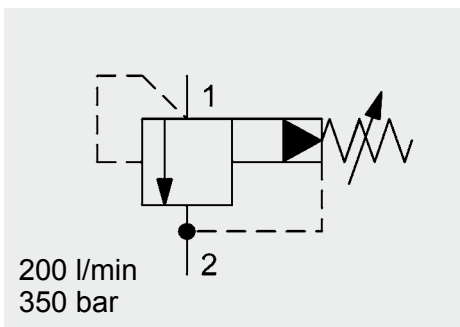
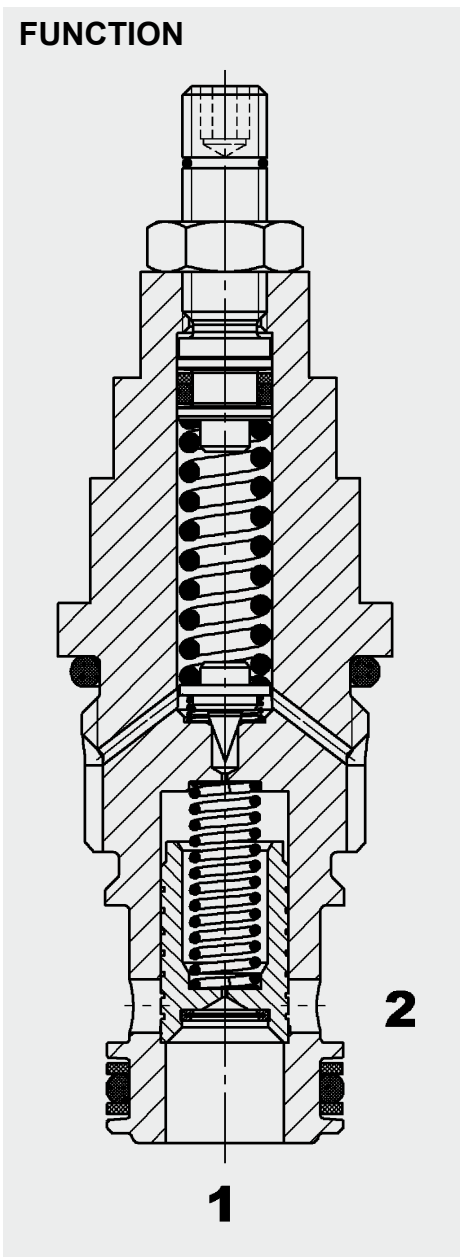




FUNCTION



The DB12P 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-12 Cartridge – 350 bar DB12P

UNF

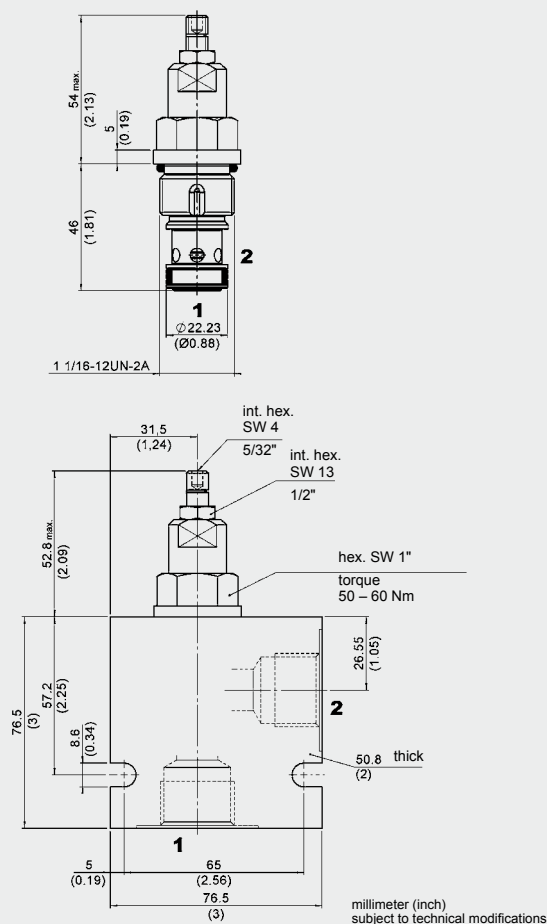
FEATURES

- 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
- Compact design

SPECIFICATIONS

Operating pressure:	max. 350 bar
Nominal flow:	max. 200 l/min
Setting pressure ranges:	up to 35 bar up to 63 bar up to 125 bar up to 230 bar up to 345 bar
Internal leakage:	less than 0.5 l/min at 350 bar
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)
Cavity:	FC12-2
Weight:	0.26 kg

