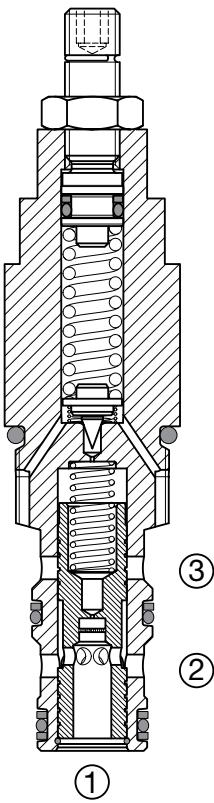
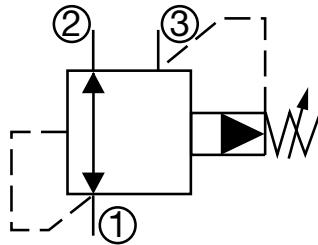


PRESSURE CONTROL VALVES

DR10P-01

Pressure Reducing/Relieving, Pilot Operated, Spool Type

Up to 26 gpm (100 l/min) • 5000 psi (350 bar)



Description

A screw-in cartridge, pilot operated, spool type, pressure reducing/relieving valve with internal pilot and internal spring chamber drain, intended for use as a pressure regulating device for secondary circuits. This valve maintains a secondary regulated/reduced pressure regardless of pressure variations in the primary system. In addition to the reducing function, this valve also provides a relief function from the reduced pressure port to the tank port, if pressure in the secondary circuit exceeds the set pressure.

Operation

The DR10P-01 allows bidirectional flow between port 2 and port 1 with the spring chamber drained through port 3. Once the pressure setting is reached at port 1, the spool shifts to restrict the flow at port 2, thereby regulating pressure at port 1. If pressure at port 1 exceeds the setting of the valve, the spool will shift further and relieve excess pressure through port 3. Any pressure at port 3 is additive to spring set pressure.

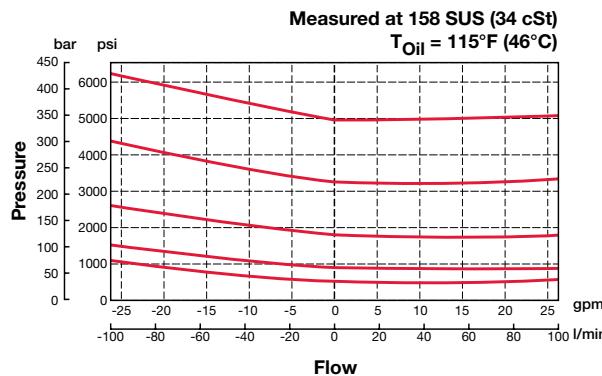
Features

- Spring ranges up to 5000 psi (350 bar)
- Positive stop prevents spring from over adjustment (options V,H)
- Adjustable under full pressure
- One-piece body maximizes reliability and minimizes the effect of eccentricity
- Screen protected control orifice to enhance safety
- Fast response with excellent stability
- All external surfaces zinc-plated
- Hardened spool & pilot poppet to ensure minimal wear & extend service life
- Industry common cavity

