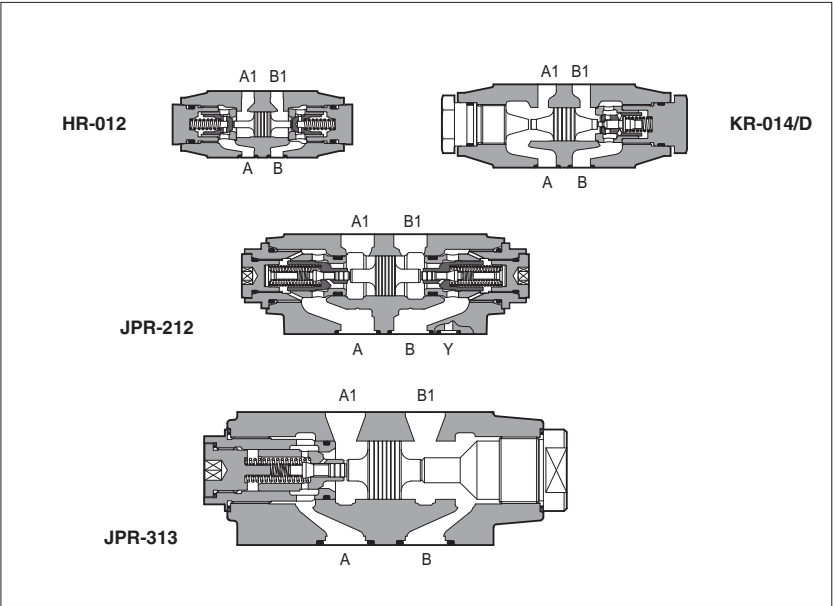


Modular check valves type HR, KR, JPR

direct or pilot operated, ISO 4401 sizes 06, 10, 16 and 25



HR, KR are check valves available as direct or pilot operated models.
JPR are pilot operated check valves.

Optional versions with decompression are available on request for some models of KR.

HR-0 = size 06: flow up to 60 l/min, pressure up to 350 bar.

KR-0 = size 10: flow up to 120 l/min, pressure up to 315 bar.

JPR-2 = size 16: flow up to 200 l/min, pressure up to 350 bar.

JPR-3 = size 25: flow up to 300 l/min, pressure up to 350 bar.

Valves are designed to operate in hydraulic systems with hydraulic mineral oil or synthetic fluid having similar lubricating characteristics.

1	MODEL CODE						
	HR-0	12	/	4	/	*	** / *
	Modular check valve, size: HR-0 = 06 KR-0 = 10 JPR-2 = 16 JPR-3 = 25						Series number
	Configuration, see section 2 direct operated (only for HR and KR): 02 = double, acting on port A and B 03 = single, acting on port A 04 = single, acting on port B 11 = single, acting on port P 16 = single, acting on port T pilot operated: 12 = double, acting on port A and B 13 = single, acting on port A 14 = single, acting on port B						Seals material, see section 3: - = NBR PE = FKM BT = HNBR
							Options (only for KR-012, -013, -014): D = with decompression (only with cracking pressure standard = 1 bar)
							Spring cracking pressure: for HR and KR – = 0,5 bar (std.) 4 = 4 bar 2 = 2 bar for JPR – = 0,5 bar (std.) 8 = 8 bar

2

VALVE CONFIGURATION

HR-002
KR-002

HR-003
KR-003

HR-004
KR-004

HR-011
KR-011

HR-016
KR-016

HR-012
KR-012
JPR-212
JPR-312

HR-013
KR-013
JPR-213
JPR-313

HR-014
KR-014
JPR-214
JPR-314

The pilot pressure applied through ports A or B opens the valve acting on ports B and A, respectively.
The minimum pilot pressure is a function of the area ratio, see the following table.

