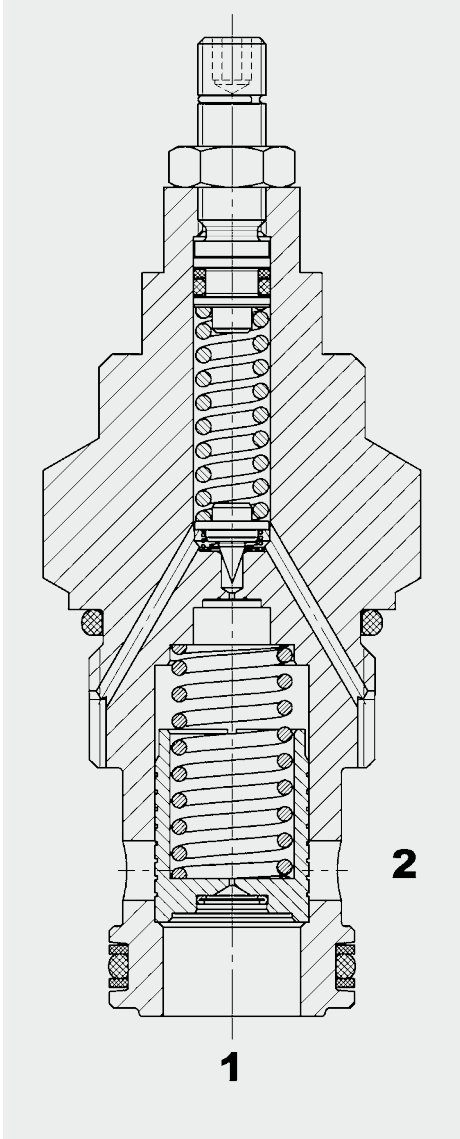


FUNCTION



The DB16P is a pilot-operated, spool type pressure relief valve. If the pressure at port 1 exceeds the pressure setting, the pilot poppet opens, creating a small flow over the orifice of the pilot stage to the tank. The pressure drop across the orifice lifts the main spool against a light spring, opening the connection between port 1 and port 2.

Pressure Relief Valve Spool Type, Pilot-Operated SAE-16 Cartridge – 350 bar DB16P

UNF

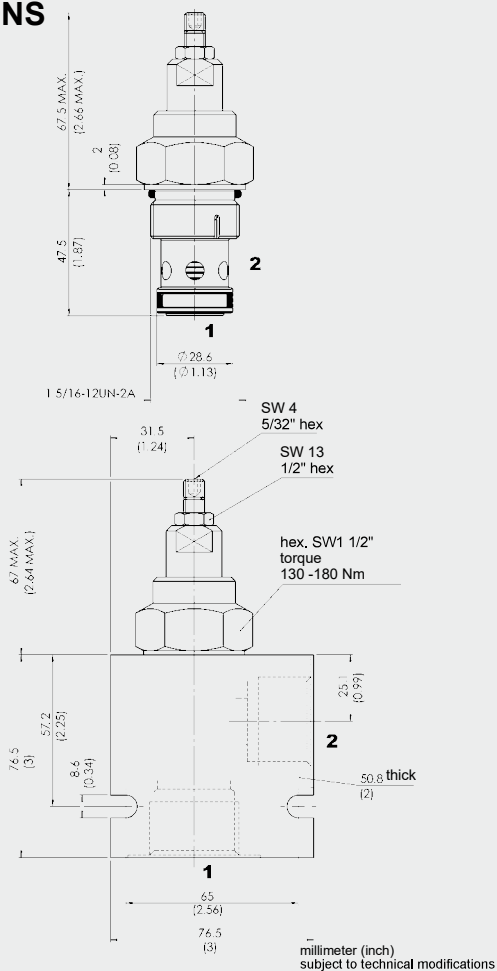
FEATURES

- External surfaces zinc-plated and corrosion-proof
- Hardened and ground internal valve components to ensure minimal wear and extended service life
- Excellent stability throughout the entire flow range
- Low pressure drop due to CFD optimized flow path
- Screen protected metering orifice enhances safety
- Optional spring ranges up to 345 bar
- Adjustable throughout flow range
- Quick response

SPECIFICATIONS

Operating pressure:	max. 350 bar
Nominal flow:	max. 300 l/min
Operating pressure ranges:	5 to 35 bar 5 to 60 bar 5 to 125 bar 5 to 230 bar 5 to 345 bar
Internal leakage:	max. 1300 ml/min at 80 % of p _{Nom. pressure}
Media operating temperature range:	min. -30 °C to max. +100 °C
Ambient temperature range:	min. -30 °C to max. +100 °C
Operating fluid:	Hydraulic oil to DIN 51524 Part 1 and 2
Viscosity range:	min. 7.4 mm ² /s to max. 420 mm ² /s
Filtration:	Class 21/19/16 to ISO 4406 or cleaner
Installation:	No orientation restrictions
Materials:	Valve body: free-cutting steel Spool: hardened and ground steel Seals: NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C) Support rings PTFE
Cavity:	FC16-2
Weight:	0.47 kg

