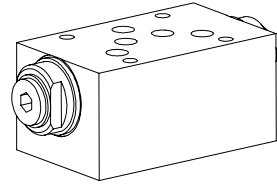


**Non-return valve  
hydraulic pilot  
Sandwich construction**

- $Q_{max} = 100 \text{ l/min}$
- $p_{max} = 250 \text{ bar}$

**NG10**  
 ISO 4401-05

**DESCRIPTION**

Sandwich type non-return valve NG10 with hydraulic pilot acc. to ISO 4401-05. The valves allow a free flow in one direction and shut off in the opposite direction. 3 different standard versions are available. The steel sandwich body is phosphatised. Good performance data and attractive design are the hall marks of this quality product.

**FUNCTION**

In the free flow direction, the volume flow opens the valve seat against a spring. The spring helps the valve close in the opposite direction. If pressure builds up in the opposite oil port, this displaces the pilot piston and opens the non-return valve of the closed port. The pilot pressure required is dependent on the pressure held by the valve seat.

**APPLICATION**

Pilot operated non-return valves are used to shut off pressurised hydraulic cylinders, e.g. in lifting or clamping fixtures, without leaking. The hydraulic cylinder can only be moved in the shut off direction if a directional valve directs the volume flow into the opposite port and releases the valve. Reliability in operation is increased by a directional valve which connects both oil ports to the tank in the neutral position. Sandwich type elements NG10 mean that the system is highly flexible.

**CONTENT**

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**TYPE CODE**

International standard interface ISO

Type description for non-return valve hydraulic pilot:

In A + B DERV  
 In A ERVA in B ERVB

Nominal size 10

Design-Index (Subject to change)

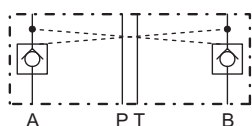
A 10 #  

**GENERAL SPECIFICATIONS**

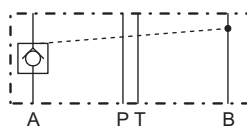
Description	Non-return valve hydraulic pilot
Nominal size	NG10 acc. to ISO 4401-05
Construction	Sandwich construction
Mounting	4 holes for socket cap screws M6 or studs M6
Connections	Connection plates Multistation flange subplate Longitudinal stacking system
Ambient temperature	-20...+50°C
Mounting position	any
Fastening torque	$M_D = 9,5 \text{ Nm}$ (quality 8.8)
Weight	$m = 2,1 \text{ kg}$

**HYDRAULIC SPECIFICATIONS**

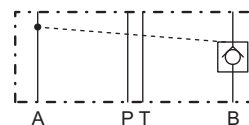
Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 20/18/14 (Required filtration grade $\beta_{10...16} \geq 75$ ) refer to data sheet 1.0-50/2
Viscosity range	12 mm <sup>2</sup> /s...320 mm <sup>2</sup> /s
Fluid temperature	-20...+70°C
Peak pressure	$p_{max} = 250 \text{ bar}$
Opening pressure	$p_o = 2 \text{ bar}$
Pilot ratio	$i = 1:5$
Max. volume flow	$Q_{max} = 100 \text{ l/min}$