VALVE TYPE	AREA RATIO
HR	3,3:1
KR	3,3:1 (standard); 11:1 (option /D decompression system)
JPR-2	13,6:1 (standard version equipped with decompression system)
JPR-3	17:1 (standard version equipped with decompression system)

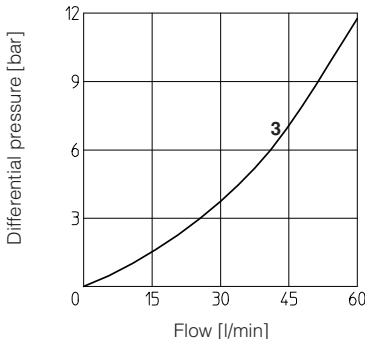
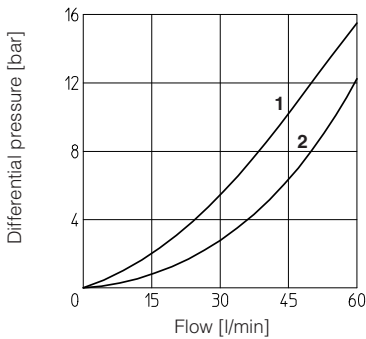
3 MAIN CHARACTERISTICS, SEALS and HYDRAULIC FLUID - for other fluids not included in below table, consult our technical office

Assembly position / location	Any position		
Subplate surface finishing	Roughness index Ra 0,4 - flatness ratio 0,01/100 (ISO 1101)		
MTTFd values according to EN ISO 13849	150 years, for further details see technical table P007		
Ambient temperature	Standard execution = -30°C ÷ +70°C /PE option = -20°C ÷ +70°C /BT option = -40°C ÷ +70°C		
Seals, recommended fluid temperature	NBR seals (standard) = -20°C ÷ +60°C, with HFC hydraulic fluids = -20°C ÷ +50°C FKM seals (/PE option)= -20°C ÷ +80°C HNBR seals (/BT option)= -40°C ÷ +60°C, with HFC hydraulic fluids = -40°C ÷ +50°C		
Recommended viscosity	15÷100 mm²/s - max allowed range 2.8 ÷ 500 mm²/s		
Fluid contamination class	ISO 4406 class 21/19/16 NAS 1638 class 10, in line filters of 25 µm (β10 ≥75 recommended)		
Hydraulic fluid	Suitable seals type	Classification	Ref. Standard
Mineral oils	NBR, FKM, HNBR	HL, HLP, HLPD, HVLP, HVLPD	DIN 51524
Flame resistant without water	FKM	HFDU, HFDR	ISO 12922
Flame resistant with water	NBR, HNBR	HFC	

4 DIAGRAMS OF HR-0 based on mineral oil ISO VG 46 at 50°C

Flow through check valve:

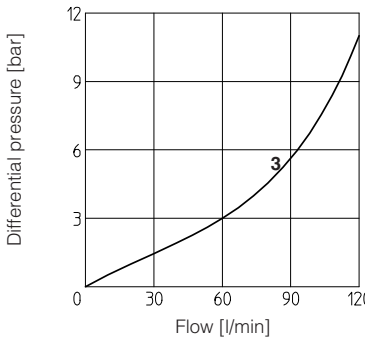
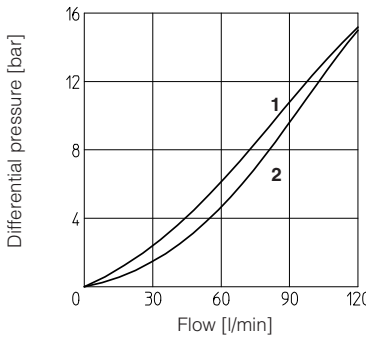
- 1** = A→A₁; B→B₁ of
HR-012, HR-013, HR-014
- 2** = A₁→A; B₁→B of
HR-012, HR-013, HR-014
- 3** = HR-011, HR-016



5 DIAGRAMS OF KR-0 based on mineral oil ISO VG 46 at 50°C

Flow through check valve:

