

# ET..X

Proportional solenoid valves  
4 ways / 3 positions



A member of



# ET..L

Proportional solenoid valves  
4 ways / 3 positions



- External zinc-plated and corrosion-proof components
- Hardened parts to ensure minimal wear and long life
- Flow path optimized through CFD analysis
- Industry common cavities
- Heavy duty polyurethane seals
- Several types of coil connectors and voltages
- Minimum current threshold/dead band
- Manual override options
- All ports may be fully pressurized

## DESCRIPTION:

Walvoil launches the new ET..X cartridge valve series, proportional solenoid operated, 4-way, 3-position, spool-type.

The new ET valves have 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 ET..X valve series 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 ensures higher switching performances compared to the existing solution, while maintaining the same type of coils and complete interchangeability.

These spool-type valves are available in SAE 08 & 10 size and different spools.

They are used in mobile and industrial applications, for the control of travel direction of actuators such as hydraulic motors and cylinders.

ET..X series 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.

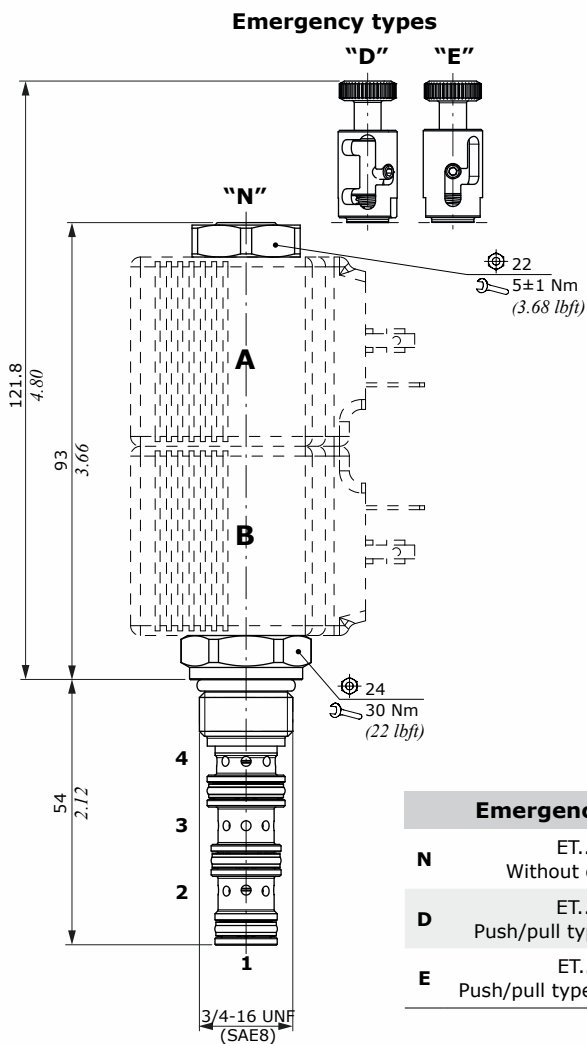
Working condition		ET08X	ET10X
Nominal flow		10 l/min (2.6 US gpm)	25 l/min (6.6 US gpm)
Max. pressure		250 bar (3600 psi)	
Oil leakage	at 210 bar (3050 psi)	40 cm <sup>3</sup> /min (2.44 in <sup>3</sup> /min)	200 cm <sup>3</sup> /min (12.2 in <sup>3</sup> /min)
Fluid		mineral based oil	
Viscosity		10-200 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 08/4	SAE 10/4
Coils type		(BER)	(BC)
Power rating		23 W (12/24 VDC)	26 W (12/24 VDC)
Connector types		ISO4400 - Deutsch DT	
		AMP-JPT -	ISO4400 - Deutsch DT
		Weatherpack/Metri-pack Flying leads	AMP-JPT - Flying leads

