

# Pilot operated check valves

## Type ERV700

up to 700 bar

NG 6 up to 25 l/min

### Features

- Leakage free
- Ball-seat construction
- Load supported closing
- Porting NG 6 according to DIN 24340
- Advantageous release function
- Compact design
- Outer parts of cartridge are corrosion protected



### Applications

Leakage free blocking of load.

The cartridge design allows a compact integration on cylinders and motors. This assembly offers an enhancement of the tractive strength and also a protection against pipe burst.

### Technical data

Hydraulic fluid	mineral oil according to DIN 51524 (other fluids on request)
Fluid temperature range	NBR: - 30 bis 80 °C FPM: - 20 bis 80 °C
Ambient temperature range	- 20 to 50 °C
Viscosity range	5 to 400 mm <sup>2</sup> /s (optimal: 10 – 68)
Porting (Cartridge see page 2)	NG 6 according to DIN 24340/ ISO 4401/ CETOP RP 121 H
Max. operating pressure connection P, A, B	700 bar
Max. pressure admissible connection T	350 bar
Pressure ratio	pe/p = 1:5.4 / cartridge 1:7.2
Max. flow rate	25 l/min
Back pressure at 25 l/min	5 bar / cartridge 40 bar
Cracking pressure check valve	ca. 1 bar / cartridge ca. 6 bar
Filtration	according to NAS 1638, class 6 or ISO/DIN 4406 17/15/12
Weight	see dimension drawings
Material/ surface treatment	housing steel, galvanized, chromated outer parts cartridge corrosion protection

**Type ERV700**

---

to 700 bar  
NG 6 up to 25 l/min

**Type ERV700**

---

to 700 bar  
NG 6 up to 25 l/min

**Ordering code**

**Example**

**ERV** **700** - **6** - **A** - **P** - **00**

**Pilot operated check valve**

**Type ERV700**

**Size** = 6

**Check valve**  
E Cartridge

Modular subplate from:  
A block of port A  
B block of port B  
AB block of port A or B

**Seals**  
P (NBR)  
V (FPM)

**Special design**  
01 ... 99  
(00 for standard)

**Part index**  
Please leave it blank  
(small letters a – z;  
different letters  
do not effect  
interchangeability)

**Design revision**  
see dimension drawings  
(capital letters A – Z;  
identical letters  
equal same connecting  
dimensions)

## Accessories

For each intermediate plate valve the following is included:

4 pieces O-rings 9,25 x 1,78 mm

90°ShA article no. 900195

## Accessories

### Tie bolts/ fixation screws and subplates

see technical data sheet AP / RP700

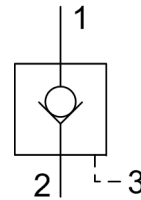
Operating instructions see BA-BV700

## Product information

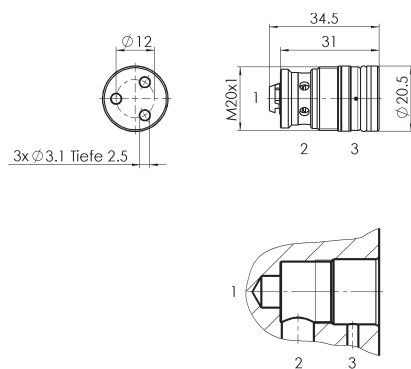
Crew-in cartridge, weight 0.055 kg

Type	Seals	Part No.
ERV700-6-E-V-A*00	P (NBR)	72570
ERV700-6-E-V-A*00	V (FPM)	71457

### Symbol

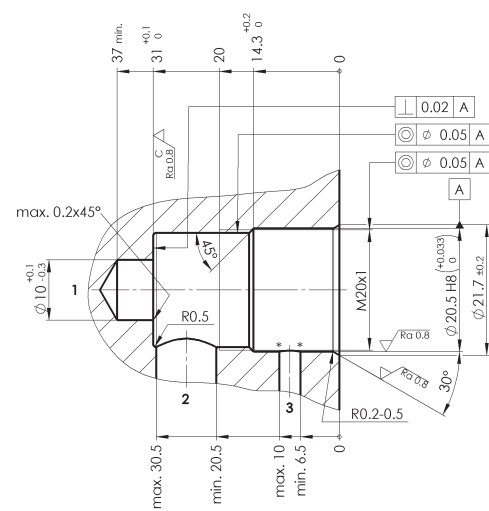


### Dimensional drawing



Tightening torque: M = 40 Nm

### Bore dimension



\* Flat chamfer or rounding max. 0.5 mm wide

### Assembly tool

Part No.
71786

## Type ERV700

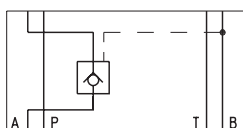
to 700 bar  
NG 6 up to 25 l/min

## Intermediate plate valves

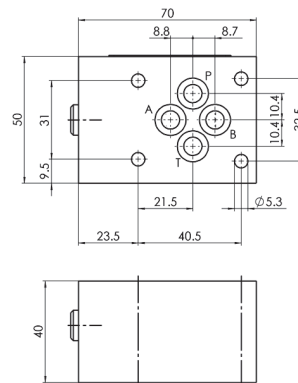
Check valve in A, weight 1.0 kg

Type	Seals	Part No.
ERV700-6-A-X-A*00	P (NBR)	56890
ERV700-6-A-X-A*00	V (FPM)	57685

### Symbol



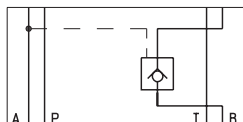
### Dimensional drawing



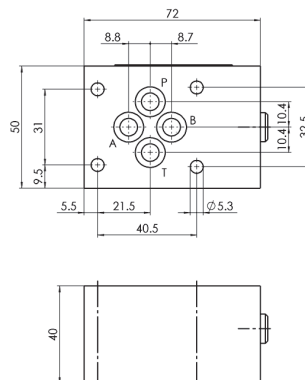
Check valve in B, weight 1.0 kg

Type	Seals	Part No.
ERV700-6-B-X-A*00	P (NBR)	56891
ERV700-6-B-X-A*00	V (FPM)	57687

### Symbol



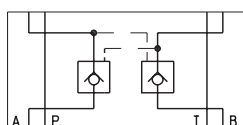
### Dimensional drawing



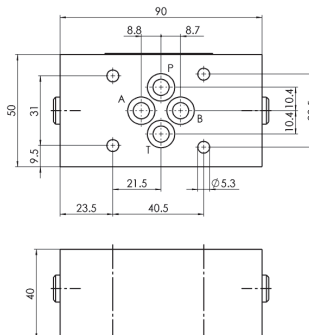
Check valve in A and B, weight 1.3 kg

Type	Seals	Part No.
ERV700-6-AB-X-A*00	P (NBR)	55038
ERV700-6-AB-X-A*00	V (FPM)	57684

### Symbol



### Dimension drawing



### Bieri Hydraulik AG

Könizstrasse 274  
CH-3097 Liebefeld  
Tel. +41 31 970 09 09 | Fax +41 31 970 09 10  
info@bierihydraulics.com | www.bierihydraulics.com  
4/4

The information in this brochure relates to the operating conditions and applications described.

For applications and operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

ERV700\_1113