

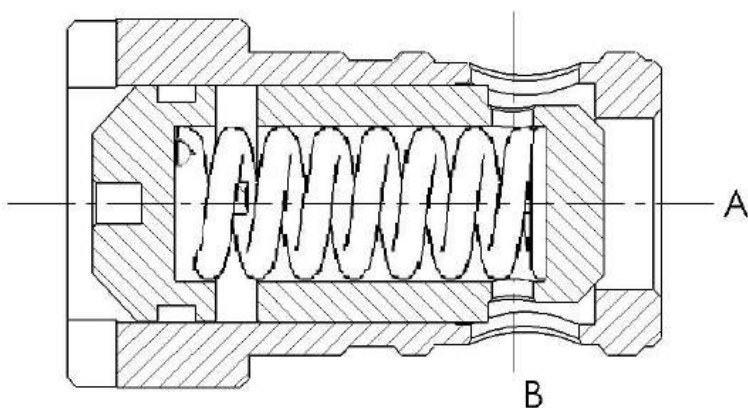
# HVR\* -I

**CHECK VALVE  
CARTRIDGE TYPE**



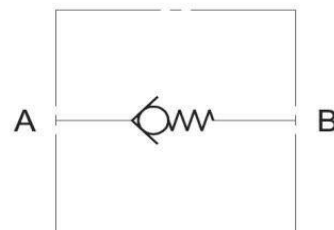
**Maximum pressure:** consult item 3, Technical Features  
**Maximum flow rate:** consult item 3, Technical Features

### 1 – OPERATING PRINCIPLE



- The HVR\* -I valves are unidirectional check valves with cartridge type construction and can be used in blocks and panels.
- In resting conditions, the valve plug, with conical check in the accommodation, is maintained closed by a return spring with fixed adjustment.
- The plug opening occurs when the pressure at entrance line “A” surpasses the adjusted value on the spring, plus the existent pressure at exit line “B”.
- Available in three sizes for flow rates of up to 300 L/min and with three different opening pressures.

### 2 – HYDRAULIC SYMBOL



### 3 – TECHNICAL FEATURES

Valve code	Nominal dimension	Maximum flow rate (L/min)	Weight (kg)	Maximum working pressure (bar)	
				Continuous	Peak
HVR2-I	1/4"	50	0,1	320	320
HVR5-I	3/4"	150	0,2	250	
HVR7-I	1.1/4"	300	0,8	250	
Ambient temperature range		°C		-20 to +50	
Fluid temperature range		°C		-20 to +80	
Fluid viscosity range		cSt		10 to 400	
Degree of fluid contamination	According to ISO 4406:1999 class 20/18/15				
Recommended viscosity		cST		25	

## 4 – IDENTIFICATION



Check valve

Nominal dimension:

- 2 = 1/4"
- 5 = 3/4"
- 7 = 1.1/4"

Cartridge type

Gaskets:

Omit for mineral oils  
V = Viton for special fluids

Serial number (the total and assembly dimensions remain unchanged from 20 to 30)

Opening pressure:

- 1 = 0,5 bar (standard)
- 3 = 5 bar
- 4 = 10 bar

## 5 – HYDRAULIC FLUID

– Use hydraulic fluids of HL or HM types based on mineral oils according to ISO 6743-4. For these fluids, use NBR gaskets. For HFDR fluids (phosphate esters), use FFM gaskets (code V).

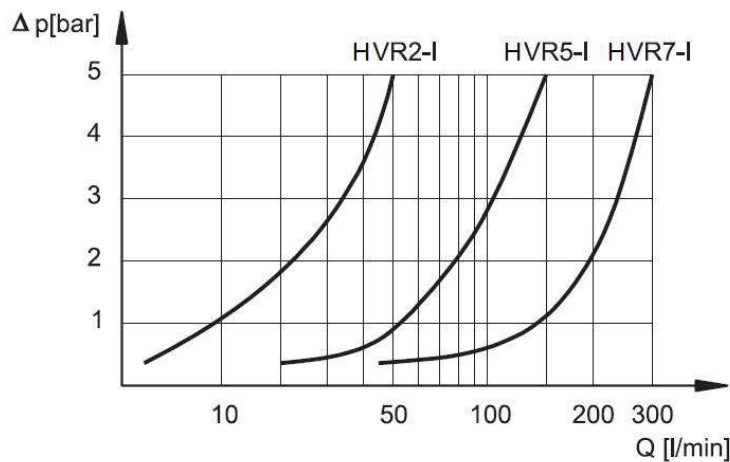
– For use of other fluid types, such as HFA, HFB and HDC, please consult our Technical Department. The use of fluids with temperatures over 80°C causes further degradation of the fluid and the gaskets features.

