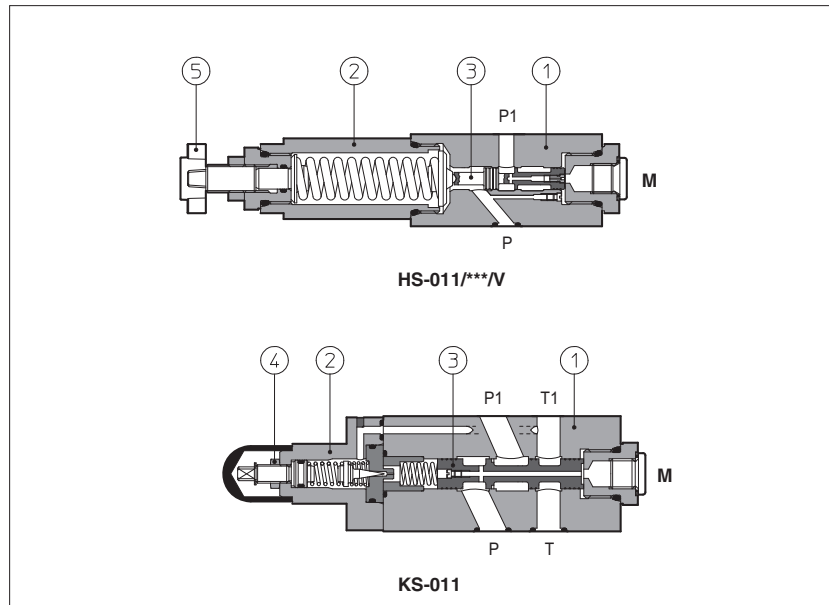


# Modular sequence valves type HS-011 and KS-011

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**

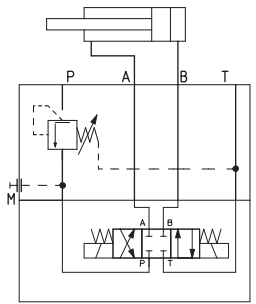
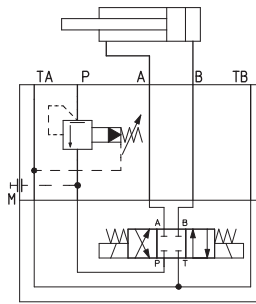
Max pressure: **350 bar (HS)**

**315 bar (KS)**

## 1 MODEL CODE

HS	-	011	/	210	/	V	**	/	*
Modular sequence valve, size: <b>HS</b> = 06 <b>KS</b> = 10						Seals material, see section ③: <b>-</b> = 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>32</b> = 3 - 32 bar <b>100</b> = 20 - 100 bar <b>210</b> = 50 - 210 bar <b>for KS:</b> <b>100</b> = 7 - 100 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

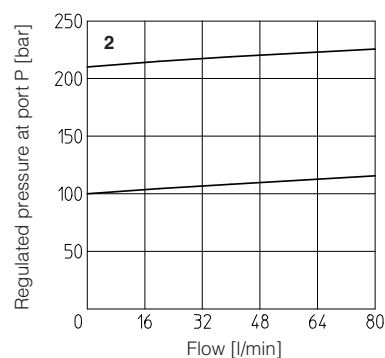
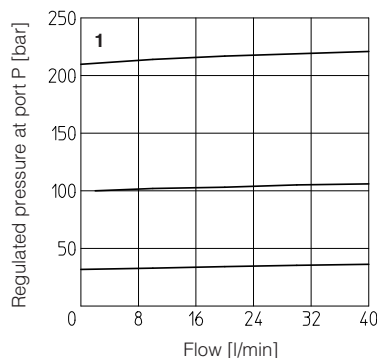
Hydraulic configuration					
					
	<b>HS-011</b>		<b>KS-011</b>		
Valve model	HS-011/32	HS-011/100	HS-011/210	KS-011/100	KS-011/210
Max flow [l/min]	40			80	
Max drain [cm³/min]	50			50	
Pressure range [bar]	3 - 32	20 - 100	50 - 210	7 - 100	8 - 210
Max inlet pressure [bar]	350			315	
Max pressure on 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)		
Compliance	RoHS Directive 2011/65/EU as last update by 2015/65/EU REACH Regulation (EC) n°1907/2006		
Ambient temperature	<b>Standard</b> = -30°C ÷ +70°C <b>/PE</b> option = -20°C ÷ +70°C <b>/BT</b> 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		
Max fluid contamination level	ISO4406 class 20/18/15 NAS1638 class 9, see also filter section at <a href="http://www.atos.com">www.atos.com</a> or KTF catalog		
<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	HFDR, HFDR	ISO 12922
Flame resistant with water	NBR, HNBR	HFC	

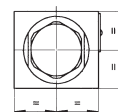
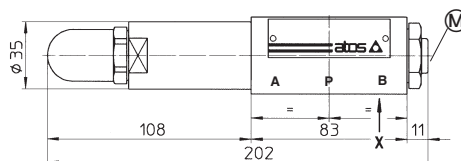
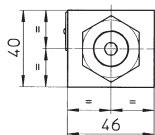
### 4 REGULATED PRESSURE VERSUS FLOW DIAGRAMS based on mineral oil ISO VG 46 at 50°C

1 = HS  
2 = KS



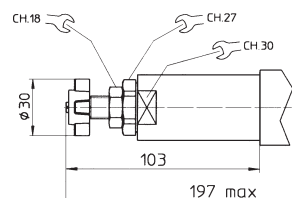
### 5 INSTALLATION DIMENSIONS [mm]

#### HS-011



Ⓜ = Pressure gauge port = G 1/4"

#### Adjustment device for option/V

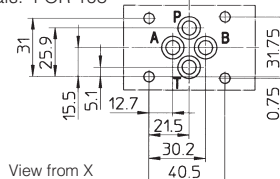


#### ISO 4401: 2005

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

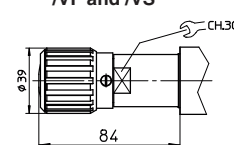
Diameter of ports A, B, P, T: Ø = 7,5 mm

Seals: 4 OR 108



View from X

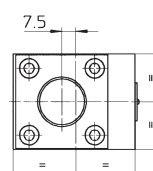
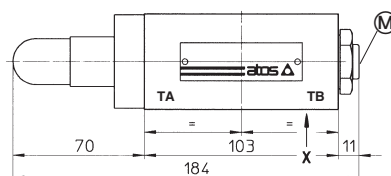
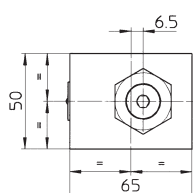
#### Adjustment device for option /VF and /VS



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

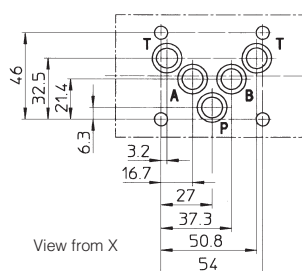
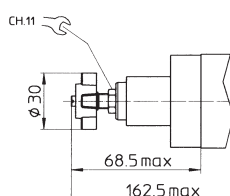
Mass: 2 Kg

#### KS-011



Ⓜ = Pressure gauge port = G 1/4"

#### Adjustment device for option/V



View from X

#### 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 lenght depends on number and type of modular elements associated.

Mass: 3 Kg