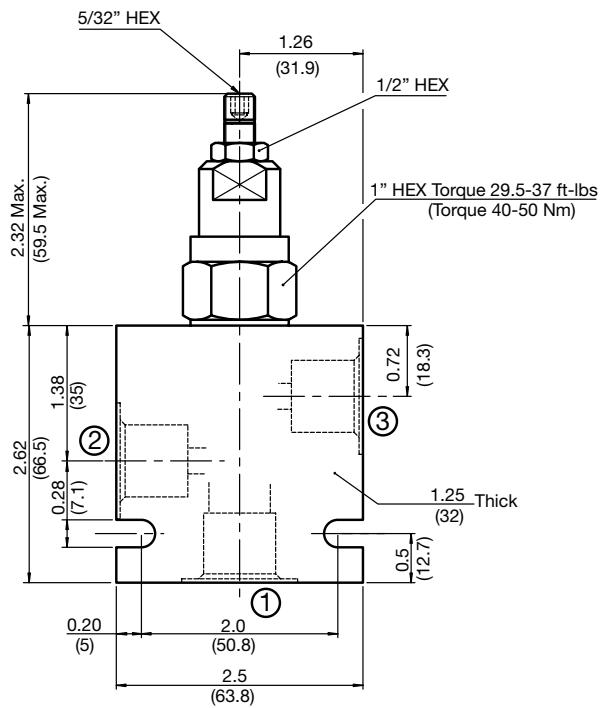
Specifications

Operating Pressure	5000 psi (350 bar)
Nominal Flow	26 gpm (100 l/min)
Optional Pressure Ranges	90 to 500 psi (6 to 35 bar) 90 to 900 psi (6 to 60 bar) 90 to 1800 psi (6 to 125 bar) 90 to 3300 psi (6 to 230 bar) 90 to 5000 psi (6 to 350 bar)
% of Spring Pressure Range Actuated at 1 Revolution (Adjustment Type V, H)	24%
Fluid Operating Temp. Range	-4° to 248°F (-20° to +120°C) <i>(Consult factory for usage at temp. outside range.)</i>
Fluid Compatibility	Mineral-based or synthetics with lubricating properties
Viscosity	50 to 2000 SUS (7.4 to 420 cSt)
Filtration	21/19/16 or cleaner (per ISO 4406). Use with filter rated $\beta_{10} \geq 200$.
Installation	No orientation restrictions
Cavity	FC10-3 (see Line Bodies & Cavities section)
Cavity Tools	Rougher: 02580092 Finisher: 02580093
Cartridge Weight	0.44 Lbs. (0.203 kg)
Cartridge Material	Steel with hardened work surfaces. Zinc-plated exposed surfaces. Anodized aluminum knobs. (option H) Buna N or Viton® o-rings, and PTFE back-up rings.
Seal Kits Buna-N Viton®	FS103-N P/N: 03071274 FS103-V P/N: 03049443

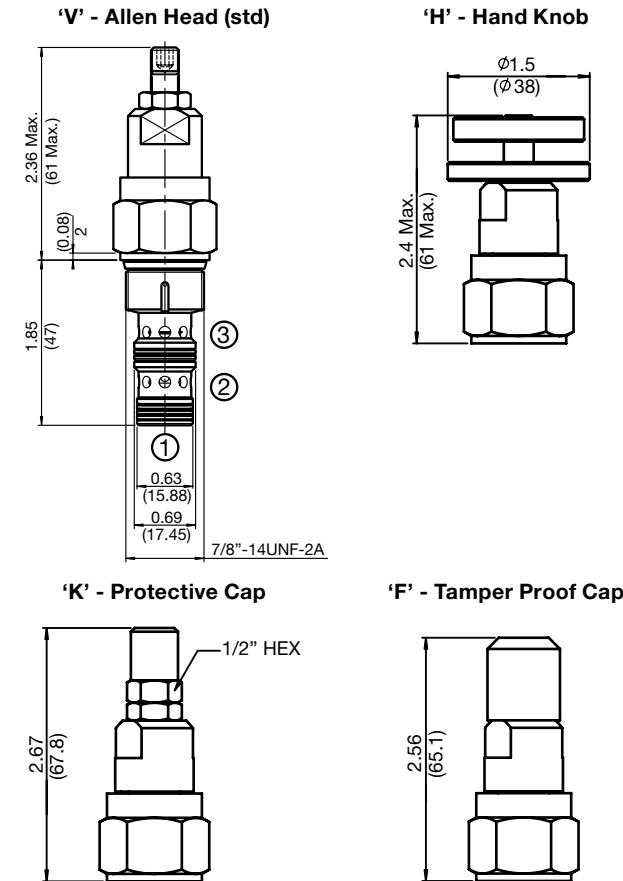
Performance



Dimensions



Adjustment Options



All measurements in inches (mm).
Subject to technical modifications

Model Code

DR10P-01-C-N-180 V 100

Valve Model

Body & Ports

- C = Cartridge only
- AS8 = SAE-8 ports, aluminum body
- SS8 = SAE-8 ports, steel body

Seals

- N = Buna-N
- V = Viton®

Adjustment Range

- 050 = 90 to 500 psi (6 to 35 bar)
- 090 = 90 to 900 psi (6 to 60 bar)
- 180 = 90 to 1800 psi (6 to 125 bar)
- 330 = 90 to 3300 psi (6 to 230 bar)
- 500 = 90 to 5000 psi (6 to 350 bar)

Adjustment Options

- F = Factory pre-set, non-adjustable
(must specify setting below)
- H = Knurled Hand Knob
- K = Allen Head (HEX 5/32") w/ cover cap
- V = Allen Head (HEX 5/32")

Setting (optional)

- (omit) = Set at min. pressure for the range
- XXX = Desired psi ÷ 10

Example: 100 = 1000 psi

Standard Line Bodies*

Code	Part No	Material	Pressure Rating	Weight
FH103-AS8	03038095	Aluminum, anodized	3500 psi (245 bar)	0.60 lb (0.27 kg)
FH103-SS8	03037704	Steel, Zinc plated	6000 psi (420 bar)	1.74 lb (0.79 kg)

*Please refer to Line Bodies & Cavities section for details

PRESSURE CONTROL VALVES

Notes

