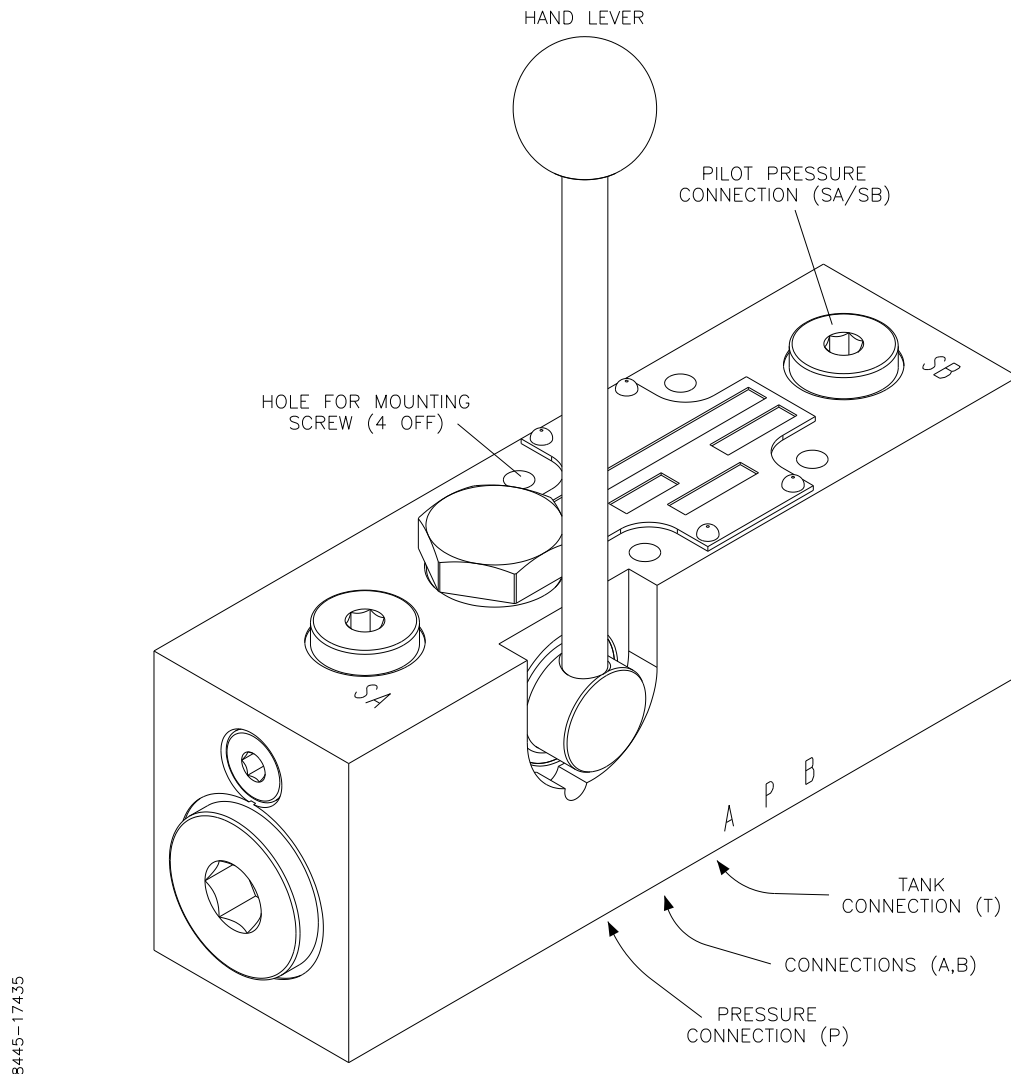


DIRECTIONAL CONTROL VALVES 1STB44*1***D GENERAL DESCRIPTION



*Figure 1 1STB44*1***D General Arrangement*

The Directional Control Valves 1STB44*1 (NG6) are 4-ways seawater resistant valves for distribution and stopping of flow in hydraulic systems. The valves have the following characteristics:

- Delivered for gasket mounting to a sub plate according to ISO standard 4401.
- Manually operated by hand lever or remote controlled (on/off) by hydraulic pilot pressure.
- Delivered with a flow capacity of 25 l/min (NG6 – ISO 03).
- Six standard spools are available.
- Option to get spool with reduced flow capacity, which provides a smooth start/stop of an actuator when manual operated.
- A number of possibilities for spool positioning, spring or detents.

