

••••• **INNOVATION AT WORK FOR YOU** •••••

NEW Compact and Efficient, Drop-in-type EHPR Pressure Reducing/Relieving Valves

The complete family of EHPR proportional pressure reducing/relieving, drop-in style valves are now available. The EHPR series of valves provide a pressure output proportional to a PWM current input, making them ideal for incorporating electronic control of machine functions. This is a compact and efficient solution for any directional control application, or for piloting individual sections of a stack valve for electro-hydraulic control.

The EHPR family is designed to provide optimum performance in a wide range of applications.

Model	Flow Rating	Input Pressure
EHPR98-T33	3.7 lpm/1.0 gpm	245 bar/3500 psi
EHPR98-T35	5.6 lpm/1.5 gpm	34 bar/500 psi
EHPR98-T38	18.9 lpm/5.0 gpm	34 bar/500 psi

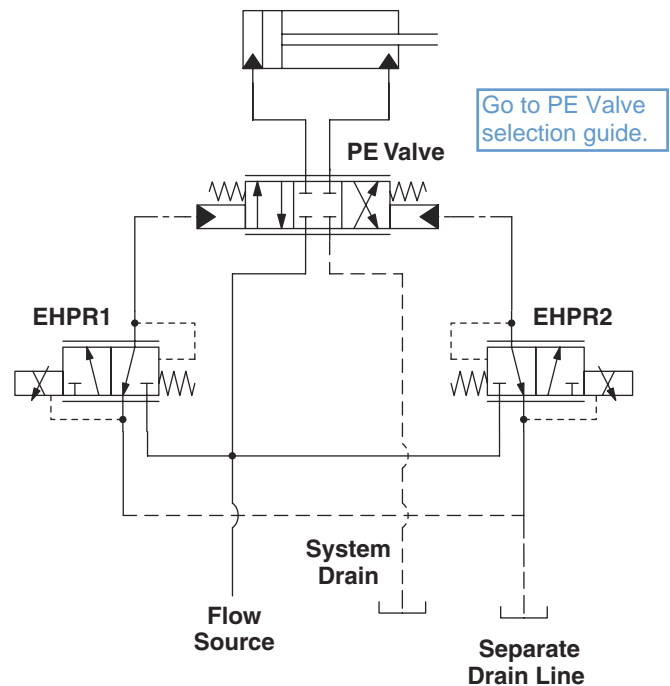
The EHPR98-T33 and -T35 provide high-accuracy and frequency response in lower flow circuits, while the EHPR98-T38 is designed for accurate control of larger actuators at higher flow rates.

These valves feature integral environmentally-sealed E-Coils and are designed to operate in exposed, rugged conditions. They can withstand up to 1000 hours of salt spray (vs. 96 hours for standard screw-in cartridge valves). The low current draw of this coil ensures longer battery life for the machine and minimal wear for the coil windings. The drop-in design eliminates the possibility of over-torquing the valve during installation, and reduces the overall cavity costs of the manifold. Hysteresis of less than 5% ensures high resolution control of machine functions.

[Click on a model no. in the table above to go to catalog page.](#)

Piloting a PE valve with an EHPR valve allows the system to achieve higher-flow directional functions – up to 170 lpm/45 gpm – while retaining the modularity and serviceability of a cartridge valve manifold. When using an EHPR valve to pilot a self-compensating PE valve, it is important to ensure that no backpressure exists at port 3 of the EHPR. Backpressure at port 3 will prevent the PE valve from fully shifting.

In applications where there is a variable return flow from other functions, this can cause the induced backpressure to vary, causing the regulated pressure to fluctuate, which leads to stability issues. Providing a separate drain line for the EHPR port 3 is required. See illustration below.



EHPR valves piloting a PE valve.

continued on next page

HYDRAFORCE, INC.

500 Barclay Blvd. • Lincolnshire, IL 60069 USA
 Ph: 847 793 2300 • Fx: 847 793 0086
 Web: www.hydraforce.com • E-Mail: sales@hydraforce.com
 ISO 9001 & QS 9000 • Member: National Fluid Power Assn.

HYDRAFORCE HYDRAULICS, LTD.

St. Stephens Street • Birmingham B6 4RG England
 Ph: 0121 333 1800 • Fx: 0121 333 1810
 Web: www.hydraforce.com • E-Mail: sales@hydraforce.com
 ISO 9001 & ISO 14001 • Member: British Fluid Power Assn.

