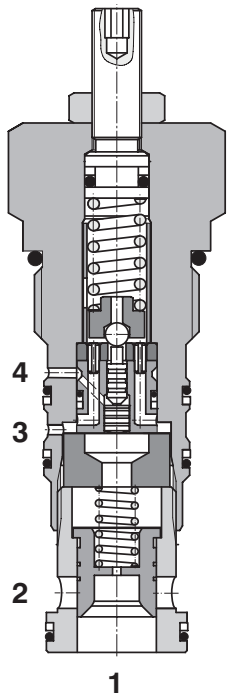
Unloading Valve, External Drain, Spool-Type, Pilot-Operated

SUD6A-V4/I

1-5/16-12 UNF • Q_{max} 200 l/min (53 GPM) • p_{max} 350 bar (5100 PSI)

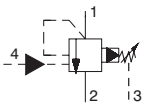


Technical Features

- Accumulator charging valve / low pressure pump unloading valve to tank in double pump systems
- Excellent stability throughout flow range with rapid response to dynamic pressure changes
- Low hysteresis, accurate pressure control and low pressure drop
- Wide pressure range up to 350 bar
- Hardened precision parts
- Sharp-edged steel seats for dirt-tolerant performance
- Leak-free closing, suitable for fast cycling with long life
- Adjustable by allen key
- In the standard version, the valve is zinc-coated for 240 h protection acc. to ISO 9227

Functional Description

Input pressure acts on port 1 of the valve and system pressure operates on the pilot port 4. When the pressure at port 1 rises to the valve setting, the relief section opens and the system pressure acts on the pilot piston to hold the valve in the open position. The ratio between the pilot piston diameter and the seat diameter of the relief valve pilot section ensures that the valve remains in the fully open position until the system pressure drops to approximately 85% of the unload pressure. The valve has a drain port (3) which allows unused by-pass oil to be used for a secondary circuit.

Symbol	

Technical Data

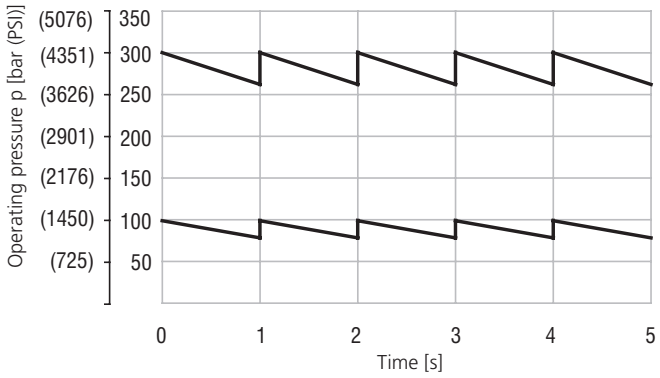
Valve size / Cartridge cavity		1-5/16-12 UNF-2A / V4
Max. flow	l/min (GPM)	200 (52.8)
Max. operating pressure	bar (PSI)	350 (5080)
Differential unload/reload	%	10 - 15
Fluid temperature range (NBR)	°C (°F)	-20... + 90 (-4 ... +194)
Max. leakage	ml/min	35
Mass	kg (lbs)	0.74 (1.63)

	Datasheet	Type
General information	GI_0060	Products and operating conditions
Cavity details	SMT_0019	SMT-V4*
Spare parts	SP_8010	

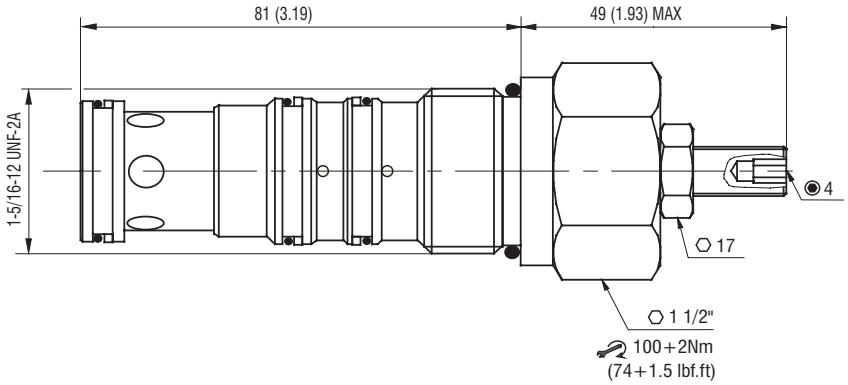
Characteristics measured at ν = 32 mm²/s (156 SUS)

Typical valve performance

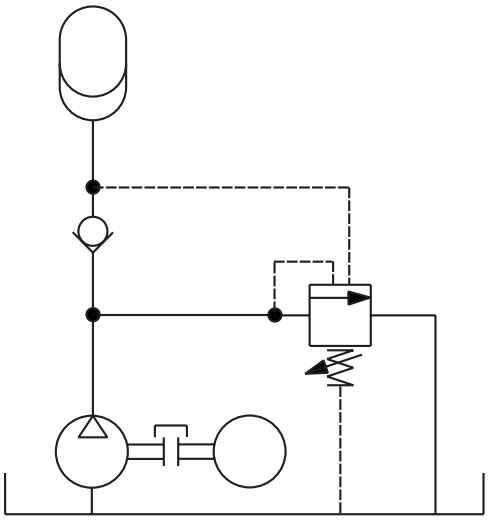
Pump unload to tank



Dimensions in millimeters (inches)



Application Example



The valve is used to unload a pump to the tank when the pressure in a separate part of the circuit reaches a pre-set value.
The valve closes when the pressure has dropped to approximately 85% of the unload pressure, causing the circuit to reload.
The most common application is to maintain the pressure in an accumulator, which may be used in an emergency to operate critical hydraulic functions.

Ordering Code

SUD6A-V4/I □ □ - □

Unloading valve, external drain, spool-type, pilot-operated
1-5/16-12 UNF

Surface treatment
A zinc-coated (ZnCr-3), ISO 9227 (240 h)

Pressure range
30 - 200 bar (440 - 2900 PSI) **20**
150 - 350 bar (2180 - 5080 PSI) **35**

Seals
No designation NBR