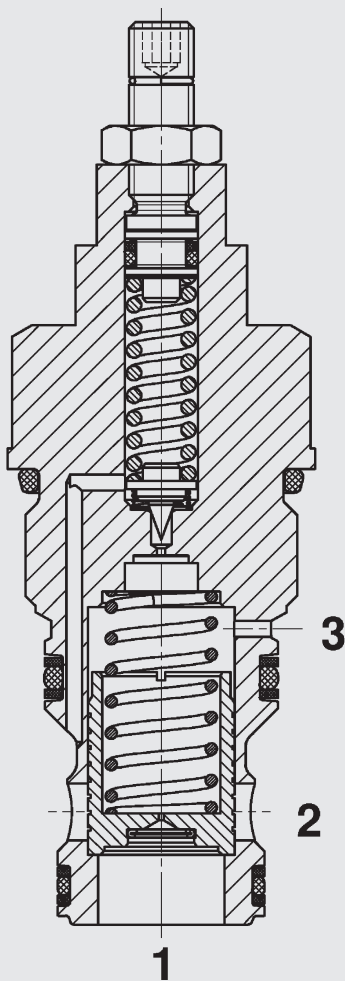


up to 300 l/min
up to 350 bar

FUNCTION



The pressure relief valve is a pilot operated, spool valve with a remote control option via the additional port 3. If the pressure across port 1 exceeds the pre-set value, the pilot-stage opens and oil flows from behind the main spool to the tank port 2. The resulting pressure differential allows the main spool to lift against the reset-spring and allows oil to flow from port 1 to port 2. Additionally the valve may switch the system to unpressurized flow by draining a flow over port 3.

Pressure Relief Valve Spool type, pilot-operated With Remote Control Option UNF Cartridge – 350 bar DB16SPF-01

FEATURES

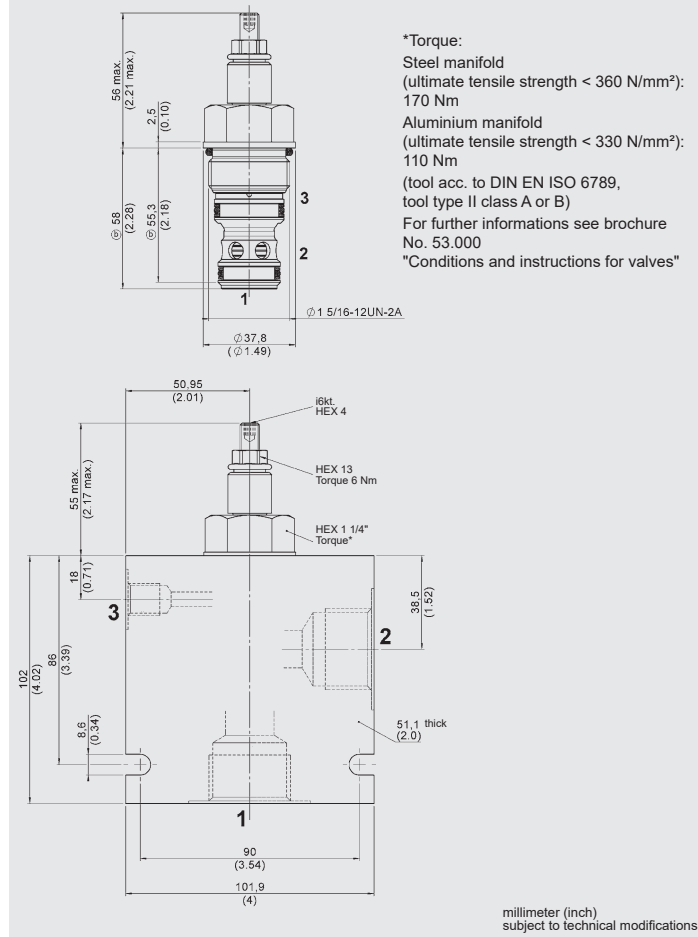
- Additional port for remote control option, e.g. in combination with a solenoid valve the system may be switched to unloaded flow
- Quick response
- Good stability across the whole pressure and flow range
- Different pressure ranges up to 350 bar available
- Adjustable throughout flow range
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1.000 h Salt spray test)

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. 1800 ml/min at 80 % p _{Nom.}	
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, 2 and 3	
Viscosity range:	min. 10 mm ² /s to max. 420 mm ² /s	
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner	
Installation:	No orientation restrictions	
Material:	Valve body:	free-cutting steel
	Spool:	hardened and ground steel
	Seals:	NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C)
	Back-up rings:	PTFE
Cavity:	FC16-S3	
Weight:	0.5 kg	

