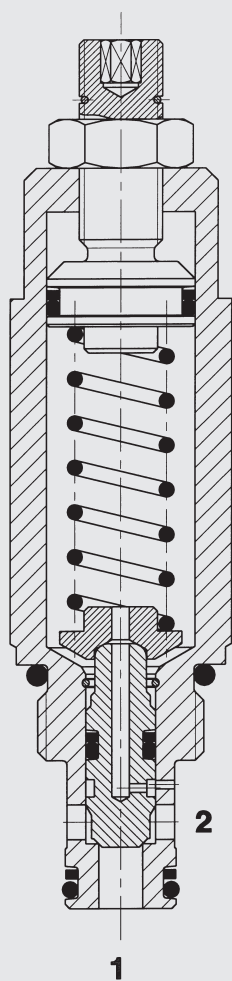


up to 38 l/min  
up to 420 bar

## FUNCTION



The pressure relief valve is a direct-acting, spring-loaded poppet valve. Its function is to relieve pressure in the system. The spring exerts a force on the poppet and presses it on the valve seat. On the opposite side, the system pressure exerts force on port 1 of the valve. Only if the hydraulic force exceeds the pre-set spring tension does the valve open and flow is diverted to tank via port 2. This continues until the system pressure is equal to the spring tension and the valve closes again. Attention: A pressure at port 2 increases the pre-set pressure!

## Pressure Relief Valve poppet type, direct-acting UNF Cartridge – 420 bar DB08A-01

### FEATURES

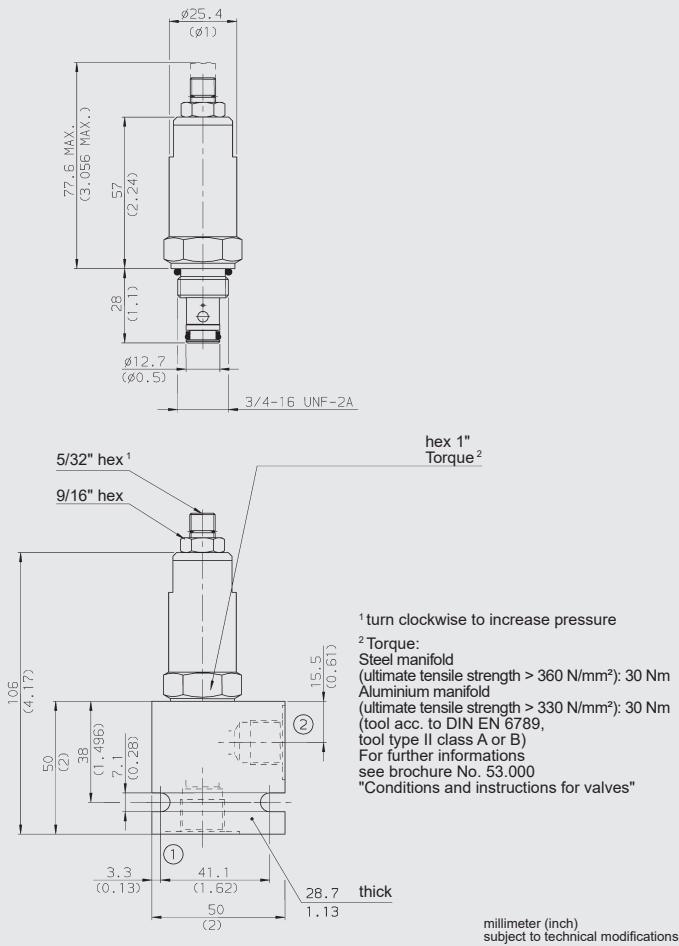
- Quick response
- Max. stroke limiter
- Variety of pressure ranges up to 420 bar
- Adjustable throughout flow range
- Compact design
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1000 h Salt spray test)

### SPECIFICATIONS\*

Operating pressure:	max. 420 bar
Tank pressure:	max. 100 bar
Nominal flow:	max. 38 l/min
Operating pressure ranges:	5 to 35 bar 8 to 62 bar 10 to 124 bar 10 to 228 bar 20 to 345 bar 25 to 420 bar
Leakage:	leak-free max. 5 drops/min (0.25 cm <sup>3</sup> /min) at 80% of setting 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, 2 and 3
Viscosity range:	min. 7.4 mm <sup>2</sup> /s to max. 420 mm <sup>2</sup> /s
Filtration:	Class 21/19/16 to ISO 4406 or cleaner
MTTF <sub>d</sub> :	150 - 1200 years, according to DIN EN ISO 13849-1
Installation:	No orientation restrictions
Materials:	Valve body: steel Poppet: hardened and ground steel Seals: NBR (standard) FKM (optional, media temperature range -20 °C to +120 °C) Back-up rings: PTFE
Cavity:	FC08-2
Weight:	0.22 kg

