

3-Way Proportional Pressure Reducing Valve

Model: 3DREP(E)6...2X



- ◆ Size 6
- ◆ Maximum working pressure 100 bar
- ◆ Maximum working flow 15 L/min

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Features

- Direct operated proportional valves for the control of the pressure and direction of a flow
- Operation by proportional solenoid with central thread and detachable coil
- For subplate mounting
- Spring centred control spool
- Model 3DREPE with integrated amplifier
- Model 3DREP with external amplifier
- Manual emergency operation, optional

- Valve body with mounting surface (1)
- Control spool (2) with pressure measuring spool (3)
- Solenoid with central thread (5) (6)
- Optional integrated amplifier (7)

The unconscious activation of manual emergency operation can cause uncontrolled movement of equipment!



The function of this valve is basically the same as the valve with three positions, but the two position valve is only installed with solenoid "a" or "b", and with a plug (9) instead of the second solenoid.

E= proportional solenoid with detachable coil

Technical parameters

Overview					
Valve model			3DREP	3DREPE	
Installation position			optional, preferably horizontal		
Storage temperature range		°C	-20 to +80		
Environment temperature range		°C	-20 to +70	-20 to +50	
Weight		kg	2.0	2.2	
Hydraulic					
Working pressure range	Oil port P	bar bar bar	20 to 100 for pressure stage 16 30 to 100 for pressure stage 25 50 to 100 for pressure stage 45		
	Oil port T	bar	0 to +30		
Maximum flow		L/ min	15 (Δp=50bar)		
Pressure medium			Mineral oil (HL, HLP) ¹⁾ in accordance with DIN 51524; Fast living organisms degraded oil according to VDMA 24568; HETG (Rapeseed oil) ¹⁾ ; HEPG (Polyethyleneglycol) ²⁾ ; HEES (Synthetic Fats) ²⁾		
Oil temperature range		°C	-20 to +80 (preferably +40 to +50)		
Viscosity range		mm²/s	20 to 380 (preferably 40 to 60)		
Cleanliness of oil to ISO			The maximum allowable pollution level of oil is ISO4406 Class C		
Hysteresis		%	≤5		
Repeatability		%	≤1		
Sensitivity		%	≤0.5		
Reversal span		%	1		
Electrical, solenoid					
Valve model			3DREP	3DREPE	
Voltage type			DC		
Command value signal	Voltage input "A1"	V	-	±10	
Maximum current per solenoid			A	0.8 or 1.5	2.5
Solenoid coil resistance	Cold value at 20°C	Ω	4.8	2	
	Max. warm value	Ω	7.2	3	
Duty		%	100		
Coil temperature		°C	up to 150		
Electrical connections	3DREP	With component plug to DIN 175 301-803			
		With plug-in connector to DIN EN 175 301-803			
	3DREPE	With component plug to DIN 43 563-AM6-3			
		With plug-in connector to DIN 43 563-BF6-3			
Valve protection to DIN EN 60 529/VDE 0470 part 1			IP65, plug installed and locked		

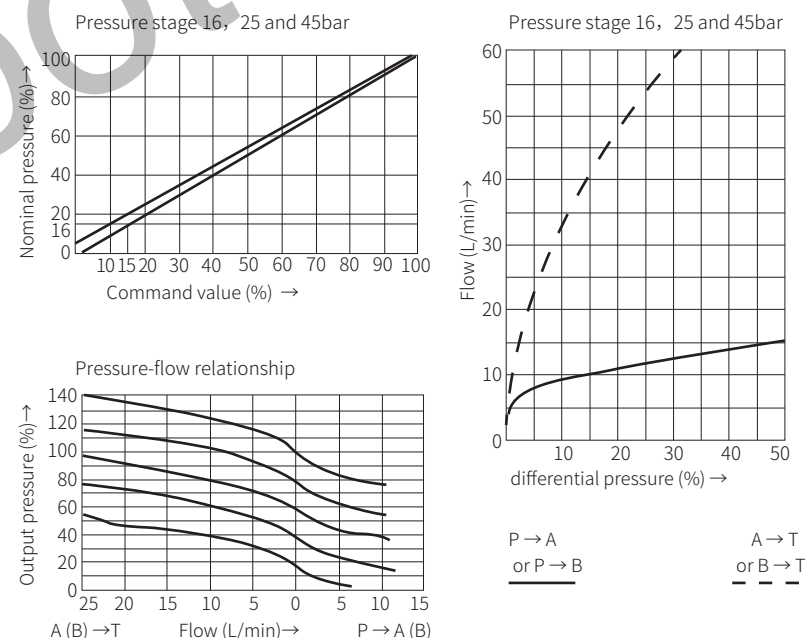
1)The oil must meet the cleanliness degree requested by the components in the hydraulic system.
Effective oil filtration can prevent failure and increase the service life of the components.

