



3.8

35R10-22 TYPE

Relief, Differential Area Poppet

Rated pressure (bar / psi)	241 / 3500
Peak flow (L/min / gpm)	113.6 / 30 (See performance chart)

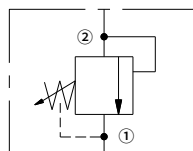
Features

- Adjustments cannot be backed out of the valve
- Optional spring ranges to 241 bar (3500 psi)
- Smooth response to pressure surges
- Industry common cavity
- Hardened poppet and cage for long life

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Symbol



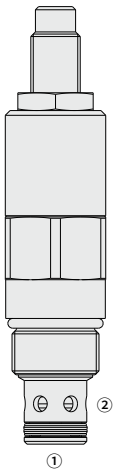
Description

A screw-in, cartridge-style, direct-acting, differential area poppet-type hydraulic relief valve for use as a pressure limiting device in more demanding hydraulic circuits, requiring low hysteresis and low internal leakage.

Operation

The valve blocks flow from ② to ① until sufficient pressure is present at ② to force the poppet from its seat.

The cartridge offers smooth transition in response to load changes in common hydraulic circuits.



(*35R10-22A diagram)

Ordering Code

35R10-22

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-

-

/

Option:
None
1/4 in. Hex Allen Head
Factory Preset Non-Adj.

Blank

A

F

Cartridge Only

0

Adjustment Range:
10.34-41.38 bar
10.34-89.66 bar
17.24-165.52 bar
17.24-241.38 bar

6

13

25

35

Setting (bar):
for example:
25 bar
100 bar

M25

M100

Seals:
Polyurethane (Std.)
Buna N
Fluorocarbon

P

N

V

Setting (psi):
for example:
900 psi
2350 psi

9.0

23.5

Materials

Cartridge:
Weight: 0.25 kg; Steel with hardened work surfaces. Zinc-plated exposed surfaces; Polyurethane (Std.) seal.

Standard Ported Body:
Anodized high-strength aluminum alloy, rated to 240 bar; Ductile iron and steel bodies available; Dimensions may differ, consult factory.

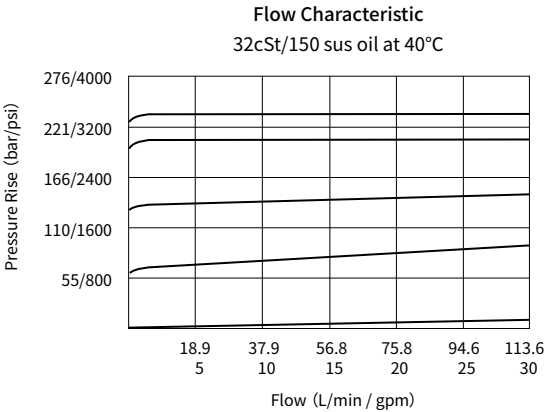
Technical Data

Rated pressure	241 bar (3500 psi)
Peak flow	See performance chart
Pressure rise	0.34 bar / L/min (5 psi/g)
Internal leakage	≤ 5 drops/min @ 85% of nominal setting
Crack pressure defined	bar (psi) evident at 0.95 L/min attained
Standard spring ranges	See the table "Spring Model Code"
Cavity	VC10-2 (See technical reference)
Fluid	Mineral-based or synthetics with lubricating properties
Viscosity range	7.4 to 420 mm ² /s
Temperature range	-40 to 100 °C (Buna N seals)
	-54 to 107 °C (Polyurethane seals)
	-26 to 204 °C (Fluorocarbon seals)
Degree of fluid contamination	The minimum pollution level is ISO4406 level 18/16/13, and level 15/13/11 is recommended to prolong the service life

Spring Model Code	Nominal Factory Rating	Maximum Solid Adjustment
6	10.34-41.38bar (150-600psi)	55.17bar (800psi)
13	10.34-89.66bar (150-1300psi)	117.24bar (1700psi)
25	17.24-165.52bar (250-2400psi)	206.9bar (3000psi)
35	17.24-241.38bar (250-3500psi)	296.55bar (4300psi)

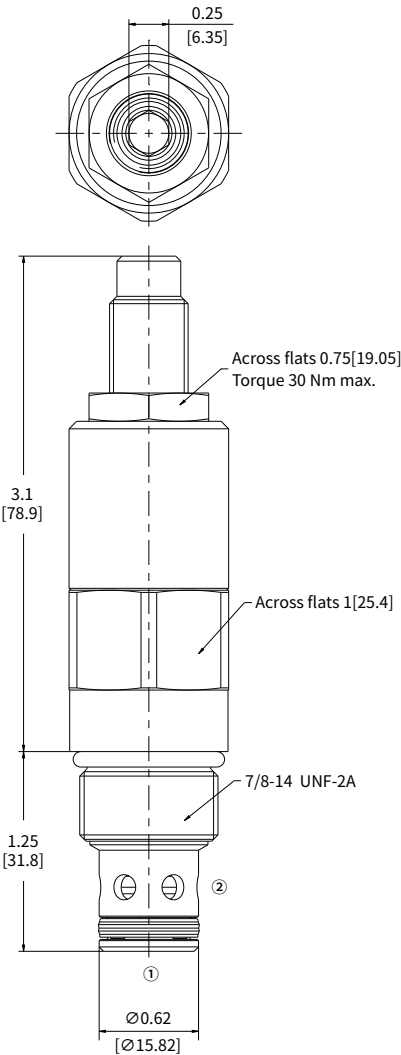
* Due to manufacturing tolerances, it may be possible to adjust the valve either lower or higher than the nominal ratings shown below.

Performance (Cartridge Only)

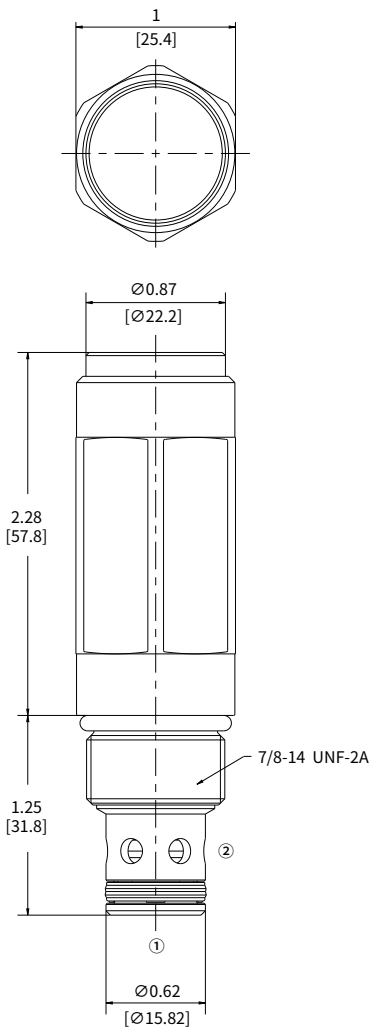


Dimensions

Adjustment Option A



Adjustment Option F



INCH
MILLIMETER