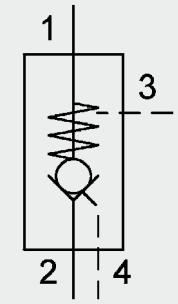
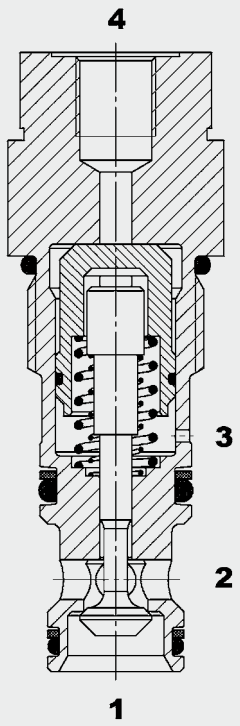


Up to 80 l/min
Up to 350 bar

Check Valve, Pilot-to-Open Poppet Type, Direct-Acting with Drain Port Metric Cartridge - 350 bar

RPL10121

FUNCTION



The pilot-to-open check valve RPL10121 is a direct-acting, spring-loaded poppet valve with drain port at port 3 and pilot line at port 4 (external).

When there is no flow through the valve, the spring holds the poppet in the closed position. The valve allows flow from port 2 to port 1. In the opposite direction, the poppet is pressed onto the seat and blocks flow. If a sufficiently high control pressure is introduced at port 4, the poppet is lifted from the valve seat and oil can also flow from port 1 to 2. In this case port 3 must not be pressurized.

The following applies:

When P3 and P2 = atmospheric pressure

$$P_{pilot} = \frac{P_{port\ 1}}{\varphi}$$

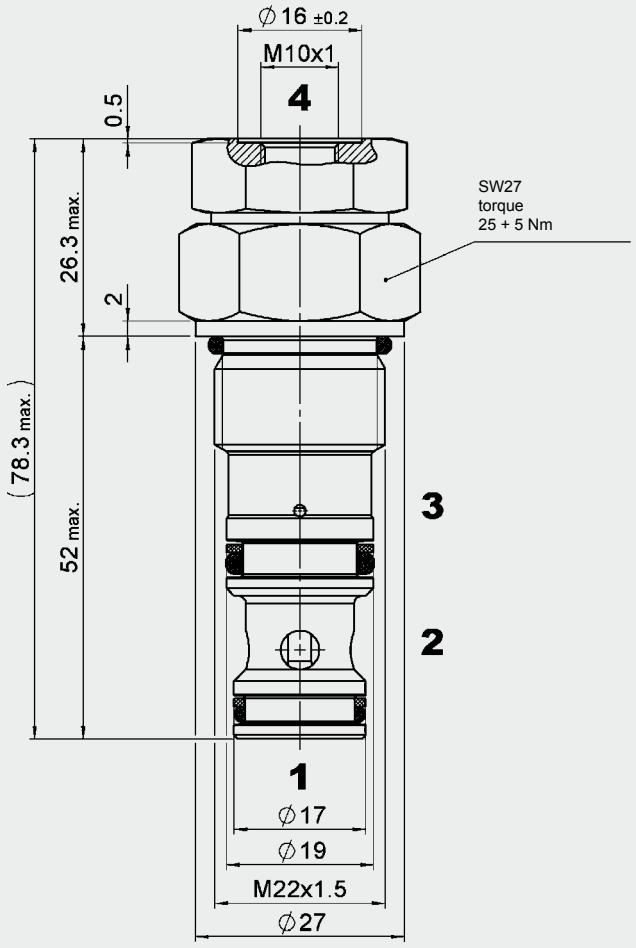
FEATURES

- Main application is to prevent uncontrolled movement or creeping of loaded cylinders and also to shut-off sections of the system
- External surfaces zinc-plated and corrosion-proof
- Hardened and ground internal valve components to ensure minimal wear and extended service life
- Consumer is held in position leak-free