For more details about types and options, please refer to section 'Modular Code'.

Directional Control Valves 1STB44*1***D

MODULAR CODE

Options	Remarks	Design Code	Fill in
Mounting			1ST
SUB Plate	ISO 4401	B	B
Type			
4-ways	No options	4	4
Pressure			
350 bar	No options	4	4
Operation			
Manual		1	
Remote		2	
Manual/Remote		5	
Size			
NG6 (ISO-03)	25 l/min	1	1
Spool Type	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">A</div> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0</div> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">B</div> </div>		
		01	
		02	
		03	
		06	
		07	
		2C	
	Proportional controlled manual (reduced flow capacity)	7E	
Spring / Detents Positions		<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">A</div> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">0</div> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">B</div> </div>	
No spring		0	
Spring centred		1	
Spring offset to A		2	
Spring offset to B		3	
Detents in all positions		4	
Detents in position B and 0, A blocked		7	
Spring offset to B, A blocked		8	
Spring centred, A blocked		9	
Spring centred, B blocked		A	
Detents in positions A and 0, B blocked		B	
Spring offset to A, B blocked		C	
Modification			
No options		D	D

In example a 1STB44*1***D valve; manually controlled, spool type 02 and spring centred will have modular code: **1STB4411021D**.

Directional Control Valves 1STB44*1***D

DIMENSIONS

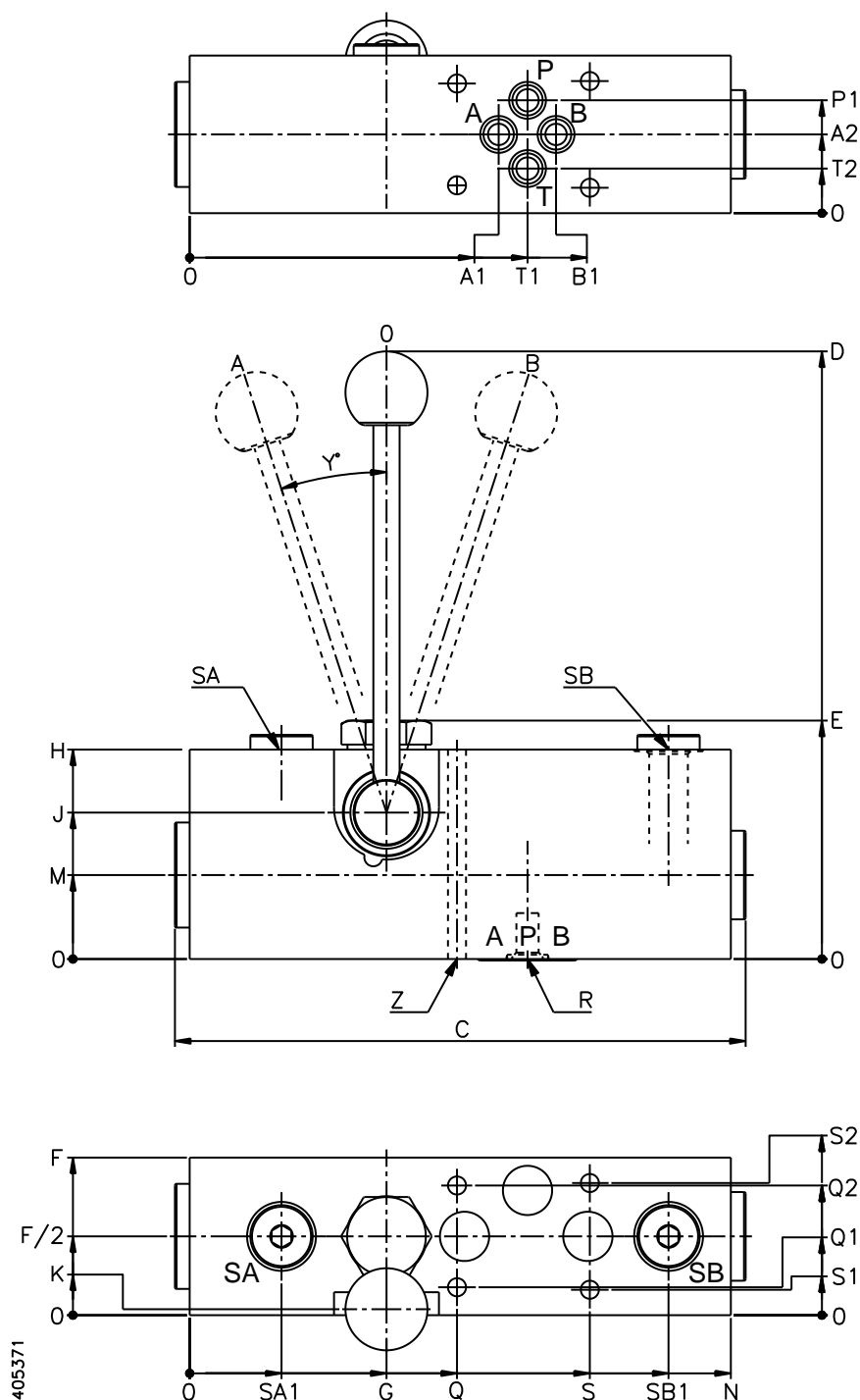
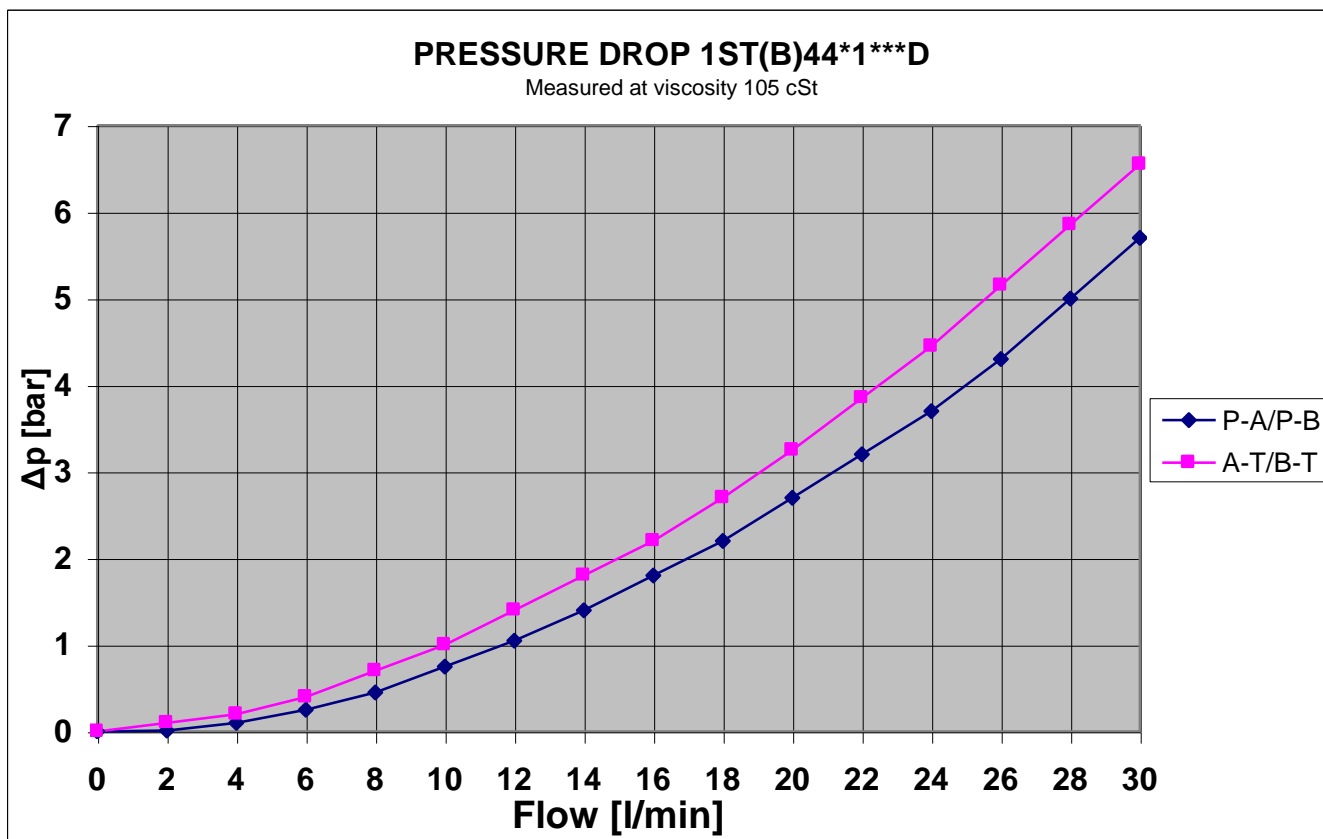


