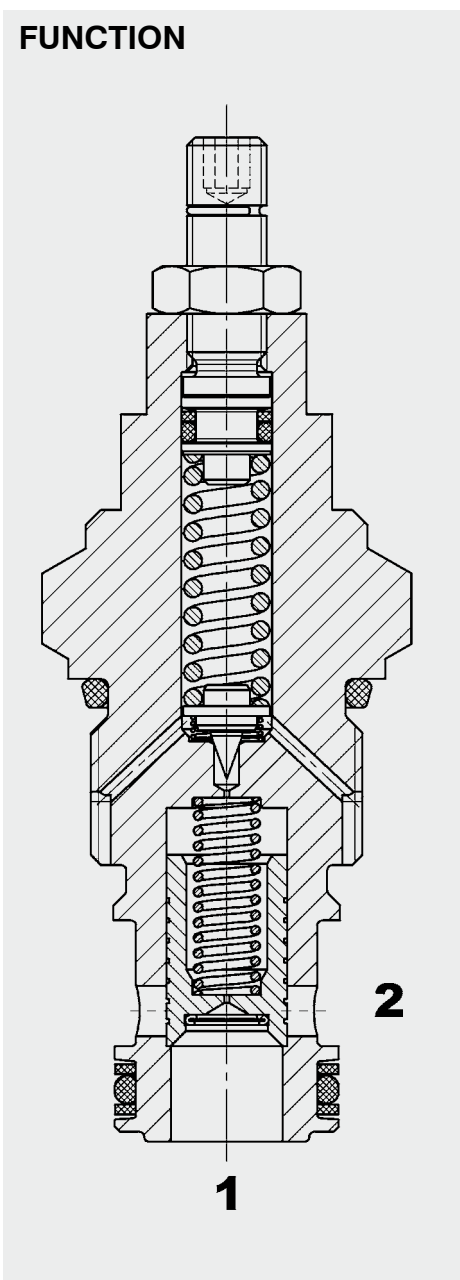


## FUNCTION



The DB12P is a pilot-operated pressure relief valve. If pressure at port 1 exceeds the pressure setting the pilot poppet opens, creating a small flow across the orifice in the main spool. The pressure drop over the orifice lifts the main spool against a light spring, opening a connection from port 1 to port 2.

## Pressure Relief Valve SAE 12-Cartridge – 350 bar DB12P-01 Spool Type - Pilot Operated

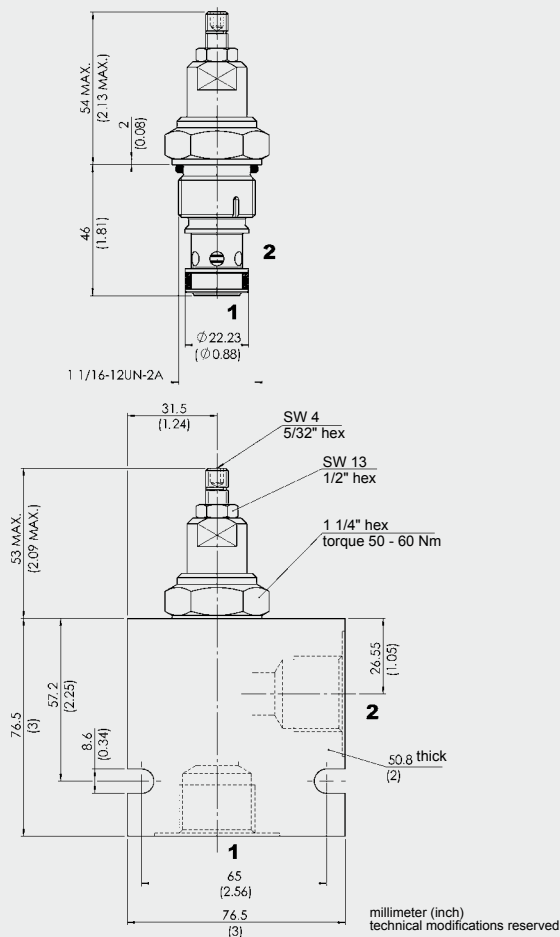
### FEATURES

- All surfaces zinc-plated and corrosion proof
- All valve parts made of high-strength steel with hardened and ground components to ensure minimal wear and to extend service life
- Rigid design using one-piece body minimizes the effect of eccentricity and maximizes reliability
- Excellent stability throughout flow range
- Low pressure drop by CFD optimized flow-path
- Screen protected measuring orifice enhances safety
- Optional spring ranges up to 345 bar
- Adjustable across entire pressure range
- Quick response
- Compact design

### SPECIFICATIONS

|                                    |  |
|------------------------------------|--|
| Operating pressure:                | 350 bar  |
| Nominal flow:                      | 200 l/min  |
| Operating pressure ranges:         | up to 35 bar<br>up to 60 bar<br>up to 125 bar<br>up to 230 bar<br>up to 345 bar            |
| Internal leakage:                  | less than 0.5 l/min at 350 bar   |
| Media operating temperature range: | -20 °C to +120 °C  |
| Ambient temperature range:         | -20 °C to +80 °C   |
| Fluids:                            | Mineral-based or synthetics with lubricating properties                                    |
| Viscosity:                         | 7.4 to 420 cSt   |
| Filtration:                        | Class 21/19/16 according to ISO 4406 or cleaner  |
| Installation:                      | No orientation restrictions  |
| Material:                          | Valve body: carbon steel<br>Spool: carbon steel<br>Seals: NBR (standard)<br>FKM (optional) |
| Cavity:                            | FC12-2   |
| Weight:                            | 265 g  |