* see "Conditions and instructions for valves" in brochure 53.000

DIMENSIONS



MODEL CODE

DB16SPF - 01 - C - N - 500 V 327

Basic model

Pressure relief valve with
 remote control option, UNF

Type

01 = standard

Body and ports*

C = cartridge only

Seals

N = NBR (standard)

V = FKM

Setting pressure range

050 = 5 to 35 bar

090 = 5 to 62 bar

180 = 5 to 125 bar

330 = 5 to 230 bar

500 = 5 to 345 bar

Other pressure ranges on request

Type of adjustment

V = Allen head

Other adjustment types on request

Opening pressure setting

No details = no setting, spring relaxed

327 = 3270 PSI (210 bar)

Customer-specific opening pressure on request

Standard models

Model code	Part No.
DB16SPF-01-C-N-050V	3476292
DB16SPF-01-C-N-090V	3476291
DB16SPF-01-C-N-180V	3476290
DB16SPF-01-C-N-330V	3476289
DB16SPF-01-C-N-500V	3476288

Other models on request

*Standard in-line bodies

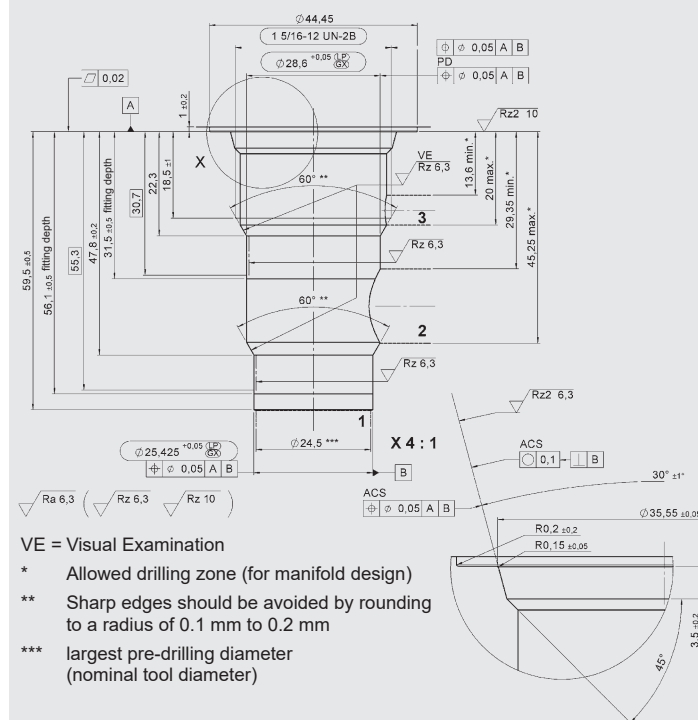
Code	Part No.	Material	Ports	Pressure
FH163S3-SB8	3246967	Steel, zinc-plated	G1"	350 bar

Seal kits

Code	Material	Part No.
FS UNF 16/N SEAL KIT	NBR	3651395
FS UNF 16/V SEAL KIT	FKM	3651396

CAVITY

FC16-S3



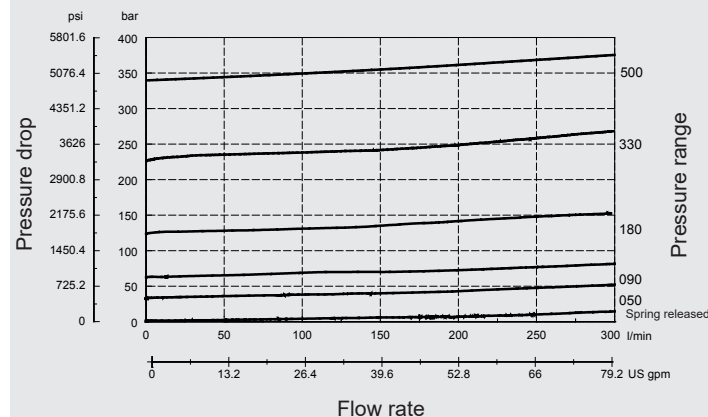
Form tools

Tool	Part No.
Countersink	176375
Form tool	176374
Reamer	176376

millimeter (inch)
 subject to technical modifications

TYPICAL PERFORMANCE

Measured at $v = 33 \text{ mm}^2/\text{s}$, $T_{oil} = 46 \text{ }^\circ\text{C}$



NOTE

The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department. Subject to technical modifications.

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