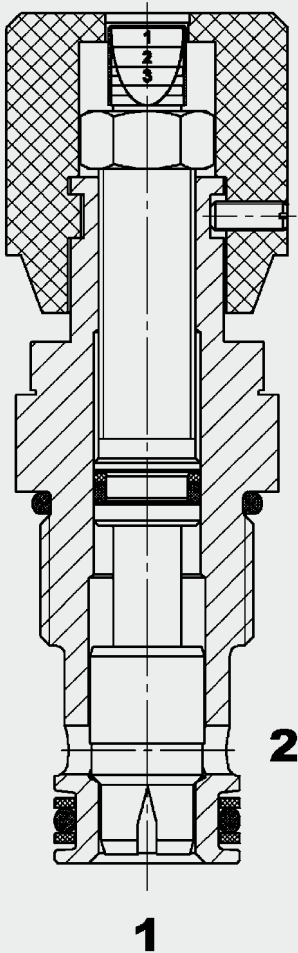


Up to 80 l/min  
Up to 350 bar

## FUNCTION



The SD10120 is a flow control valve which controls the flow rate by adjusting the cross section. The flow rate depends on the pressure differential and the viscosity. Starting with the throttle spindle in the fully closed position, the flow rate increases in accordance with the appropriate curve as the control knob is turned. The flow is controlled in both directions. The scale and coloured rings on the top of the control knob enable accurate repeat setting.

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

### SD10120

## FEATURES

- For regulating the speed of loads
- For fine adjustment and shut-off of the flow
- For system-related damping in hydraulic circuits
- A set-screw locks the setting
- Hardened and ground valve components to ensure minimal wear and extended service life
- Optional zinc-plated version available

## SPECIFICATIONS

Operating pressure:	max. 350 bar	
Nominal flow:	80 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. 800 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 +100 °C)
	Back-up rings:	PTFE
Cavity:	10120	
Weight:	0.17 kg	

## MODEL CODE

**SD10120 - 01 X**

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

**Type** \_\_\_\_\_  
01 = standard (phosphated, seals FKM and PTFE)

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

### Standard models

Model code	Part No.
SD10120-01X	710390

Other models on request

### Standard in-line bodies

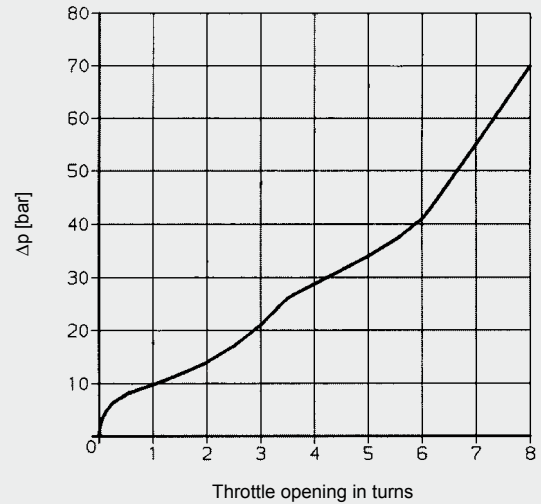
Code	Part No.	Material	Ports	Pressure
R10120-01X-01	395234	Steel, zinc-plated	G1/2	420 bar
R10120-01X-02	395235	Steel, zinc-plated	M22 x 1.5	420 bar

