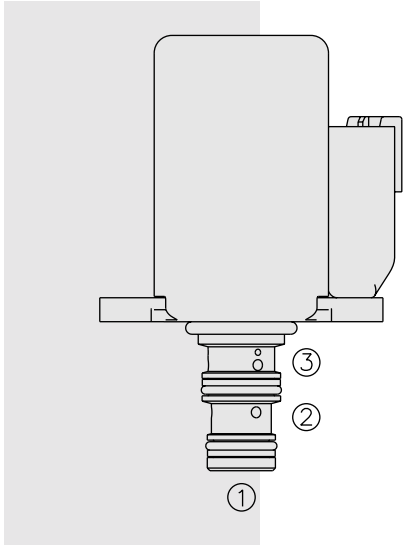


# ELECTRO-PROPORTIONAL VALVES—PRESSURE CONTROLS

## EHPR98-T33 Proportional Reducing/Relieving



### DESCRIPTION

A direct-acting, spool-type, drop-in-style, flange-mounted, pressure reducing/relieving valve, which can be infinitely adjusted across a prescribed range using a variable electric input. Pressure output is proportional to DC current input. The Ecoil is an integral part of the valve assembly, and cannot be replaced or field-serviced.

### OPERATION

The **EHPR98-T33** allows free flow from ① to ③ when no current is applied to the coil. When the coil is energized, ② is connected to ①. Increasing current applied to the coil will increase the control (reduced) pressure proportionally. If pressure at ① exceeds the setting induced by the coil, pressure from ① is relieved to ③.

Note: Back pressure on port ③ becomes additive to the pressure setting at a 1:1 ratio.

### FEATURES

- Economical drop-in style.
- Integral waterproof coil standard.
- 10, 12, 20 or 24 VDC coils.
- Several push-on termination options.

### RATINGS

**Maximum Inlet Pressure:** 241 bar (3500 psi)

**Common Port Burst Pressure:** One cycle at 158 bar (2300 psi) on all ports simultaneously pressurized

**Tank Port (③) Pressure:** 34.5 bar (500 psi) maximum for 100,000 cycles

**Maximum Control Current:** 1.38 amps for 10 VDC coil; 1.30 amps for 12 VDC coil; 0.69 amps for 20 VDC coil; 0.65 amps for 24 VDC coil;

**Hysteresis:** Less than 3% with 200 Hz PWM

**Rated Flow:** 3.8 lpm (1.0 gpm), cartridge only, ① to ③ coil de-energized

**Step Response:**  $T_{ON} < 30$  ms;  $T_{OFF} < 12$  ms

**Temperature:** -40 to 120°C (-40 to 250°F), with standard Buna N seals

**Ambient Air Temperature:** -40 to 80°C (-40 to 176°F)

**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 ssu)

**Installation:** Flange Mount

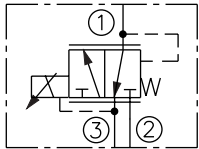
**Mounting Screws:** M4 x 0.7 x 10 Long; Part No. 4001015

**Cavity and Cavity Tool:** VC-T009; See page 9.108.1

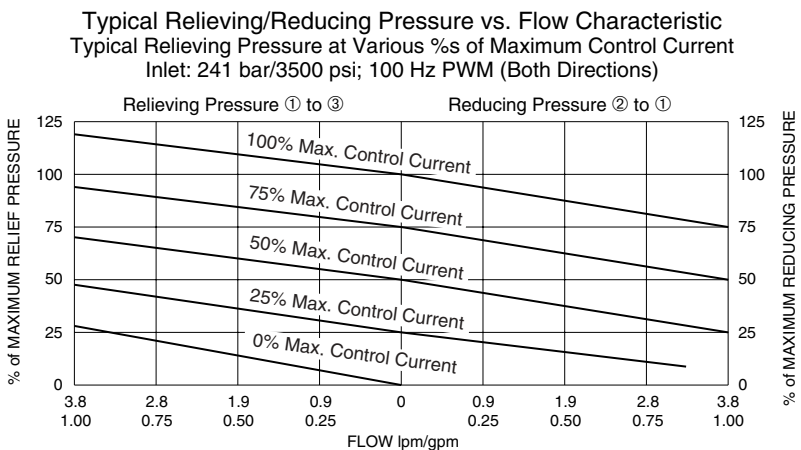
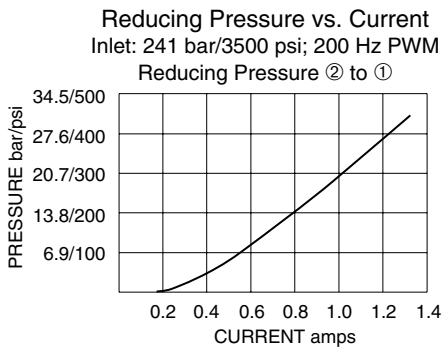
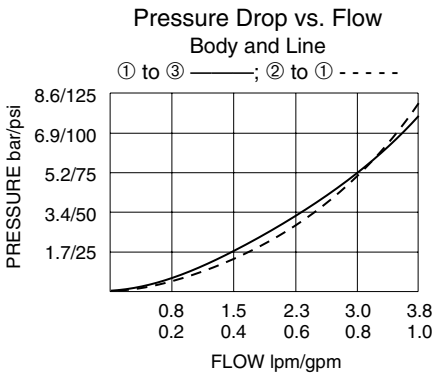
**Seal Kit:** SK98-T39X-000; See page 8.650.1

