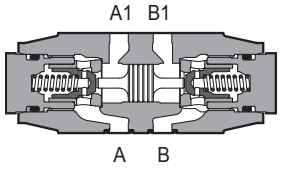
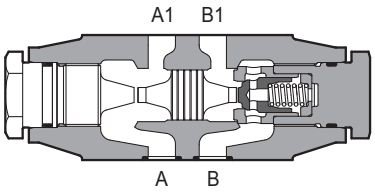
Modular check valves type SHR, SKR

direct or pilot operated, ISO 4401 sizes 06 and 10



SHR-012



SKR-014

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	**	/	*

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

******

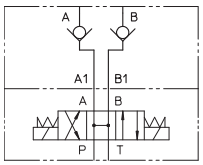
Series number

*****

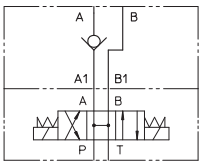
Seals material, see section 3:
- = NBR
PE = FKM
BT = HNBR

2 VALVE CONFIGURATION

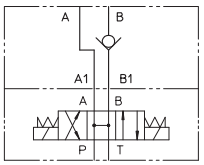
SHR-002
SKR-002



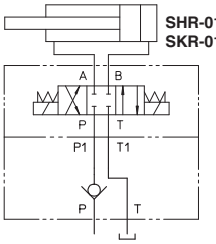
SHR-003
SKR-003



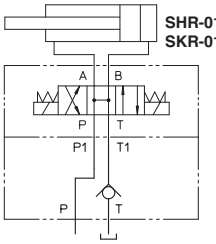
SHR-004
SKR-004



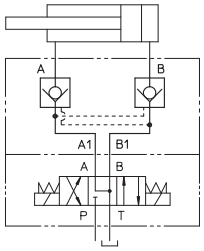
SHR-011
SKR-011



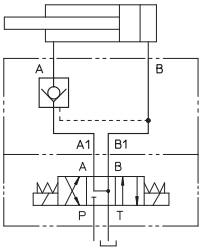
SHR-016
SKR-016



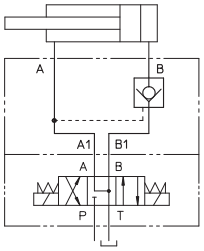
SHR-012
SKR-012



SHR-013
SKR-013



SHR-014
SKR-014



The pilote pressure applied tshrough 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 mm²/s - max allowed range 2.8 ÷ 500 mm²/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	

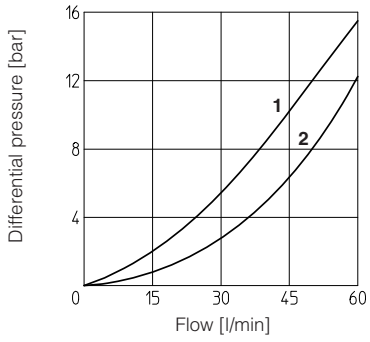
4 DIAGRAMS OF SHR-0 based on mineral oil ISO VG 46 at 50°C

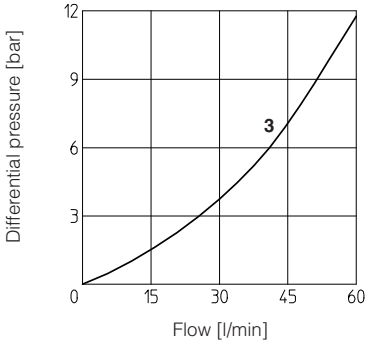
Flow through check valve:

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





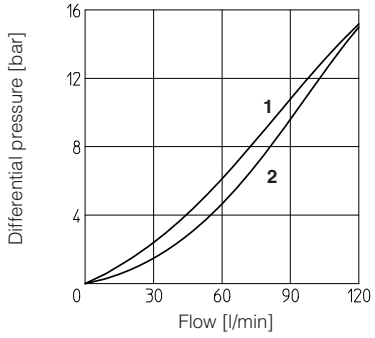
5 DIAGRAMS OF SKR-0 based on mineral oil ISO VG 46 at 50°C

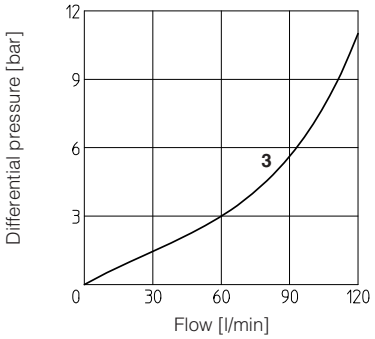
Flow through check valve:

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

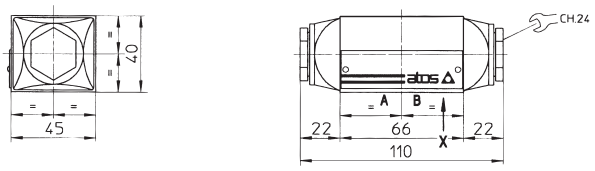




6 INSTALLATION DIMENSIONS OF SHR-0 VALVES [mm]

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

LATERAL VIEW



Mass: 1 Kg

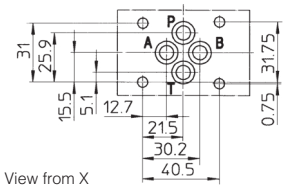
SHR-011
SHR-016

LATERAL VIEW



Mass: 0,7 Kg

ISO 4401: 2005
Mounting surface: 4401-03-02-0-05
Diameter of ports A, B, P, T: Ø = 7,5 mm (max)
Seals: 4 OR 108



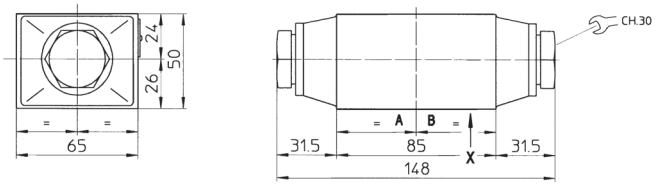
View from X

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]

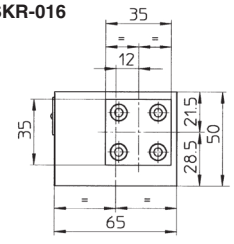
SKR-012
SKR-002
SKR-003
SKR-004
SKR-013
SKR-014

LATERAL VIEW

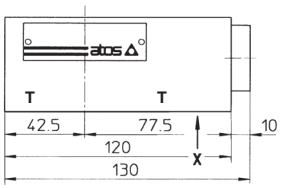


Massa: 2,3 Kg

SKR-016



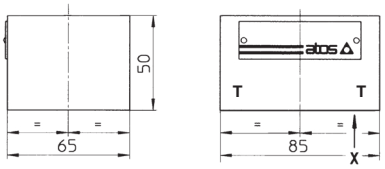
LATERAL VIEW



Mass: 2,5 Kg

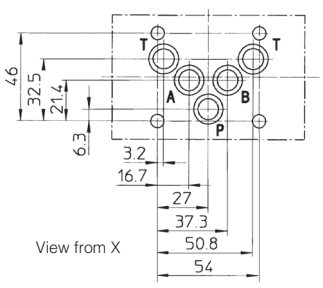
SKR-011

LATERAL VIEW



Mass: 1,7 Kg

ISO 4401: 2005
Mounting surface: 4401-05-04-0-05
Diameter of ports, A, B, P, T: Ø = 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.