### Seal kits

Code	Part No.
SEAL KIT 10120-NBR	3382346
SEAL KIT 10120-FKM	3178281

## PERFORMANCE

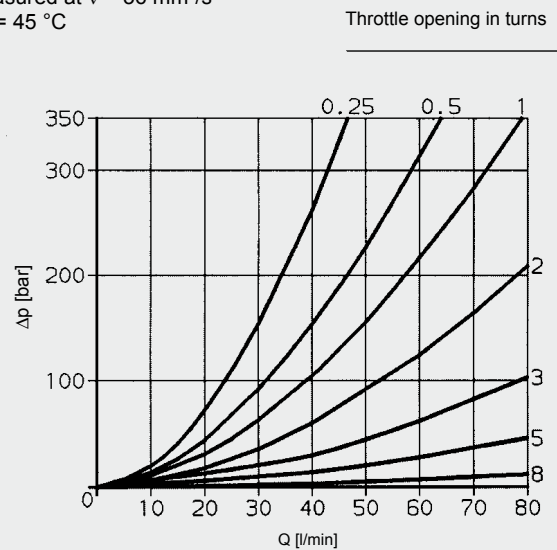
### Opening characteristics



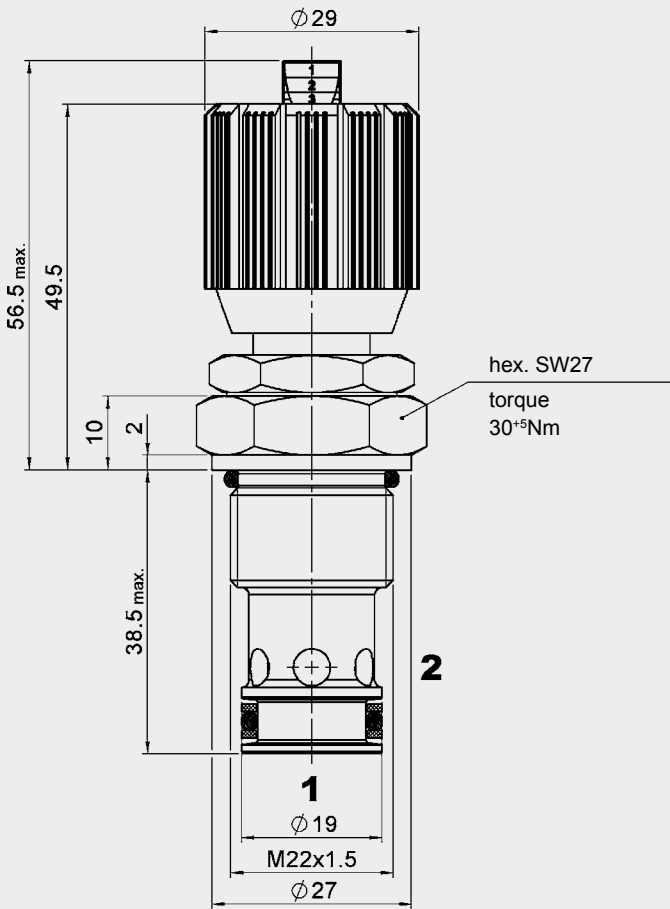
Δp = 10 bar = constant

### PRESSURE DROP, DEPENDENT ON FLOW RATE

Measured at  $v = 36 \text{ mm}^2/\text{s}$   
 $T_{\text{oi}} = 45 \text{ }^\circ\text{C}$



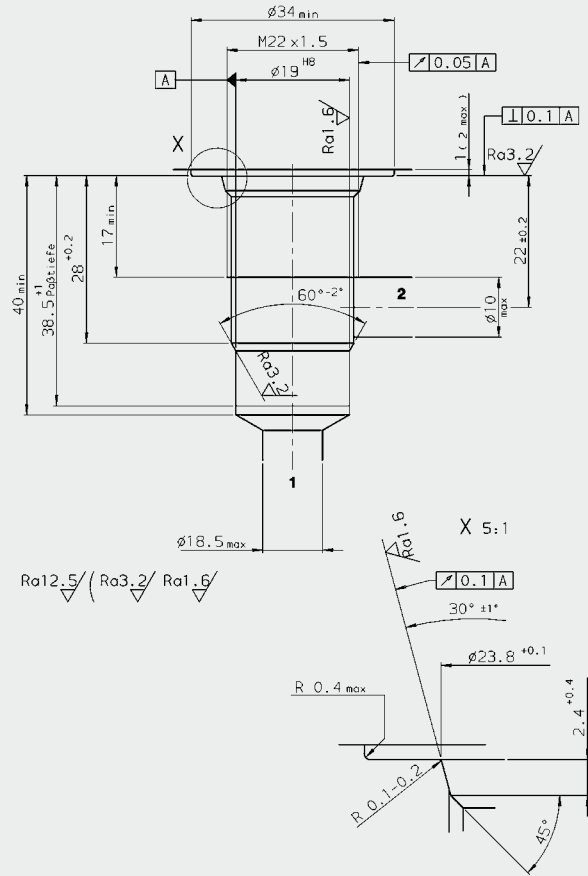
## DIMENSIONS



millimeter (inch)  
subject to technical modifications

## CAVITY

10120



millimeter (inch)  
subject to technical modifications

### Form tools

Tool	Part No.
Countersink	170418
Reamer	1014206
Tap	1002627
Plug gauge	169394

### 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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