### SYMBOLS

#### USAS/ISO:



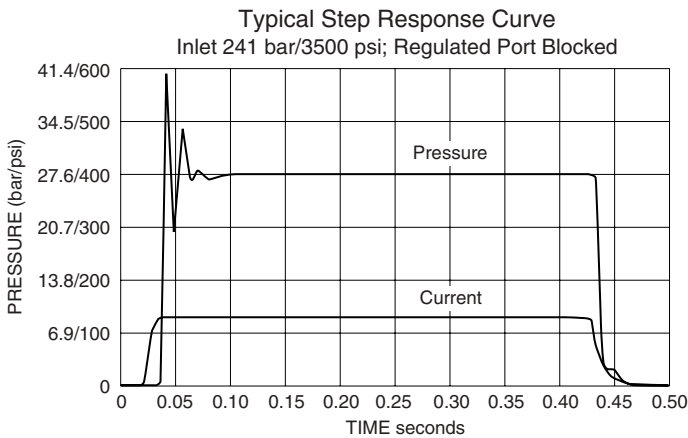
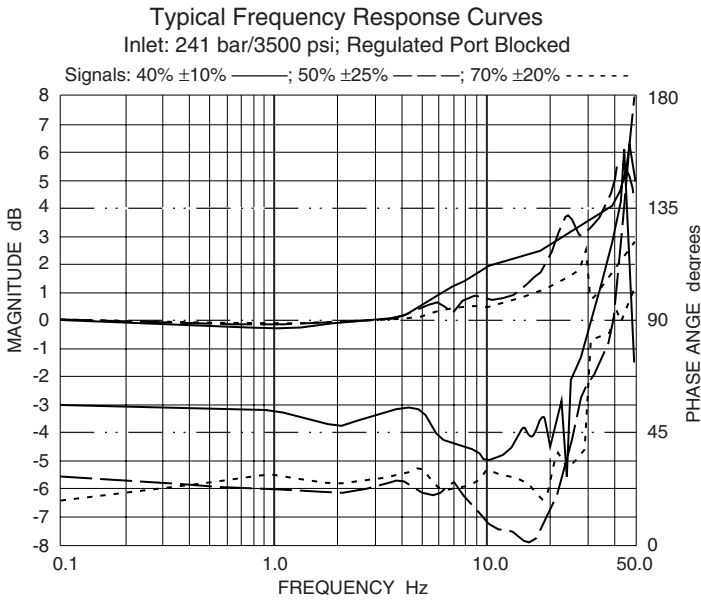
### PERFORMANCE



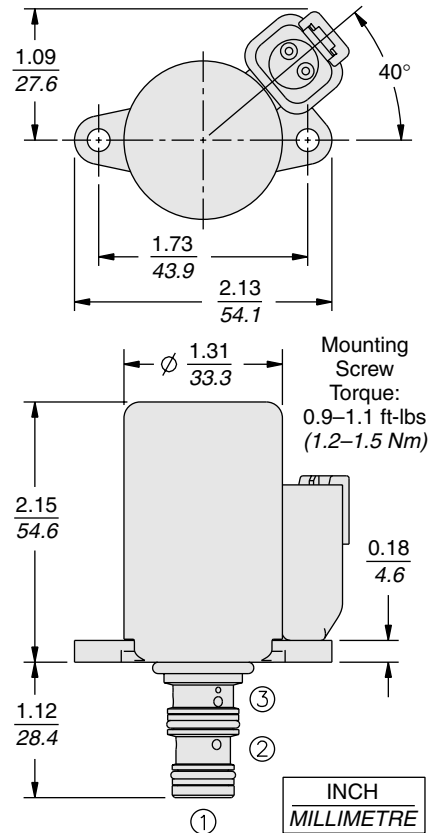
# Drop-In-Style Valve

# EHPR98-T33

## PERFORMANCE (continued)



## DIMENSIONS



### Recommended Controllers (See Section 3)

Input Sig. w/12V or 24V Coil	DIN Coil Mount	PCB Board	Metal Box	DIN Rail Mount
0-5 VDC	4000161	4000194	4000174	4000136
0-10 VDC	4000165	4000141	4000182	4000137
4-20 mA	4000169	4000143	4000186	4000139
PWM	—	4000144	4000133	4000140

## MATERIALS

**Cartridge including Coil:** Weight: 0.20 kg. (0.44 lbs.); Steel with hardened work surfaces. Zinc-Nickel plated exposed surfaces; HNBR O-rings standard. Coil is encapsulated, class H high-temperature magnetwire, with zinc-nickel plated shell.

**Ported Body:** Consult Factory

## TO ORDER

### EHPR98-T33

