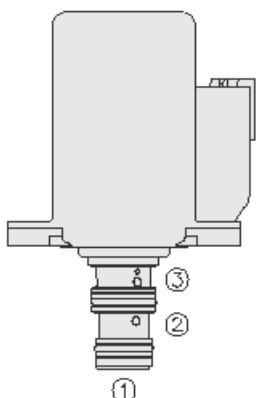




## Overview



### Description

This is a direct-acting, spool-type, proportional, pressure reducing/relieving valve. It is a drop-in, flange mounted cartridge type valve for use with mineral based or synthetic (with lubricating properties) hydraulic fluids. The coil is an integral part of the valve and is not serviceable. The regulated pressure is proportional to the input electrical current in the pressure ranges shown

### Operation

The EHP98-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

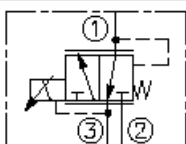
### Manual Override Operation

Rotate manual override screw clockwise until desired regulated pressure is achieved

### Features

- 10, 12, 20 or 24 VDC coils.
- Economical drop-in style.
- Integral waterproof coil standard.
- Corrosion-resistant plating.
- Manual override and screen options.
- Several push-on termination options.

### Symbol



## Ratings

### Pressure Ratings

Maximum supply pressure	241 bar (3500 psi)	
Maximum tank port pressure	34.5 bar (500 psi) 17.2 bar (250 psi)	- <b>Note:</b> For manual override option
Control pressure at maximum control current	30 bar (435 psi)	

### Flow Ratings

Hysteresis per cent	4 %	
Flow rating	3.8 lpm (1.0 gpm)	
Maximum internal leakage	200 ml/min (12 in <sup>3</sup> psi) 400 ml/min (24 in <sup>3</sup> (3500 psi)	- <b>Note:</b> Viscosity de-energized, at 32 cSt (150 SUS) 241 bar (3500 psi) - <b>Note:</b> Viscosity energized at imax, at 32 cSt (150 SUS) 241 bar

### Temperature Ratings

Ambient temperature	-40 to 80 °C (-40 to 176 °F)	
Operating fluid temperature	-40 to 149 °C (-40 to 300 °F) -26 to 204 °C (-15 to 400 °F) -54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With HNBR seals - <b>Note:</b> With fluorocarbon seals - <b>Note:</b> With polyurethane seals

### Other Ratings

Environmental rating	Ip96k
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## Properties

Unit weight	0.295 kg (0.650 lb) 0.302 kg (0.665 lb)	- <b>Note:</b> Standard - <b>Note:</b> Manual override
Internal wetted surface area	137 cm <sup>2</sup> (21.2 in <sup>2</sup> ) 180 cm <sup>2</sup> (28 in <sup>2</sup> )	- <b>Note:</b> Standard - <b>Note:</b> Manual override

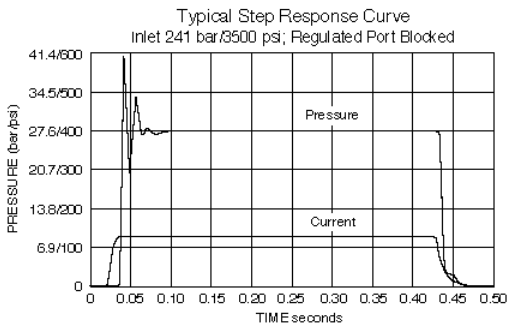
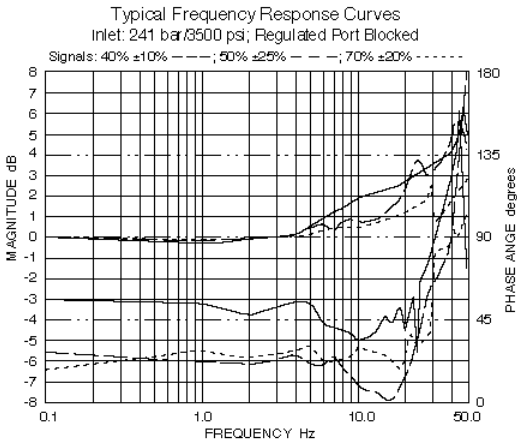
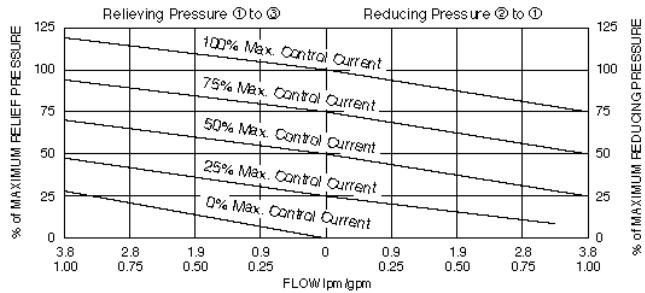
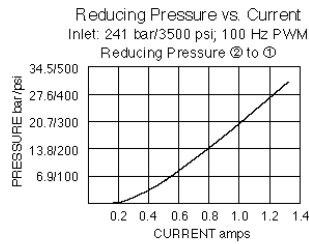
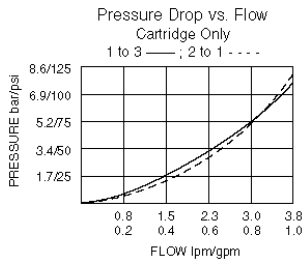


