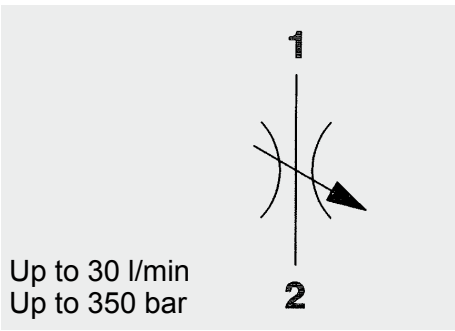
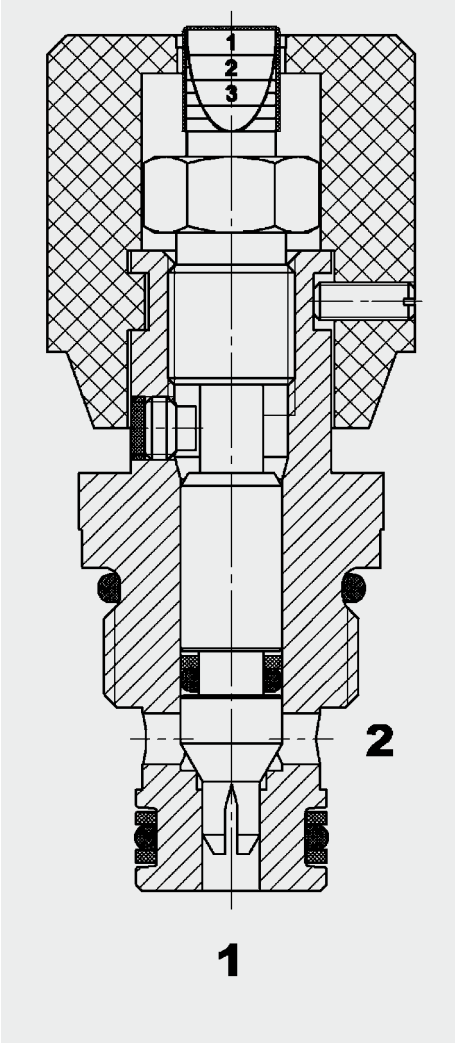


## Needle Valve Direct-Acting Metric Cartridge – 350 bar DV5E



### FUNCTION



The DV5E is a flow control valve which controls the flow rate by adjusting the cross section. The flow rate is dependent on the pressure differential and the viscosity. Starting with the control spindle in the fully closed position, the flow rate increases according to the relevant curve as the number of turns of the control knob is increased. The flow is controlled in both directions. The scale and coloured rings on the top of the control knob enable accurate repeat setting.

### FEATURES

- For regulating the speed of loads
- For fine adjustment and shut-off of the flow
- For system-related damping in hydraulic circuits
- High level of safety provided by patented spindle safety mechanism
- A set-screw locks the setting
- Optional zinc-plated version available

### SPECIFICATIONS

Operating pressure:	max. 350 bar	
Nominal flow:	max. 30 l/min	
Media operating temperature range:	min. -20 °C to max. +80 °C	
Ambient temperature range:	min. -20 °C to max. +80 °C	
Operating fluid:	Hydraulic oil to DIN 51524 Part 1 and 2	
Viscosity range:	min. 2.8 mm <sup>2</sup> /s to max. 380 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, preferably horizontal	
Materials:	Valve body:	steel
	Piston:	steel
	Seals:	FKM (standard) NBR (optional, media temperature range -30 °C to +80 °C)
	Back-up rings:	PTFE
Cavity:	06020	
Weight:	0.11 kg	

## MODEL CODE

**DV5E - 01 X**

**Basic model** \_\_\_\_\_  
Needle valve, metric

**Type** \_\_\_\_\_  
01 = standard (phosphated, seals FKM)  
02 = zinc-plated, seals NBR  
04 = zinc-plated, seals FKM  
11 = fine throttle spindle (phosphated, seals FKM)

**Series** \_\_\_\_\_  
(determined by manufacturer)

### Standard models

Model code	Part No.
DV5E-01X	710300
DV5E-02X	3139707
DV5E-04X	3094196
DV5E-11X	710302

Other models on request

### Standard in-line bodies

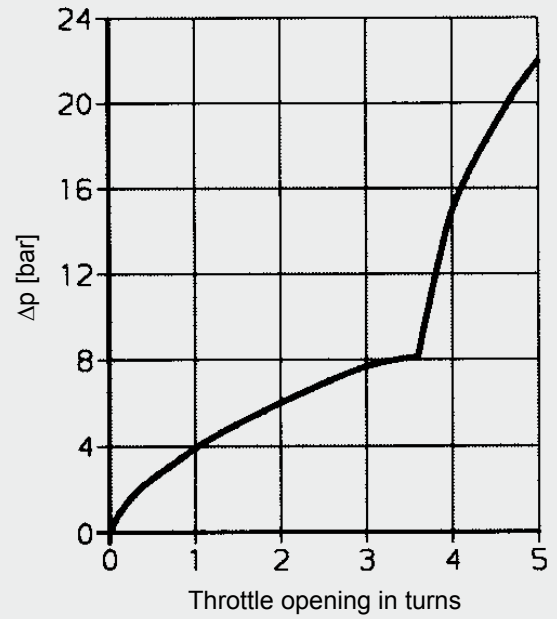
Code	Part No.	Material	Ports	Pressure
R06020-01X-01	275266	Steel, zinc-plated	G3/8	350 bar
R06020-10X-01	276842	Steel, zinc-plated	G3/8	350 bar

