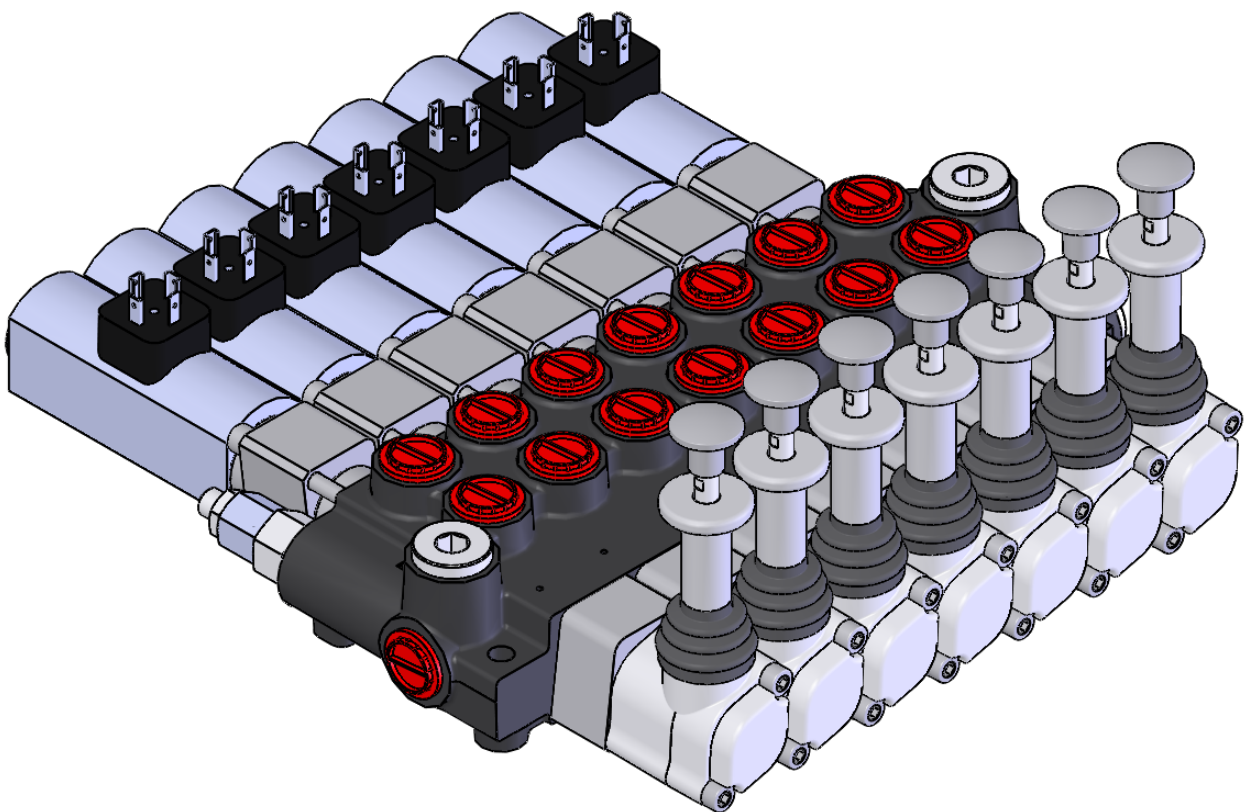


Monoblock directional control valve - double solenoid control



Model Z50A1ESN  
50 l/min monoblock

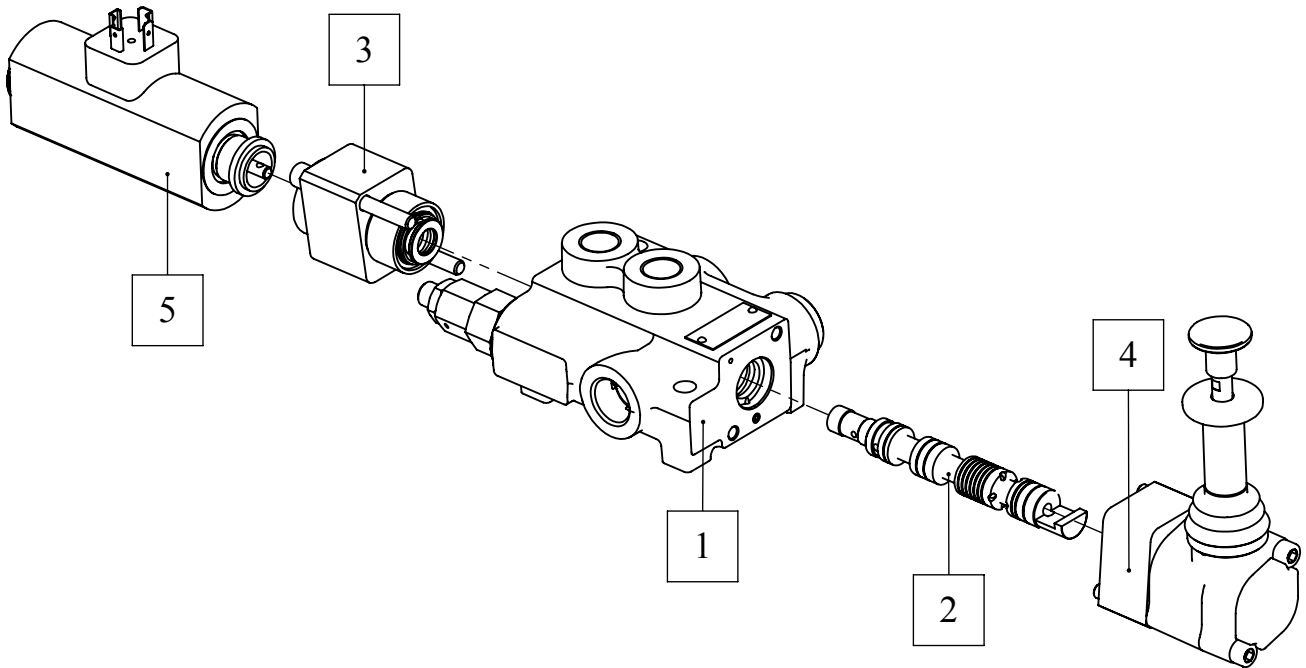
Z50A1ESN is the new generation of our monoblock directional control valves - solenoid operated Z50ES and also offers perfect choice whether you are designing a new system or just simply trying to get more out of your current system. With two special spools and option of having 7 spool valve body configuration these valves can meet the specific needs of your application. Its new feature is that the control is achieved by double solenoid with spring return to neutral position, available with emergency manual override. Due to its relation to the earlier Z50ES the bodies are interchangeable requiring only spool seals change.

#### Standard features

- Hydraulically balanced, hard chrome plated spool
- Fitted with main pressure relief valve and a load check valve
- Lever system which can be installed both up and down
- Flow capacity of 50 l/min
- In neutral position both work ports are blocked and the pump unloads to tank

