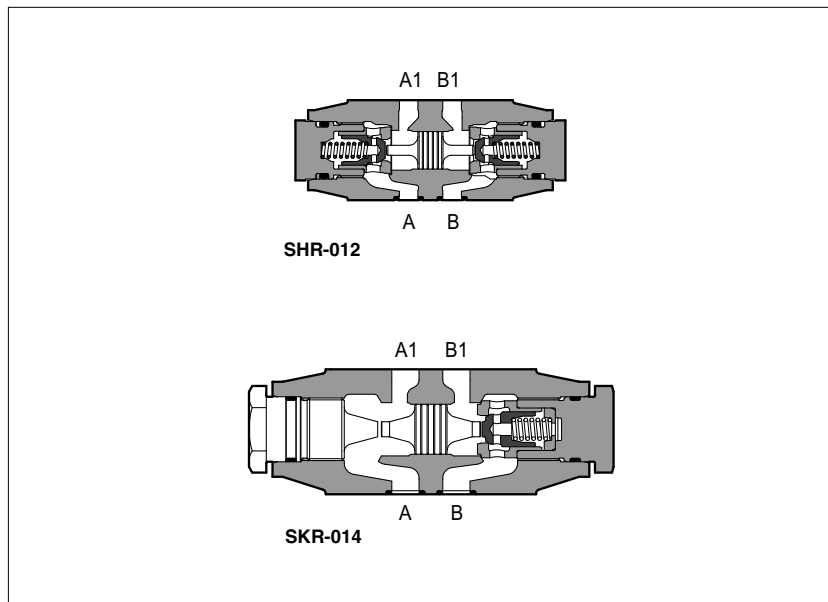


# Modular check valves type **SHR, SKR**

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**

Modular check valve, size:  
**SHR-0** = 06  
**SKR-0** = 10

**12**

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

**4**

Spring cracking pressure:

– = 0,5 bar (std.)    **4** = 4 bar

**2** = 2 bar            **8** = 8 bar

**\*\***

Series number

**\***

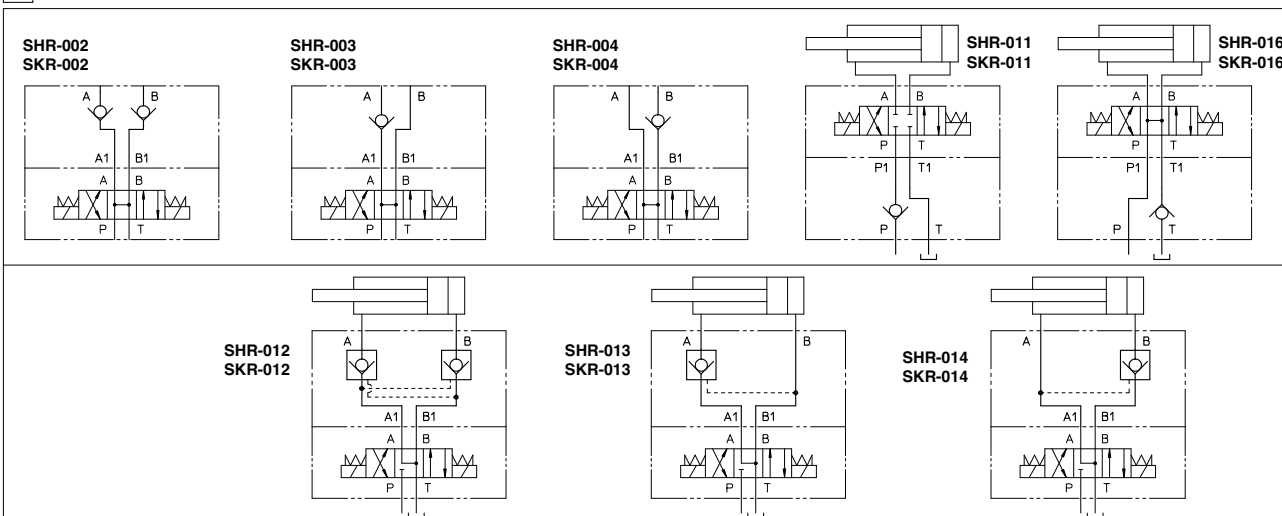
Seals material, see section 3:

– = NBR

**PE** = FKM

**BT** = HNBR

## 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

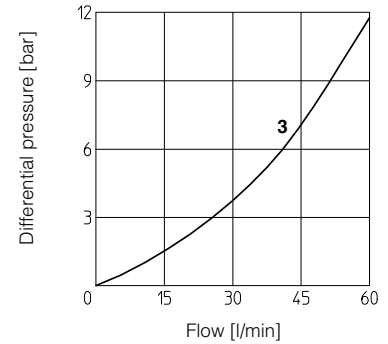
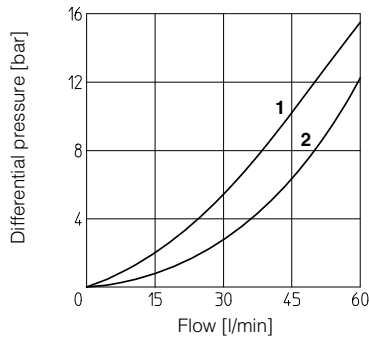
**3 MAIN CHARACTERISTICS, SEALS and HYDRAULIC FLUID** - for other fluids not included in below table, consult our technical office

