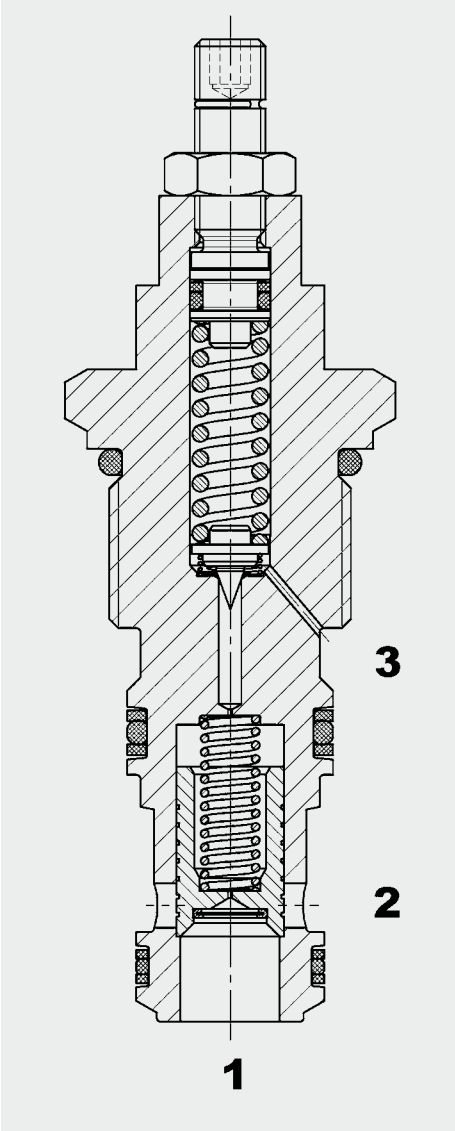


## FUNCTION



The DB12121PE is a pilot-operated, spring-loaded spool valve with a pilot drain at port 3. This means that any pressure at port 2 has no influence on pressure adjustment. If the pressure at port 1 exceeds the pre-set spring tension, the pilot-stage opens and oil flows from behind the main spool to tank port 3. The resulting pressure differential causes the main spool to move against the reset-spring and allows oil to flow from port 1 to port 2.

## Pressure Relief Valve Spool Type, Pilot-Operated With Pilot Drain Metric Cartridge – 350 bar DB12121PE-01

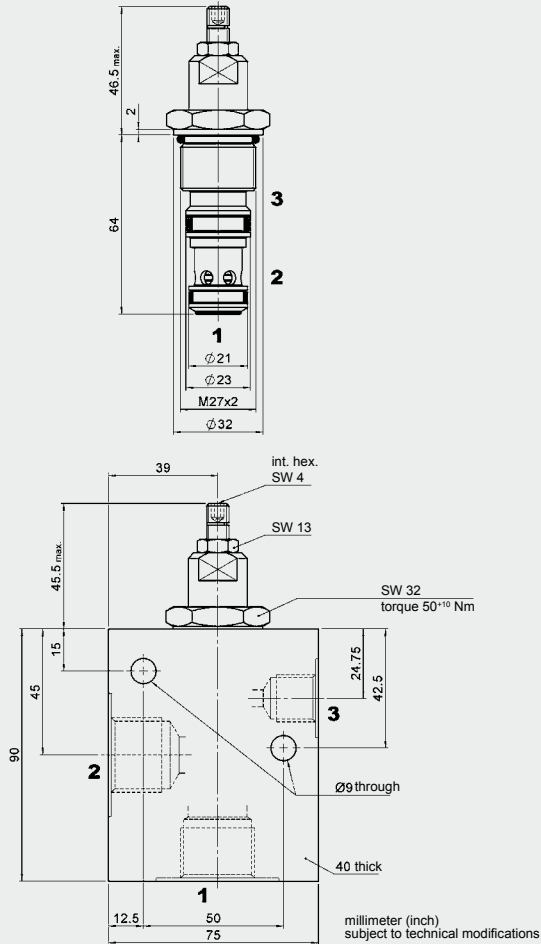
### FEATURES

- External surfaces zinc-plated and corrosion-proof
- Hardened and ground control spool to ensure minimal wear and extended service life
- Various pressure ranges up to 350 bar
- Quick response
- Increased operating reliability due to protective strainer
- Low hysteresis and excellent stability throughout the flow range
- Compact design enables space-saving installation in connection housings and control blocks
- Additional tank connection to drain the pilot stage

