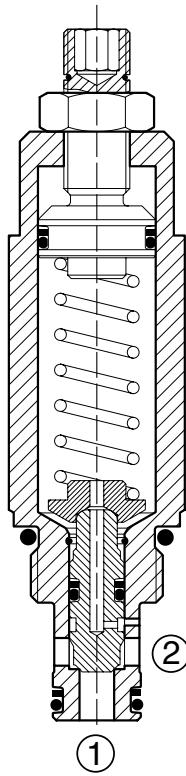
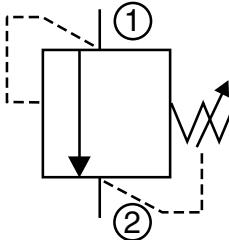


PRESSURE CONTROL VALVES

DB08A-01

Pressure Relief, Direct Acting, Poppet Type

10 gpm (38 l/min) • 6000 psi (420 bar)



Description

A screw-in cartridge, direct acting, poppet type relief valve intended for use as pressure limiting device in hydraulic circuits which require low internal leakage and fast response to pressure changes.

Operation

The DB08A blocks flow from port 1 to port 2 until the pressure setting is reached at port 1 to lift the spring opposed poppet from its seat, allowing flow from port 1 to port 2. Pressure at port 2 is directly additive to valve pressure setting. Flow from port 2 to port 1 is checked.

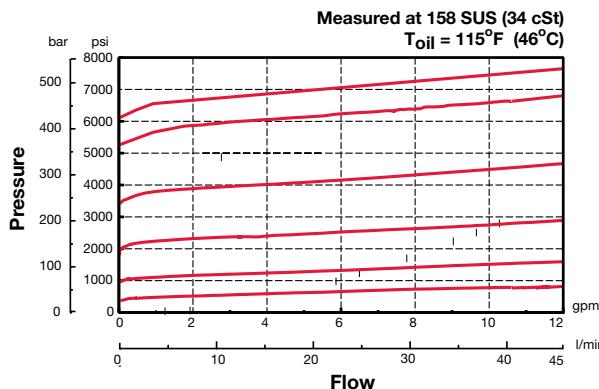
Features

- Spring ranges up to 6000 psi (420 bar)
- Positive stop prevents spring from over adjustment (options V, H)
- Adjustable under full pressure
- Stroke limiting device for enhanced safety
- Fast response
- All external surfaces zinc-plated
- Hardened poppet to ensure minimal wear and extend service life
- One piece body maximizes reliability and minimizes the effects of eccentricity
- Industry common cavity

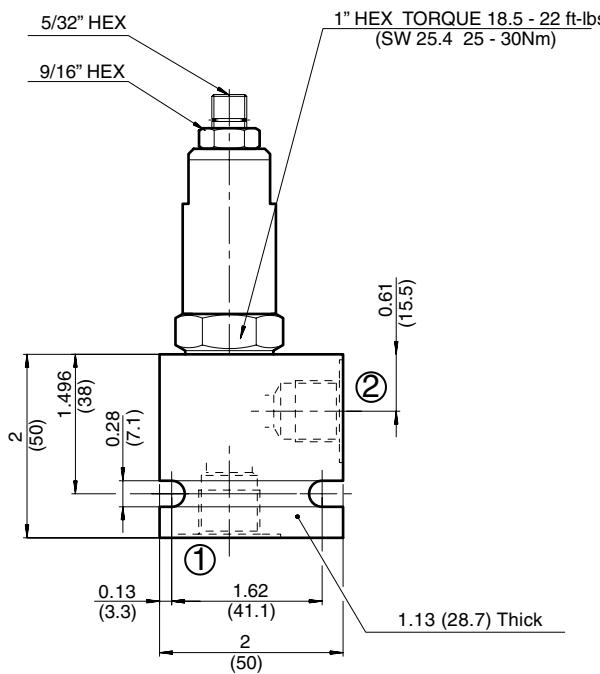
Specifications

Operating Pressure	6000 psi (420 bar)
Nominal Flow	10 gpm (38 l/min)
Internal Leakage	5 drops/min. (0.25 cc/min) max. to 80% of nominal setting
Reseat Pressure (Nominal)	80% of crack pressure
Optional Pressure Ranges	55 to 500 psi (4 to 35 bar) 95 to 900 psi (6.5 to 60 bar) 200 to 1800 psi (14 to 125 bar) 370 to 3300 psi (26 to 230 bar) 560 to 5000 psi (39 to 350 bar) 670 to 6000 psi (47 to 420 bar)
% of Spring Pressure Range Actuated at 1 Revolution (Adjustment Type V, H)	18%
Fluid Operating Temp. Range	-4° to 248°F (-20° to +120°C) (Consult factory for usage at temp. outside range.)
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	FC08-2 (see Line Bodies & Cavities section)
Cavity Tools	Rougher: P/N: 02580090 Finisher: P/N: 02580091
Cartridge Weight	0.49 Lbs. (0.220 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®	FS082-N P/N: 03033920 FS082-V P/N: 03051756

Performance



Dimensions



Model Code

DB08A-01-C-N-330 V 300

Valve Model

Body & Ports

- C = Cartridge only
- AS6 = SAE-6 ports, aluminum body
- SS6 = SAE-6 ports, steel body

Seals

- N = Buna-N
- V = Viton®

Adjustment Range

050	= 55 to 500 psi (4 to 35 bar)
090	= 95 to 900 psi (6.5 to 60 bar)
180	= 200 to 1800 psi (14 to 125 bar)
330	= 370 to 3300 psi (26 to 230 bar)
500	= 560 to 5000 psi (39 to 350 bar)
600	= 670 to 6000 psi (47 to 420 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")

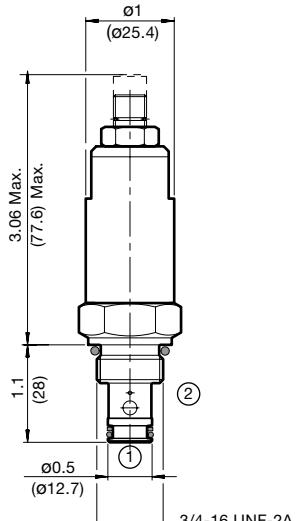
Setting (optional)

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

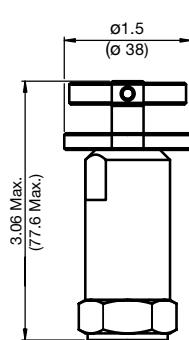
Example: 300 = 3000 psi

Adjustment Options

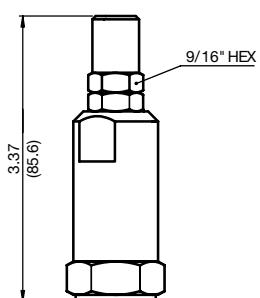
'V' - Allen Head (std)



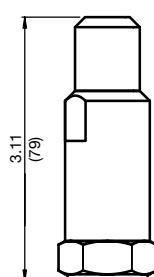
'H' - Hand Knob



'K' - Protective Cap



'F' - Tamper Proof Cap



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

Standard Line Bodies*

Code	Part No	Material	Pressure Rating	Weight
FH082-AS6	03011409	Aluminum, anodized	3500 psi (245 bar)	0.34 lb (0.15 kg)
FH082-SS6	00560917	Steel, Zinc plated	6000 psi (420 bar)	1.00 lb (0.45 kg)

*Please refer to Line Bodies & Cavities section for details