DIMENSIONS



MODEL CODE

DB12P-01 - C - N - 180 V 100

Basic model _____
Pressure relief valve, UNF

Body and ports* _____
C = cartridge only
SB6 = G3/4 ports, steel body
AB6 = G3/4 ports, aluminium body

Seals _____

N = NBR
V = FKM

Setting pressure range _____

050 = to 35 bar
090 = to 62 bar
180 = to 125 bar
330 = to 230 bar
500 = 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

Pressure value = customer-specific opening pressure on request

Standard models

Model code	Part No.
DB12P-01-C-N-090V	3047311
DB12P-01-C-N-330V	3047313
DB12P-01-C-N-500V	3047314

*Standard in-line bodies

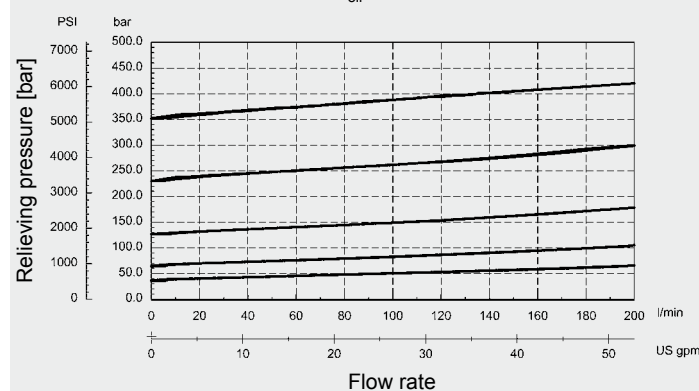
Code	Part No.	Material	Ports	Pressure
FH122-SB6	3053782	Steel, zinc-plated	G3/4	420 bar
FH122-AB6	3053843	Aluminium, anodized	G3/4	210 bar

Seal kits

Code	Material	Part No.
FH122-N Seal kit	NBR	3071298
FH122-F Seal Kit	FKM	3071299

PERFORMANCE

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



NOTE

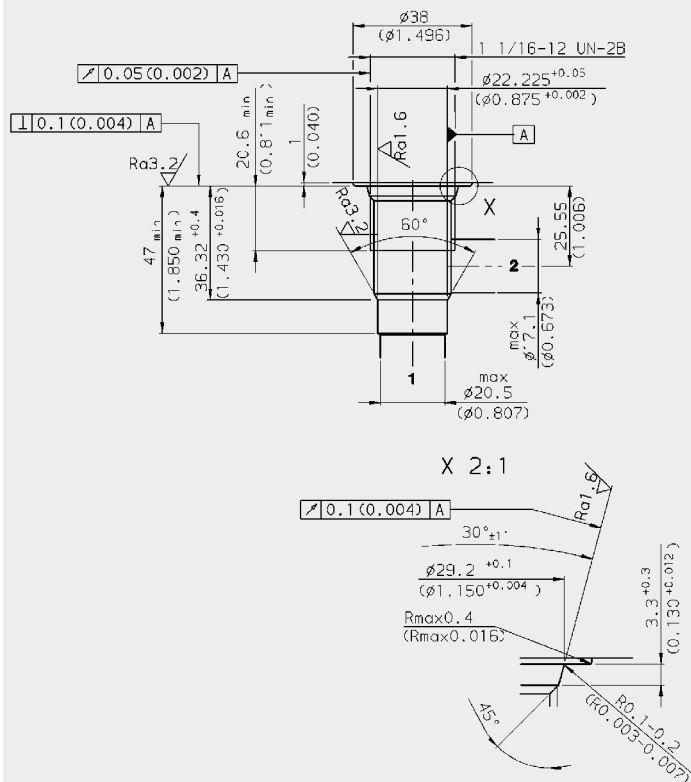
The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department. Subject to technical modifications.

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CAVITY

FC12-2



Form tools

Tool	Part No.
Countersink FC12-2	176951
Reamer FC12-2	176952

millimeter (inch)
subject to technical modifications