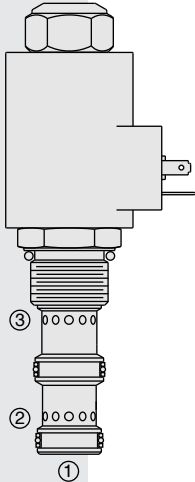


ELECTRO-PROPORTIONAL VALVES—FLOW CONTROLS

ZL72-36 Proportional, Bi-Directional Flow Control,

U.S. Patent
6,116,263



DESCRIPTION

A solenoid-operated, electrically-variable, three-port, pressure-compensated, spool-type, normally closed when de-energized, proportional, bi-directional, priority-type flow control valve.

OPERATION

The ZL72-36 provides priority regulated flow to port 1 with input at port 3, and bypass at port 2; or regulated flow from port 3 to port 2 with input at port 1 blocked. Regulated flow is proportional to electric current applied to the solenoid.

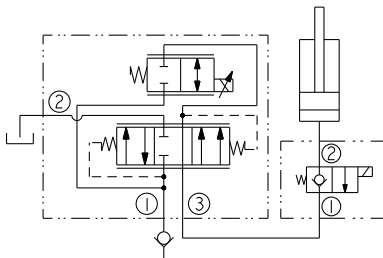
Application Notes: The ZL72-36 may be used for single-acting cylinder applications where lowering is provided by gravity force. There are no minimum load restrictions, provided the load is enough to overcome cylinder friction and other frictions in the system. At low load the lowering speed can be slower than at heavier load if pressure drop is less than the compensation value of the valve.

The hydraulic circuit must include a check valve and a poppet-type solenoid valve (SV10-20 type) connected as shown on the circuit symbol and placed close to the ZL72-36 valve, if possible in the same manifold. See Application Guide.

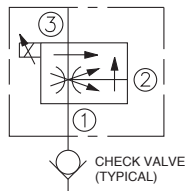
Operation of Manual Override: To Engage: Turn clockwise approximately 1 turn to reach start point. Continue another approximately 5 turns to full shift. To Disengage: Turn counterclockwise approximately 6 turns until positive stop is found.

SYMBOLS

USASI/ISO:



ABBREVIATED SYMBOL:



FEATURES

- Excellent linearity and hysteresis.
- Optional coil voltages and terminations.
- Hardened spool and cage for long life.
- Manual override option.
- Efficient wet armature construction.

RATINGS

Maximum Operating Pressure: 240 bar (3500 psi)

Regulated Flow: 0-45 lpm (0-12 gpm)

Internal Leakage: 0.38 lpm (0.10 gpm) at zero current

Electrical: 2 standard voltage ratings

Coil Voltage	Threshold Current	Max. Control Current
12 VDC	300 ± 100 mA	1600 ± 100 mA
24 VDC	150 ± 50 mA	800 ± 50 mA

Temperature: -40 to 120°C with Buna N seals

Filtration: See page 9.010.1

Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 sus); See Temperature and Oil Viscosity, page 9.060.1

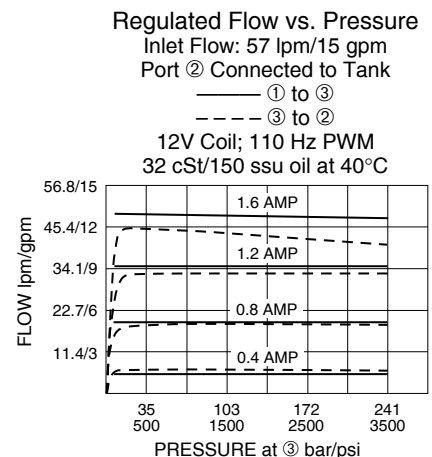
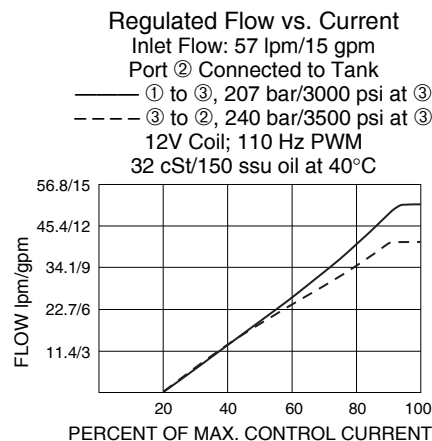
Installation: No restrictions; See page 9.020.1.

