

## Non-return valve hydraulically pilot operated

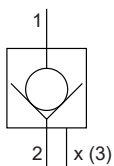
### Screw-in cartridge construction

- ◆  $Q_{max} = 80 \text{ l/min}$
- ◆  $p_{max} = 350 \text{ bar}$

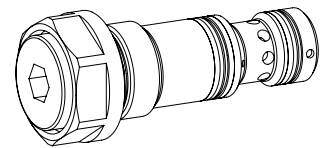
### DESCRIPTION

Hydraulically pilot operated non-return valve in screw-in cartridge construction for cavity according to ISO 7789. In the free flow direction (2 → 1), the volume flow opens the spring loaded seat cone. In the opposite direction (1 → 2), the spring keeps the valve closed. If pressure is built up in connection x, the pilot control spool is shifted and the non-return valve of the closed off port is opened by this. The required pilot control pressure depends on the pilot ratio.

### SYMBOL



**M22 x 1,5**  
**ISO 7789**



### APPLICATION

Pilot operated non-return valves are used for closing off pressurised hydraulic cylinders leak free, for example in lifting or clamping devices. The spool valve that directs the volume flow to port x, should have both service ports connected to the tank in the rest position for reasons of operational safety.

### INSTALLATION NOTES

Mounting type	Screw-in cartridge M22 x 1,5
Mounting position	Any
Tightening torque	$M_D = 60 \text{ Nm}$ Screw-in cartridge

### TYPE CODE

Non-return valve hydraulically pilot operated		RNX PM22 -	<input type="text"/>	-	<input type="text"/>	#	<input type="text"/>
Screw-in cartridge M22 x 1,5							
Opening pressure $p_a$	2 bar	<input type="text" value="2"/>					
	5 bar	<input type="text" value="5"/>					
Sealing material	NBR	<input type="text"/>					
	FKM (Viton)	<input type="text" value="D1"/>					
	NBR 872	<input type="text" value="Z604"/>					
Design index (subject to change)							

2.7-61

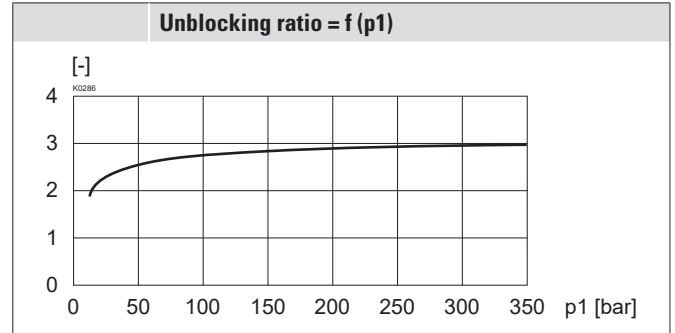
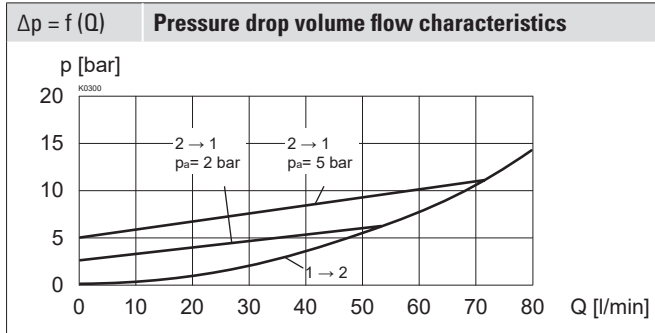
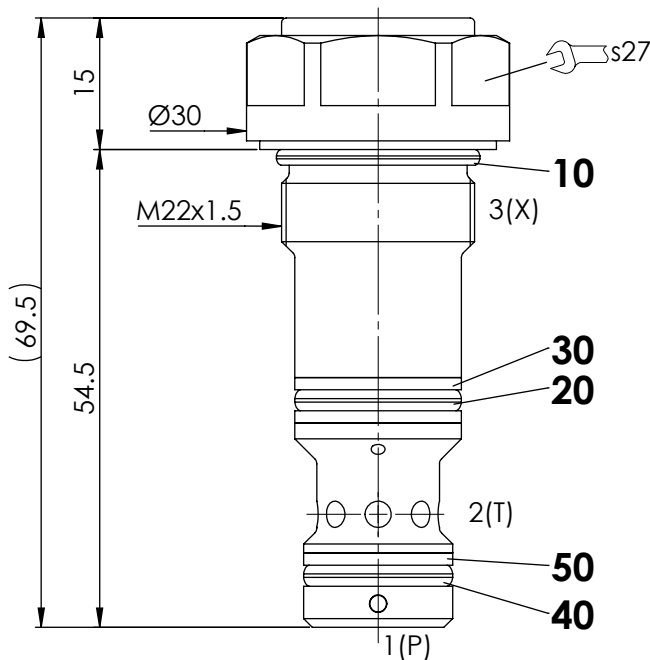
### GENERAL SPECIFICATIONS