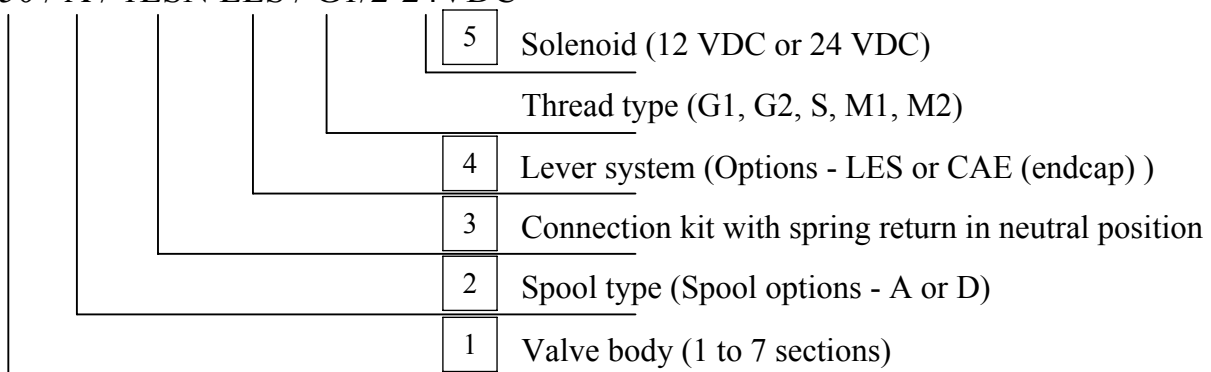
Nominal flow rating		50 l/min	13.2 gpm
Operating pressure (max.)	at port P	250 bar	3600 psi
	at work ports A and B	300 bar	4300 psi
Back pressure (max.)	outlet port T	20 bar	150 psi
Internal leakage (standard) A(B)> T	p = 100 bar	18 cm <sup>3</sup> /min	1,1 in <sup>3</sup> /min
Fluid		Mineral base oil	
Fluid temperature	with NRB (BUNA -N) seals	from -20°C to 80°C	from -4°F to 176°F
	operating range	from 15 to 75 mm <sup>2</sup> /s	from 15 to 75cSt
Viscosity	min.	12 mm <sup>2</sup> /s	12 cSt
	max.	400 mm <sup>2</sup> /s	400 cSt
Max. contamination level		-/19/16 – ISO 4406	NAS 1638 – class 10
Ambient temperature for working conditions		from -40°C to 60°C	from -40°F to 140°F
Spool stroke		3,2 mm	0,12 in
Actuating force		<220 N	<50 lbs





Description example:

Z50 / A / 1ESN LES / G1/2-24VDC



Availabe threads for that valve:

BSP (order code G1/2)

Working ports A, B: G 1/2  
 Inlet port P: G 1/2  
 Outlet port T: G 1/2  
 Port N: G 1/2

METRIC (order code M)

Working ports A, B: M18x1.5  
 Inlet port P: M22x1.5  
 Outlet port T: M22x1.5  
 Port N: M22x1.5

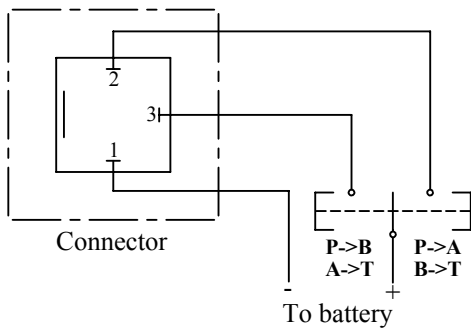
UN-UNF (order code S)

Working ports A, B: 3/4-16UNF  
 Inlet port P: 7/8-14UNF  
 Outlet port T: 7/8-14UNF  
 Port N: 7/8-14UNF

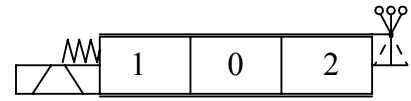
BSP (order code G)

Working ports A, B: G 3/8  
 Inlet port P: G 1/2  
 Outlet port T: G 1/2  
 Port N: G 1/2

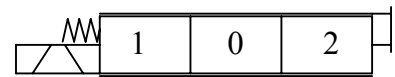
## Electric wiring example



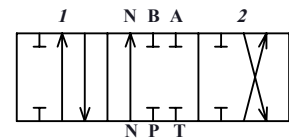
## 1ESNLES kit



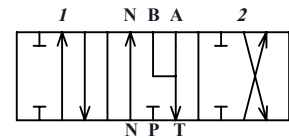
## 1ESNCAE kit



## Spool A



## Spool D



## Operating features

### CONTROL

Internal Leakage A(B)->T

( $\Delta p=100 \text{ bar} - 1450 \text{ psi} / T = 40^\circ\text{C}$ ) : max 10ccm/min - 0.61 cin/min

### COIL

Nominal voltage tolerance.....:  $\pm 10 \%$

Power rating.....: 65 W

Coil insulation.....: class H

Duty cycle.....: 100 %

