

EK10X

Proportional solenoid valve
5 ways / 3 positions



A member of



EK10X

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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
- Minimum current threshold/dead band
- Optimized linearity and hysteresis

DESCRIPTION:

Walvoil launches the new EK10X cartridge valve, proportional solenoid operated, 5-way, 3-position, spool-type, with integrated Load Sensing port.

Load Sensing signal is connected to port 5 when spool shifts in working position.

OPERATION:

The EK10X 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 to reduce the pressure drop through the main paths, the new EK valve series ensure excellent switching performance using the same coils of the new EK10L valve.

This spool-type valve is available in SAE 10 size and it is particularly suitable for precise and controlled lifting and lowering movements, where an actuator must be proportionally operated in both directions and stopped in any position.

The best controllability is obtained when the valve is used together with a pressure compensator to manage the flow rate.

EK10X valve is assembled with the Walvoil crimping solution, that ensures, at the same time, more robustness while mounting them on HICs (Hydraulic Integrated Circuits) and a reduction of 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

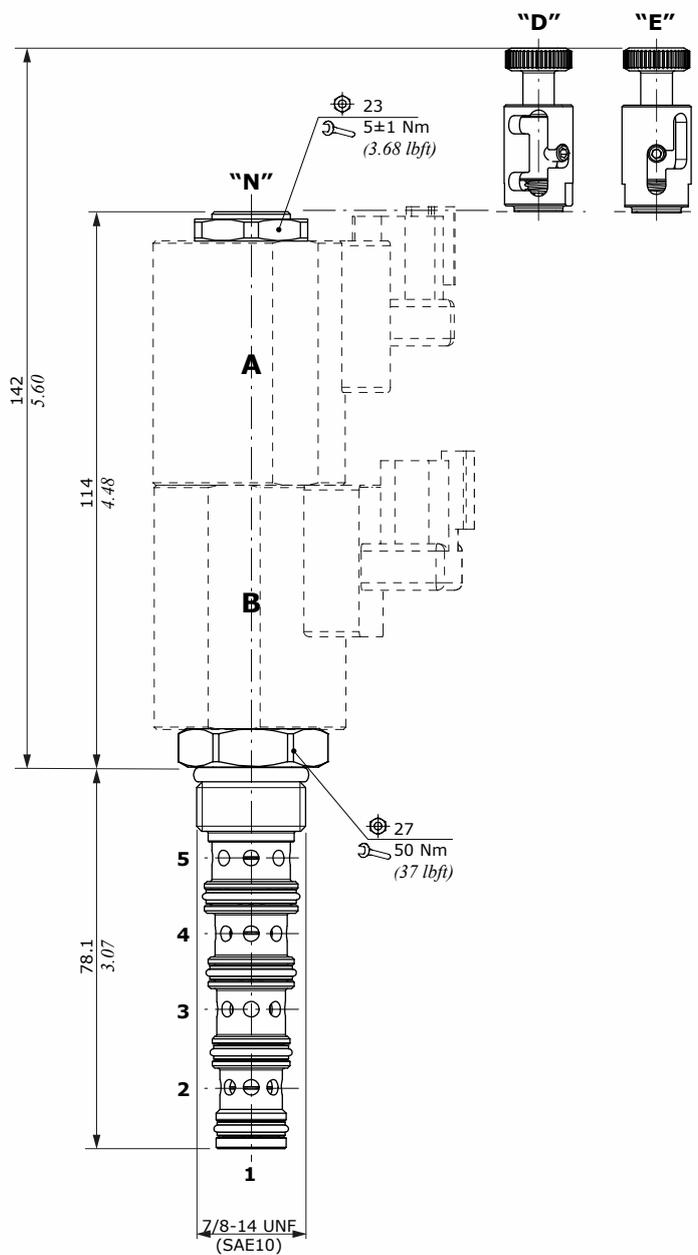
Nominal flow	22 l/min (5.8 US gpm)	
Max. pressure	250 bar (3600 psi)	
Oil leakage	at 210 bar (3050 psi)	200 cm ³ /min (12.2 in ³ /min)
Fluid	mineral based oil	
Viscosity	10-200 cSt	
Max level of contamination	18/16/13 ISO4406	
Fluid temperature	with NBR seals	from -20°C (-4°F) to 80°C (176°F)
	with FPM 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

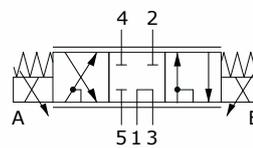
Emergency types



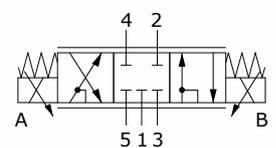
Emergency types

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

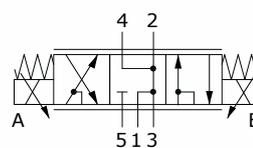
Spool 21



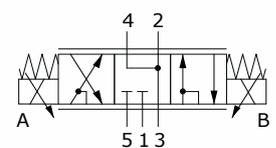
Spool 22



Spool 41

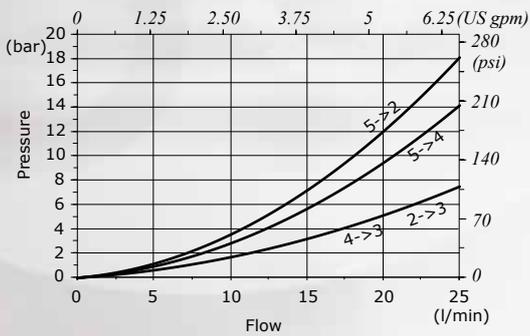


Spool 42

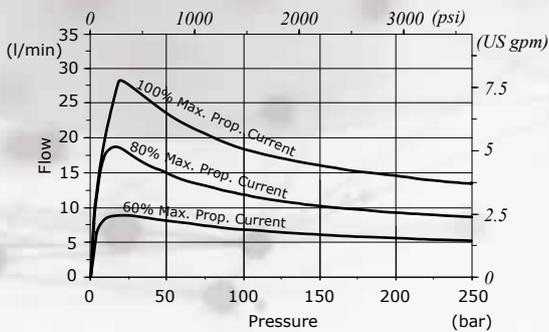


Performance data

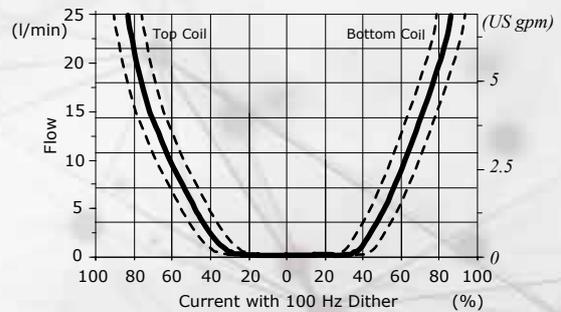
**Pressure drop vs. flow
(spool 42 type)**



**Pressure compensator
(inlet to work port - spool 42 type)**



**Flow vs. current
(with 10,5 bar / 152 psi inline compensator - spool 42 type)**



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