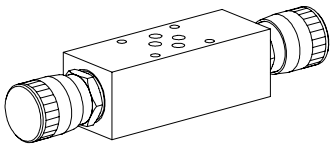
Restrictor valve with reverse free flow check
Sandwich construction

- Q_{max} = **70 l/min**
- Q_N = **40 l/min**
- p_{max} = **350 bar**

NG6

ISO 4401-03



DESCRIPTION

Restrictor valve sandwich type NG6 with interface to ISO 4401-03. The non-return throttle valve is available in two different variants, namely the standard and the precision throttle (FD). The turning knob is made from aluminium, all other parts made of steel, 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 ba 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.

CONTENTS

TYPE CODE

A URD [ ] 6 - [ ] # [ ]

- International mounting interface ISO
- Description for restrictor valve
- Meter out in:
  A [A] B [B]
  A and B no remark
- Meter-in in:
  A [VA] B [VB]
  A and B [V]
- Nominal size 6
- Additional marking for precision throttle [FD]
- Design-Index (Subject to change)

GENERAL SPECIFICATIONS

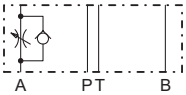
Denomination	Restrictor valve with reverse free flow check
Nominal size	NG6 acc. to ISO 4401-03
Construction	Sandwich
Mounting	4 mounting holes for socket head cap screws M5 or stud screws M5
Connections	Threaded connection plates, Multi-flange subplates, Longitudinal stacking system
Ambient temperature	-20…+50° C
Mounting position	any
Fastening torque	M_D = 5,5 Nm (Qual. 8.8) for fastening screws
Weight	Depending on the type 1,8…1,9 kg

HYDRAULIC SPECIFICATIONS

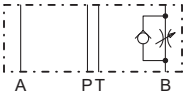
Fluid	Mineraoil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 20/18/14…21/19/15 (Required filtration grade ß 10…25 ≥ 75) refer to data sheet 1.0-50/2
Viscosity range	12 mm²/s…320 mm²/s
Fluid temperature	-20...+70°C
Peak pressure	p_{max} = 350 bar
Pressure required to open the check valve	$p_ö$ = 2 bar
Nominal volume flow rates	Q_N = 40 l/min Q_N at 10 bar valve pressure loss
Max. volume flow	Q_{max} = 70 l/min
Leakage volume flow	Almost leak free with closed restrictor

TYPE LIST / FUNCTION

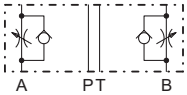
Meter-out:



AURDA6

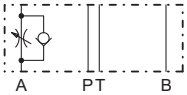


AURDB6

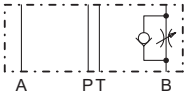


AURD6

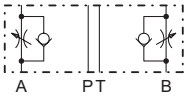
Meter-in:



AURDVA6



AURDVB6

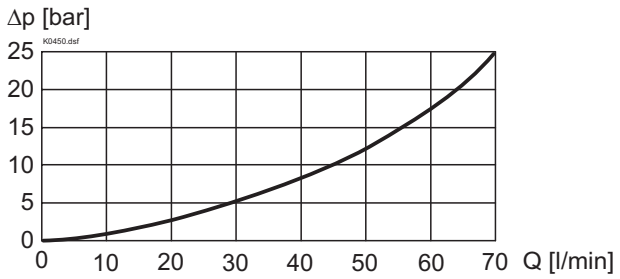


AURDV6

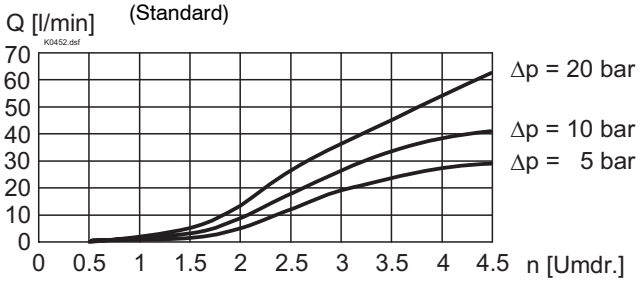
Valves for restricting the meter-in flow are achieved by turning the meter-out valves restrictors (longitudinal axis):
AURDA6 get AURDVA6
AURDB6 get AURDVB6
AURD6 get AURDV6
Valves for restricting the meter-in flow are supplied with a sealing plate and an intermediate plate.