DIMENSIONS



MODEL CODE

DB16P-01 - C - N - 180 V 100

Basic model
Pressure relief valve, UNF

Body and Ports*

C = Cartridge only

SB8 = G1 ports, steel body

AB8 = G1 ports, aluminium body

Seals

N = NBR

V = FKM

Setting pressure range

050 = 5 to 35 bar

090 = 5 to 62 bar

180 = 5 to 124 bar

330 = 5 to 228 bar

500 = 5 to 345 bar

Other pressure ranges on request

Type of adjustment

V = Allen head (hex. 5/32")

H = Knob adjustment

F = Factory preset, non adjustable

K = Allen head (hex. 5/32") with protective cap

Opening pressure setting

No details = no setting, spring relaxed

100 = customer-specific opening pressure on request

Standard models

Model code	Part No.
DB16P-01-C-N-090V	3010799
DB16P-01-C-N-330V	3010800
DB16P-01-C-N-500V	3010794

*Standard in-line bodies

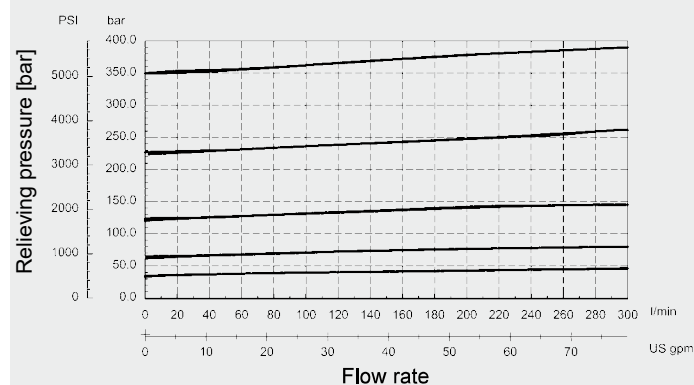
Code	Part No.	Material	Ports	Pressure
FH162-SB8	3032496	Steel, zinc-plated	G1	420 bar
FH162-AB8	3037193	Aluminium, anodized	G1	210 bar

Seal kits

Code	Material	Part No.
FS162-N Seal Kit	NBR	3052427
FH162-V Seal kit	FKM	3051758

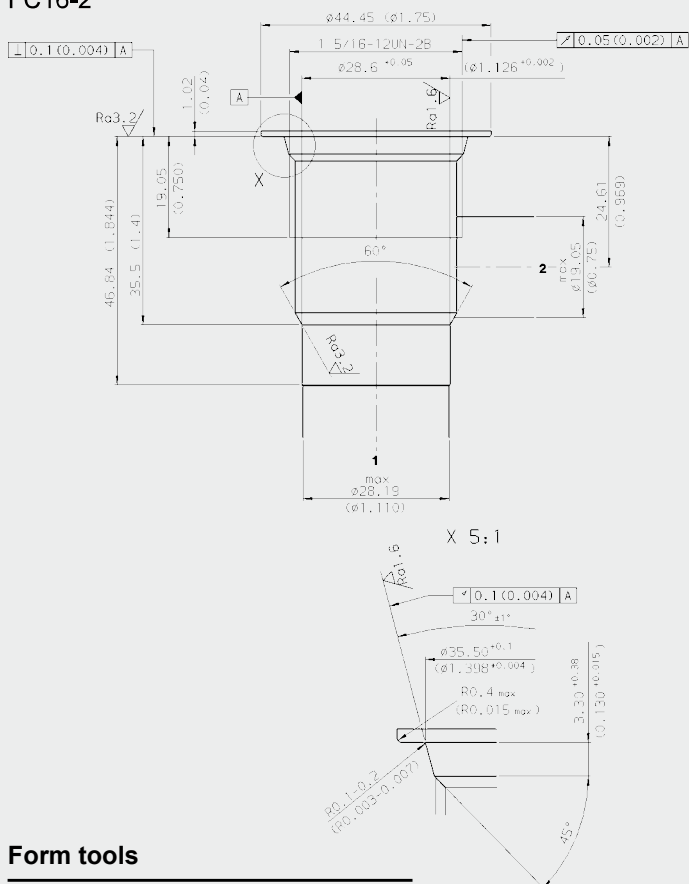
PERFORMANCE

Measured at $v = 34 \text{ mm}^2/\text{s}$, $T_{\text{Oil}} = 46^\circ\text{C}$



CAVITY

FC16-2



Form tools

Tool	Part No.
Rougher FC16-2	176218
Reamer FC16-2	176219

millimeter (inch)
subject to technical modifications