

# Drain valve type BR

Operation pressure  $p_{P \max} = 400 \text{ bar}$   
 $p_{R \max} = 200 \text{ bar}$

## 1. General information

The drain valve type BR is a valve combination consisting of a 2/2-way directional seated valve and a preconnected orifice limiting the flow.

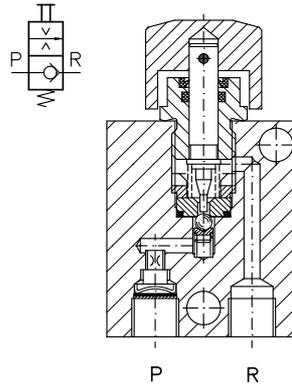
All internal function parts of the valve are hardened and ground, with zero leakage when not actuated.

The valve is actuated via a push button while the operation pressure should be below 400 bar to keep the actuation force on an acceptable level. Main application are hoists and stackers where it is used as an emergency drain.

## 2. Available versions, main data

Order example: **BR 1 - 1,2**

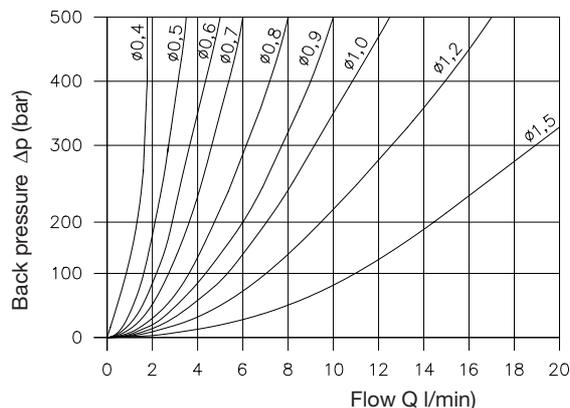
Basic type Size	Tapped ports P and R	Orifice- $\varnothing$ (mm)
BR 0	G 1/8 DIN ISO 228/1 (BSPP)	0,4
		0,5
BR 1	G 1/4 DIN ISO 228/1 (BSPP)	Carburetor
		jet
		M 4 x $\varnothing$ ...
		0,8
		0,9
		1,2
		1,5



### Further parameters

Nomenclature	Drain valve
Pipe connection	Whitworth pipe thread DIN ISO 228/1 (see "Unit dimensions" in sect. 3)
Installed position	Any
Surface coating	Valve body: Zinc galvanized Push button: Red anodized
Flow direction	P → R
Mass (weight)	See "Unit dimensions" in sect. 3
Actuation force	Pressure dependent 100 bar = approx. 50 N, 200 bar = approx. 100 N, 300 bar = approx. 150 N, 400 bar = approx. 200 N ( $P_R = 0$ )
Hydraulic fluid:	Fluids acc. to DIN 51524 table 1 to 3; ISO VG 10 to 68 acc. to DIN 51519 Viscosity range: min. approx. 4; max. approx. 1500 mm <sup>2</sup> /s Optimal operation range: approx. 10...500 mm <sup>2</sup> /s Also suitable are biologically degradable pressure fluids of the type HEPG (Polyalkylenglycol) and HEES (synth. Ester) at operation temperatures up to approx. +70°C.
Temperature:	Ambient: approx. -40...+80°C Fluid: -25...+80°C, pay attention to the viscosity range! Start temperature down to -40°C are allowable (Pay attention to the viscosity range during start!), as long as the operation temperature during subsequent running is at least 20K higher. Biological degradable pressure fluids: Pay attention to manufacturer's information. With regard to the compatibility with sealing materials do not exceed +70°C.

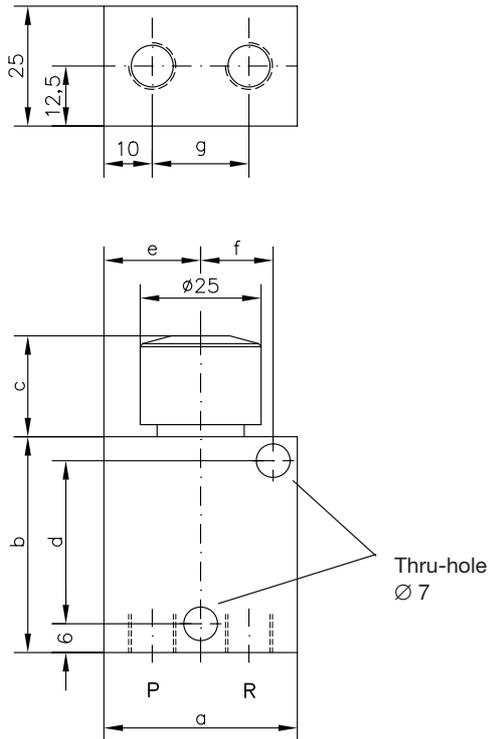
$\Delta p$ -Q curve



Fluid viscosity during measurement approx. 60 mm<sup>2</sup>/s

### 3. Unit dimensions

All dimensions in mm, subject to change without notice !



Type	a	b	c	d	e	f	g	Mass (weight) approx. (kg)	Ports (DIN ISO 228/1) P and R (BSPP)
BR 0	40	45	21	34	20	15	20	0.35	G 1/8
BR 1	45	50	21	39	22	18	24	0.45	G 1/4