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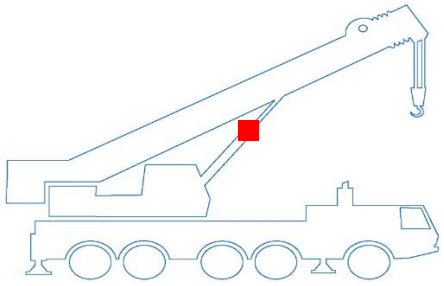
1 Product Details

The pressure valve is designed as cartridge valve. It is a direct operated valve for flow rates up to 10 l / min, which can be adjusted manually. The adjustment can be protected by a cap. The components are designed robust. The valve can be charged up to 500 bar and is delivered at a certain pressure.

1.1 Application

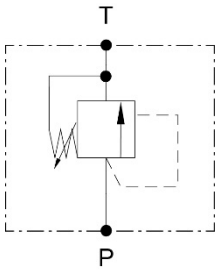
The pressure valve is used to protect high volume lift cylinders in truck cranes. It should avoid excessive pressure increase in unmoving cylinders due to warming (“sushine valve”).

1.2 Recommended Installation



2 Function

The pressure valve operates as a direct acting seat valve. The pressure can be set using an adjusting screw. The screw is locked after adjustment with a backup sealing nut and can be protected by a cap.



P – protected port
T - tank

2.1 Features

- Cartridge type
- Small installation space
- Robust construction
- Stepped cavity (corresponds to Bucher UVP-4)
- Seat valve, leakage free

3 Technical Data

Criteria	Unit	Value
Installation position		any
Weight	kg	0,1
Surface protective		Zinc coated
Maximum input pressure (P)	bar	550
Adjustable pressure	bar	100 - 500
Maximum Tankpressure (T)	bar	8
Maximum input flow rate (P)	l/min	10
Hydraulic fluid		Mineral oil (HL, HLP) conforming with DIN 51524, other fluids upon re-
Hydraulic fluid pressure range	°C	-25 bis +80
Ambient temperature	°C	< +50
Viscosity range	mm2/s	2,8 - 500
Contamination grade		Filtering conforming with NAS 1638, class 9, with minimum retention

4 Ordering Information

4.1 Type Code

PRV	DSU	CA	10	500		239	N
00	01	02	03	04	05	06	07

00	Product group	Pressure relief valves	**PRV**
01	Variant	manual adjustable	**DSU**
02	Port / Case	Cartridgeventil	CA
03	Input flow rate Qmax.	10 l/min	10
04	Max.permissible pressure Pmax..	**500**bar	500
05	Activation	**Man**ually adjustable 100-500bar	MAN100
06	Stepped cavity	WESSEL-Patrone 8.00**239** (stepped cavity)	239
07	Seal	NBR, temperatur range -25°C bis +80°C	N

XXX – fest vorgegebene Merkmale XXX – vom Kunden wählbare Merkmale

4.2 Versions currently available

The versions listed below are available as standard. Further versions as part of the options given on the type code can be configured upon request.

designation	type code	part nr.
PRV –DSU –CA -10LPM -500BAR –MAN230BAR –239 -NBR	PRV –DSU –CA -10 -500 –MAN230 –239 -N	412.072.451.9
PRV –DSU –CA -10LPM -500BAR –MAN235BAR –239 -NBR	PRV –DSU –CA -10 -500 –MAN235 –239 -N	412.072.430.9
PRV –DSU –CA -10LPM -500BAR –MAN290BAR –239 -NBR	PRV –DSU –CA -10 -500 –MAN290 –239 -N	412.072.433.9
PRV –DSU –CA -10LPM -500BAR –MAN340BAR –239 -NBR	PRV –DSU –CA -10 -500 –MAN340 –239 -N	412.072.431.9
PRV –DSU –CA -10LPM -500BAR –MAN420BAR –239 -NBR	PRV –DSU –CA -10 -500 –MAN420 –239 -N	412.072.432.9

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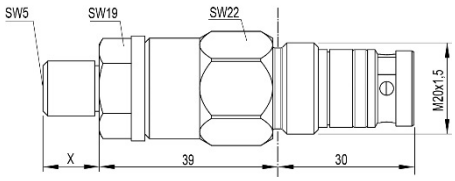
5 Description of Characterisics in Accordance with Type Code

5.1 Characteristic 1: Variant DSU

Adjustable pressure relief valve

5.2 Characteristic 2: Port / Case: Variant CA - Cartridge

As variant CA, the valve is delivered as a cartridge valve. The Cavity has to be designed according to characteristic 6 (stepped cavity)



5.3 Characteristic 3: input flow rate

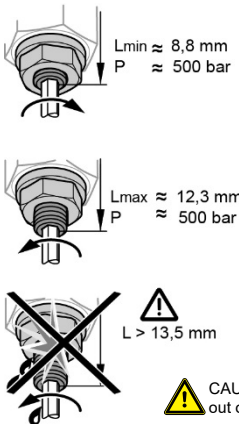
Recommended maximum flow rate of 10 l/min.

