

Pressure Relief Valve

direct operated

Nom. size : 20
Nom. flow capacity : 200 l/min
Nom. operating pressure : 315 bar

Description

Direct spring pressure relief valve, type DBD, are suitable for inline mounting and serve for limitation of operating pressure in hydraulic systems.

The operating pressure is optionally adjustable by hexagon socket grub screw (with protection cap) or by knob.

The relief valves are available in different pressure ranges. The valve is equipped with a valve seat sealed by a spring loaded poppet.

If the set spring force is overcome by the line pressure the poppet lifts up from the seat and gives free flow from pressure to drain chamber.

The valves are available as cartridge or inline pressure relief valves.

General characteristics

Construction	poppet type
Mounting	cartridge type inline type
Connection size	G 1
Dimensions	page 2
Weight	page 2
Fitting position	optional
Perm. Ambient Temper.	$\vartheta_{u \max} = + 60 \text{ }^\circ\text{C}$

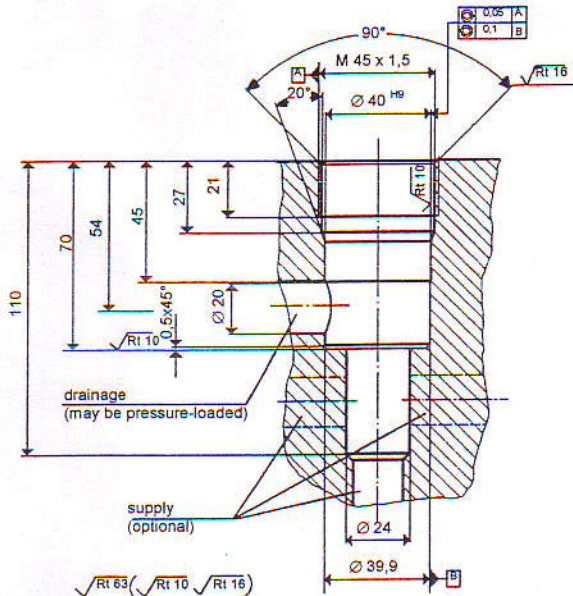
Hydraulic characteristics

Set pressure range	$p_{v \min}$	= 10 bar
	$p_{v \max}$	= 315 bar
Input pressure	$p_{e \min}$	= 20 bar
	$p_{e \max}$	= 325 bar
Outlet pressure	$p_R \max$	= 210 bar
Fluid temperature	$\vartheta_{m \min}$	= - 20 °C
	$\vartheta_{m \max}$	= +80 °C
Viscosity	$\nu \min$	= 10 mm ² /s
	$\nu \max$	= 600 mm ² /s
p_v -Q-curve	page 3	
Shock absorption	poppet with damping piston	
Hydraulic fluids	hydraulic oils to DIN 51524 / 25 other fluids on request	
Filtration	≤ 20 μm	

Pressure Relief Valve DBD 20

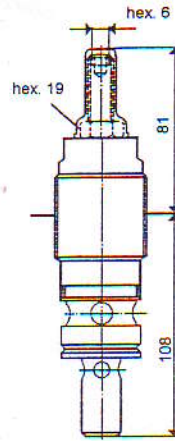
Dimensions

cartridge type
nom. size 20
weight 1,0 kg



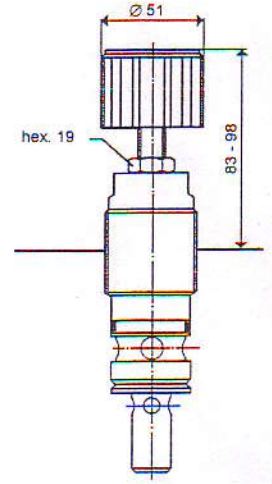
Installation details

- M 45 x 1,5 = Isometric fine thread with pitch 1,5 mm acc. to standard DIN 13
- $\varnothing 40$ H9 = 40,000 up to 40,062
- $\varnothing 24$ = dia. 24
- $\varnothing 39,9$ = dia. 39,9



locked setting

DBD 20 E 2 A .

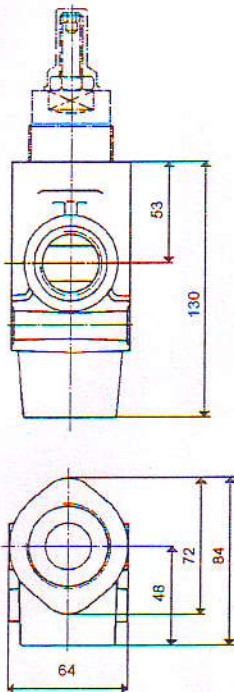


knob version,
adjusting stroke 15 mm

DBD 20 E 2 B .

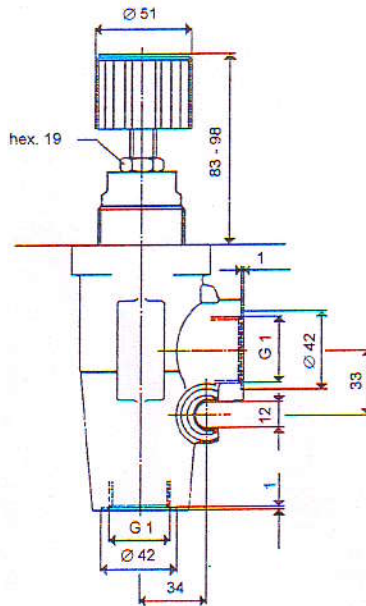
ordering example page 3

inline type
nom. size 20
weight 2,9 kg



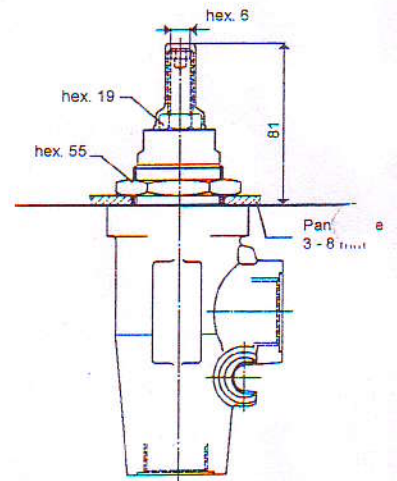
locked setting

DBD 20 R 2 A .



knob version
adjusting stroke 15 mm

DBD 20 R 2 E .



locked setting,
panel mounting

DBD 20 R 1 D .

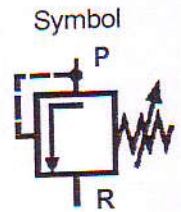
ordering example page 3

Pressure Relief Valve DBD 20

Ordering example

DBD 20 E 2 A .

	Pressure range bar		Flow l/min	
	from	to	at	at
	p_{v1}	p_{v2}	Q_{max1} p_{v1}	Q_{max2} p_{v2}
315	70	315	60	200
200	50	200	50	170
125	30	125	40	130
63	10	63	40	90



p_v - Q - Curves

Viscosity = 34 mm²/s

