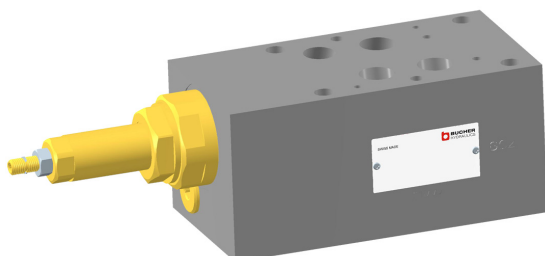


Pressure-Relief Valve, ISO Size 07

$Q_{\max} = 300 \text{ l/min}$, $p_{\max} = 350 \text{ bar}$
 Sandwich design, manually operated, seated pilot stage
 Series SDVA...



- With cartridge valve, type DVPB-1-16...
- Interface to ISO 4401-07-07
- Bypass function in the PT, AT, or BT connection
- Internal pilot-oil drain to port T
- 4 pressure ranges available
- High flow rates
- Excellent stability over the whole pressure and flow range
- Responsive pressure adjustment
- Available with hand-knob or tamper-proof cap
- External cartridge parts are zinc plated and chromited (CrVI-free)
- Sandwich body is zinc-phosphated

1 Description

Series SDVA... sandwich valves are high performance pressure-relief valves with a size 07 interface to ISO 4401-07-07. The main components of the valves are a sandwich body (stack-mounting body) and the screw-in cartridge (type DVPB-1-16...). The pressure-relief cartridges have a seated pilot stage, and the main stage is designed on the sliding-spool principle. In the closed condition, they shut off the connection to tank (spool-type closure). Four pressure ranges are available for each of the bypass functions in PT, AT or BT. The pressure is set by means of an adjusting

screw or a hand-knob on the pilot cartridge. To safeguard pressure settings, the adjusting spindle can be sealed with a tamper-proof cap. These sandwich valves are used to limit the system pressure (pressure in lines P, A or B) in mobile and industrial applications. The sandwich body is zinc-phosphated. All external parts of the cartridge are zinc-nickel plated to DIN 50 979 and are thus suitable for use in the harshest operating environments. The sandwich body is sealed at its manifold side (the connections side) by means of O-rings fitted in counterbores.

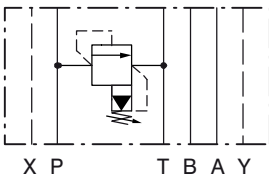
2 Technical data

General characteristics	Description, value, unit
Designation	pressure-relief valve
Design	sandwich design, manually operated, seated pilot stage
Mounting method	4 x $\varnothing 10.5$ holes for M10 cap screws 2 x $\varnothing 7$ holes for M6 cap screws
Size	size 07 interface to ISO 4401-07-07 / DIN 24 340 A16
Weight	8.55 kg
Mounting attitude	unrestricted
Ambient temperature range	-25 °C ... +80 °C

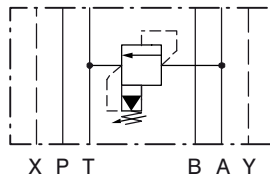
Hydraulic characteristics	Description, value, unit
Maximum operating pressure	- in ports P, A, B - in port T
Flow range	5...300 l/min
Nominal pressure ranges	...100 bar, ...160 bar, ...250 bar, ...350 bar
Flow direction	see symbol
Hydraulic fluid	HL and HLP mineral oil to DIN 51 524; for other fluids, please contact BUCHER
Hydraulic fluid temperature range	-25 °C ... +80 °C
Viscosity range	10...650 mm ² /s (cSt), recommended 15...250 mm ² /s (cSt)
Minimum fluid cleanliness Cleanliness class to ISO 4406 : 1999	class 20/18/15

3 Symbol

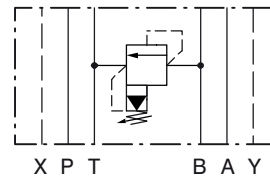
Function in PT, AT or BT (bypass model)



SDVA-P-16...



SDVA-A-16...



SDVA-B-16...

4 Performance graphs



IMPORTANT!

Detailed performance data and other hydraulic characteristics can be found in the data sheet for the pressure-relief cartridge that is fitted (data sheet ref. no. 400-P-285301-E).

