

Modular check valves type SHR, SKR

direct or pilot operated, ISO 4401 sizes 06 and 10

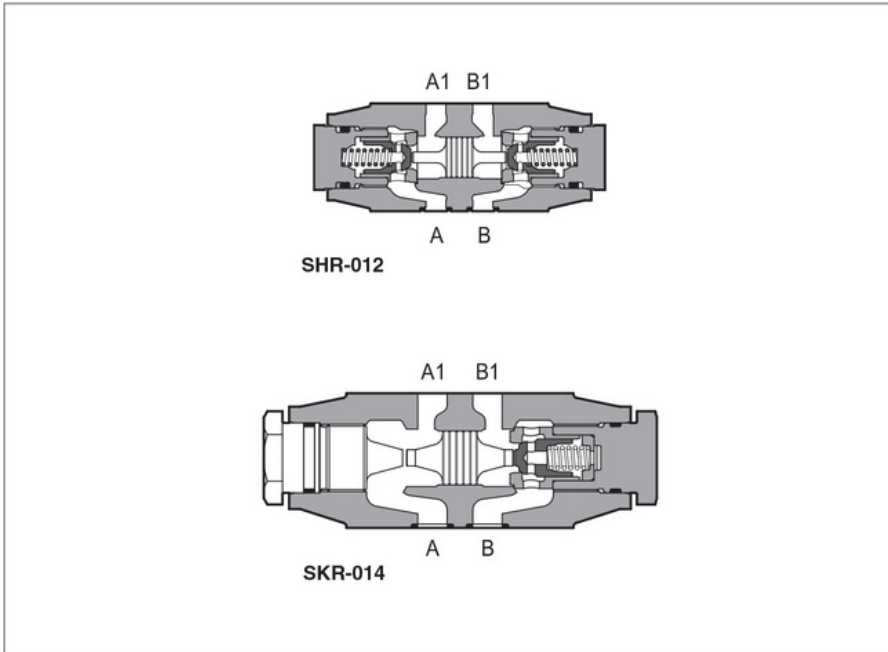


SHR, SKR are check valves available in direct or pilot operated models.

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

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

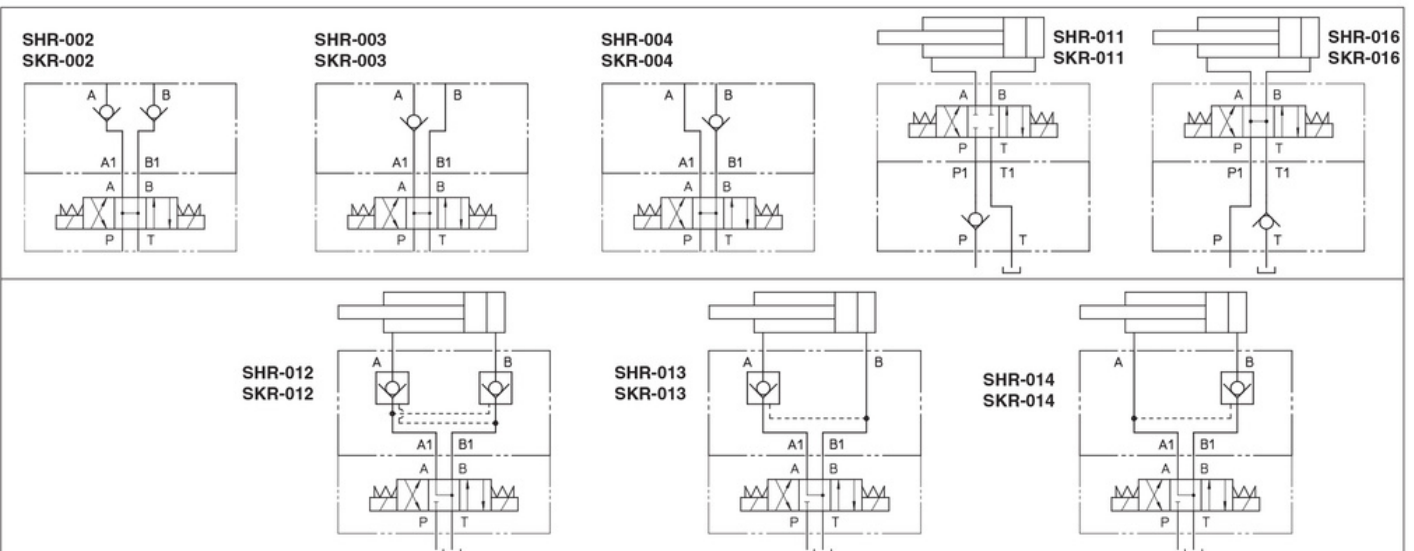
Valves are designed to operate in hydraulic systems with hydraulic mineral oil or synthetic fluid having similar lubricating characteristics.



