



walvoil
MOTION BY PEOPLE

NEW

EK10X

Proportional solenoid valve
5 ways / 3 positions



EK10X VALVE

- 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 may 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 leakage due to spool clearance.

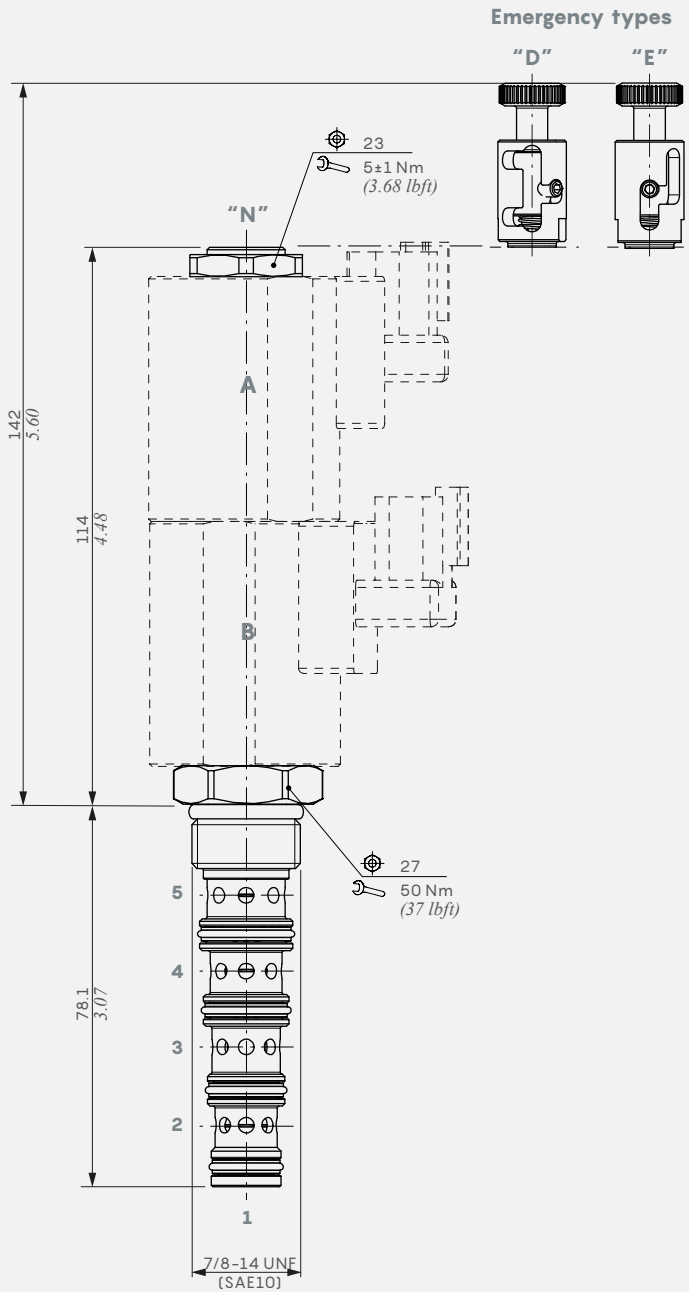
WORKING CONDITIONS

Technical specifications and diagrams measured with mineral oil of 46 mm²/s (46 cSt) viscosity at 40°C - (104°F) temperature.

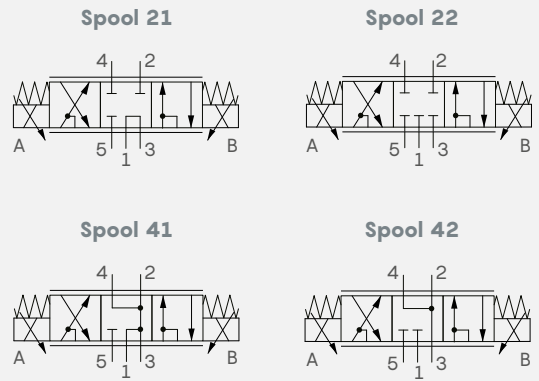
Nominal flow		22 l/min 5.8 US gpm
Max pressure		250 bar 3600 psi
Oil leakage	At 210 bar 3050 psi	200 cm ³ /min 12.2 in ³ /min
Fluid		hydraulic mineral oil-based
Viscosity		10-200 cSt
Max level of contamination		18/16/13 ISO4406
Fluid temperature	Polyurethane + NBR seals	from -20 to +80 °C from -4 to +176 °F
	FPM seals	from -20 to +100 °C from -4 to +212 °F
Environmental temp. for working conditions		from -20 to +60 °C from -4 to +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 Sales Department.

DIMENSIONAL DATA AND HYDRAULIC CIRCUITS

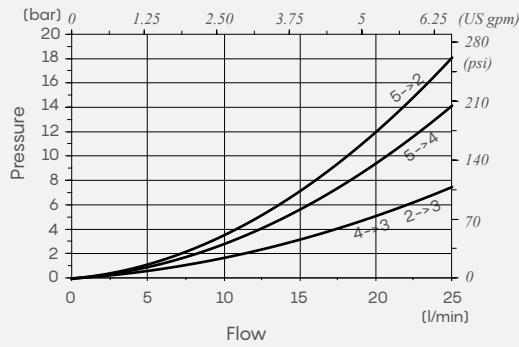


Emergency types	
N	EK10X/NB Without emergency
D	EK10X/DB Push/pull type with detent
E	EK10X/EB Push/pull type without detent

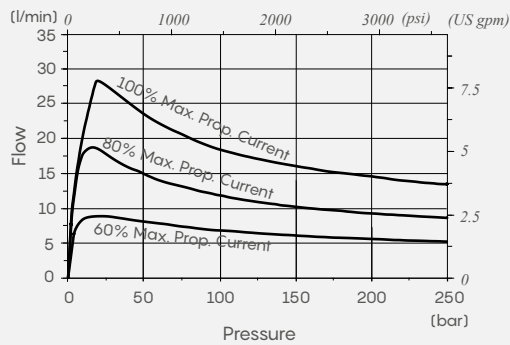


PERFORMANCE DATA

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



**Pressure compensation
Inlet to work port
(spool type 42)**



**Flow vs. current
With 10.5 bar/152 psi inline compensator
(spool type 42)**