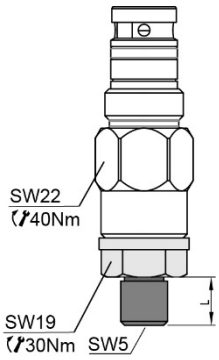
5.4 Characteristic 4: Max.permissible pressure

Maximum permissible pressure is 500bar (adjustable range100 - 500bar)

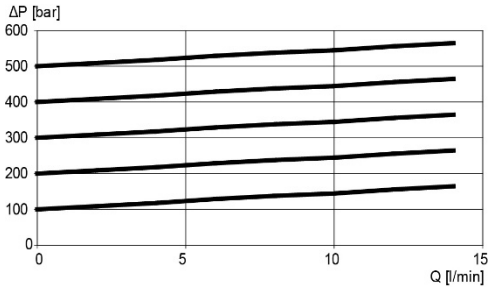
5.5 Characteristic 5: Activation / Setting

The valve can be adjusted with a set screw. For this purpose, the protective cap must be removed and the counter nut undone.



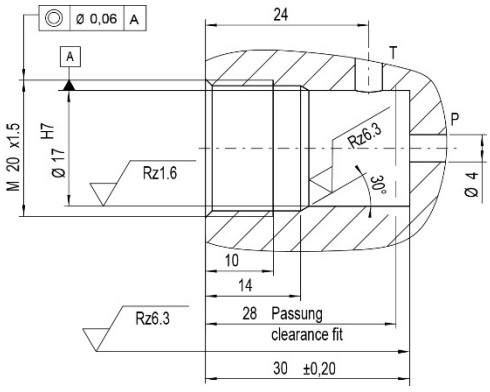


CAUTION: Do not unscrew the set-screws more than **13,5** mm out of the housing



5.6 Characteristic 6: Stepped cavity 8.00239 (corresponds to Bucher UVP- 4)

Das vorgesteuerte Druckbegrenzungsventil ist ein Cartridgebauteil und wird in eine Stufenbohrung entsprechend nebenstehender Zeichnung eingeschraubt.



5.7 Characteristic 7: Seal

NBR, temperature range -25°C bis +80°C

6 Installation

6.1 General information

- Observe all installation and safety information of the construction machine / attachment tools manufacturer.
- Only technically permitted changes are to be made on the construction machine.
- The user has to ensure that the device is suitable for the respective application.
- Application exclusively for the range of application specified by the manufacturer.
- Before installation or de-installation, the hydraulic system is to be depressurized.
- Settings are to be made by qualified personnel only.
- Opening is only to be performed with the approval of the manufacturer, otherwise the warranty is invalidated.

6.2 Connection Recommendations

NOTE: Enclosed proposed resolution is not always guaranteed. The functionality and the technical details of the construction machine must be checked.

5.3 Montage – Bauraum

- Observe connection names.
- Do not damage seals and flange surface.
- Its hydraulic system must be vented
- Ensure sufficient free space for setting and installation work

6.3 Installation - installation space

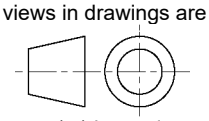
- Observe connection names.
- Do not damage seals and flange surface.
- Its hydraulic system must be vented
- Ensure sufficient free space for setting and installation work

CAUTION: Hydraulic hoses must not touch the pressure relief valve, otherwise they are subject to thermal damaging. Tightening torques must be observed. Torque wrench needed.

7 Notes, Standards and Safety Instructions

7.1 General Instructions

- The views in drawings are shown in accordance with the European normal projection variant



- A comma (,) is used as a decimal point in drawings
- All dimensions are given in mm

7.2 Standards

The following standards must be observed when installing and operating the valve:

- DIN EN ISO 13732-1:2008-12, Temperatures on accessible surfaces

8 Zubehör

Safety cap: 275.066.000.6