SPECIFICATIONS

Operating pressure:	max. 350 bar	
Nominal flow:	max. 80 l/min	
Internal leakage:	Leakage-free (max. 5 drops ≙ 0,25 cm³/min at 350 bar)	
Pilot ratio:	φ = 3.5	
Media operating temperature range:	min. –20 °C to max. +100 °C	
Ambient temperature range:	min. –20 °C to max. +100 °C	
Operating fluid:	Hydraulic oil to DIN 51524 Part 1 and 2	
Viscosity range:	min. 10 mm²/s to max. 380 mm²/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 +120 °C)
	Back-up rings:	PTFE
Cavity:	10121	
Weight:	0.175 kg	

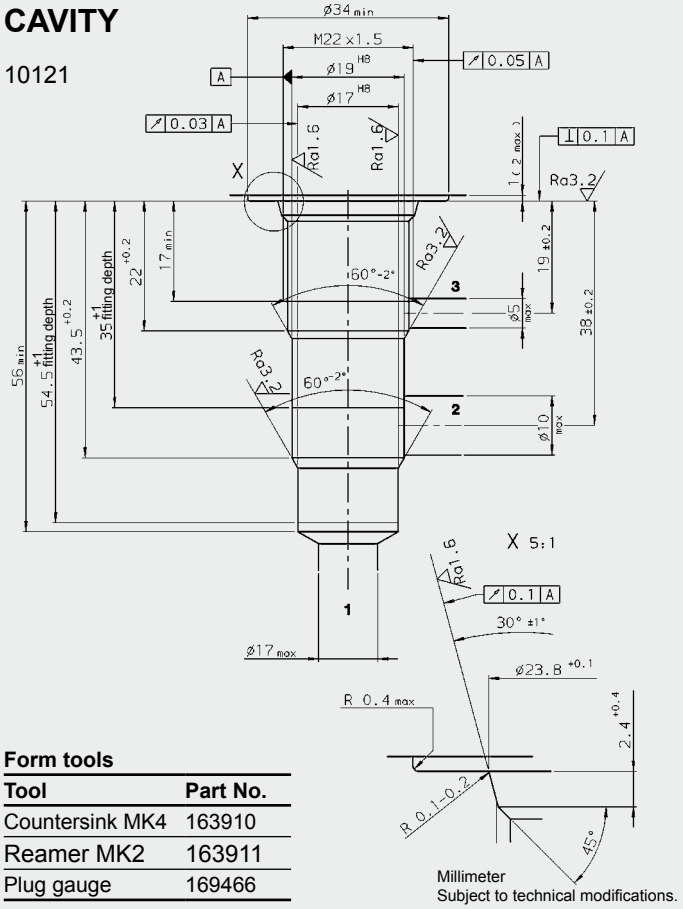
DIMENSIONS



Millimeter
Subject to technical modifications.

CAVITY

10121



Form tools

Tool	Part No.
Countersink MK4	163910
Reamer MK2	163911
Plug gauge	169466

Millimeter
Subject to technical modifications.

MODEL CODE

RPL10121 – 01 X

Basic model
Check valve, pilot-to-open
with separate drain port

Cavity
10121 = 3-way, metric

Type
01 = standard, surface phosphated,
seals FKM
with O-ring on control piston

Series
(determined by manufacturer)

Standard models

Model code	Part No.
RPL10121-010	717778

Other models on request

Standard in-line bodies

Code	Part No.	Material	Ports	Pressure
R10121-01X-01	395236	Steel, zinc-plated	G ½ / G ¼	420 bar
R10121-01X-02	395237	Steel, zinc-plated	M 22x1.5 / M 14x1.5	420 bar

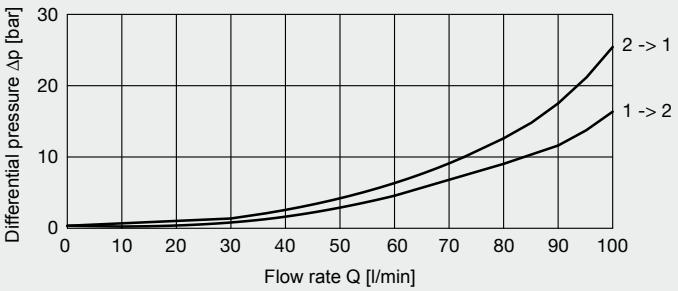
Other line bodies on request

Seal kits

Code	Part No.
SEAL KIT RP10121-XX0...FKM	560835

PERFORMANCE

T_{oil} = 30 °C, ν = 72 mm²/s



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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