### SPECIFICATIONS

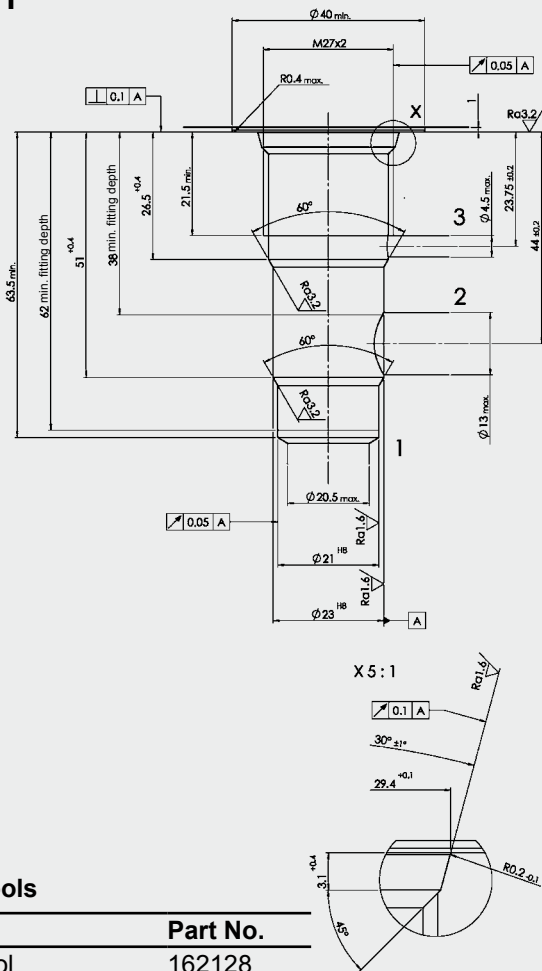
Operating pressure:	max. 350 bar	
Nominal flow:	max. 200 l/min	
Operating pressure ranges:	5 to 35 bar 5 to 60 bar 5 to 125 bar 5 to 230 bar 5 to 350 bar	
Internal leakage:	max. 320 cm <sup>3</sup> /min at 350 bar	
Media operating temperature range:	min. -30 °C to max. +100 °C	
Ambient temperature range:	min. -30 °C to max. +100 °C	
Operating fluid:	Hydraulic oil to DIN 51524 Part 1 and 2	
Viscosity range:	min. 10 mm <sup>2</sup> /s to max. 420 mm <sup>2</sup> /s	
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner	
MTTF <sub>d</sub> :	150 years (see "Conditions and instructions for valves" in brochure 5.300)	
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)
	Back-up rings:	PTFE
Cavity:	12121	
Weight:	0.26 kg	

## DIMENSIONS



## CAVITY

12121



## Form tools

Tool	Part No.
Form tool	162128
Reamer	175021

## MODEL CODE

**DB 12121 - PE - 01 - C - N - 350 V 230**

### Basic model

Pressure relief valve, metric

### Cavity

12121 = 3-way cavity

### Function

PE = pilot-operated with pilot drain

### Type

01 = standard

### Body and ports\*

C = cartridge only

### Seals

N = NBR (standard)

V = FKM

### Pressure range

035 = 5 to 35 bar

060 = 5 to 60 bar

125 = 5 to 125 bar

230 = 5 to 230 bar

350 = 5 to 350 bar

### Type of adjustment

V = Allen head

H = knob adjustment

F = factory preset, non adjustable

K = Allen head, with protective cap

### Opening pressure setting

No details = no setting, spring relaxed

Pressure value = opening pressure specified by customer (on request)

## Standard models

Model code	Part No.
DB12121PE-01-C-N-035V	3132639
DB12121PE-01-C-N-060V	3132640
DB12121PE-01-C-N-125V	3132641
DB12121PE-01-C-N-230V	3132642
DB12121PE-01-C-N-350V	3132643

## \*Standard in-line bodies

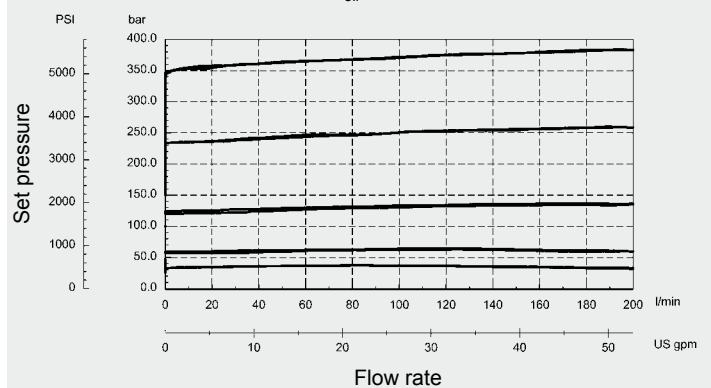
Code	Part No.	Material	Ports	Pressure
R12121-01X-01	3130704	Steel, zinc-plated	G3/4, G3/8	420 bar

## Seal kits

Code	Material	Part No.
SEAL KIT 12121-NBR	NBR	3269389
SEAL KIT 12121-FKM	FKM	3269390

## 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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