1 MODEL CODE

SHR-0	12	/	4	/	**	/	*
Modular check valve, size: SHR-0 = 06 SKR-0 = 10						Seals material, see section 3: - = NBR PE = FKM BT = HNBR	
Configuration, see section 2 direct operated: 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		Series number		Spring cracking pressure: - = 0,5 bar (std.) 4 = 4 bar 2 = 2 bar 8 = 8 bar	

2 VALVE CONFIGURATION



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
SHR	3,3:1
SKR	3,3:1



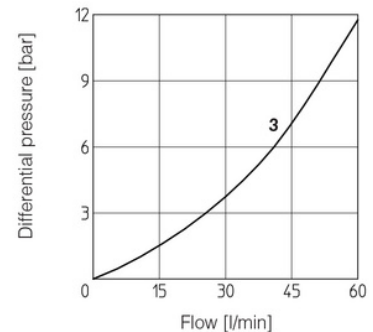
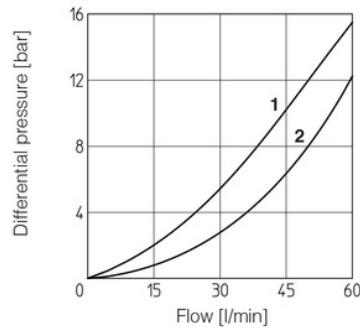
3 MAIN CHARACTERISTICS, SEALS and HYDRAULIC FLUID - for other fluids not included in below table, consult our technical office

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 ÷ +80°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 mm ² /s - max allowed range 2.8 ÷ 500 mm ² /s		
Max fluid contamination level	ISO4406 class 20/18/15 NAS1638 class 9, see also filter section at www.atos.com or KTF catalog		
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 SHR-0 based on mineral oil ISO VG 46 at 50°C

Flow through check valve:

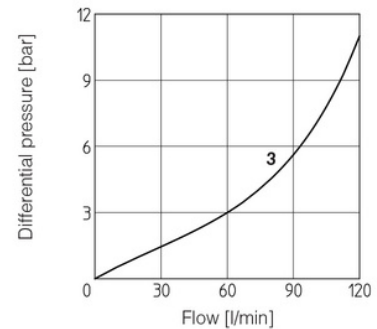
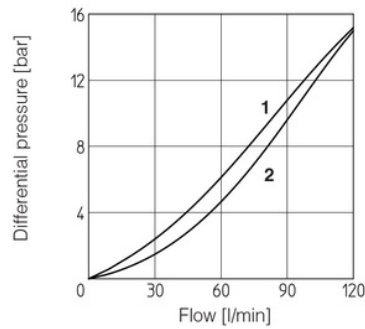
- 1 = A→A₁; B→B₁ of SHR-012, SHR-013, SHR-014
- 2 = A₁→A; B₁→B of SHR-012, SHR-013, SHR-014
- 3 = SHR-011, SHR-016



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

Flow through check valve:

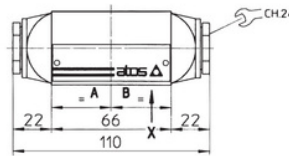
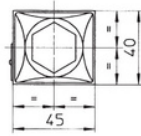
- 1 = A→A₁; B→B₁ of SKR-012, SKR-013, SKR-014
- 2 = A₁→A; B₁→B of SKR-012, SKR-013, SKR-014
- 3 = SKR-011, SKR-016



6 INSTALLATION DIMENSIONS OF SHR-0 VALVES [mm]

SHR-002
SHR-003
SHR-004
SHR-012
SHR-013
SHR-014

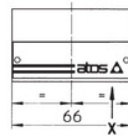
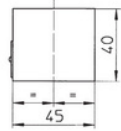
LATERAL VIEW



Mass: 1 Kg

SHR-011
SHR-016

LATERAL VIEW



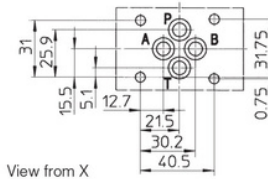
Mass: 0,7 Kg

ISO 4401: 2005

Mounting surface: 4401-03-02-0-05

Diameter of ports A, B, P, T: $\varnothing = 7,5$ mm (max)

Seals: 4 OR 108



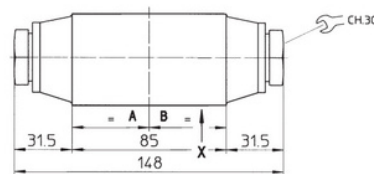
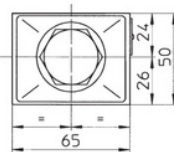
View from X

Fastening bolts: n° 4 socket head screws M5. The length depends on number and type of modular elements associated.

7 INSTALLATION DIMENSIONS OF SKR-0 VALVES [mm]

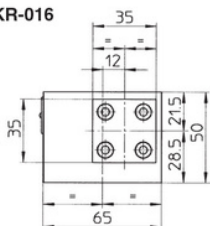
SKR-012
SKR-002
SKR-003
SKR-004
SKR-013
SKR-014

LATERAL VIEW



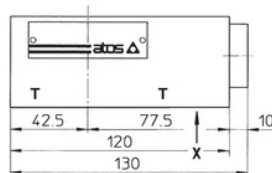
Massa: 2,3 Kg

SKR-016



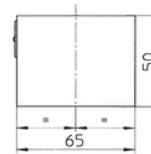
Mass: 2,5 Kg

LATERAL VIEW

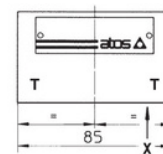


SKR-011

LATERAL VIEW



Mass: 1,7 Kg

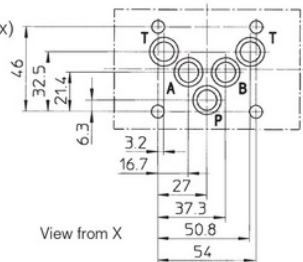


ISO 4401: 2005

Mounting surface: 4401-05-04-0-05

Diameter of ports, A, B, P, T: $\varnothing = 11,2$ mm (max)

Seals: 5 OR 2050



View from X

Fastening bolts: n° 4 socket head screws M6. The length depends on number and type of modular elements associated.