**SYMBOLS / TYPES**


ADERV10



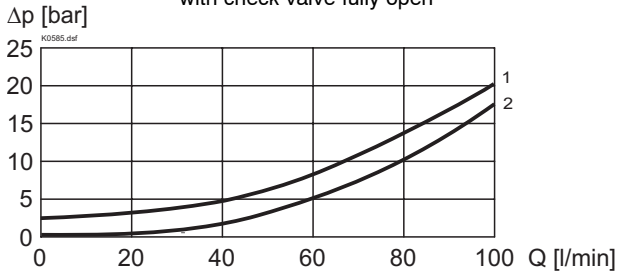
AERVA10



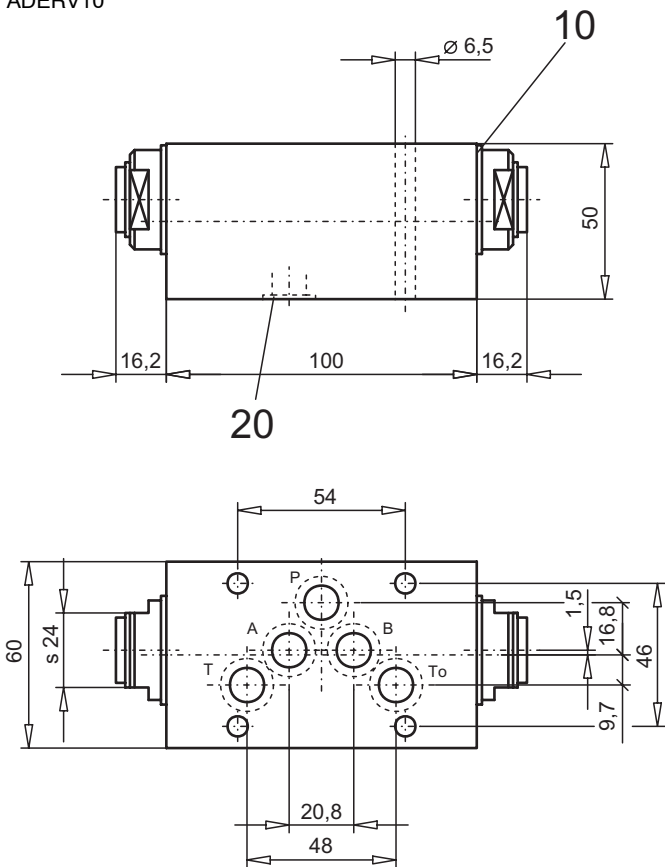
AERVB10

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

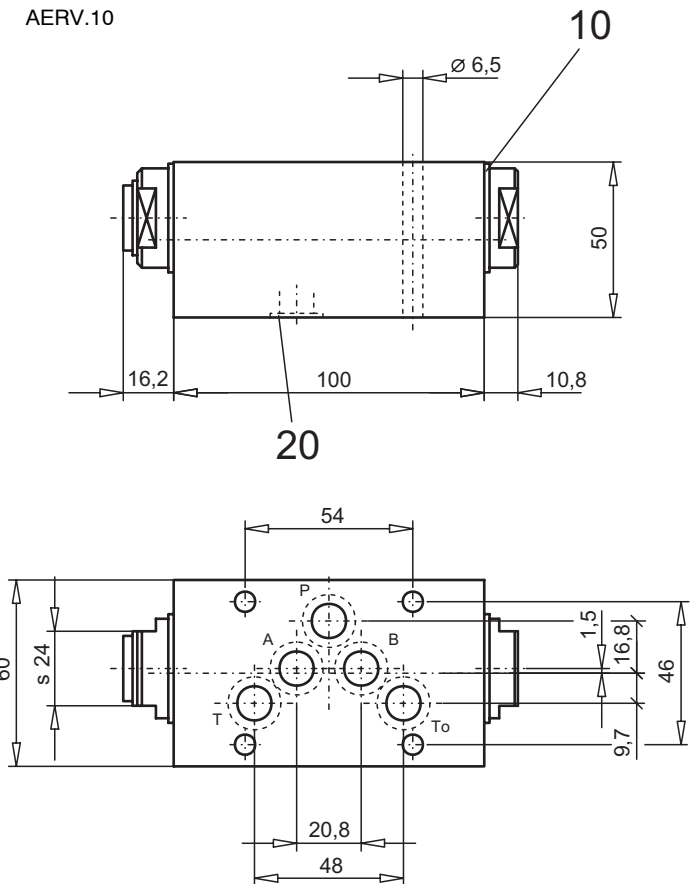
$\Delta p = f(Q)$  Pressure drop characteristic  
 1 Pressure drop A --> Cyl. or B --> Cyl.  
 2 Pressure drop Cyl. --> A or Cyl. --> B  
 with check valve fully open


**DIMENSIONS**

ADERV10



AERV.10


**PARTS LIST**

Position	Article	Description
10	49.2262	Bonded seal 26,7x35x2
20	160.2140	O-ring ID 14,00x1,78

Technical explanation see data sheet 1.0-100E