

EK10L

ON/OFF directional solenoid valve
5 ways / 3 positions



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- External zinc-plated and corrosion-proof components
- Hardened precision spool and cage to ensure minimal wear, minimum leakage and long life
- Flow path optimized through CFD analysis
- Industry common cavities
- Heavy duty polyurethane seals
- Several types of coil connectors and voltages
- Manual override options
- All ports can be fully pressurized

DESCRIPTION:

Walvoil launches the new EK10L cartridge valve, direct acting solenoid operated, 5-way, 3-position, spool-type, with integrated Load Sensing port.

The EK10L valve has been designed to reduce the overall dimensions of the valve in order to obtain more compact HICs (Hydraulic Integrated Circuits), and also to increase the performance in terms of pressure, flow-rate and pressure drops.

OPERATION:

The EK10L valve is available with different spools and manual override options, which increase the versatility of the product and ensure high flow capacity with reduced space requirements.

Optimized through CFD analysis, the reduction of the pressure drops on the main path ensures excellent switching performances maintaining the same type of coil mounted on the existing ET10L and ER10L valves.

This spool-type valve is available in SAE 10 size and is used for mobile and industrial applications, for the control of travel direction of actuators such as hydraulic motors and cylinders.

EK10L valve is assembled with the Walvoil crimping solution, that ensures, at the same time, more robustness while mounting them on HICs and a reduction of leakage due to spool clearance.

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

Working condition

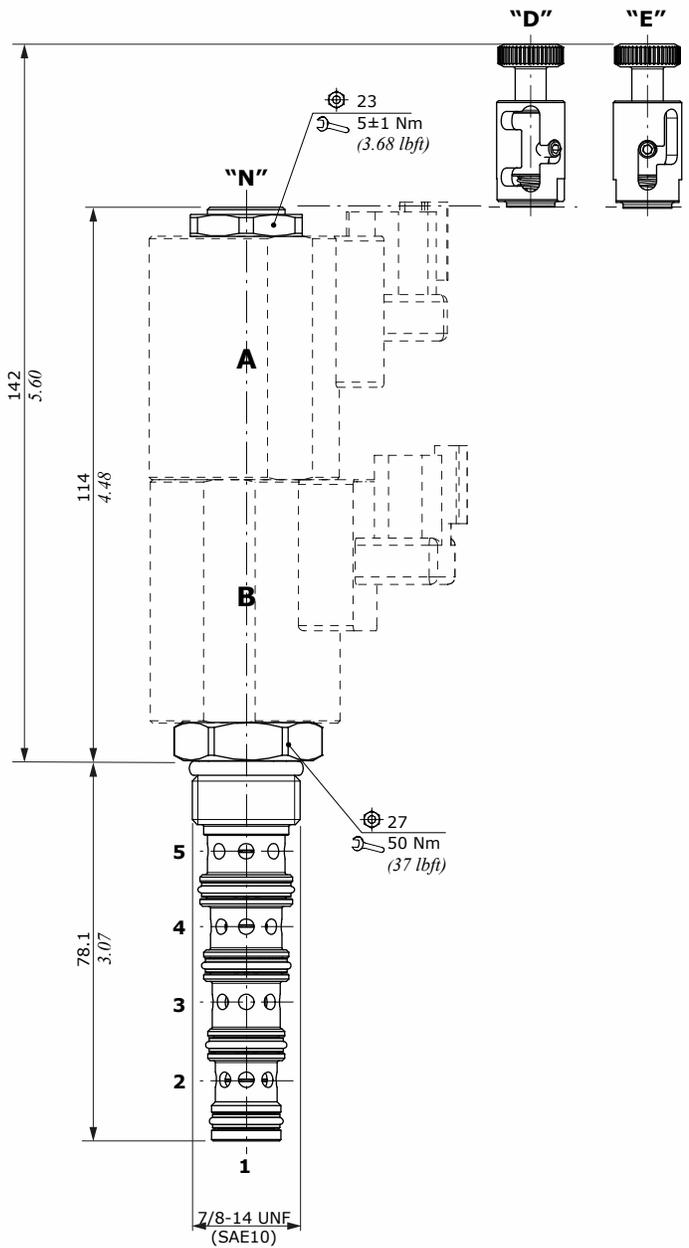
Nominal flow	20 l/min (5.3 US gpm)	
Max. pressure	250 bar (3600 psi)	
Oil leakage	at 210 bar (3050 psi)	80 cm ³ /min (4.88 in ³ /min)
Fluid	mineral based oil	
Viscosity	10-200 cSt	
Max level of contamination	18/16/13 ISO4406	
Fluid temperature	with NBR seals	from -20°C (-4°F) to 80°C (176°F)
	with FPM seals	from -20°C (-4°F) to 100°C (212°F)
Environmental temp. for working conditions	from -20°C (-4°F) to 60°C (140°F)	
Cavity	SAE 10/5	
Coils type	(BC)	
Power rating	26 W (12/24 VDC)	
Connector types	ISO4400 - Deutsch DT AMP-JPT - Flying leads	

