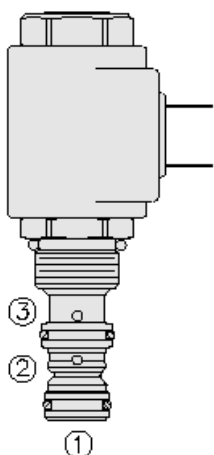
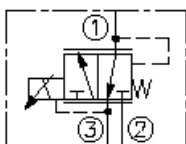




Overview



Symbol



Description

EHPR08-33X is a direct-acting, spool-type, proportional, pressure reducing/relieving valve. The regulated pressure is proportional to the input electrical current. EHPR08-33X free flow from port 1 to port 3 when no current is applied to the coil. With coil energized, port 2 is connected to port 1. Increasing current to the coil will increase the control (reduced) pressure proportionally. If pressure at port 1 exceeds the setting induced by the coil, pressure from port 1 to port 1 is relieved to port 3.

Operation

The EHPR08-33 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

Engages at 2 1/4 turns, builds pressure at 11.7 bar (170 psi) per turn.

Features

- 12 and 24 volt coils standard.
- Optional manual override.
- Industry-common cavity.
- Optional waterproof E-Coils rated up to IP69K.

Ratings

Pressure Ratings

Pressure rating	241.3 bar (3500 psi)	- Note: At port 2 (inlet)
	103.4 bar (1500 psi)	- Note: At port 1
	68.9 bar (1000 psi)	- Note: At port 3. Maximum pressure difference between ports 1 or 3 and port 2 68.9 bar (1000 psi)
Proof pressure	379.2 bar (5500 psi)	
Burst pressure	827.4 bar (12000 psi)	
Pressure rise	-1.24 bar/lpm (-68 psi/gpm)	- Note: (reducing)
Maximum reducing pressure	26 bar (375 psi)	- Note: Pressure is additive to valve setting

Flow Ratings

Flow rating	4.0 lpm (1.0 gpm)	- Note: Port 1 to port 3 (coil de-energized)
Maximum internal leakage	33 ml/min (2 in ³ /min)	- Note: At 26 bar (375 psi)
Hysteresis per cent	3 %	- Note: (PWM)

Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- Note: With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- Note: With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- Note: With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

Other Ratings

Corrosion protection	960 hr salt spray per ASTM b117 (gehpr08-33x)
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Operating Parameters

Fluids	Mineral based or synthetic with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406



Properties

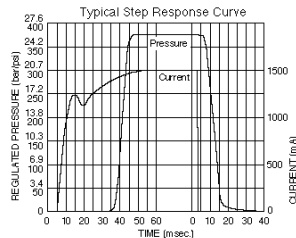
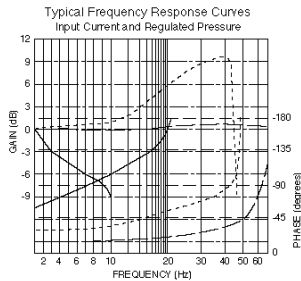
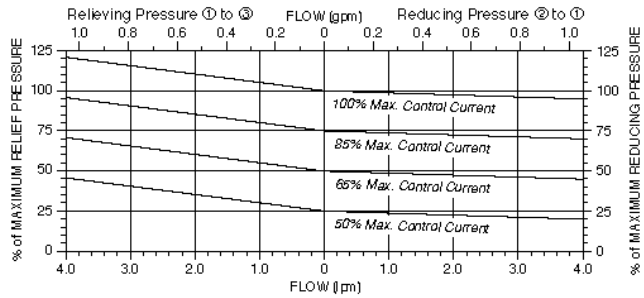
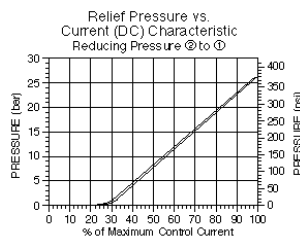
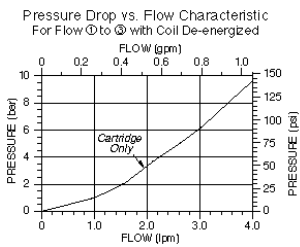
Adjustment torque	0.9 to 2.0 N-m (8.8 to 17.7 in-lb)
Unit weight	0.14 kg (0.31 lb)
Internal wetted surface area	90 cm ² (13.9 in ²)

