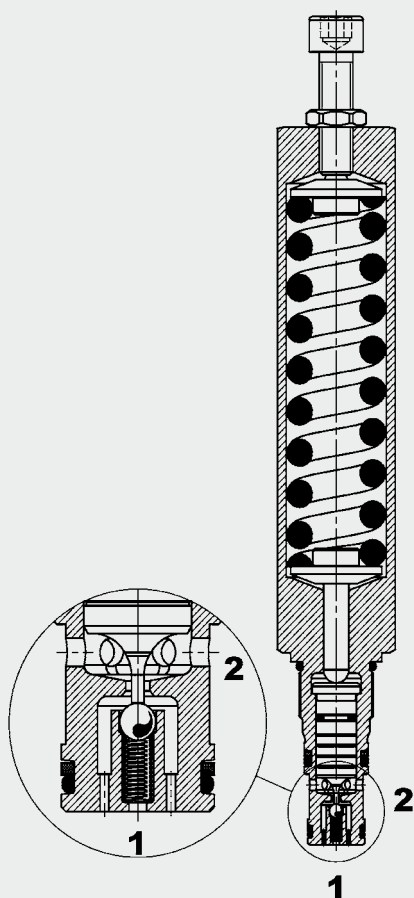


FUNCTION



The pressure reducing valve DMM10121 is a direct-acting, spring-loaded poppet valve which is leakage-free. Its function is to control the pressure at port 2. In the normal position, the main piston pushes the ball off the seat and there is free flow from port 1 to port 2. When the pre-set pressure is achieved at port 2, the pressure increase forces the main piston up, the ball moves with it and seals leakage-free. When the pressure at port 1 falls below the pressure at port 2, the poppet valve opens and oil can flow from port 2 to port 1.

FEATURES

- Automatic readjustment if there is a pressure drop in the cylinder
- External surfaces zinc-plated
- Hardened and ground valve components to ensure minimal wear and extended service life
- Adjustable throughout flow range
- Various pressure ranges up to 450 bar

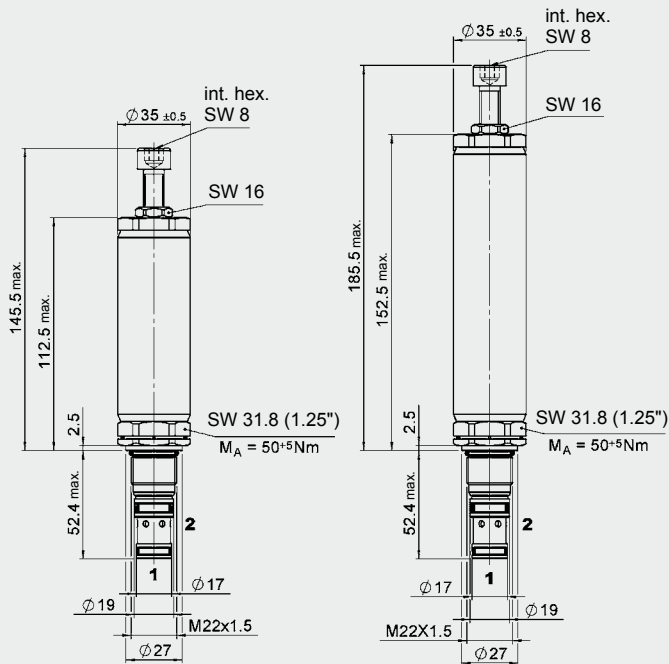
SPECIFICATIONS

Operating pressure:	min. 0 to max. 450 bar
Nominal flow:	max. 30 l/min
Pressure setting ranges:	Up to 110, 250, 50 - 410 bar, 50 - 450 bar
Leakage:	Leakage-free (max. 5 drops \approx 0,25 cm ³ /min at 350 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. 10 mm ² /s to max. 420 mm ² /s
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner
MTTF _d :	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:	10121 (port 3 not used)
Weight:	0.9 kg

