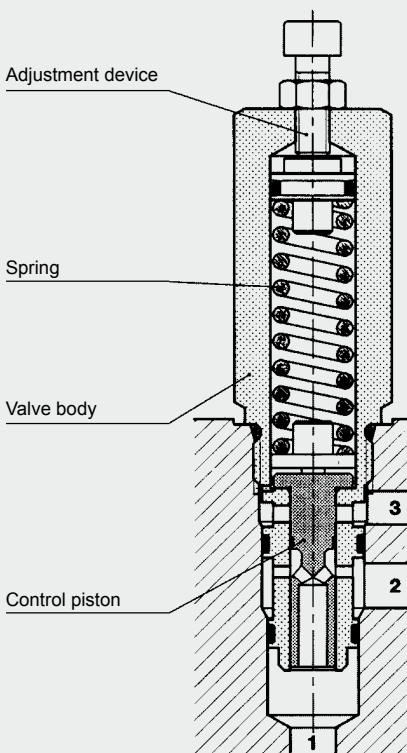


## FUNCTION



The pressure reducing valve DMVE is a direct-acting, spring-loaded spool valve. Its function is to maintain a constant pressure at the consumer.

In the normal position, pressure port 2 is connected to consumer port 1. The pressure build-up at the consumer acts on the face of the control piston and moves it upwards against the set spring force. Therefore the inflow is throttled at port 2 just enough to satisfy the consumer's demand - without pressure increase.

There is an additional function of outlet pressure relief: if the pressure across consumer port 1 rises above the control pressure due to external force, the control piston is pushed further against the spring and relieves the consumer to tank port 3.

## FEATURES

- Excellent dynamic performance
- Hardened and ground valve components to ensure minimal wear and extended service life
- Low pressure drop by CFD optimized flow path
- Low hysteresis and excellent stability throughout the flow range

## SPECIFICATIONS

Operating pressure:	max. 500 bar (port 2)
Nominal flow:	30 l/min (pressure-dependent - > 350 bar = 6 l/min)
Pressure ranges:	50 bar 140 bar
Media operating temperature range:	min. -20 °C to max. +120 °C
Ambient temperature range:	min. -20 °C to max. +120 °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
Materials:	Valve body: high tensile steel Piston: hardened and ground steel Seals: FKM (standard) NBR (optional, media temperature range -30 °C to +100 °C)
	Back-up rings: PTFE
Cavity:	08030
Weight:	0.23 to 0.45 kg, depending on model

## MODEL CODE

**DMVE - G1/2 - 01 X - 140 V 40**

**Basic model** \_\_\_\_\_  
Pressure reducing valve

**Size** \_\_\_\_\_  
G 1/2

**Type** \_\_\_\_\_  
01 = standard

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

**Pressure setting range** \_\_\_\_\_  
50 = to 50 bar  
140 = to 140 bar

**Type of adjustment** \_\_\_\_\_  
V = Allen head  
Other adjustment types on request

**Outlet pressure setting** \_\_\_\_\_  
No details = valve not set, spring relaxed  
40 = factory pre-set cracking pressure in bar  
Setting on request

### Standard models

Model code	Part No.
DMVE-G1/2-01X-50V	710254
DMVE-G1/2-01X-140V	710250

### Standard in-line bodies

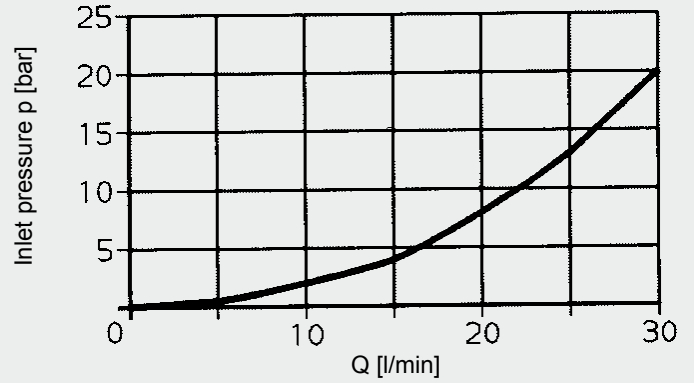
Code	Part No.	Material	Ports	Pressure
R08030-01X-01	283025	Steel, zinc-plated	G3/8	420 bar