Figure 2 1STB44*1***D Dimensions

Size [mm]	C	D	E	F	G	H	J	K	M	N	Y	A1	SA [BSPP]	SB [BSPP]
6	174	185	72.6	48	60	63.8	44.6	1.8	25.6	165	18°	94.2	1/4"	1/4"
	A	B	P1	Q1	Q1	Q2	S	S1	S2	T1	T2	Z	SA1	SB1
	24	112	34.4	81.5	8.5	39.5	122	7.75	40.25	103	13.6	5,5	28	146

Directional Control Valves 1STB44*1***D

PRESSURE DROP



Directional Control Valves 1STB44*1***D

TECHNICAL DATA

Description	Symbol	Data
Maximum flow	Q_{\max}	25 l/min
Weight		3.3 kg
Nominal size	D_n	6 mm
Max. operating pressure in port P, A, B	P_{\max}	350 bar
Max. pressure in port T	T_{\max}	100 bar
Max. pressure in port SA/SB	SA/SB_{\max}	100 bar
Directional valve pilot pressure (for changing spool position)	P	6 bar
Test Pressure		420 bar
Hydraulic fluid		Mineral oils for hydraulic system
Viscosity range:	ν	10 to 350 mm ² /s (cST)
Viscosity index:	VI	> 120
Filtration, recommended filter with $\beta_{20} \geq 100$		Class 9 according to NAS 1638, 18/15 according to ISO 4406
Fluid temperature range:	T	-20°C to + 70°C
Ambient temperature range	T	-20°C to + 50°C
Standard Body Material		EN-GJS-400-15 (GGG 40)
Standard O-rings		Nitrile shore 70

Interfaces:

Description	Type	Tightening Torque
Screws	4 off M5 x 70 DIN 931	7.0 Nm
O-rings	4 off 9.25 x 1.78 mm	

Directional Control Valves 1STB44*1***D

INSTALLATION

The Direction Control Valves 1STB44*1***D are installed with 4 off screws to a SUB plate (ISO 4401). Please refer to 'Interfaces', for details about screws and o-rings.

OPERATION

Manual

Manual control is performed by the hand lever. If the valve is delivered with centring spring the spool will return to the neutral position after operating the hand lever. If the valve has detents the spool will remain in the position set by the hand lever.

Remote

In the remotely controlled valves, an external pilot pressure moves the spool to the requested position – on/off.

Manual/Remote

Operation as for the remotely controlled valves, but in addition the valves are equipped with a hand lever for override of the pilot pressure. The hand lever is mechanically connected to the spool.

MAINTENANCE

Check the valve for proper function. Visually check the valve and if required, paint unpainted (damaged) areas.

CAUTION: Do not paint the hand lever shaft seal.

STORAGE

If storage longer than 6 months is expected, the valve must be kept in a dry room, free from dust and protected against sudden large temperature variations. For storage longer than 12 months, the valve must be filled with inhibition oil. Before use check all visible seals and flush with clean oil.

MARKING

Inlets and outlets are marked, refer to figure in section 'General Description'.