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

## DIMENSIONS



## MODEL CODE

**DB08A-01 - C - N - 330 V 300**

### Basic model

Pressure relief valve, UNF

### Body and ports\*

C = Cartridge only

SB3 = G3/8 ports, steel body

AB3 = G3/8 ports, aluminium body

### Seals

N = NBR (standard)

V = FKM

### Setting pressure range

050 = 5 to 35 bar ( 500 PSI)

090 = 8 to 62 bar ( 900 PSI)

180 = 10 to 124 bar (1800 PSI)

330 = 10 to 228 bar (3300 PSI)

500 = 20 to 345 bar (5000 PSI)

600 = 25 to 420 bar (6000 PSI)

Other pressure ranges on request

### Adjustment option

V = Allen head (hex 5/32")

H = Knob adjustment

F = Factory preset, non-adjustable

### Opening pressure setting

No details = no setting, spring relaxed

300 = opening pressure in PSI pre-set by manufacturer

Setting on request

## Standard models

Model code	Part No.
DB08A-01-C-N-050V	560416
DB08A-01-C-N-090V	560417
DB08A-01-C-N-180V	560418
DB08A-01-C-V-330V	3010145
DB08A-01-C-V-500V	3010146
DB08A-01-C-V-600V	3010147

## \*Standard in-line bodies

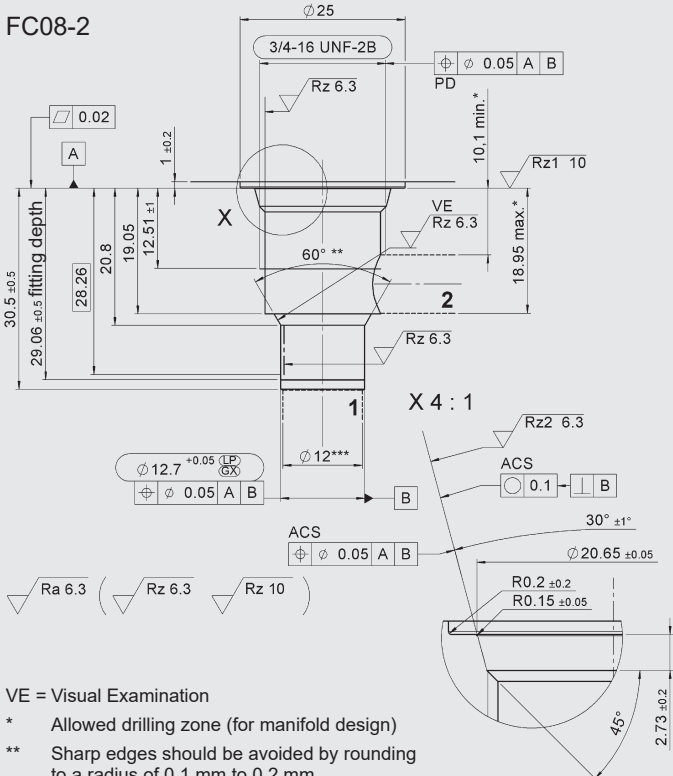
Code	Part No.	Material	Ports	Pressure
FH082-SB3	560919	Steel, zinc-plated	G3/8"	420 bar
FH082-AB3	3011423	Aluminium, clear anodized	G3/8"	210 bar

## Seal kits

Code	Material	Part No.
FS UNF 08/N	NBR	3651385
FS UNF 08/V	FKM	3651356

## CAVITY

FC08-2



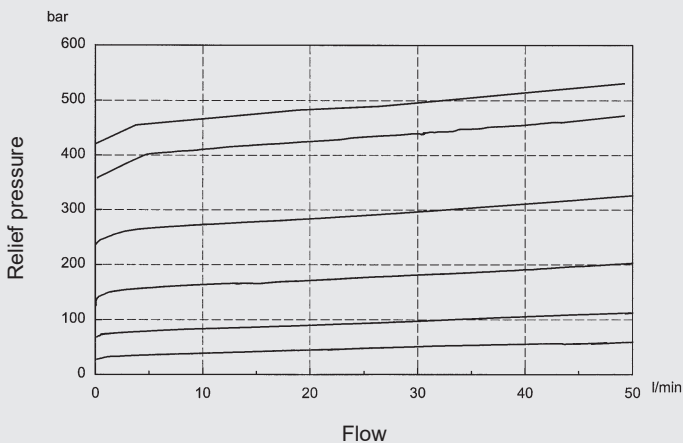
## Form tools

Tool	Part No.
Rougher FC08-2	175473
Reamer FC08-2	175474

millimeter (inch) subject to technical modifications

## TYPICAL PERFORMANCE

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



## 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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