

Pressure Gauge Overrange Protector

Ve

Adjustable

Application

The pressure gauge overrange protector serves as protection against occurring overpressures that exceed the pressure range of the pressure gauges.

It allows for a cascade activation of several pressure gauges with varying pressure ranges so that in case of large pressure ranges also the lower pressure values can be measured and read precisely. The overrange protectors are set according to the maximum permissible pressure value of the different pressure gauges and they shut off the pressure gauges automatically.

A medium free of particles is necessary for permanent undisturbed operation. Granular impurities in the medium damage the O-ring sealing, so that in case of overpressure a closure no longer takes place.

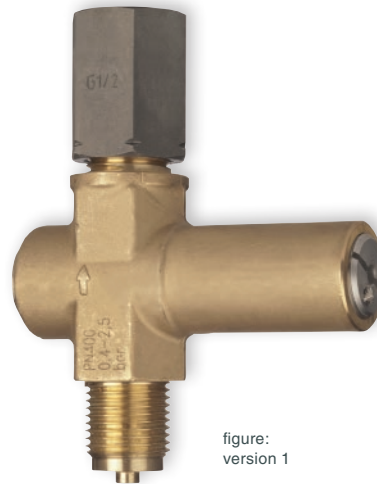


figure:
version 1

Construction and Operating Principle

The pressure gauge overrange protector is a piston valve. With a helical spring, the open position is maintained until the pressure acting on the piston exceeds the counterpressure of the spring, thus closing the valve.

When the pressure drops approx. 25 % below the set closing pressure, the valve opens again and the piston returns to its rest position due to the elastic force.

Factory Setting

See table on page 2

Setting Changes

Turning the adjusting screw clockwise increases the closing pressure
Turning the adjusting screw counterclockwise decreases the closing pressure

The overrange protector is not suitable for control tasks!

Setting Values for Mounting Ex Works

When we mount the overrange protector to the pressure gauge, the permissible overpressure is set to 1.1 times full scale value.

Standard Versions

Connection Thread

Version 1: on both ends G ½
Version 2: on both ends ½" NPT

Valve Body

Brass clamping sleeve alloy steel or
Stainless steel 316Ti (1.4571)¹⁾ clamping sleeve stainless steel
316Ti (1.4571)

Sealing

Viton

Overrange Protection

Brass: 600 bar
Stainless steel: 1000 bar

Vacuum Resistance

Up to -1 bar, not adjustable

Permissible Temperatures

-10 / +80 °C (14 – 176 °F)

Options

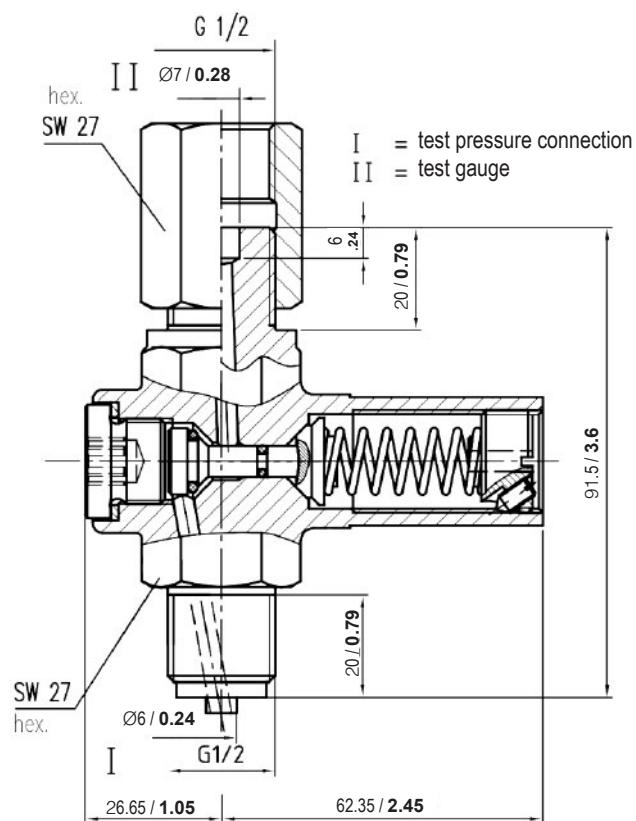
- Version 1: connection thread M20x1.5, G ¼" or G ⅜"
- Version for oxygen, free of grease and oil (max. 400 bar, max. 60 °C (140 °F))
- DVGW version (only available for G ½ and up to 400 bar; permissible temperatures for adjustment range 0.4 – 2.5 bar max. 60 °C (140 °F), membrane made of NBR, bushing made of brass)
- Certificate for version according to NACE
- Customised setting of the permissible overpressure of the closing pressure

¹⁾ stainless steel 316Ti (1.4571) complies with the requirements according to NACE MR0175 and ISO 15156-3

Dimensional Data (mm/inch), Nominal Pressure, Adjustment Range, Factory Setting

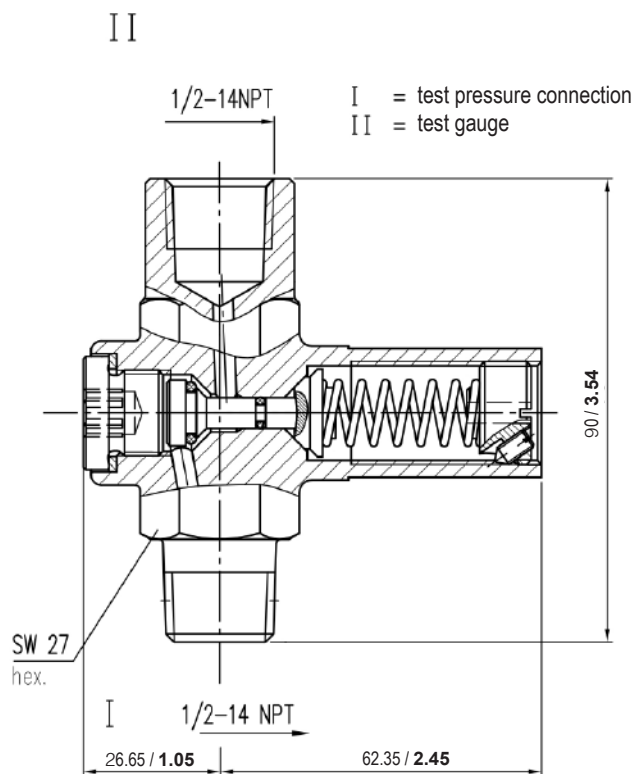
Version 1

clamping sleeve / connection



Version 2

bushing / connection



Nominal Pressure, Adjustment Range, Factory Setting

Nominal pressure in bar	PN 400						PN 600
Adjustment ranges in bar	0.4 – 2.5	2 – 6	5 – 25	20 – 60	50 – 250	240 – 400	400 – 600
Factory setting in bar	1.45	4	15	40	150	320	500