Designation	Non-return valve hydraulically pilot operated
Mounting	Screw-in cartridge construction
Nominal size	M22 x 1,5 according to ISO 7789
Actuation	None
Ambient temperature	-25...+90 °C
Weight	0,15 kg

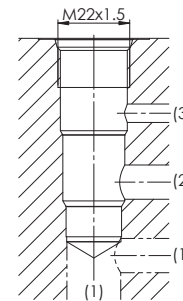
### HYDRAULIC SPECIFICATIONS

Working pressure	$p_{max} = 350 \text{ bar}$
Opening pressure	$p_a = 2; 5 \text{ bar}$
Maximum volume flow	$Q_{max} = 80 \text{ l/min}$
Leakage oil	Seat tight, max. 0,15 ml / min (approx. 3 drops / min) at 30 cSt
Fluid	Mineral oil, other fluid on request
Viscosity range	12 mm <sup>2</sup> /s...320 mm <sup>2</sup> /s
Temperature range fluid	-25...+90 °C (NBR) -20...+90 °C (FKM)
Contamination efficiency	Class 20 / 18 / 14
Filtration	Required filtration grade $\beta_{10...16} \geq 75$ , see data sheet 1.0-50
Pilot ratio	See characteristic
Area ratio	$i = 1 : 3$

**PERFORMANCE SPECIFICATIONS**

 Oil viscosity  $\nu = 30 \text{ mm}^2/\text{s}$ 

**DIMENSIONS**

**HYDRAULIC CONNECTION**

Cavity drawing according to ISO 7789-22-06-0-98


**Note!**


For detailed cavity drawing and cavity tools see data sheet 2.13-1006

**SEALING MATERIAL**

NBR or FKM (Viton) as standard, choice in the type code

**PARTS LIST**

Position	Article	Description
10	160.2188	O-ring ID 18,77 x 1,78 (NBR)
	160.6188	O-ring ID 18,77 x 1,78 (FKM)
20	160.2156	O-ring ID 15,60 x 1,78 (NBR)
	160.6156	O-ring ID 15,60 x 1,78 (FKM)
30	049.3196	Backup ring rd 16,1 x 19 x 1,4
40	160.2120	O-ring ID 12,42 x 1,78 (NBR)
	160.6124	O-ring ID 12,42 x 1,78 (FKM)
50	049.3176	Backup ring rd 14,1 x 17 x 1,4

**SURFACE TREATMENT**

♦ The cartridge body is zinc-nickel coated

**STANDARDS**

Cartridge cavity	ISO 7789
Contamination efficiency	ISO 4406

**ACCESSORIES**

Technical explanations	Data sheet 1.0-100
Hydraulic fluids	Data sheet 1.0-50
Filtration	Data sheet 1.0-50

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