Electrical Parameters

Valve inductance	53 mH	- Note: E-series coil 12 V
	223 mH	- Note: E-series coil 24 V
	25 mH	- Note: D-series coil 10 V
	35 mH	- Note: D-series coil 12 V
	130 mH	- Note: D-series coil 20 V
	180 mH	- Note: D-series coil 24 V
Maximum control current	1.42 A	- Note: E-series coil 12 V
	0.71 A	- Note: E-series coil 24 V
	1.5 A	- Note: D-series coil 10 V
	1.2 A	- Note: D-series coil 12 V
	0.75 A	- Note: D-series coil 20 V
	0.65 A	- Note: D-series coil 24 V

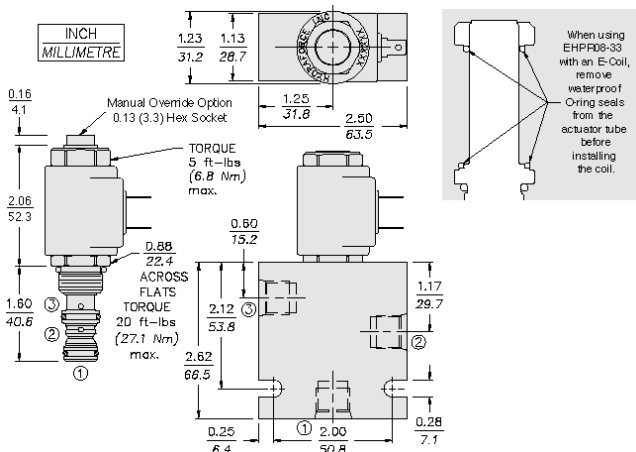
Performance

Typical Relieving/Reducing Pressure vs. Flow Characteristic
 Typical Relieving Pressure at Various %'s of Maximum Control Current
 Pressure Range "A" (26 bar/375 psi); Cartridge in Body



Signal 25% ±10% ——— Inlet: 30 bar (600 psi), 4 gpm (15 gpm)
 Signal 50% ±50% ——— Regulated: Blocked Tank: <0.15 bar (2 psi)
 Signal 85% ±10% - - - - - Input Signal: Sinusoidal

Dimensions





Installation Specifications

Cavity	VC08-3
Cartridge installation torque	25.8 to 28.6 N-m (19 to 21 ft-lb)
Coil nut torque	6.8 to 9.5 N-m (5 to 7 ft-lb)
Orientation restriction	None

Accessories

Seal kit	SK08-3X-00	- Note: X = seal option
Housings		
Coils		



Order Code

EHPR08-33			
<u>Option</u>			
None (Blank)			
Manual Override	M		
<u>Porting</u>			
Cartridge Only	0		
SAE 6	6T		
SAE 8	8T		
3/8 in. BSP*	3B		
1/2 in. BSP*	4B		
<u>BSP Body</u>			
U.K. Mfr. Only			
<u>Seals</u>			
Buna N (Std.)	N		
Fluorocarbon	V		
		<u>D-Coil Terminations</u>	
		DS	Dual Spades
		DG	DIN 43650
		DL	Leadwires (2)
		DL/W	Leads w/Weatherpak® Connectors
			<u>E-Coil Terminations</u>
		ER	Deutsch DT04-2P (IP69K Rated)
		EY	Metri-Pak® 150 (IP69K Rated)
			Coils with internal diode are available. Consult factory.
		<u>Voltage</u>	(Consult factory for other voltages.)
		0	Less Coil
		10	10 VDC* (1.5 amps max.)
		12	12 VDC (1.2 amps max.)
		20	20 VDC* (0.75 amps max.)
		24	24 VDC (0.6 amps max.)

*For use where there is a voltage drop across the controller.

POSITION	CODE	DESCRIPTION
		EHPR08-33E-H-J-L
E		Manual Override
E	BLANK	NONE
E	M	Variable Position Override, Red Knurled Knob
H		Line Body
H	0	No Body
H	4T	Aluminum SAE 4
H	6T	Aluminum SAE 6
H	6TD	Ductile Iron SAE 6
H	8TD	Ductile Iron SAE 8
H	3B	Aluminum BSPP 3/8" (3)
H	3BD	Ductile Iron BSPP 3/8" (3)
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	P	Polyurethane
J	U	PPDI Urethane
L		Coil
L	0	No Coil
L	12DG	12 VDC, D-Coil, DIN 43650
L	12ER	12 VDC, E-Coil, Deutsch
L	12EY	12 VDC, E-Coil, Metri-Pack 150
L	24DG	24 VDC, D-Coil, DIN 43650
L	24DL	24 VDC, D-Coil, Dual Lead Wires
L	24DS	24 VDC, D-Coil, Dual Spade
L	24ER	24 VDC, E-Coil, Deutsch