

# DSB5

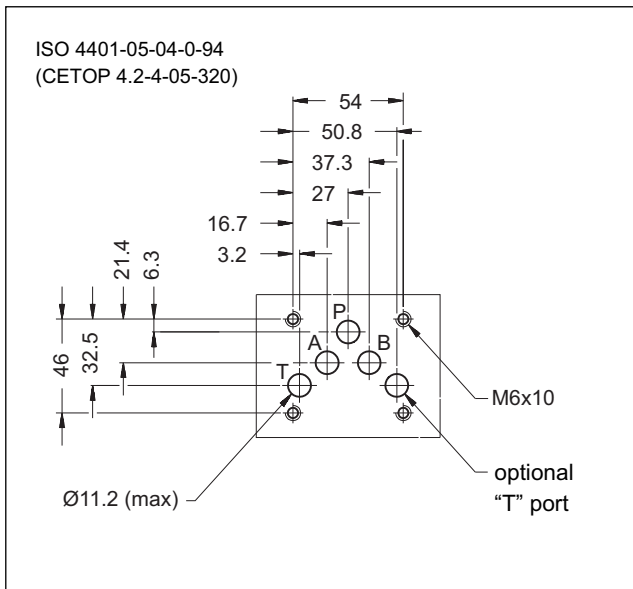
## SELF-REVERSING VALVE

### SERIES 10

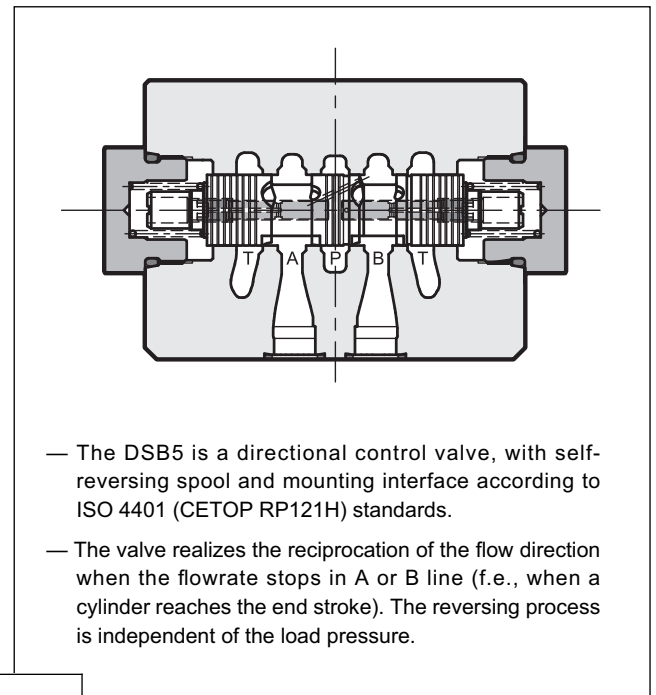
#### SUBPLATE MOUNTING ISO 4401-05 (CETOP 05)

**p** max 320 bar  
**Q** max 100 l/min

#### MOUNTING SURFACE



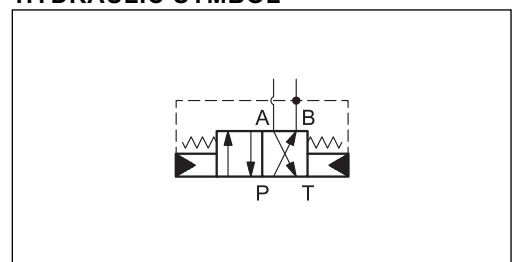
#### OPERATING PRINCIPLE



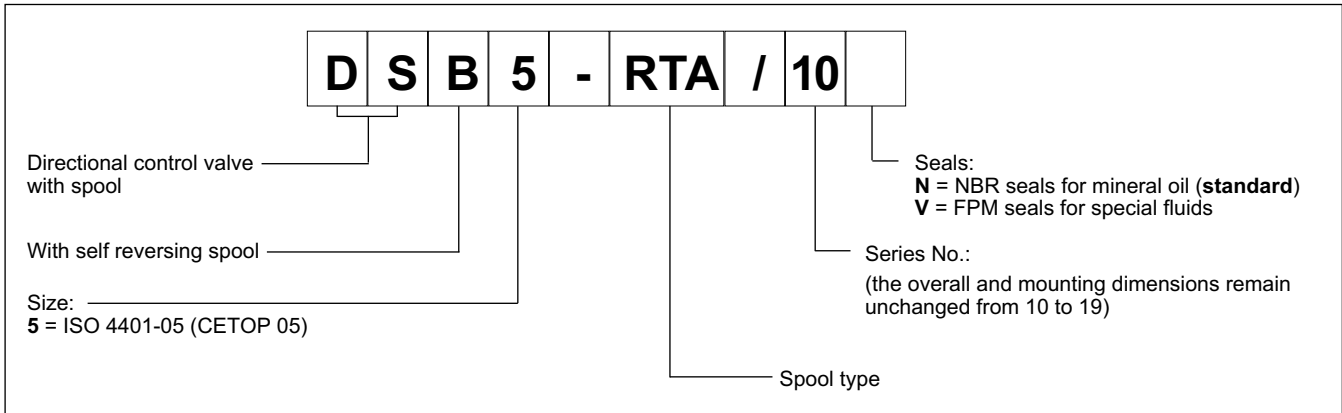
#### PERFORMANCES (measured with mineral oil of viscosity 36 cSt at 50°C)