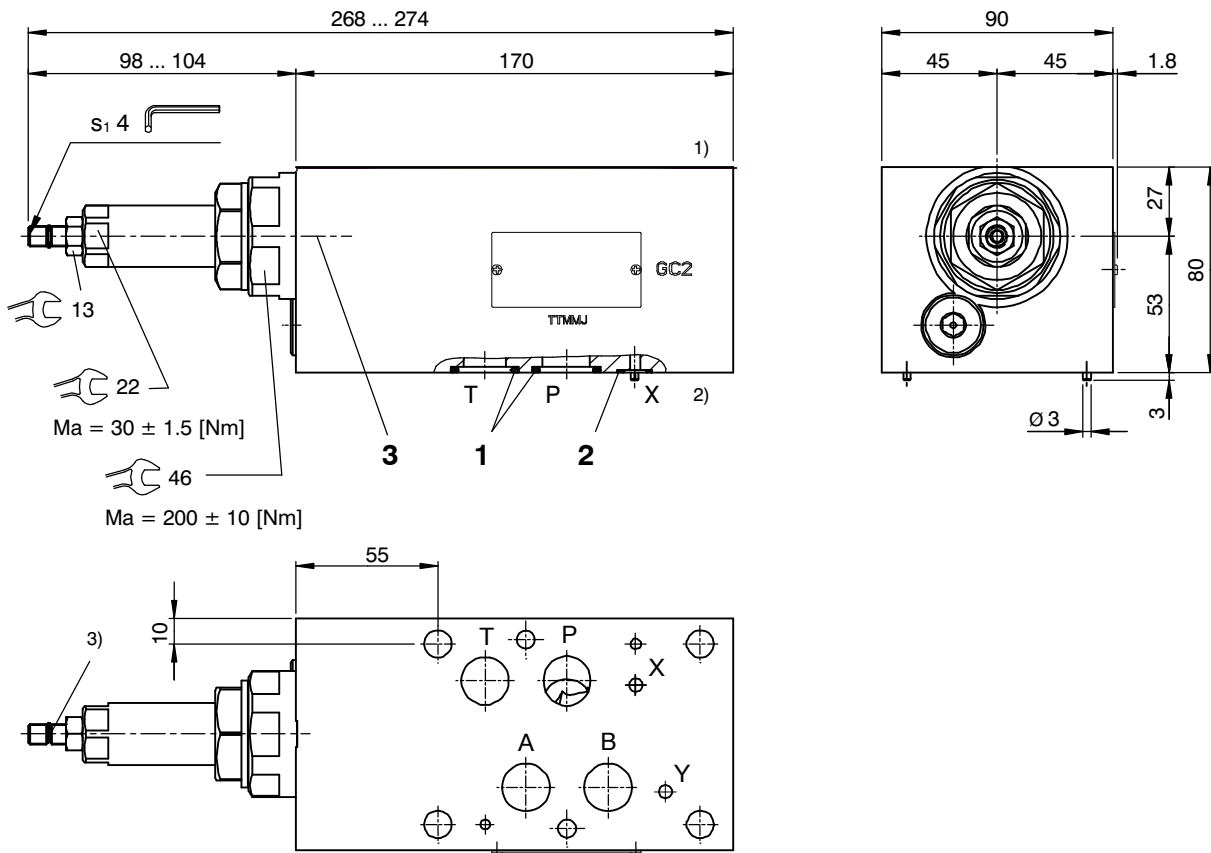


ATTENTION!

The performance figures in the data sheet for the cartridge valve refer just to the cartridge itself. Take into account the additional pressure drop in the body into which it is fitted.

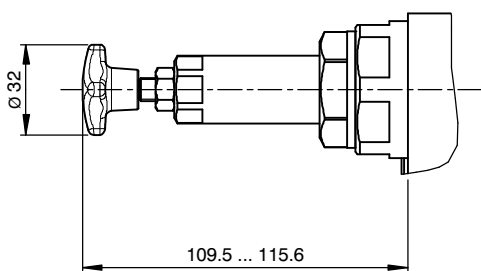
5 Dimensions & sectional view

With adjusting screw "S"

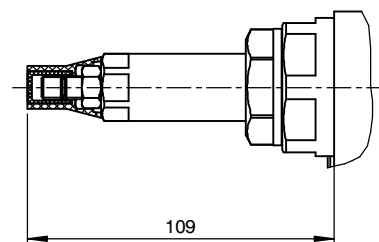


- 1) Valve side
- 2) Connections side (manifold side)

With hand-knob adjuster "H"



Adjusting screw with tamper-proof cap
(order separately in plain language)



6 Installation information



IMPORTANT!

When installing the valve, make sure that the mating face (the manifold interface) aligns with the valve interface. Do not confuse the sandwich valve's manifold side and directional-valve side. Set the required pressure with the adjusting screw (s1). After you have set the valve, lock the adjusting screw with the lock nut.



ATTENTION!

Only qualified personnel with mechanical skills may carry out any maintenance work. Generally, the only work that should ever be undertaken is to check, and possibly replace, the seals. When changing seals, oil or grease the new seals thoroughly before fitting them.



IMPORTANT!

Valve settings can be sealed by fitting the tamper-proof cap. To fit the cap, the snap ring³⁾ has to be removed. Subsequent adjustment is only possible by destroying the tamper-proof cap.

NBR seal kit no. DS-319-N⁴⁾

Item	Qty.	Description
1	4	O-ring no. 118 Ø 21.89 x 2.62 N90
2	2	O-ring no. 013 Ø 10,82 x 1,78 N90
3	1	NBR seal kit no. DS-344-N for pressure-relief cartridge DVPB-1...



IMPORTANT!

4) Seal kit with FKM (Viton) seals, no. DS-319-V

7 Ordering code

Ex. **S DV A - P - 16 - 35 - S _**

- S = sandwich design
- DV = pressure-relief cartridge, two stage
- A ... Q = standard model - see relevant data sheets
- Z ... R = special features - please consult BUCHER
- P = function from P to T
- A = function from A to T
- B = function from B to T
- 16 = ISO size 07 interface
- 35 = pressure range ...350 bar
- 25 = pressure range ...250 bar
- 16 = pressure range ...160 bar
- 10 = pressure range ...100 bar
- S = screw adjuster (standard)
- H = hand-knob adjuster
- (blank) = NBR (Nitrile) seals (standard)
- V = FKM (Viton) seals
(special seals - please contact BUCHER)



IMPORTANT!

When required, the tamper-proof cap (the adjustment seal) must be ordered separately in plain language.

8 Related data sheets

Reference	(Old no.)	Description
400-P-070101	(i-51)	Size 07 interface to ISO 4401-07-07
400-P-285301	(D-5.31)	Pressure-relief cartridge, size 16, series DVPB-1-16...
400-P-260111	(D-2.151)	Pilot pressure-relief cartridge, size 4, series DDPC-1L...

Notes

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