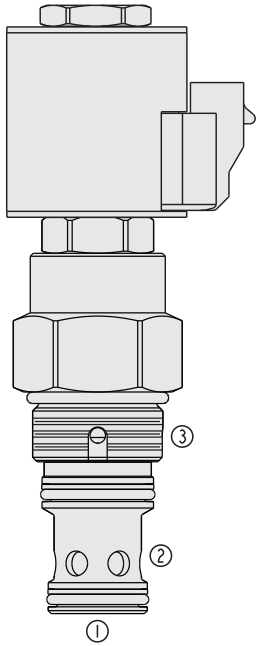


HTS16-S34F Vented Electrohydraulic Relief Valve

Performance Under Pressure



U.S. Patents
6,267,350 & 7,137,406

The patented HydraForce HTS16-S34F vented electrohydraulic spool-type pilot-operated relief valve allows variable pressure control up to 345 bar (5000 psi) for high flow applications. The valve combines the HydraForce TS style electrohydraulic relief valve with an EV style piloted directional element to form an inverse acting spool-type proportional relief. The normally-closed logic allows the circuit to build full pressure without any electrical signal to the coil. Increasing current in the coil reduces the effective pressure relief value. With a very stable pressure rise this valve is suitable as a high-flow main relief or function relief when unloading is necessary, or when pressure regulation needs vary depending on operating conditions.

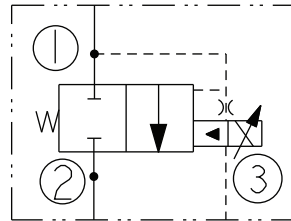
Potential Applications

Many useful applications of this valve are possible.

- Pump unloading
- Variable main relief
- Auxiliary function relief for attachments
- Sequence operation (port 2 pressurized)
- Pressure control

Because pilot flow is drained at port 3, the valve is unaffected by downstream pressure at port 2. This makes the HTS16-S34F suitable for sequence valve applications.

Operation



With port 1 as an inlet, port 2 as an outlet, and port 3 drained, the valve remains closed until port 1 reaches the set cracking pressure. This pressure is adjustable from 55 to 345 bar (800 to 5000 psi). Current applied to the coil proportionally reduces the pressure setting. At the set

pressure, the valve begins to open allowing flow from port 1 to port 2. The valve limits pressure at port 1 regardless of downstream pressure. Port 3 provides a drain for pilot flow, and can therefore function as a pilot to sequence operation or change the relief setting.

Features

- Low pressure drop
- HyPerformance™ product rated to 350 bar (5075 psi)
- High flow rating, up to 200 lpm (52 gpm)
- Factory set pressure, 55 to 345 bar (800 to 5000 psi)
- Port 2 can be pressurized for logic applications

Performance

The HTS16-S34F is a high-flow relief valve with excellent pressure rise characteristics. It exhibits less than 14 bar (200 psi) pressure rise over the entire 200 lpm (52 gpm) flow range. Pressure drop at maximum current (completely open) is 8 bar (120 psi). Response is very linear with maximum hysteresis at 3.5%.

For detailed information and specifications, visit www.hydraforce.com or contact your local HydraForce representative at www.hydraforce.com/distributors/world.htm

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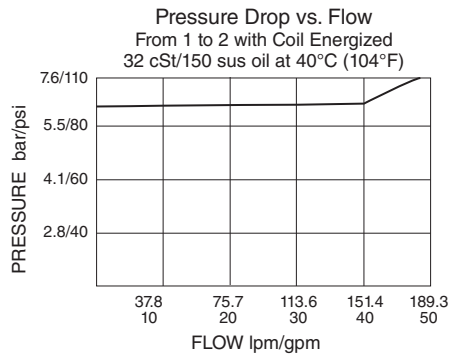
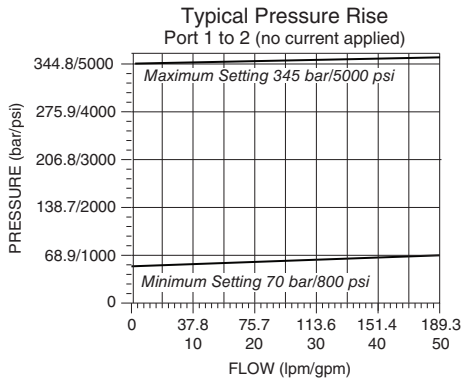
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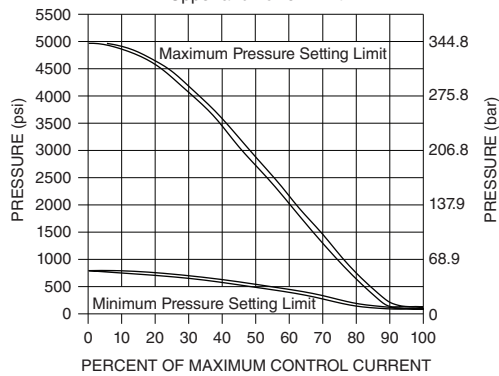
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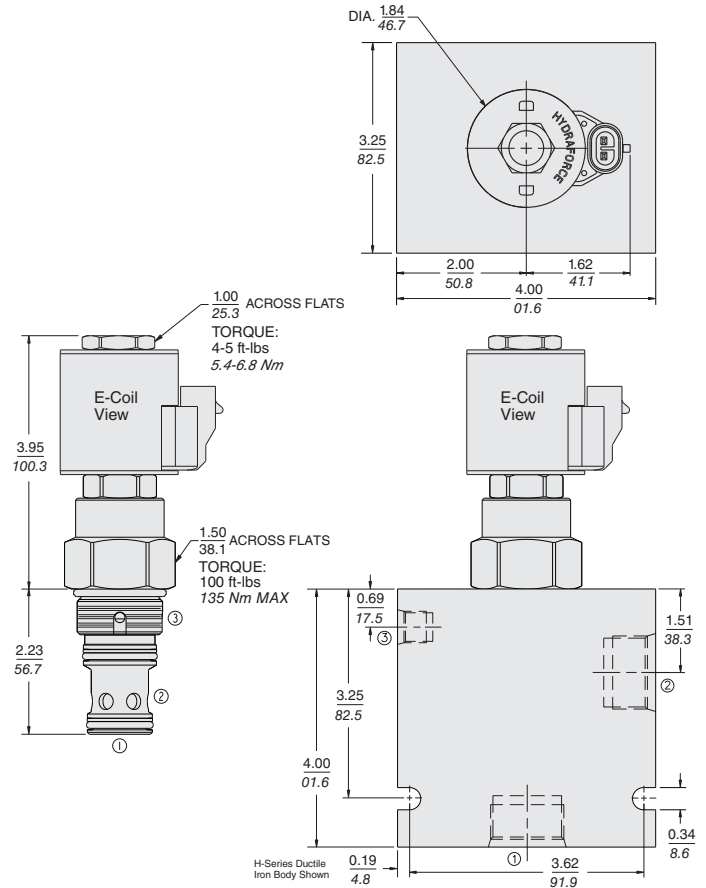
Performance (continued)



Relief Pressure Vs Current (200Hz PWM) Characteristic
Relieving Pressure Port 1 to Port 2 at 22.7 lpm (6 gpm)
Upper and Lower Limit



Dimensions



Specifications

Operating Pressure: 413 bar (6000 psi) at ports 1 and 2;
103 bar (1500 psi) at port 3

Crack Pressure Range at 0 Current: Valve can be factory set
to any pressure in range of 55 to 345 bar (800 to 5000 psi)

Flow Rating: 200 lpm (52 gpm)

Dither/PWM Frequency: 200 Hz

Cavity: HVC16-S3