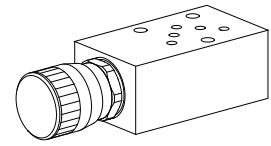


**Restrictor valve with reverse free flow check  
 Sandwich construction**

- $Q_{max} = 20$  l/min
- $Q_N = 12$  l/min
- $p_{max} = 315$  bar

**NG4-Mini®**

**DESCRIPTION**

Restrictor valve sandwich design NG4-Mini with connecting diagram pursuant acc. to Wandfluh standard. The non-return throttle valve is available in two different variants, namely the standard and the precision throttle (FD). The rotary control is made from aluminium, all other parts, have been phosphated.

**FUNCTION**

Using the precision thread adjusting spindle, the restriction of the volume flow can be continuously adjusted. With the spindle fully screwed home, the volume flow is zero, and a metallic edge makes a leak-tight closure. In the opposite direction, the spring-loaded tapered piston opens and volume flow with a load pressure drop is enabled. The throttle effect is produced by an annular gap which can be varied in size, or by means of a triangular edge. Because of the nature of the design, there is only a small amount of leakage.

**APPLICATION**

Sandwich type, one-way restrictors are used where volume flows have to be controlled in one flow direction according to the load. Depending on the application, a distinction is made between restricting the forward flow or the return flow. These sandwich valves are particularly suitable for machine tools and also all kinds of handling operations. Mini-4 one-way restrictors are used where hydraulic systems have to be both light and compact.

**TYPE CODE**

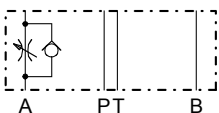
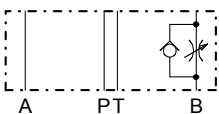
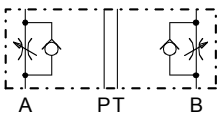
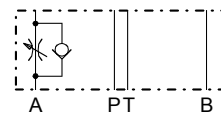
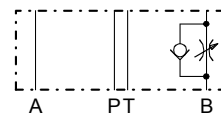
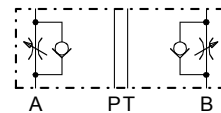
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Mounting interface acc. to Wandfluh standard								
Throttle check valve								
Type list / function								
Meter-out	in A	<input type="checkbox"/>	in B	<input type="checkbox"/>				
	in A and B	<input type="checkbox"/>						
Meter-in	in A	<input type="checkbox"/>	in B	<input type="checkbox"/>				
	in A and B	<input type="checkbox"/>						
Nominal size 4-Mini								
Standard		<input type="checkbox"/>						
Precision throttle		<input type="checkbox"/> - FD						
Design-Index (Subject to change)								

**GENERAL SPECIFICATIONS**

Denomination	Restrictor valve with reverse free flow check
Nominal size	NG4-Mini acc. to Wandfluh standard
Construction	Sandwich
Mounting	3 mounting holes for socket head cap screws M5 or stud screws M5
Connections	Threaded connection plates, Multi-flange subplates, Longitudinal stacking system
Ambient temperature	-20...+50 °C
Mounting position	any
Fastening torque	$M_D = 5,5$ Nm (Qual. 8.8) for fastening screws
Weight	Depending on the type 0,8...0,9 kg