Maximum operating pressure on port P	bar	320
Maximum flow rate	l/min	100
Minimum allowed flow rate	l/min	10
Minimum allowed pressure	l/min	60
Pressure drop $\Delta p$ -Q	see paragraph	
Ambient temperature range	°C	-20 / +50
Fluid temperature range	°C	-20 / +80
Fluid viscosity range	cSt	10 + 400
Fluid contamination degree	according to ISO 4406:1999 class 20/18/15	
Recommended viscosity	cSt	25
Mass	kg	

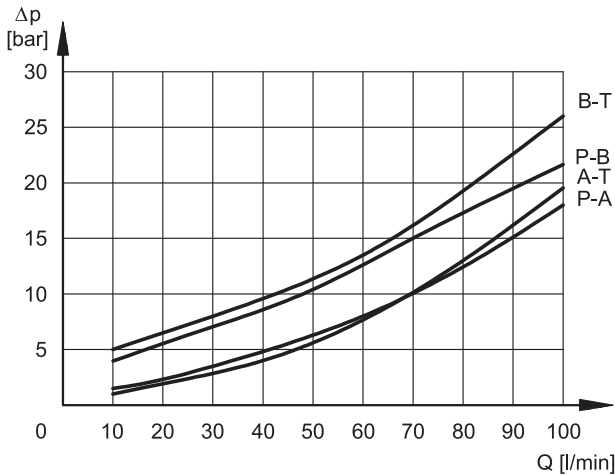
#### HYDRAULIC SYMBOL



## 1 - IDENTIFICATION CODE



## 2 - PRESSURE DROPS $\Delta p$ -Q (values obtained with viscosity 36 cSt at 50 °C)

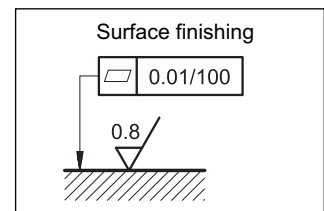


## 3 - HYDRAULIC FLUIDS

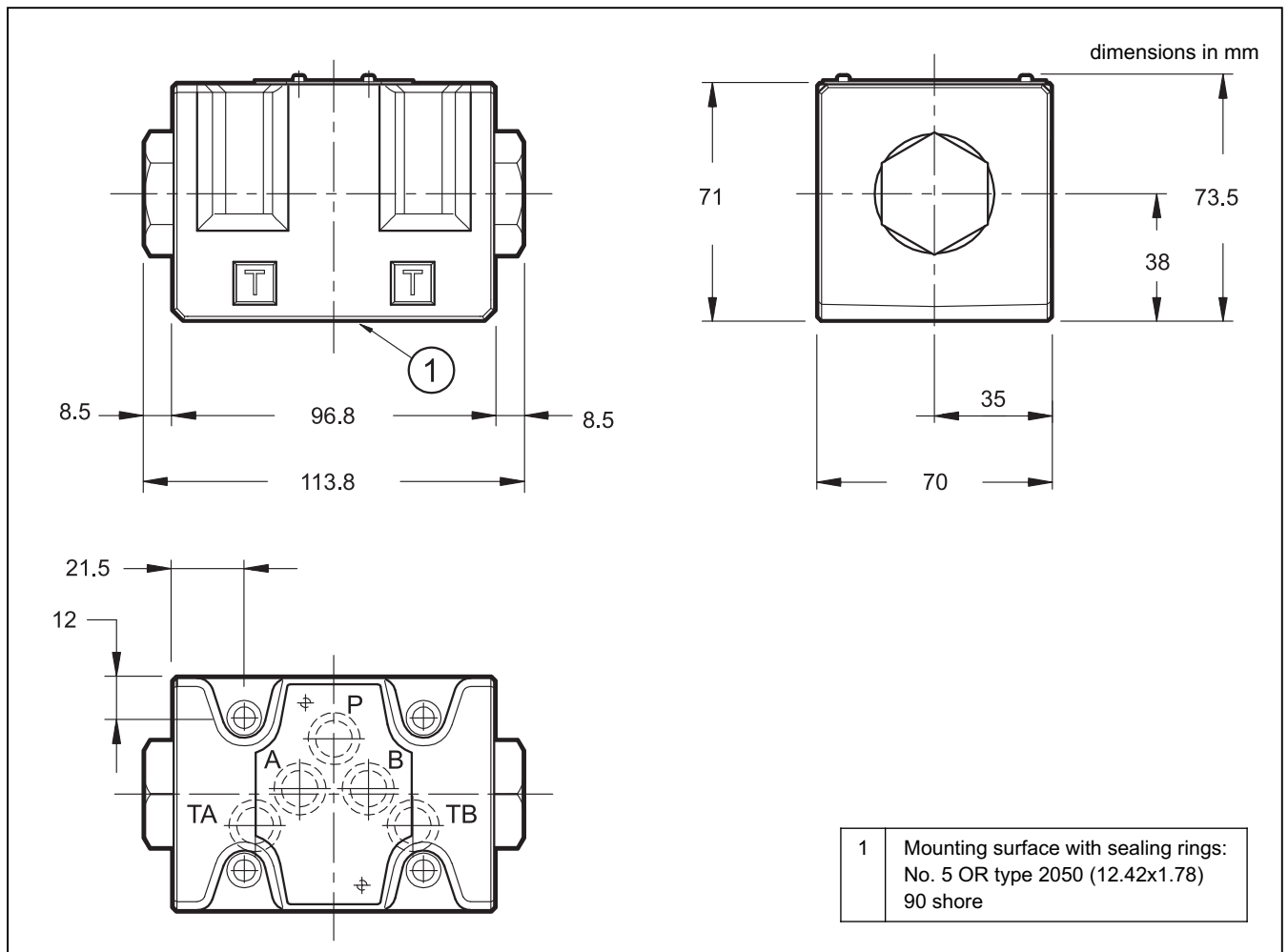
Use mineral oil-based hydraulic fluids HL or HM type, according to ISO 6743-4. For these fluids, use NBR seals. For fluids HFDR type (phosphate esters) use FPM seals (code V). For the use of other kinds of fluid such as HFA, HFB, HFC, please consult our technical department. Using fluids at temperatures higher than 80 °C causes a faster degradation of the fluid and of the seals characteristics. The fluid must be preserved in its physical and chemical characteristics.