## Electrical Parameters

Maximum control current	1.38 A	- Note: 10 V
	1.30 A	- Note: 12 V
	0.69 A	- Note: 20 V
	0.65 A	- Note: 24 V
Note	For other voltages, consult HydraForce	
Dither PWM frequency	100 Hz	
Valve inductance	80 mH	- Note: 12 V coil

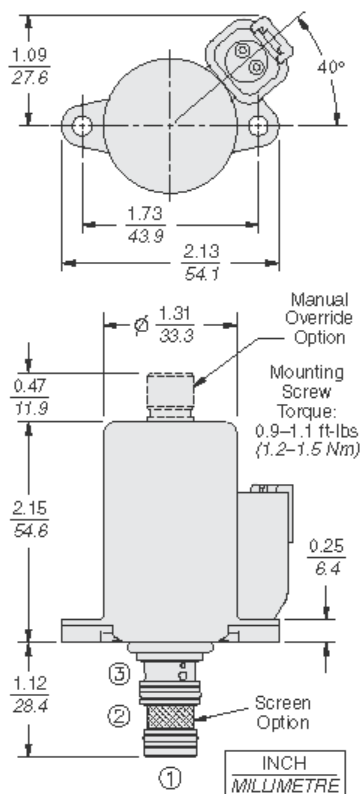
## Performance

Typical Relieving/Reducing Pressure vs. Flow Characteristic  
 Typical Relieving Pressure at Various %s of Maximum Control Current  
 Inlet: 241 bar/3500 psi; 100 Hz PWM (Both Directions)





## Dimensions



## Materials

### Materials

**Cartridge including Coil:** Steel with hardened work surfaces. Zinc-plated exposed surfaces; HNBR O-rings standard. Coil is encapsulated, class H high temperature magnet wire, with zinc-nickel plated shell.

**Ported Test Body:** Consult Factory.

**Mounting Screws:** Must be ordered separately; Part no. 4001015

## Installation Specifications

Cavity	VC-T009
Mounting screw torque	1.2 to 1.5 N-m (0.9 to 1.1 ft-lb)
Mounting orientation	Unrestricted

## Accessories

Mounting screw	M4 x 0,7 x 12mm long, hf p/n 4001015 (sold separately)
Valve body	Hf p/n: 71536x0 (sold separately)
Seal kit	SKEHPR98-T3N - <b>Note:</b> HNBR SKEHPR98-T3V - <b>Note:</b> Fluorocarbon SKEHPR98-T3P - <b>Note:</b> Polyurethane



**Order Code**

POSITION	CODE	DESCRIPTION
		EHPR98-T33EG-H-J-KL
E		Manual Override
E	BLANK	NONE
E	M	Minimum Regulated Pressure Override, 3/16" Internal Hex
G		Screen
G	BLANK	NONE
G	S	100 Mesh Screen
H		Line Body
H	0	No Body
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
K		Coil Voltage
K	10	10 VDC
K	12	12 VDC
K	20	20 VDC
K	24	24 VDC
L		Coil Termination
L	EJ	E-Coil, AMP Jr.
L	ER	E-Coil, Deutsch

**EHPR98-T33**

