring which is holding the valve closed. If the opening force exceeds the force exerted by the spring, the valve disc is lifted off the valve seat and the valve discharges the medium. In accordance with the requirements of the standard, the full discharge capacity of the valve will be achieved when the system pressure climbs to no more than 10% above the set pressure of the valve. Full shutoff must be achieved if the system pressure falls to below 90% of the nominal set pressure value.

Options

S245B- ... ZA*...= Safety valve, set pressure 1.0 -12.0 bar

S245B- ... ZB*...= Safety valve,
set pressure < 1.0 or > 12.0 bar

Connection size }
Set pressure

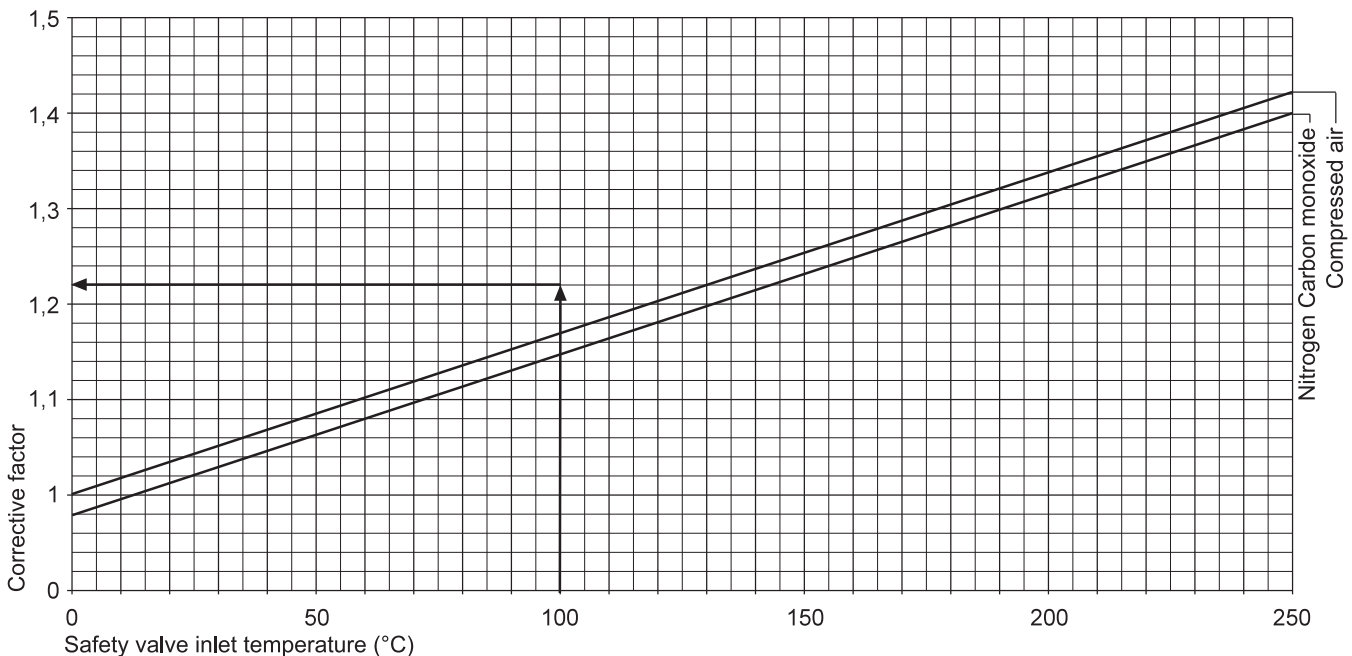
Ordering Example

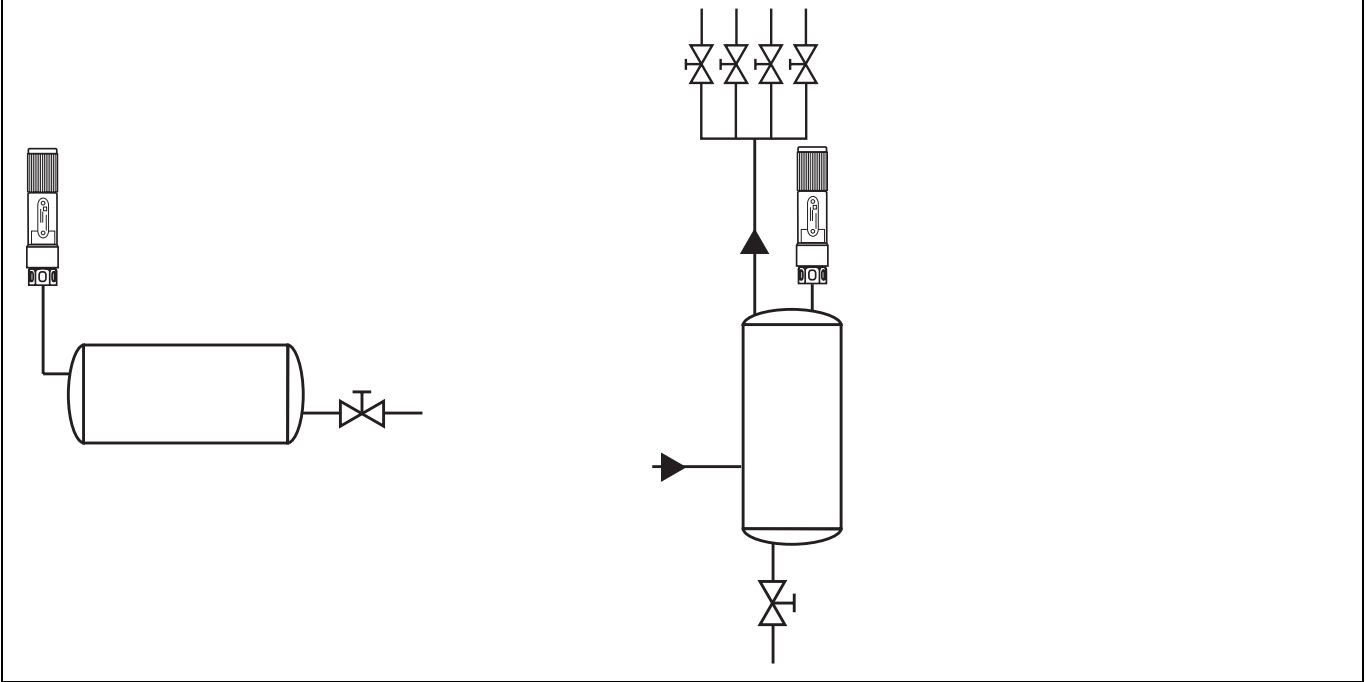
S245B-3/4ZA* 5.8 = Safety valve (soft seat version), size 3/4", set pressure 5.8 bar

S245B-1ZB* 0.8 = Safety valve (soft seat version), size 1", set pressure 0.8 bar

Connection size	R	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Weight	(kg)	0.4	0.6	0.9	1.7	3.0	8.0
Dimensions	(mm)	10	15	20	25	32	40
	Doh	12	15	16	18	20	22
	H	138	153	185	231	293	367
	SW	27	36	41	50	60	80

Corrective-Factor



Installation Example**Installation Guidelines**

- Safety valves for compressed air fit in a vertical upwards pointing pipework or on top of a pressurized compressed air vessel.
- Connections through all pipe, fittings and nonreclosing pressure relief devices (if installed) between a pressure vessel and its safety valve shall have at least the area of the safety valve inlet.
- The characteristics of the upstream system shall be such that the pressure drop will not reduce the relieving capacity below that required or adversely affect the proper operation of the safety valve.
- The opening in the vessel wall shall be designed to provide unobstructed flow between the vessel and its safety valve.
- There shall be no intervening stop valves between the vessel and its safety valves.

Inspection

A set pressure function test should be carried out at least once per year. The detailed test procedure is determined by the user.

Discharge capacity for compressed air (TÜV) Type S245B**Typical Applications**

Safety valves are fitted where there is a risk of excess or extreme pressures which may injure people or damage equipment.

The following are some typical applications:

- Air supplies to a factory
- Portable compressor units
- Paint spray units
- Pressure tanks