Cavity: VC12-3; See page 9.112.1; **Cavity Tool:** CT12-3X-XX; See page 8.600.1

Seal Kit: SK12-3X-MM; See page 8.650.1

Recommended Electronic Controllers:
See page 2.001.1 or our Electronics catalog.

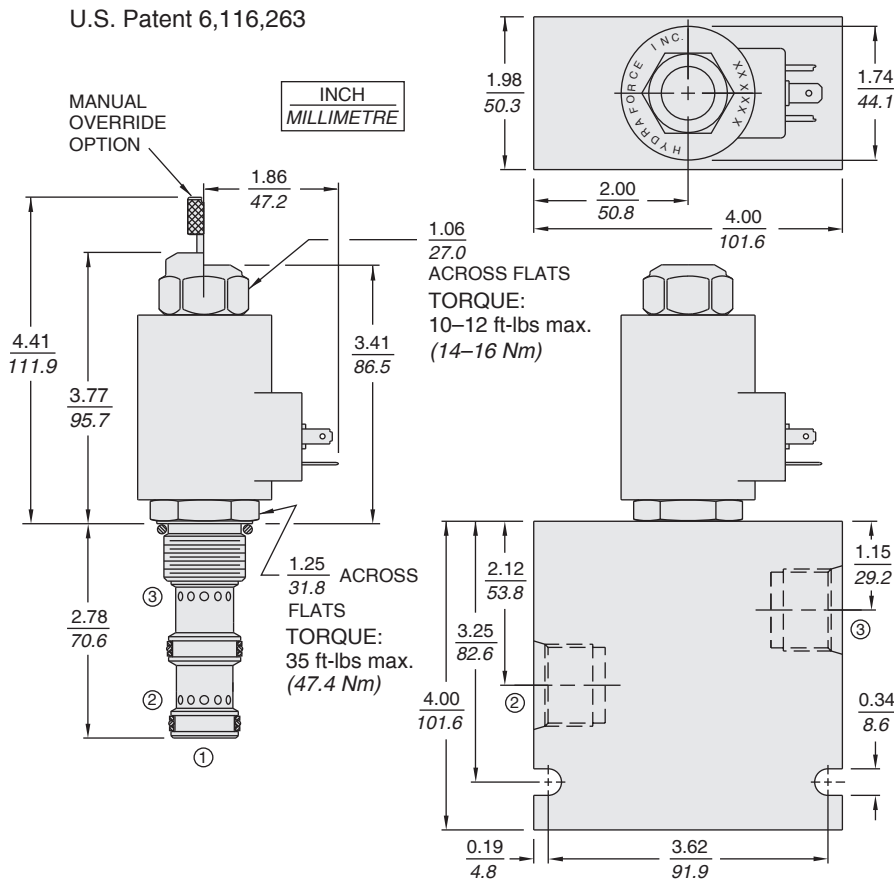
PERFORMANCE



Normally Closed

ZL72-36

DIMENSIONS



MATERIALS

Cartridge: Weight: 0.34 kg. (0.7 lbs.)
Steel with hardened work surfaces.
Zinc-plated exposed surfaces.
Buna N O-rings and polyester elastomer back-ups standard.

Standard Ported Body: Weight: 0.98 kg. (2.15 lbs.)
Anodized high-strength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi). Ductile iron bodies available; dimensions may differ. See page 8.012.1

70-Size "D" Coil: Weight: 0.32 kg. (0.7 lbs.)
Unitized thermoplastic encapsulated, Class H high temperature magnet-wire. See page 3.200.7.

70-Size "E" Coil: Weight: 0.41 kg. (0.9 lbs.)
Fully encapsulated with rugged external metal shell. IP69K rated. See page 3.400.13.

TO ORDER

ZL72-36 - - - - -

Option(s)							
None (Blank)							
Manual Override	M						
Porting							
Cartridge Only	0						
SAE 10	10T						
SAE 12	12T						
SAE 16	16T						
Seals							
Buna N (Std.)	N						
Fluorocarbon	V						
Terminations D-Coil							
DS	Dual Spades						
DG	DIN 43650						
DL	Leadwires (2)						
DL/W	Leads w/Weatherpak® Connectors						
Terminations E-Coil							
	IP69K Rated						
ER	Deutsch DT04-2P						
EY	Metri-Pack® 150						
	Coils with internal diode are available. Consult factory.						
Voltage							
0	Less Coil						
12	12 VDC						
24	24 VDC						