### Seal kits

Code	Part No.
SEAL KIT 06020-NBR	3119017
SEAL KIT 06020-FKM	3262477

## PERFORMANCE

Opening characteristics



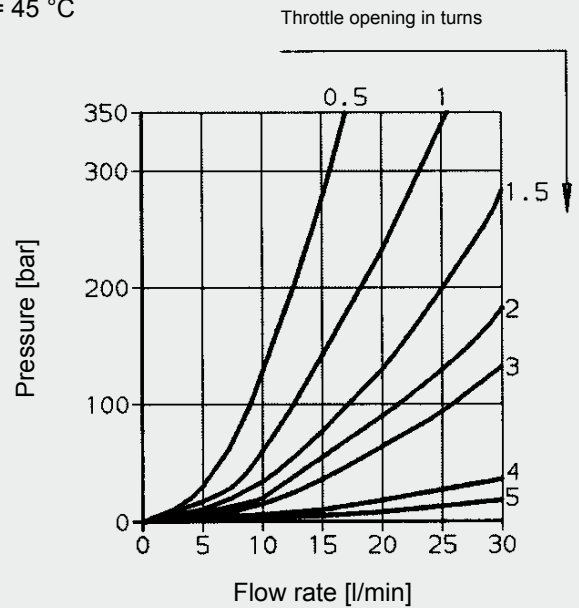
Δp = 10 bar = constant

### Pressure drop, dependent on flow rate

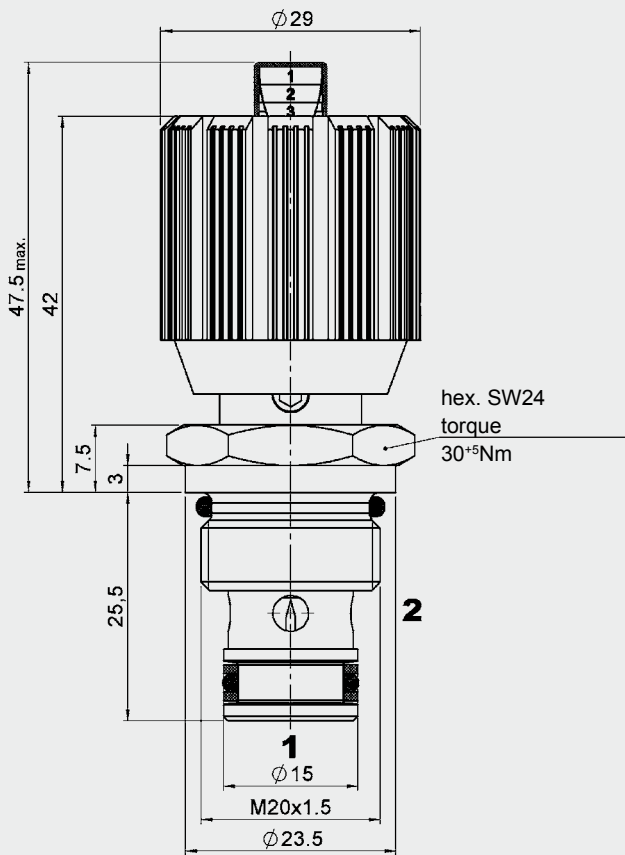
**DV5E-01X**

Measured at  $v = 36 \text{ mm}^2/\text{s}$

$T_{\text{oil}} = 45 \text{ }^\circ\text{C}$



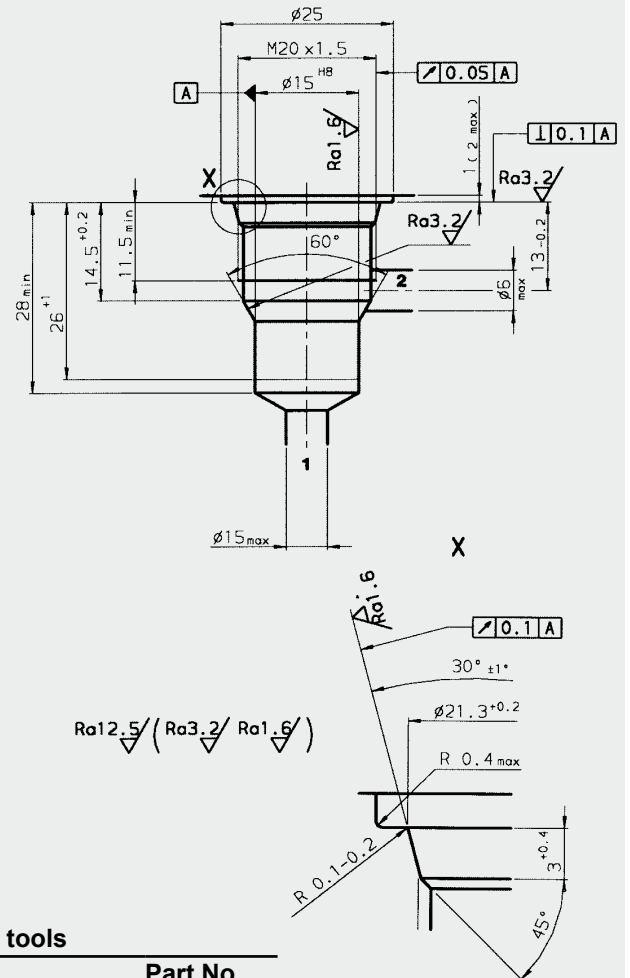
## DIMENSIONS



Millimeter  
Subject to technical modifications

## CAVITY

06020



### Form tools

Tool	Part No.
Countersink	170033
Reamer	1000768
Tap	1002648
Plug gauge	168840

Millimeter  
Subject to technical modifications

### 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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