– The fluid should be maintained with its physical and chemical features.

## 6 – PRESSURE DROP CHART $\Delta p$ -Q

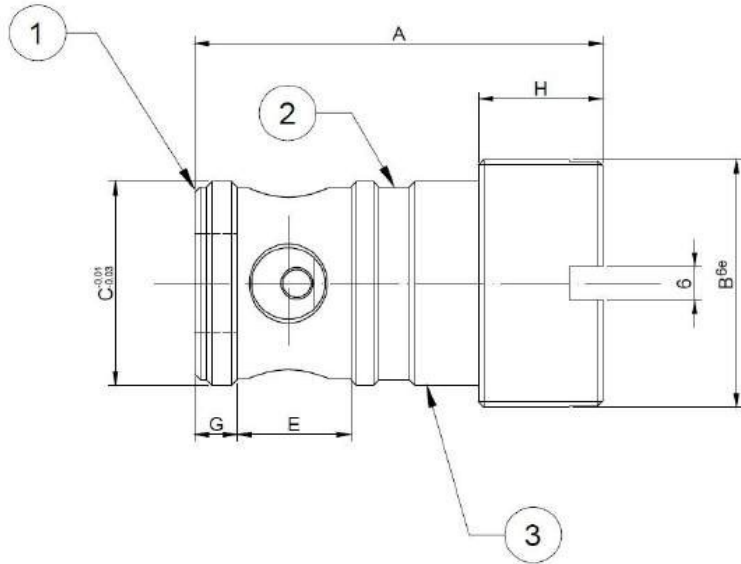
– Add the opening pressure to the values shown on the diagram.

– Curves measured using mineral oil with viscosity of 36 cSt at 50°C.

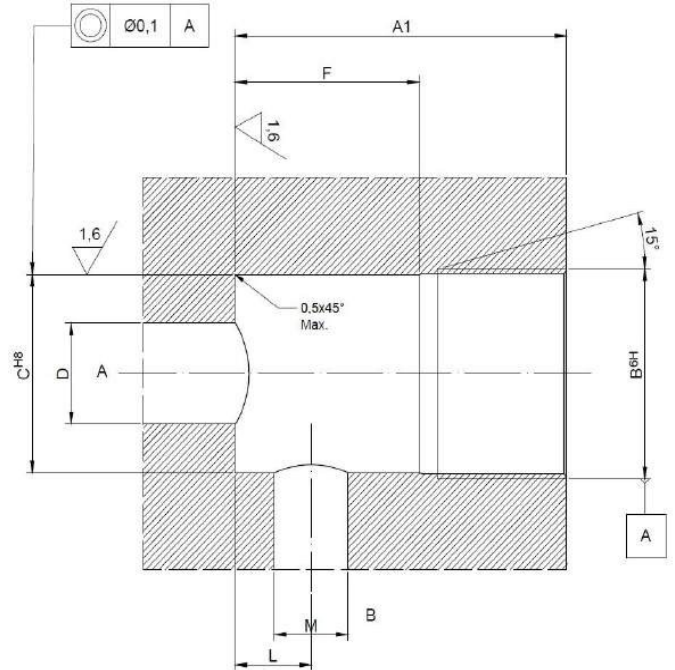


## 7 – DIMENSIONS

– Valve



– Valve cavity



– Dimensions in millimeters.

– NOTE: the A1 dimension should be at least 1mm bigger than the A dimension indicated in the table.

-	A	B	ØC	ØD max.	E	F	G	H	L	ØM max.	1	2	3	Grip torque
<b>HVR2-I</b>	41	M24x1,5	22	9	10	22	4	14	9	9	OR 119 (15,08x2,62)	OR 3068 (17,13x2,62)	Parbak 8-115	25 Nm
<b>HVR6-I</b>	43	M30x1,5	27	15	13,5	26	4,5	12	11	12	OR 3081 (20,24x2,62) Shore 90	OR 2093 (23,52x1,78)	Parbak 8-021	50 Nm
<b>HVR7-I</b>	72	M45x2	41	21	20	40	7,5	22	16,5	16	OR 3137 (34,60x2,62)	OR 4137 (34,52x3,53) Shore 90	Parbak 8-220	80 Nm

1 – HT reserves the right to change informations of this catalog without previous warning.

2 – Copy is forbidden.

3 – If not indicated, dimensions in millimeters.