Note - For different conditions, please contact Walvoil Sales Department.

NEW

Dimensions and hydraulic circuits

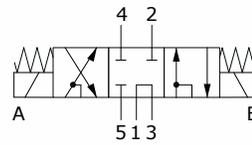
Emergency types



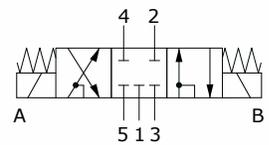
Emergency types

N	ET..L/NB Without emergency
D	ET..L/DB Push/pull type with detent
E	ET..L/EB Push/pull type without detent

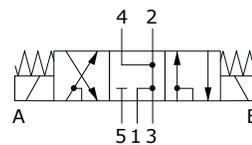
Spool 21



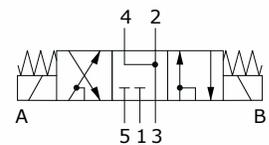
Spool 22



Spool 41

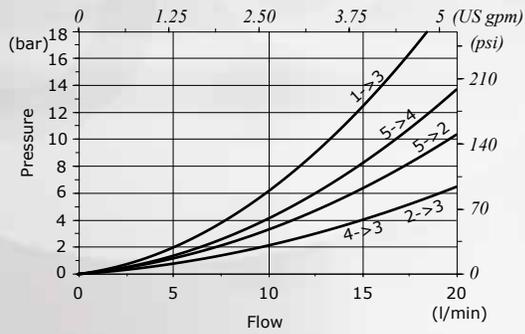


Spool 42

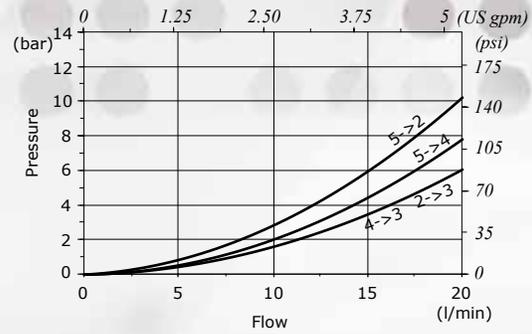


Performance data

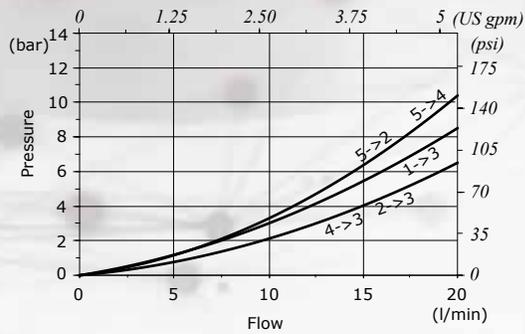
**Pressure drop vs. flow
(spool 21)**



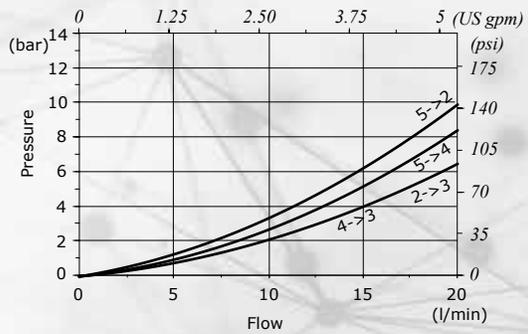
**Pressure drop vs. flow
(spool 22)**



**Pressure drop vs. flow
(spool 41)**



**Pressure drop vs. flow
(spool 42)**



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