



3.11

50ER58-20 TYPE

Proportional Relief Valve

Rated pressure(bar / psi) 345 / 5000

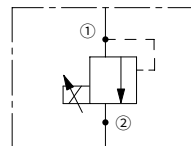
Features

- 12 and 24 volt coils standard
- Optional waterproof E-Coils rated up to IP69K
- Industry common cavity
- Hardened parts for long life

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Symbol



Technical data

Hydraulic

Operating pressure	345bar (5000 psi)
Rated pressure at port T	69 bar (1000 psi)
Pressure relief range from zero to maximum control current	0 - 345 bar (0 - 5000 psi)
Magnetic hysteresis at 250Hz PWM	3.3%
Rated flow	7.57 lpm/2 gpm; $\Delta P = 6.9$ to 9 bar (100 to 130 psi), cartridge valves only; port ① to port ②, coil de-energized
Flow path	Free Flow: Port ① to port ② coil de-energized; Relieving: Port ① to port ② coil energized
Temperature range	-40 to 100 °C (Buna N seals)
	-54 to 107 °C (Polyurethane seals)
	-26 to 204 °C (Fluorocarbon seals)
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to or 2000 sus)
Cavity	VC08-2 (See technical reference)
Installation recommendation	When possible, the valve should be mounted below the reservoir oil level.This will maintain oil in the armature preventing trapped air instability. If this is not feasible, mount the valve horizontally for best results.

Electric

Coil	E-Coil	
Maximum current (A)	12VDC	1.10
	24VDC	0.55
Electric resistance (Ω) @20° C	12VDC	7.1 ± 3%
	24VDC	28.5 ± 5%
Inductance coefficient (mH)	12VDC	160
	24VDC	560

Materials

Cartridge:

Weight: 0.16 kg ; Steel with hardened work surfaces.

Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-up standard.

Standard Ported Body:

Anodized high-strength aluminum alloy, rated to 240 bar; Ductile iron and steel bodies available;

Dimensions may differ, consult factory.

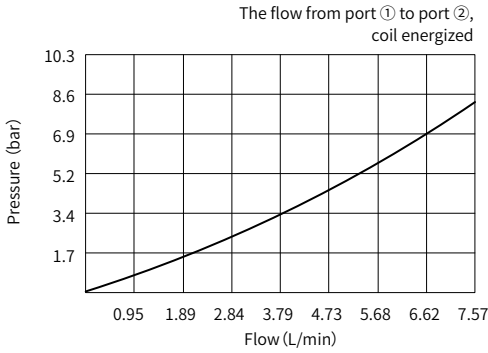
Standard Coil: Consult factory.

E-Coil:

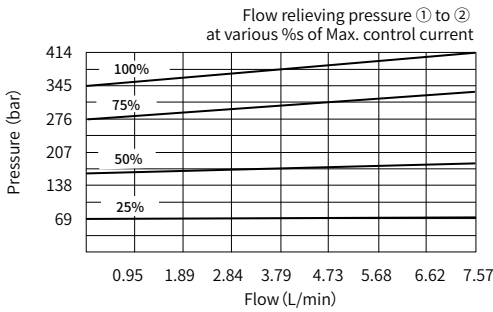
Weight: 0.359 kg; Perfect wound, fully encapsulated with rugged external metal shell; Rated up to IP69K with Deutsch sockets.

Characteristic curves

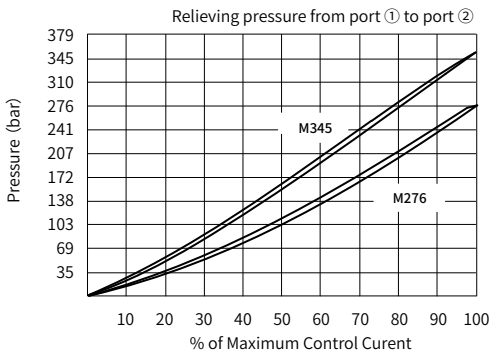
Pressure Loss



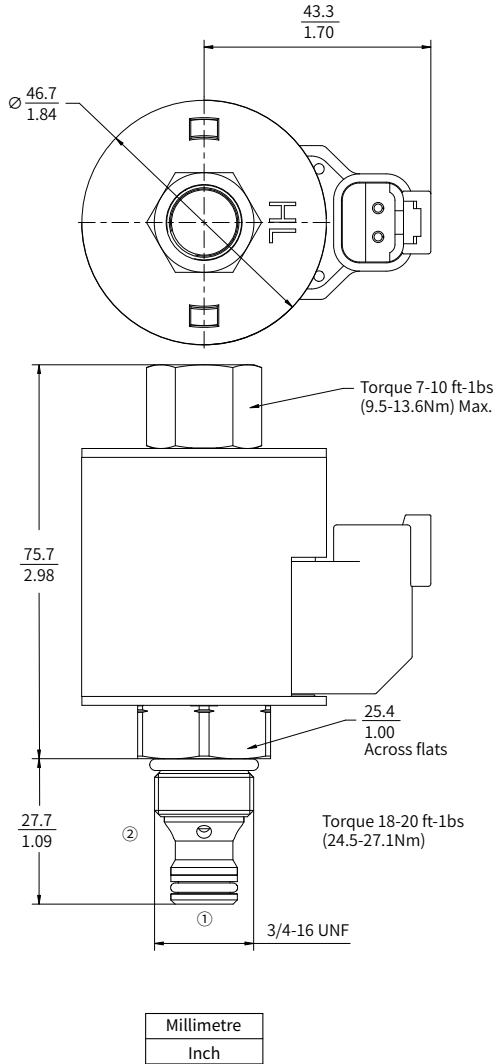
Pressure Fow Characteristics



Pressure and current characteristic 250Hz PWM



Unit dimensions



China

+86 400 101 8889

America

+01 630 995 3674

Germany

+49 (30) 72088-0

Japan

+81 03 6809 1696



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