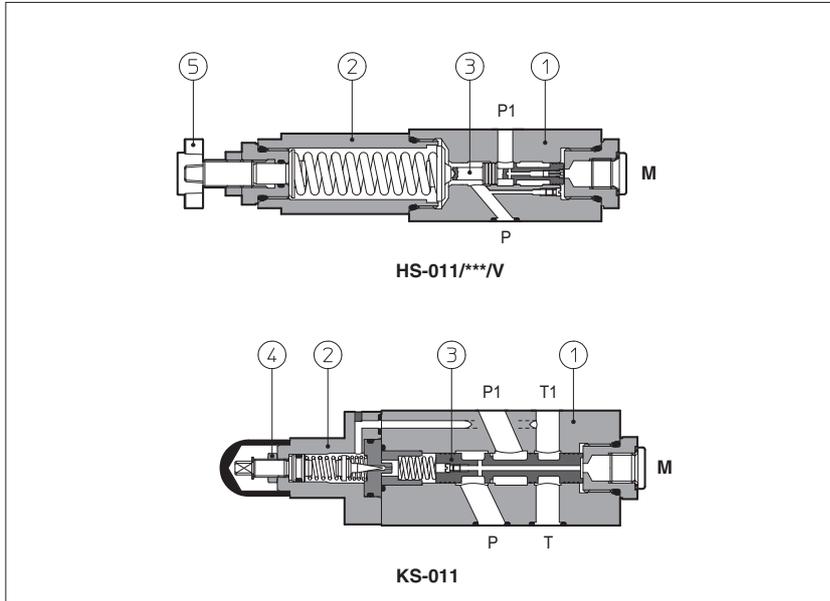


# Modular sequence valves type HS-011 and KS-011

spool type, ISO 4401 size 06 and 10



**HS** are direct sequence valves, spool type ③.  
**KS** are double stage ① ② sequence valves, spool type ③.

Pressure adjustment is operated by loosening the locking nut ④ and turning the setting screw in the normal model. Optional versions with a handwheel ⑤ are available on request. Clockwise rotation increases the pressure.

Valve size and max flow:

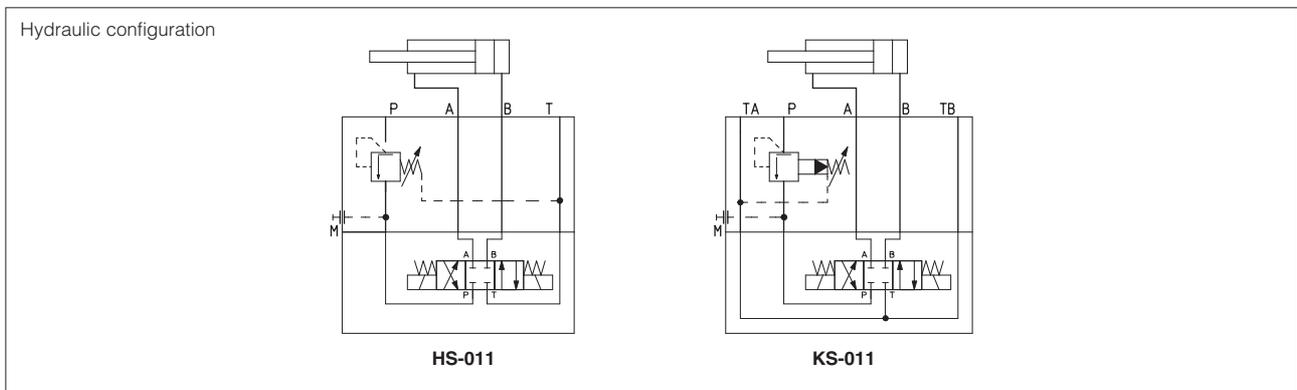
**HS** = size 06, flow up to 40 l/min  
**KS** = size 10, flow up to 80 l/min

Mounting surface: **ISO 4401 size 06, 10**  
 Max pressure: **350 bar (HS)**  
**315 bar (KS)**

## 1 MODEL CODE

<b>HS</b>	-	<b>011</b>	/	<b>210</b>	/	<b>V</b>	/	<b>**</b>	/	<b>*</b>
Modular sequence valve, size: <b>HS</b> = 06 <b>KS</b> = 10										Seals material, see section ③: - = NBR <b>PE</b> = FKM <b>BT</b> = HNBR
Configuration, see section ② <b>011</b> = single, acting on port P, drain to port T										Series number
Pressure range: <b>for HS:</b> <b>for KS:</b> <b>32</b> = 3 - 32 bar <b>100</b> = 20 - 100 bar <b>100</b> = 7 - 100 bar <b>210</b> = 50 - 210 bar <b>210</b> = 8 - 210 bar										Options: <b>V</b> = setting adjustment by handwheel instead of a grub screw protected by cap Only for HS: <b>VF</b> = regulating knob <b>VS</b> = regulating knob with safety locking

## 2 HYDRAULIC CHARACTERISTICS



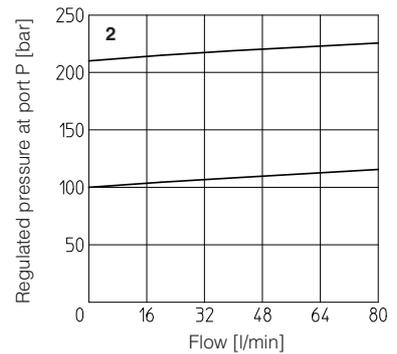
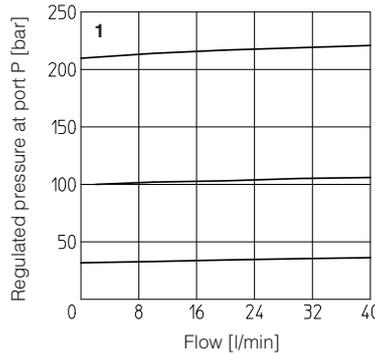
Valve model	HS-011/32	HS-011/100	HS-011/210	KS-011/100	KS-011/210
Max flow [l/min]		40			80
Max drain [cm³/min]		50			50
Pressure range [bar]	3 - 32	20 - 100	50 - 210	7 - 100	8 - 210
Max inlet pressure [bar]		350			315
Max pressure on port T [bar]		160			160

**3 MAIN CHARACTERISTICS SEALS and HYDRAULIC FLUIDS** - 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)		
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 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, in line filters of 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 REGULATED PRESSURE VERSUS FLOW DIAGRAMS** based on mineral oil ISO VG 46 at 50°C

1 = HS  
2 = KS



**5 INSTALLATION DIMENSIONS [mm]**

**HS-011**

**Adjustment device for option/V**

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

**Adjustment device for option /VF and /VS**

Fastening bolts: n°4 socket head screws M5. The length depends on number and type of modular elements associated. Mass: 2 Kg

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**KS-011**

**Adjustment device for option/V**

**ISO 4401: 2005**  
**Mounting surface: 4401-05-04-0-05**  
 Diameter of ports A, B, P, T: Ø = 11,2 mm  
 Seals: 5 OR 2050

Fastening bolts: n°4 socket head screws M6. The length depends on number and type of modular elements associated. Mass: 3 Kg