## DIMENSIONS



## MODEL CODE

**DB12P-01 - C - N - 180 V 100**

**Basic Model**

**Body and Ports\***

C = Cartridge only  
SB6 = 3/4 BSP ports, steel body  
SS12 = SAE-12 ports, steel body  
AB6 = 3/4 BSP ports, aluminium body  
AS12 = SAE-12 ports, aluminium body

**Seals**

N = NBR  
V = FKM

**Spring range**

050 = up to 35 bar  
090 = up to 60 bar  
180 = up to 125 bar  
330 = up to 230 bar  
500 = up to 345 bar

**Adjustment option**

V = Allen head (HEX 5/32")  
H = Knob adjustment  
F = Factory preset, non adjustable  
K = Allen head (HEX 5/32") with cover cap

**Setting**

Model code = desired psi ÷ 10

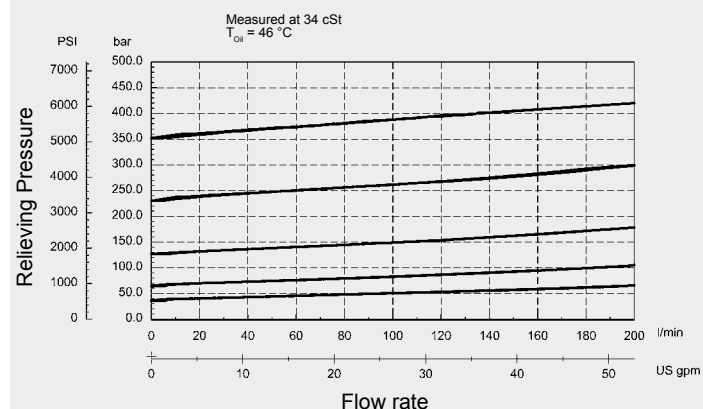
### Standard models

| Model code        | Material no. |
|-------------------|--------------|
| DB12P-01-C-N-090V | 3047311      |
| DB12P-01-C-N-330V | 3047313      |
| DB12P-01-C-N-500V | 3047314      |

### \* Standard Line Bodies

| Code       | Part No | Material                  | Ports   | Pressure |
|------------|---------|---------------------------|---------|----------|
| FH122-SB6  | 3053782 | Steel, zinc-plated        | 3/4 BSP | 420 bar  |
| FH122-SS12 | 3053772 | Steel, zinc-plated        | SAE-12  | 420 bar  |
| FH122-AB6  | 3053843 | Aluminium, clear anodized | 3/4 BSP | 245 bar  |
| FH122-AS12 | 3053845 | Aluminium, clear anodized | SAE-12  | 245 bar  |

## PERFORMANCE

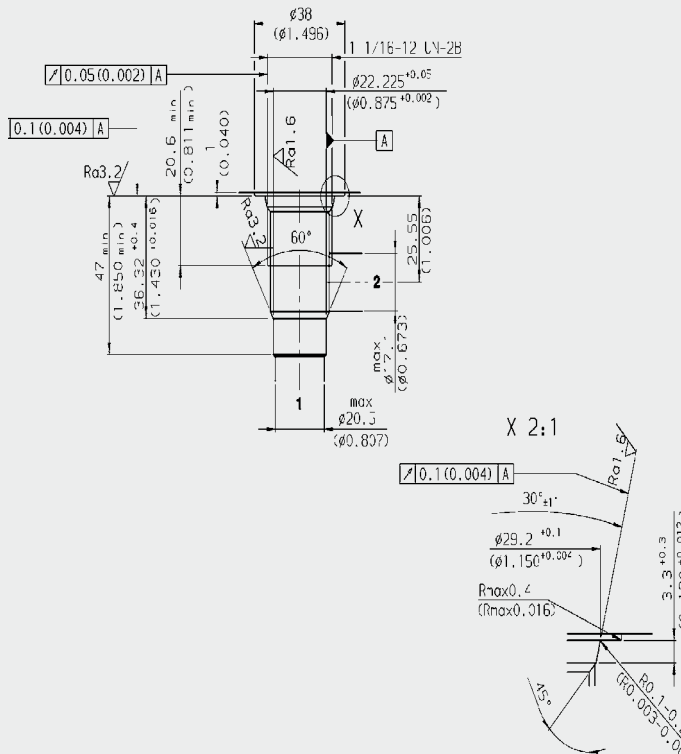


### NOTE

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.

## CAVITY

FC12-2



### Form tools

| Tool            | Part No        |
|-----------------|----------------|
| Rougher FC12-2  | in preparation |
| Finisher FC12-2 | in preparation |

millimeter (inch)  
technical modifications reserved

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