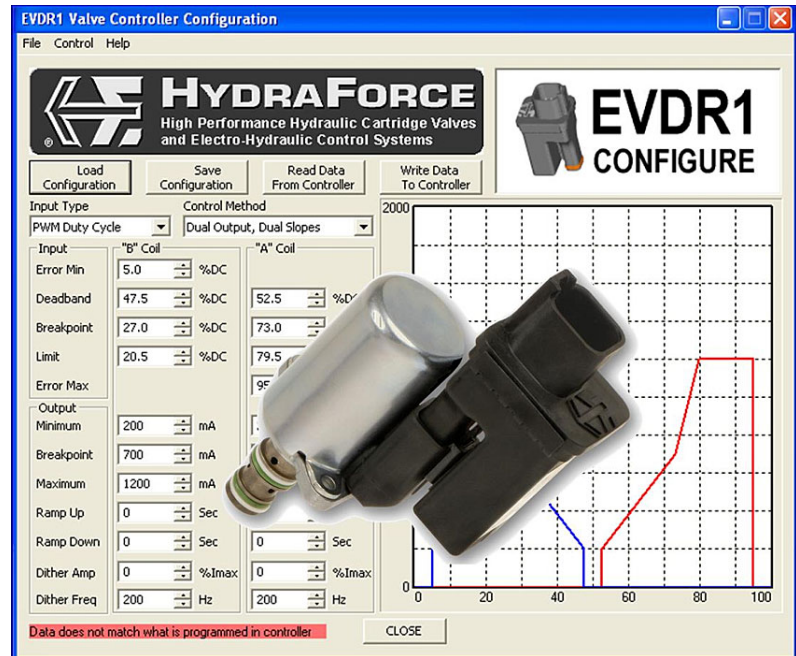
NEW Compact and Efficient, Drop-in-type EHPR Pressure Reducing/Relieving Valves

A complete, easy-to-program control system can be assembled using the new HydraForce electronic controls, which range from a single valve coil controller to a complete integrated electronic control system, including operator controls and a display interface.

Using the easy-to-program EVDR1 dual-valve driver, along with a joystick (PWM, 0-5V, 0-10V, 0-20mA, 4-20mA or resistive 0-5k ohm input) creates an economical electro-hydraulic directional control system. This controller will provide accurate and repeatable performance, while built-in error detection protects the machine from open and short conditions.

Graphic: EVDR1 dual-valve driver installed on EHPR valve, pictured over a typical EVDR1 software programming screen.

[go to EVDR1 catalog page](#)



EHPR Valve Features	Benefits
Integral IP69K Coil.	Can withstand over 1000 hrs of salt spray.
Drop-in Construction.	Prevents valve over-torque and reduces overall cavity costs.
Uses industry standard cavities.	No additional tooling costs required.
Three models available.	Covers low-range to mid-range flow applications.
Less than 5% hysteresis.	Improves overall valve performance and stability.
Manual Override option available.	In an electrical failure, valve can be operated manually.
Tested to 1 million cycles at full rated pressure.	Long life without wear or decreased performance over time.
Easily integrates with our robust line of electronic controls.	Saves programming and integration time.

HydraForce is dedicated to innovation, quality and superior technical support in order to provide our customers with the most competitive high-performance system solutions in the industry. Please see www.hydraforce.com for additional product information, or contact your HydraForce representative for assistance.

Disclaimer

Nothing in this document constitutes an implied warranty of merchantability or of fitness for a particular purpose. The information contained in this document is provided for technical illustration purposes only and may not be used as a statement of suitability for use in any particular application. Each application is unique and prospective purchasers should conduct their own tests and studies to determine the fitness of HydraForce's products for their particular purposes and specific applications.

The entire content of this document is copyright 2009 HydraForce Inc. All rights reserved.
HydraForce and the HydraForce logo are registered trademarks of HydraForce Inc.

HYDRAFORCE, INC.

500 Barclay Blvd. • Lincolnshire, IL 60069 USA
Ph: 847 793 2300 • Fx: 847 793 0086
Web: www.hydraforce.com • E-Mail: sales@hydraforce.com
ISO 9001 & QS 9000 • Member: National Fluid Power Assn.

HYDRAFORCE HYDRAULICS, LTD.

St. Stephens Street • Birmingham B6 4RG England
Ph: 0121 333 1800 • Fx: 0121 333 1810
Web: www.hydraforce.com • E-Mail: sales@hydraforce.com
ISO 9001 & ISO 14001 • Member: British Fluid Power Assn.