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 <sup>2</sup> /s - max allowed range 2.8 ÷ 500 mm <sup>2</sup> /s		
Fluid contamination class	ISO 4406 class 21/19/16 NAS 1638 class 10, achievable with in line filters - 25 µm (β10 ≥75 recommended)		
<b>Hydraulic fluid</b>	<b>Suitable seals type</b>	<b>Classification</b>	<b>Ref. Standard</b>
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:

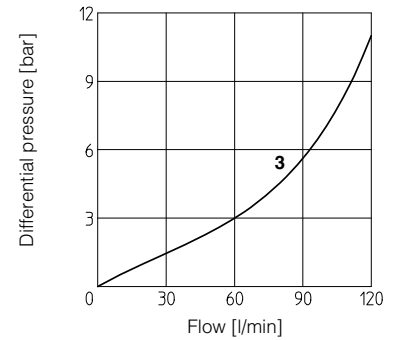
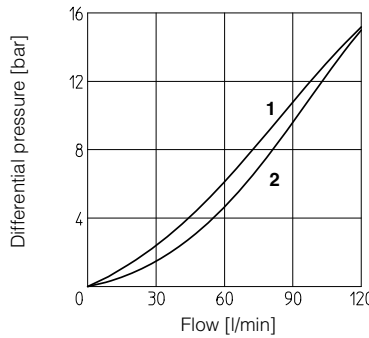
- 1** = A→A<sub>1</sub>; B→B<sub>1</sub> of SHR-012, SHR-013, SHR-014
- 2** = A<sub>1</sub>→A; B<sub>1</sub>→B of SHR-012, SHR-013, SHR-014
- 3** = SHR-011, SHR-016



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

Flow through check valve:

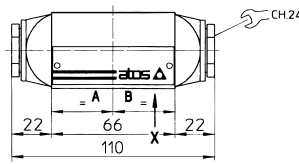
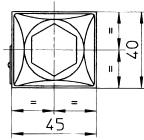
- 1** = A→A<sub>1</sub>; B→B<sub>1</sub> of SKR-012, SKR-013, SKR-014
- 2** = A<sub>1</sub>→A; B<sub>1</sub>→B of SKR-012, SKR-013, SKR-014
- 3** = SKR-011, SKR-016



**6 INSTALLATION DIMENSIONS OF SHR-0 VALVES [mm]**

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

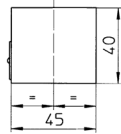
LATERAL VIEW



Mass: 1 Kg

SHR-011  
SHR-016

LATERAL VIEW



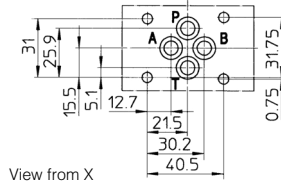
Mass: 0,7 Kg

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



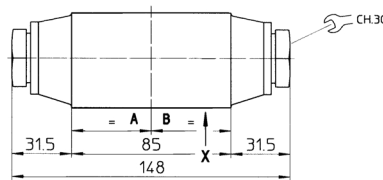
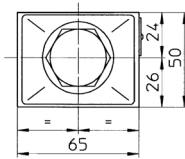
View from X

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

**7 INSTALLATION DIMENSIONS OF SKR-0 VALVES [mm]**

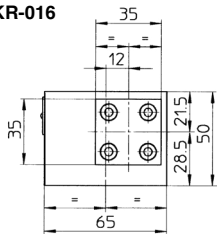
SKR-012  
SKR-002  
SKR-003  
SKR-004  
SKR-013  
SKR-014

LATERAL VIEW



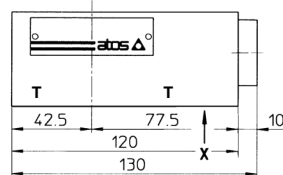
Massa: 2,3 Kg

SKR-016



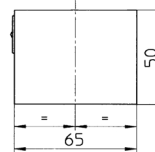
Mass: 2,5 Kg

LATERAL VIEW

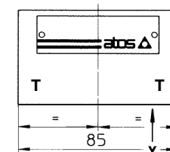


SKR-011

LATERAL VIEW



Mass: 1,7 Kg

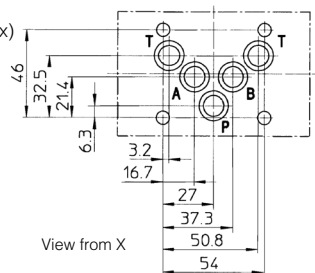


ISO 4401: 2005

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 lenght depends on number and type of modular elements associated.