### Seal kits

Code	Material	Part No.
SEAL KIT DMVE-G1/2-...	FKM	715873

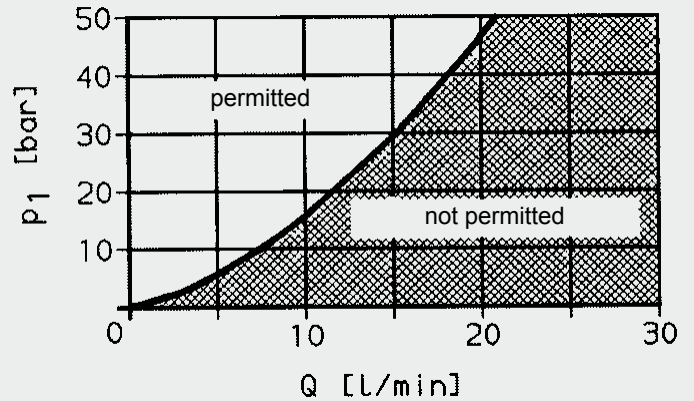
## PERFORMANCE

### Pressure drop, dependent on flow rate

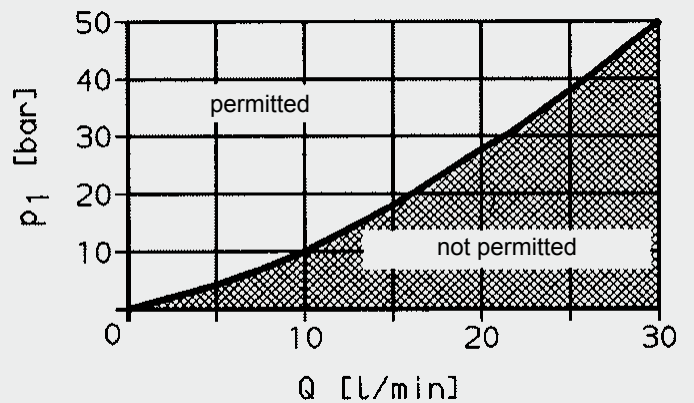


Permitted flow rate from 1 to 2  
(free return flow)  
p1 = outlet pressure setting  
p1 > 50 bar... 30 l/min  
p1 ≤ 50 bar... see curve