DIMENSIONS

110 bar Pressure range
250 bar Pressure range

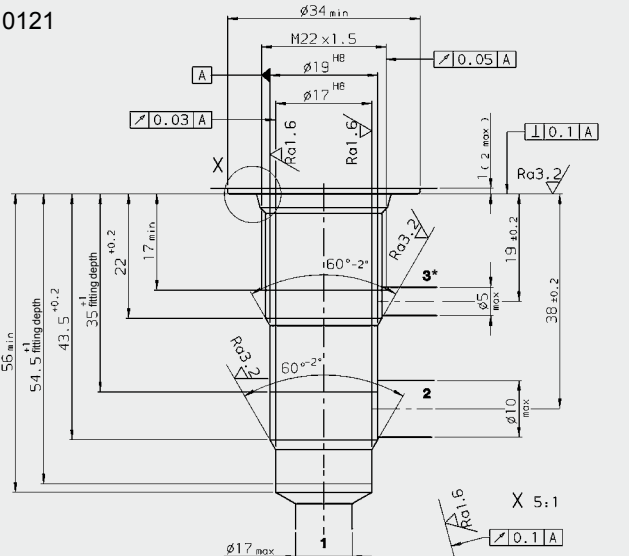
410 bar Pressure range
450 bar Pressure range



Millimeter (Inch)
Subject to technical modifications

CAVITY

10121



*** Note:**
Port 3 is
not used!

Form tools

Tool	Part No.
Countersink MK4	163910
Reamer MK2	163911

Millimeter (Inch)
Subject to technical modifications

MODEL CODE

DMM 10121 - 01 - C - V - 450 V 420

Basic model _____
2-way pressure reducing valve

Cavity _____
10121 = 3-way cavity, metric

Type _____
01 = standard
02 = increased sealing
(special requirement)

Body and ports _____
C = cartridge only

Seals _____
V = FKM (standard)
N = NBR (optional)

Pressure setting range _____
110 = 0 - 110 bar
250 = 0 - 250 bar
410 = 50 - 410 bar
450 = 50 - 450 bar

Type of adjustment _____
V = adjustable using tool
Other types of adjustment on request

Cracking pressure setting _____
No details = no setting, spring relaxed
Pressure value = customer-specific cracking pressure

Standard models

Model code	Part No.
DMM10121-01-C-V-110V	3479985
DMM10121-01-C-V-250V	3479986
DMM10121-01-C-V-410V	3480034
DMM10121-01-C-V-450V	3465581

Other models on request

Inline connection housings

Code	Part No.	Material	Ports	Pressure
R10121	395236	Steel	G1/2	420 bar

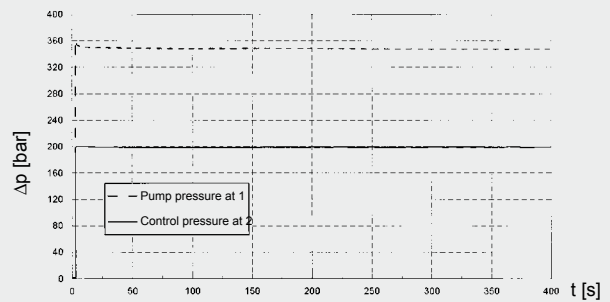
Seal kits

Code	Part No.
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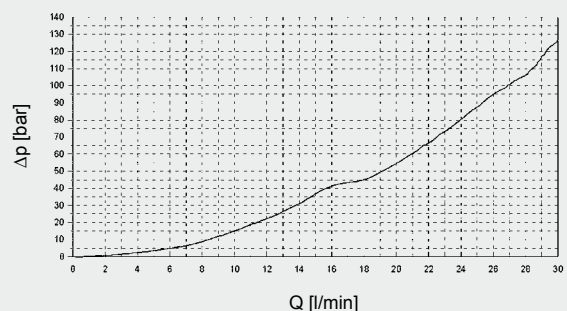
In preparation

PERFORMANCE

$v = 33 \text{ mm}^2/\text{s}$, $T_{\text{oil}} = 46 \text{ }^\circ\text{C}$



$v = 44 \text{ mm}^2/\text{s}$, $T_{\text{oil}} = 40 \text{ }^\circ\text{C}$



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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