**HYDRAULIC SPECIFICATIONS**

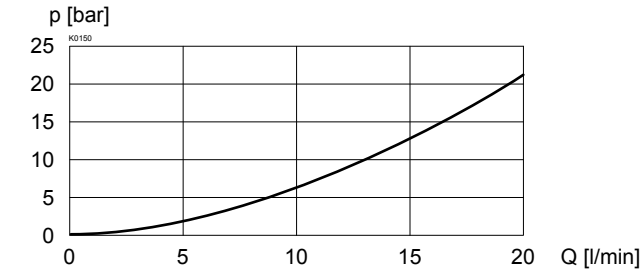
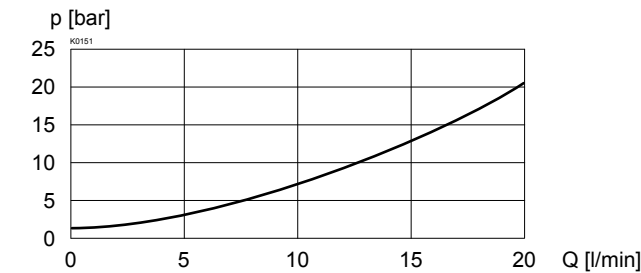
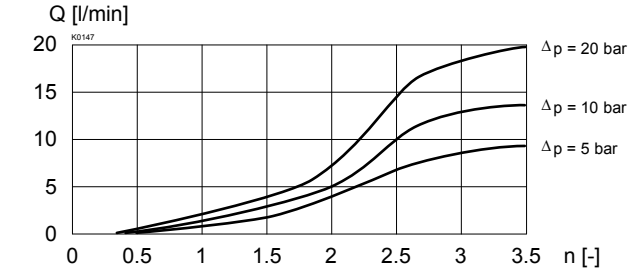
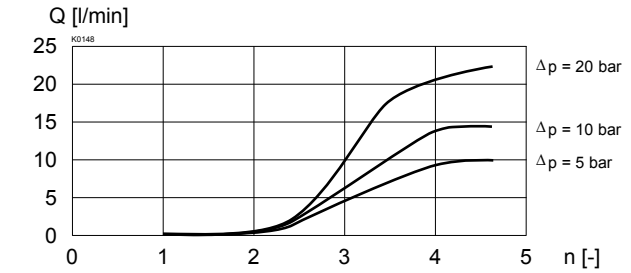
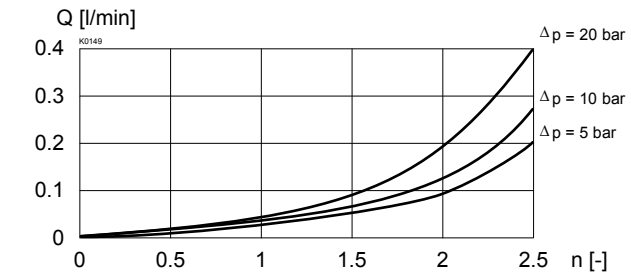
Fluid	Mineraoil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 20/18/14...21/19/15 (Required filtration grade $\beta_{10...25} \geq 75$ ) refer to data sheet 1.0-50/2
Viscosity range	12 mm <sup>2</sup> /s...320 mm <sup>2</sup> /s
Fluid temperature	-20...+70 °C
Peak pressure	$p_{max} = 315$ bar
Pressure required to open the check valve	$p_o = 2,2$ bar
Nominal volume flow rates	$Q_N = 12$ l/min $Q_N$ at 10 bar valve pressure loss
Max. volume flow	$Q_{max} = 20$ l/min
Leakage volume flow	Almost leak free with closed restrictor

**TYPE LIST / FUNCTION**
**Meter-out:**

**BURDA4**

**BURDB4**

**BURD4**
**Meter-in:**

**BURDVA4**

**BURDVB4**

**BURDV4**

Valves for restricting the meter-in flow are achieved by turning the one-way restrictors (horizontal axis):

BURDA4 get BURDVB4  
 BURDB4 get BURDVA4  
 BURD4 get BURDV4

Valves for restricting the meter-in flow are supplied with a sealing plate and an intermediate plate.

**CHARACTERISTICS** Oil viscosity  $\nu = 30 \text{ mm}^2/\text{s}$ 
 $\Delta p = f(Q)$  Pressure loss/flow characteristics

 $\Delta p = f(Q)$  Pressure loss/flow characteristics over non-return valve

 $Q = f(n)$  Volume flow adjustment characteristics (Standard)

 $Q = f(n)$  Volume flow adjustment characteristics (Precision throttle)

 $Q = f(n)$  Volume flow adjustment characteristics (Precision throttle)


Technical explanation see data sheet 1.0-100

**PARTS LISTS**

Position	Article	Description
10	160.2052	O-ring ID 5,28x1,78
15	160.2067	O-ring ID 6,75x1,78 in line with check valve
20	114.1204	Turning knob
30	173.1650	Sealing plate BDB4
40	173.1700	Intermediate plate BZB4

**DIMENSIONS**