Technical parameters

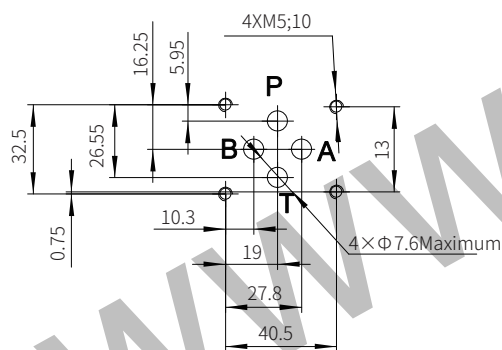
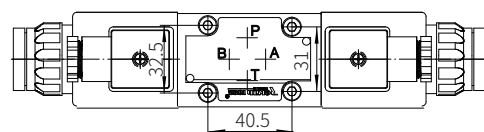
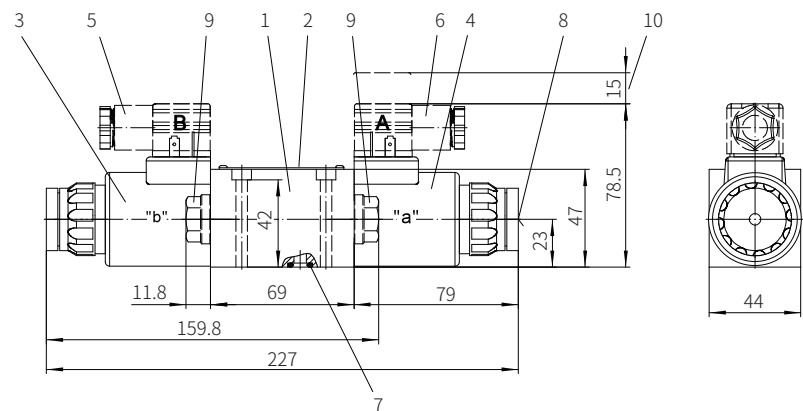
Electrical, amplifier			
Integrated amplifier for model 3DREPE		Integrated in the valve	
Supply voltage	Nominal voltage	VDC	24
	Lower limiting value	V	19
	Upper limiting value	V	35
Amplifier	/max	A	1.8
current consumption	Impulse current	A	4
Modular external amplifier for model 3DREP		RT-PVDA-0 X-D2-30-CN-A1/F1	

Characteristic curve

(Measured when using HLP46, $\eta_{oil}=40^{\circ}\text{C} \pm 5^{\circ}\text{C}$)



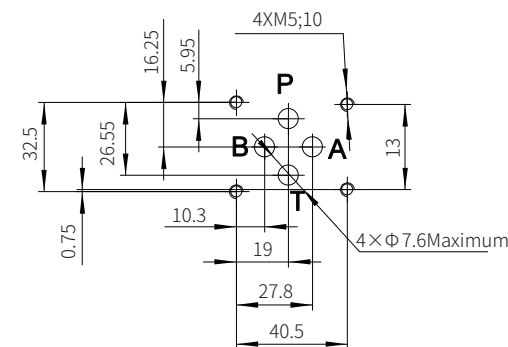
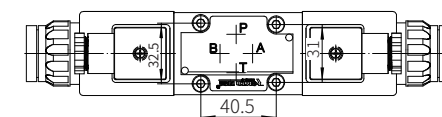
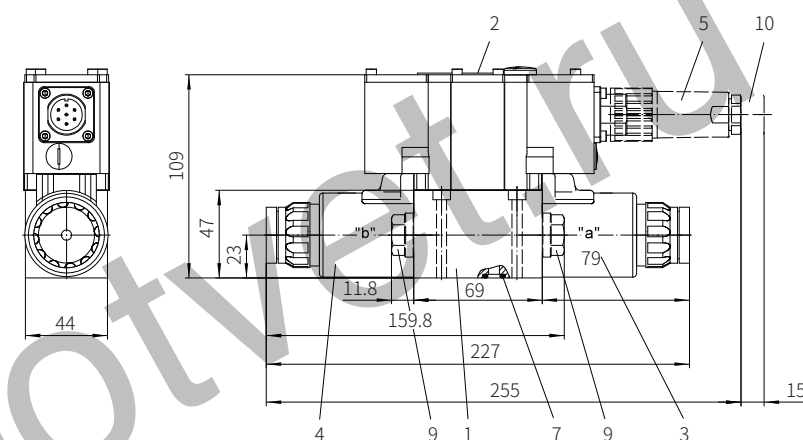
Model 3DREP6...-2X/..



Required surface finishing
of mating components
Valve fixing screw
M5x50-10.9 grade GB/T70.1-2000
Tightening torque $M_A = 7.8\text{Nm}$

- 1 Valve body
- 2 Name plate
- 3 Proportional solenoid "b"
- 4 Proportional solenoid "a"
- 5 Black plug "B"
- 6 Grey plug "A"
- 7 O ring (for port P, A, B, T)
- 8 Manual emergency operation "N9"
- 9 Plug for valve with one solenoid
- 10 Space required to remove the plug

Model 3DREP6...-2X/..



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