CHARACTERISTICS Oil viscosity υ = 30 mm²/s

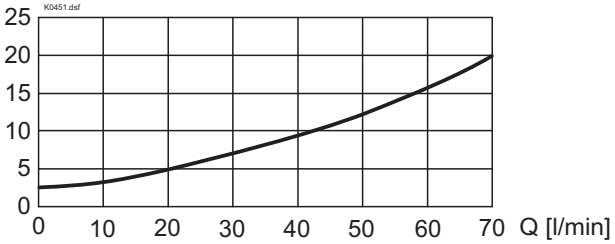
$\Delta p = f(Q)$ Pressure loss/flow characteristics



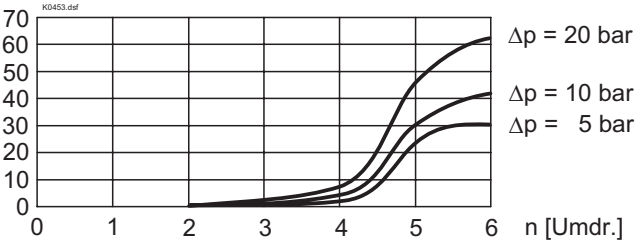
Q = f (n) Volume flow adjustment characteristics (Standard)



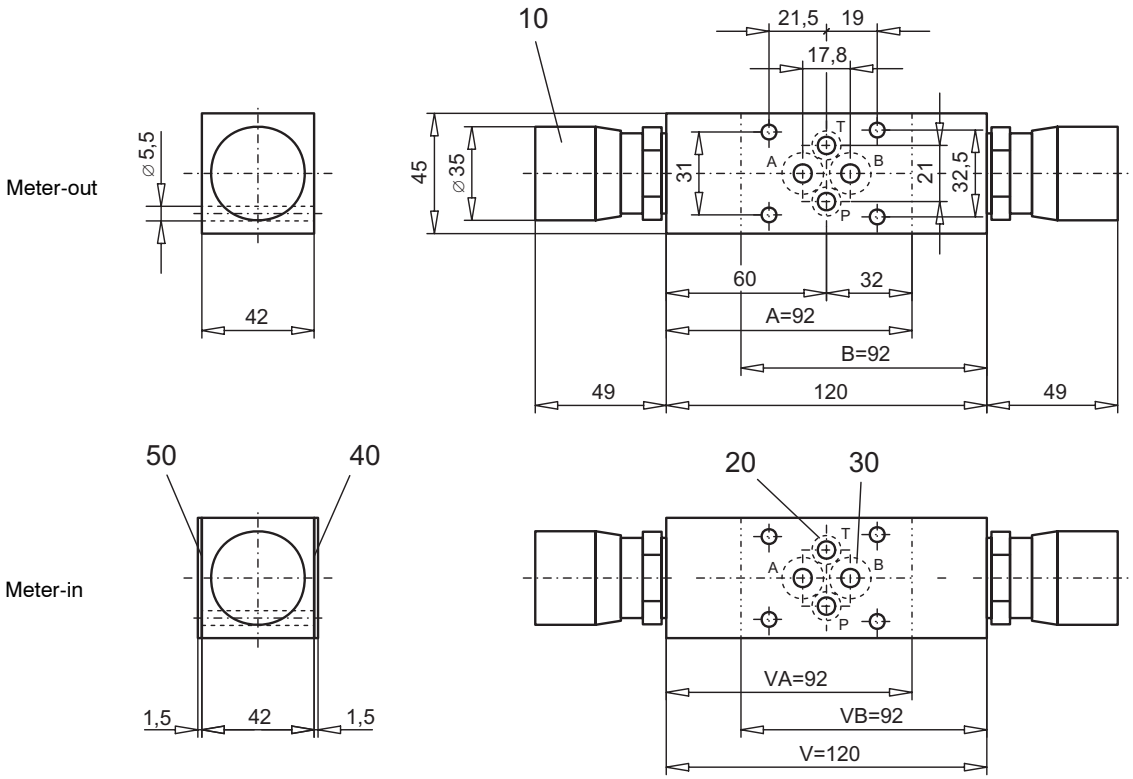
$\Delta p = f(Q)$ Pressure loss/flow characteristics over non-return valve



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



DIMENSIONS



PARTS LISTS

Position	Article	Description
10	114.1201	Turning knob
20	160.2076	O-ring ID 7,65x1,78
30	160.2120	O-ring ID 12,42x1,78 in line with check valve
40	173.3650	Sealing plate ADB6
50	173.3700	Intermediate plate AZB6

Technical explanation see data sheet 1.0-100E