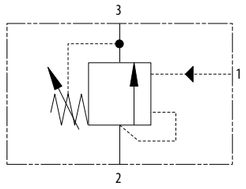
PUV3-10 - Pilot unloading valve

Poppet, internal or external pilot operated, normally closed, unloading
4 L/min (1 USgpm) • 210 bar (3000 psi)



Operation

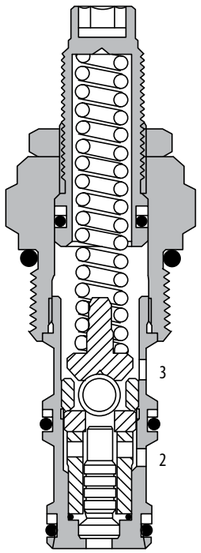
This valve blocks flow from port 2 to port 3, until either the predetermined spring setting has been reached, or an external pilot has been applied to port 1. At this time flow is then allowed from port 2 to port 3.

The valve will reseat at a percentage of the unloading setting as called out in the model code. This valve can be used alone for low flow applications or used as the pilot stage of a two-stage unloader valve (see application example). The main stage of the unloader is typically a DPS2 logic element.

Features

Hardened poppet and seat. Very low leakage when piloted closed without exerting excessive force on the seat.

Sectional view



Description

The PUV3 is a two-way, normally closed, externally or internally pilot operated screw-in cartridge type pilot unloading valve.

Performance data

Ratings and specifications

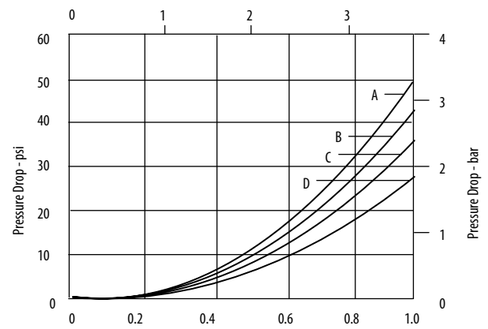
Performance data is typical with fluid at 21,8 cSt (105 SUS) and 49° C (120° F)	
Typical application pressure (all ports)	210 bar (3000 psi)
Cartridge fatigue pressure (infinite life)	210 bar (3000 psi)
Rated flow	4 L/min (1 USgpm)
Unloading pressure adjustment range	20-210 bar (300-3000 psi)
Cavity	C-10--3
Standard housing materials	Aluminum
Temperature range	-40° to 120°C (-40° to 248°F)
Fluids	All general purpose hydraulic fluids such as: MIL--H--5606, SAE 10, SAE 20, etc.
Filtration	Cleanliness Code 18/**16/13**
Weight cartridge only	0,15 kg (0.33 lbs)
Seal kits	565812 Buna--N 889611 Viton®

Viton is a registered trademark of E.I. DuPont

Pressure drop curves

Cartridge only

Piloted full open



A - 75%
B - 80%
C - 85%
D - 90%

Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

PUV3-10 - Pilot unloading valve

Poppet, internal or external pilot operated, normally closed, unloading
4 L/min (1 USgpm) • 210 bar (3000 psi)

Model code

PUV3 – 10 (V) – * – ** – **– **/ – 00**

1 2 3 4 5 6 7 8 9

1 Function

PUV3 - Pilot unloading valve

2 Size

10 - 10 size

3 Seal

Blank - Buna-N
V - Viton®

4 Adjustment

C - Cap
S - Screw

5 Port size

0 - Cartridge only

Code	Port size	Housing number	
		Aluminum light duty	Aluminum fatigue rated
6T	SAE 6	566162	–
3B	3/8" BSPP	02--173358	–
6H	SAE 6	–	876704
8H	SAE 8	–	876711
2G	1/4" BSPP	–	876705
3G	3/8" BSPP	–	876714

See section J for housing.

6 Loading (closing) pressure, as percentage of unloading pressure

75 - 75%
80 - 80%
85 - 85%
90 - 90%

7 Pressure range

Note: Code based on pressure in psi.
15 - 20-100 bar. (300-1500 psi)
30 - 100-210 bar. (1500-3000 psi)

8 Unloading pressure setting

Within ranges in 7
Blank - Normal factory setting at approximate mid-range. User requested settings in 3,45 bar (50 psi) steps, Coded as in the following examples:
10 - 70 bar (1000 psi)
9.5 - 65 bar (950 psi)

9 Special features

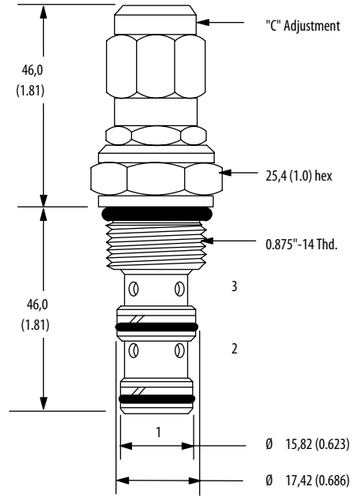
00 - None
(Only required if valve has special features, omitted if "00.")

Dimensions

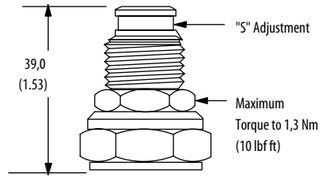
mm (inch)

Torque cartridge in aluminum housing to 47-54 Nm (35-40 ft. lbs).

Cartridge only



Installation drawing



Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.