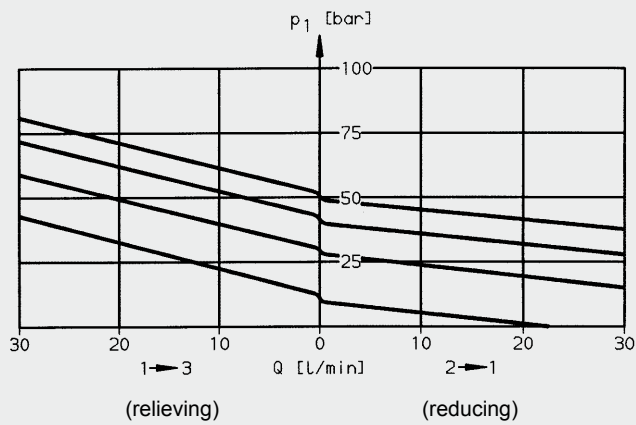
### DMVE-G1/2-01X-50



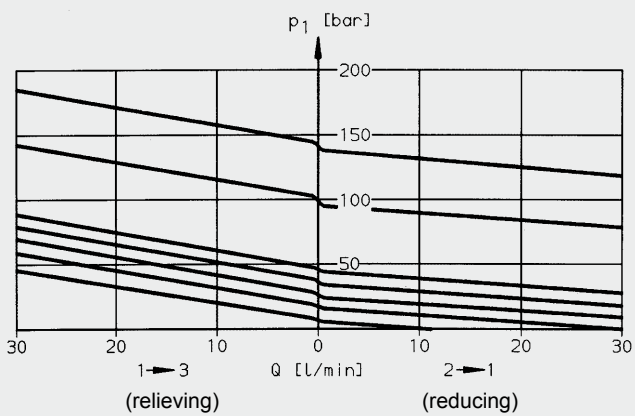
### DMVE-G1/2-01X-140



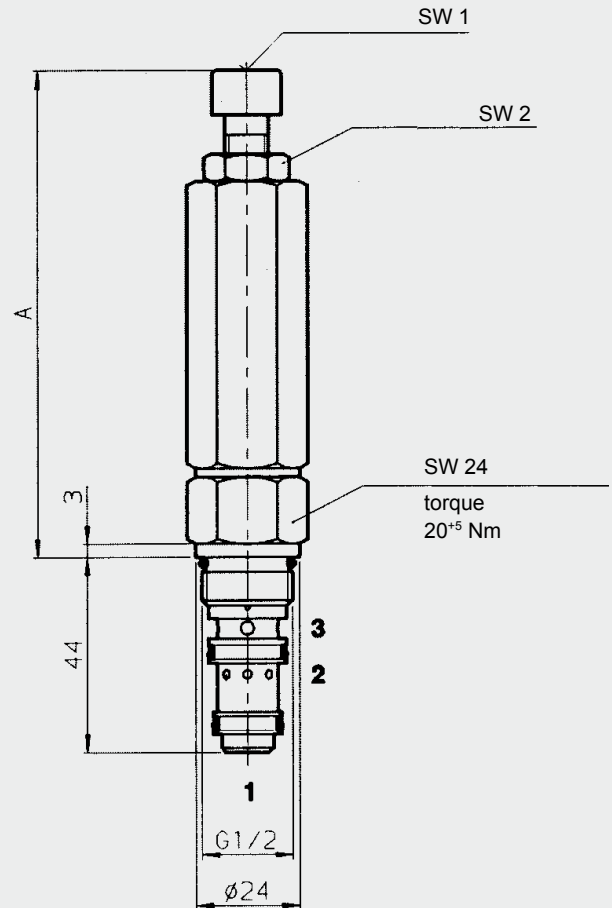
## DMVE-G1/2-01X-50



## DMVE-G1/2-01X-140



## DIMENSIONS

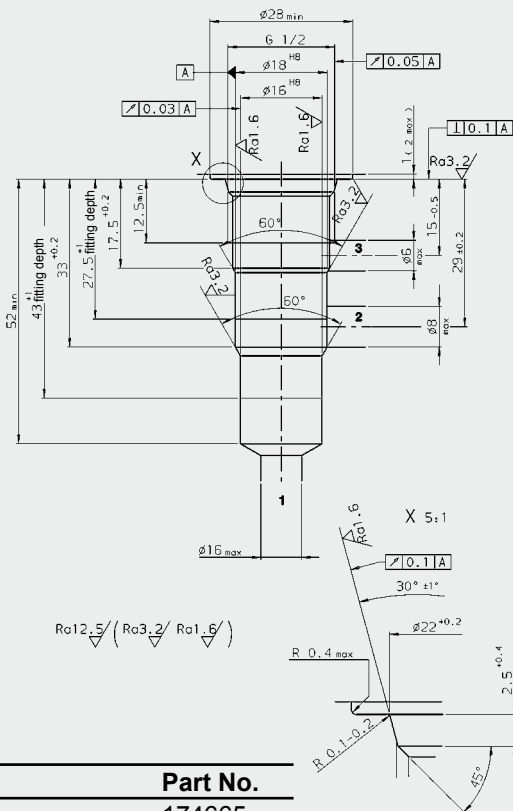


Millimeter  
Subject to technical modifications

Type	A <sub>max</sub>	B <sub>max</sub>	SW 1	SW 2
DMVE-G1/2-01X-50	80	99	5	8
DMVE-G1/2-01X-140	110	134	10	17

## CAVITY

08030



### Form tools

Tool	Part No.
Countersink	174665
Reamer	169962
Tap	1002667

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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