

Data Sheet

Directional Control Valve

ECO 80 LS

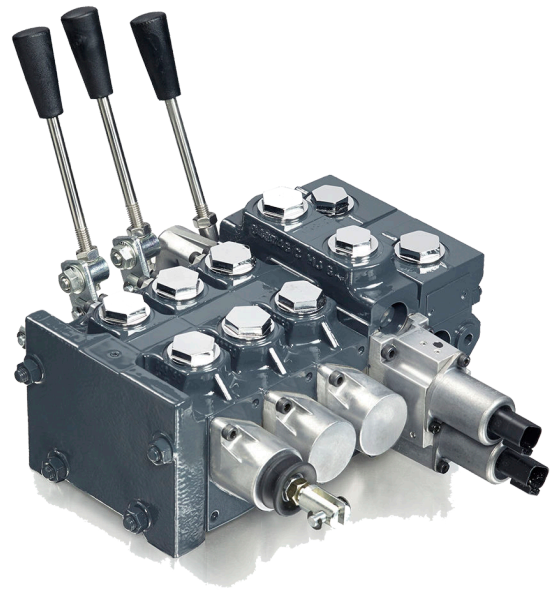


ECO 80 LS is a hydraulic, load-sensing directional control valve designed for optimal machine performance and maximum design flexibility and is complimentary to the PVG product family.

ECO 80 LS provides work port flow up to 80 l/min and up to 280 bar work port pressure.

Like the PVG, the ECO 80 LS design includes a modular concept that enables machine designers to specify a valve solution across multiple applications.

The ECO 80 LS improves the machine performance and efficiency with its wide variety of mechanical activations combined with a low pressure drop design—increasing productivity and reducing energy consumption.



Features

- Load sensing directional control
 - Proportional control of oil flow to a work function
- Modular build concept
 - Up to 12 basic modules per ECO 80 LS valve group
 - Different, interchangeable spool variants
 - System pressure up to 280 bar
 - Work port pressure up to 320 bar
 - Compact design and installation

EVP, pump side modules

- Built-in pressure relief valve
- Pressure gauge connection
- Versions:
 - Open center version for systems with fixed displacement pumps
 - Closed center version for systems with variable displacement pumps
 - Integrated 25 bar pilot oil supply for hydraulic and electrohydraulic actuation
 - Versions prepared for electrical LS unloading valve

EVB, basic modules

- Interchangeable spools
- Load holding check valve in channel P
- Option for shock and suction valves for port A and B

Actuation modules

- The basic module can be fitted with three main different actuation modules:
 - Mechanical
 - High Current Electro-hydraulic
 - Hydraulic



Technical data

Maximum pressure	Port P, A/B continuous	280 bar
	Port A/B intermittent	320 bar
	Port T, static/dynamic	25/40 bar
Oil flow rated	Port P	80 l/min
	Port A/B	80 l/min
Spool travel, standard	± 5 mm	
Dead band, flow control spools	± 1.5 mm	
Maximum internal leakage at 70 bar and 32 mm²/s	A/B → T without shock valve	15 cm ³ /min
	A/B → T with shock valve	20 cm ³ /min
Oil temperature (inlet temperature)	Recommended temperature range	30 to 60 °C
	Minimum temperature	-30 °C
	Maximum temperature	+90 °C
Ambient temperature range	-30 to 60 °C	
Oil viscosity	Operating range	12 - 75 mm ² /s
	Minimum viscosity	4 mm ² /s
	Maximum viscosity	460 mm ² /s
Filtration / maximum contamination according to ISO 4406	23/19/16	