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

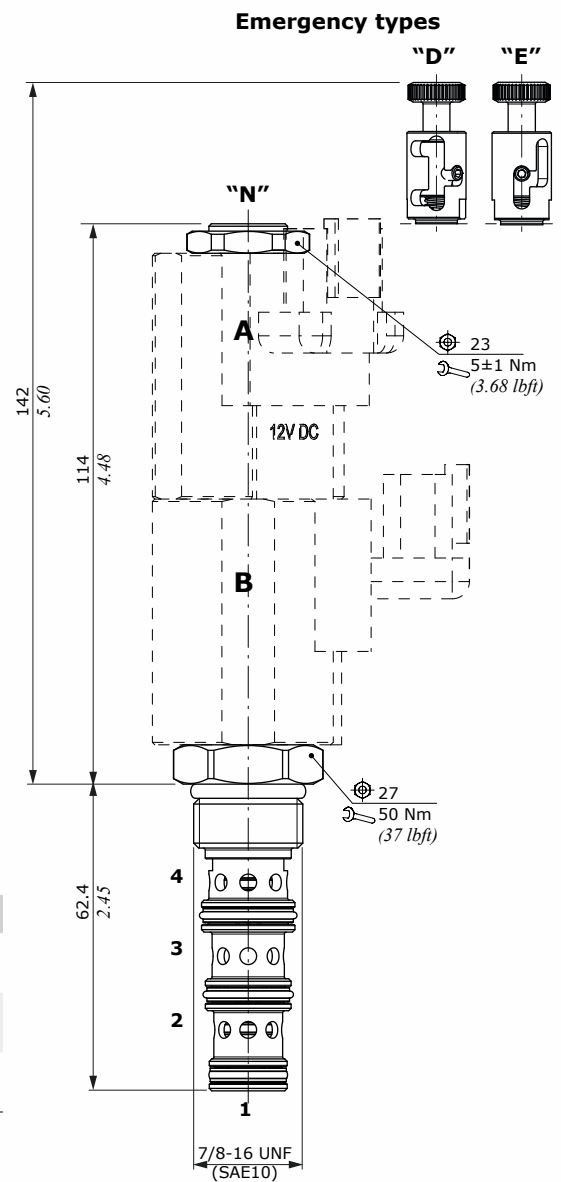
# NEW

## Dimensions and hydraulic circuits

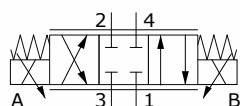
### ET08X valve



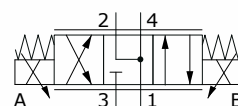
### ET10X valve



#### Spool 2



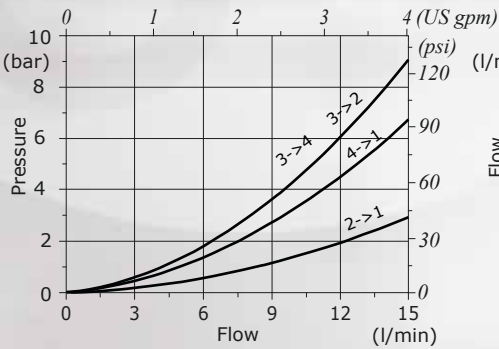
#### Spool 4



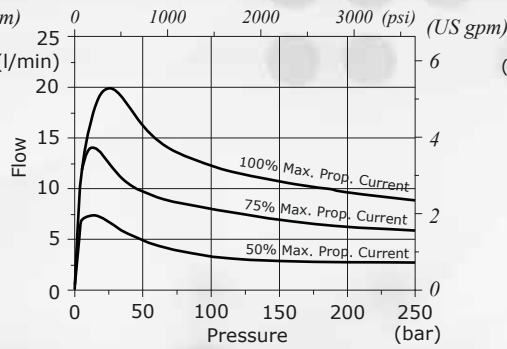
## Performance data

### ET08X valve

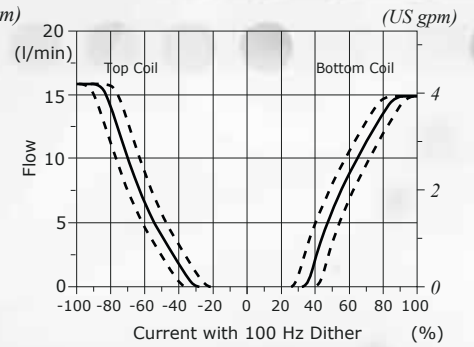
**Pressure drop vs. flow**  
Spool 2 type



**Pressure compensation**  
Inlet to work port - Spool 2 type

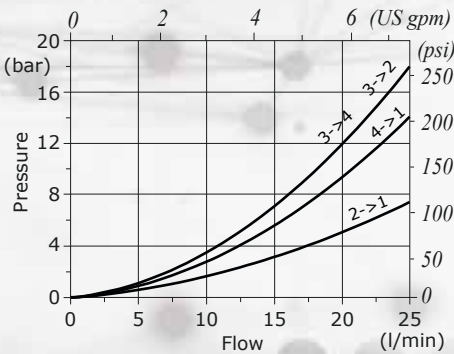


**Flow vs. current**  
With 10.5 bar/152 psi inline compensator  
Spool 2 type

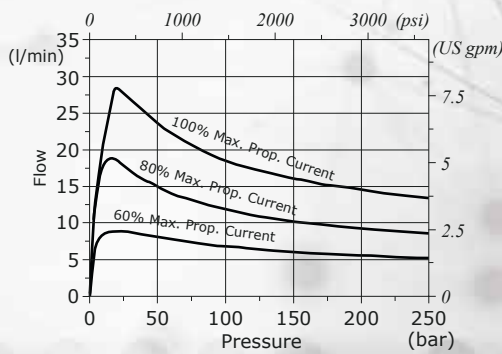


### ET10X valve

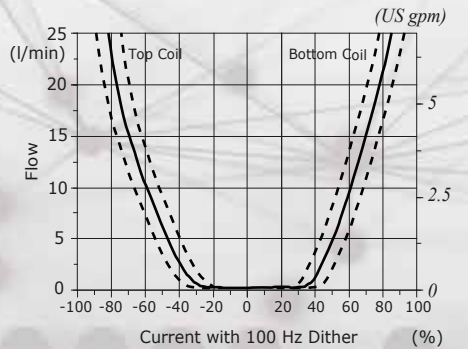
**Pressure drop vs. flow**  
Spool 2 type



**Pressure compensation**  
Inlet to work port - Spool 2 type



**Flow vs. current**  
(With 10.5 bar/152 psi inline compensator  
Spool 2 type)



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