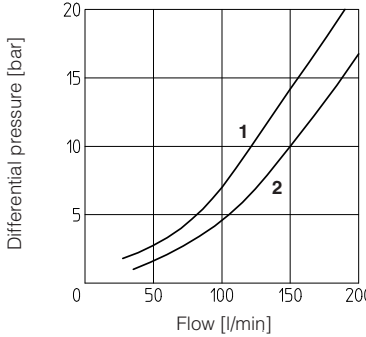
- 1** = A→A₁; B→B₁ of
KR-012, KR-013, KR-014
- 2** = A₁→A; B₁→B of
KR-012, KR-013, KR-014
- 3** = KR-011, KR-016



6 DIAGRAMS OF JPR-2 based on mineral oil ISO VG 46 at 50°C

Flow through check valve:

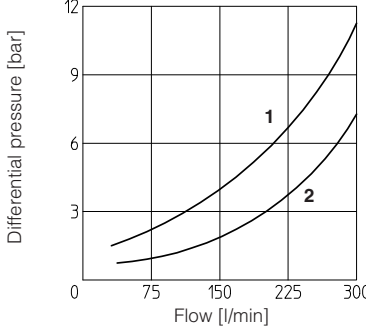
- 1** = A→A₁; B→B₁ of
JPR-212, JPR-213, JPR-214
- 2** = A₁→A; B₁→B of
JPR-212, JPR-213, JPR-214



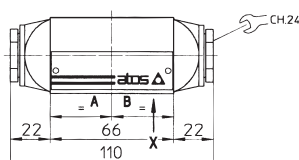
7 DIAGRAMS OF JPR-3 based on mineral oil ISO VG 46 at 50°C

Flow through check valve:

- 1** = A→A₁; B→B₁ of
JPR-312, JPR-313, JPR-314
- 2** = A₁→A; B₁→B of
JPR-312, JPR-313, JPR-314

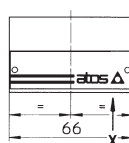


HR-002
HR-003
HR-004
HR-012
HR-013
HR-014

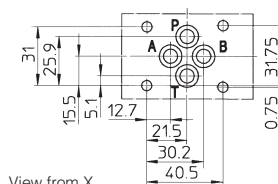


HR-011
HR-016

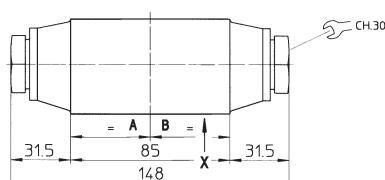
Technical drawing of a rectangular plate. The width is labeled 45 and the height is labeled 07. The drawing includes a dashed line for the hidden edge and a small circle representing a hole on the left side.



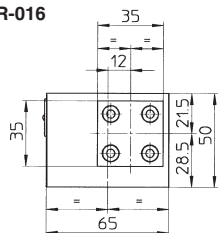
Seals: 4 OR 108



KR-012
KR-002
KR-003
KR-004
KR-013
KR-014

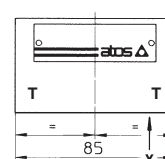


KR-016

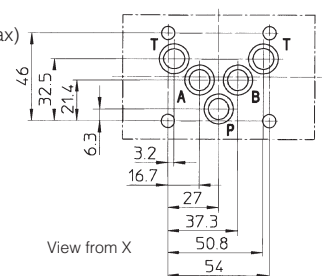


Technical drawing of a rectangular plate with a central slot. The plate has a total width of 130 and a total height of 10. The slot is centered horizontally, with a width of 42.5 on the left and 77.5 on the right. The slot is 120 units wide. The distance from the right edge of the slot to the right edge of the plate is labeled 'X'.

KR-011

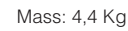


Seals: 5 OR 2050



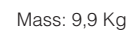
ТОВ "Промислова Гідравліка": <https://promhydraulic.com.ua/ua/>
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JPR-212
JPR-213
JPR-214



View from X

JPR-312
JPR-313
JPR-314



View from X

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