## 4 - INSTALLATION

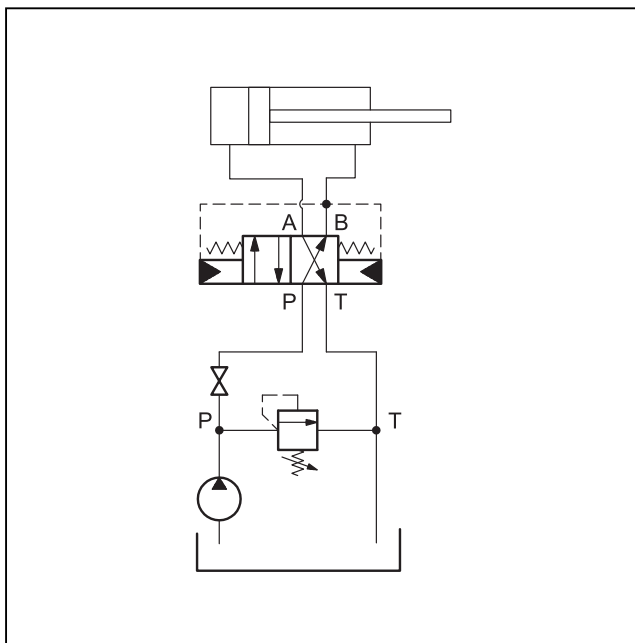
Configurations with centering and return springs can be mounted in any position; type RK valves - without springs and with mechanical detent - must be mounted with the longitudinal axis horizontal. Valve fixing is by means of screws or tie rods, with the valve mounted on a lapped surface, with values of planarity and smoothness that are equal to or better than those indicated in the drawing. If the minimum values of planarity and/or smoothness are not met, fluid leakage between valve and mounting surface can easily occur.



## 5 - OVERALL AND MOUNTING DIMENSIONS



## 6 - APPLICATION EXAMPLE



We suggest to use the circuit shown in the application example where, when the pump starts to give flow the cylinder is ready to retract.

When the pressure on the actuator exceeds the value set on the pressure relief valve, the flow in the DSB5 valve stops and the spool inside moves causing the reverse of the flow.

To set the system relief valve, the self-reversing function must be inactive.

To do so, close the shut-off valve, start the pump, set the pressure relief valve, stop the pump. Then, open the shut off valve and restart the pump.

To work properly the valve needs an area ratio of the cylinder chambers included between  $1 + 1,25$  and  $1 + 2$ .



## 7 - SUBPLATES (See catalogue 51 000)

	<b>DSB5</b>
Type with rear ports	PMD4-AI4G
Type with side ports	PMD4-AL4G



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