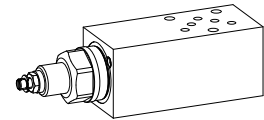


2-way flow control valve
Flange- and sandwich construction

- $Q_{max} = 48 \text{ l/min}$, $p_{max} = 350 \text{ bar}$
- $Q_{Nmax} = 40 \text{ l/min}$

NG4-Mini[®]

DESCRIPTION

Direct operated, pressure compensated flow control valve in flange- and sandwich construction. Flow control screw-in cartridges M22x21,5 acc. to ISO 7789 are installed. In the sandwich plates for A, B and AB line, a bypass check valve for reversed free flow is installed. A bypass non-return valve plate for the flange valve, for free flow from B to A, can be ordered separately. Two flow ranges are available. The flange body is painted and the sandwich plates are phosphatised.

FUNCTION

The 2-way flow control valve is designed to keep the oil flow to any actuator constant irrespectiv of the load.

APPLICATION

2-way flow control valves are used where the supply volume flow has to be kept constant even when the load fluctuates. De-pending on the application, a distinction is made between restricting the forward flow or the return flow. Mini-4 flow control valves are used where hydraulic systems have to be both light and compact.

TYPE CODE

Flow control valve		Q		Z	<input type="checkbox"/>	<input type="checkbox"/>	A04 -	<input type="checkbox"/>	-	<input type="checkbox"/>	#	<input type="checkbox"/>
2-way												
Type of adjustment	Key	<input type="checkbox"/>	S									
	Control knob	<input type="checkbox"/>	D									
	Cover	<input type="checkbox"/>	A									
Flange construction		<input type="checkbox"/>	F									
Sandwich construction		<input type="checkbox"/>	S									
Mounting interface acc. to Wandfluh standard, NG4-Mini												
Type list/Function	Flange construction	Sandwich construction	Meter-out flow control	Sandwich construction	Meter-in flow control	Sandwich construction	Meter-in flow control	Sandwich construction	Meter-in flow control	Sandwich construction	Meter-in flow control	Sandwich construction
	A → B	<input type="checkbox"/>	A/B	in P	<input type="checkbox"/>	P	in A	<input type="checkbox"/>	A	in A	<input type="checkbox"/>	AV
				in T	<input type="checkbox"/>	T	in B	<input type="checkbox"/>	B	in B	<input type="checkbox"/>	BV
							in A and B	<input type="checkbox"/>	AB	in A and B	<input type="checkbox"/>	ABV
Nominal volume flow rate Q_N	2,5 l/min	<input type="checkbox"/>	2,5									
	6,3 l/min	<input type="checkbox"/>	6,3									
	16 l/min	<input type="checkbox"/>	16									
	25 l/min	<input type="checkbox"/>	25									
	40 l/min	<input type="checkbox"/>	40									
Design index (subject to change)												

GENERAL SPECIFICATIONS

Description	2-way flow control valve
Nominal size	NG4-Mini acc. to Wandfluh standard
Construction	Flange- and sandwich construction
Mounting	3 holes for socket cap screws M5 or studs screws M5
Connection	Threaded connection plates Multi-flange subplate Longitudinal stacking system
Ambient temperature	-20...+50 °C
Mounting position	any
Fastening torque	$M_D = 5,5 \text{ Nm}$ (Qual. 8.8), for fastening screws $M_D = 50 \text{ Nm}$ for screw-in cartridge
Weight	• Flange type $m = 0,46 \text{ kg}$
(without screw-in cartridge)	• Sandwich type P,T,A,B $m = 0,95 \text{ kg}$
	• Sandwich type AB $m = 1,22 \text{ kg}$

HYDRAULIC SPECIFICATIONS

Fluid	Mineral oil, other fluid on request
Contamination efficiency	ISO 4406:1999, class 18/16/13 (Required filtration grade $\beta_{6...10} \geq 75$) see data sheet 1.0-50/2
Viscosity range	12 mm ² /s...320 mm ² /s
Fluid temperature	-20...+70 °C
Peak pressure	$p_{max} = 350 \text{ bar}$
Min. volume flow	$Q_{min} = 0,1 \text{ l/min}$
Max. volume flow	$Q_{max} = 48 \text{ l/min}$

SCREW-IN CARTRIDGES INSTALLED

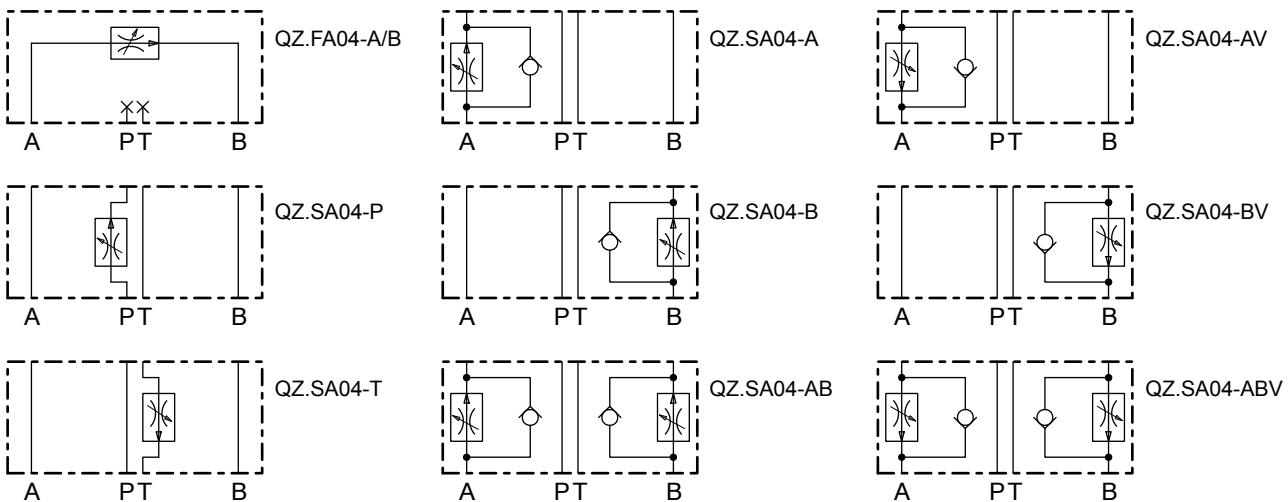
The following screw-in cartridges are used in either the flange body or the sandwich body:

Type	Designation	Data sheet no.
QZ.PM22	flow control valve •2-way	2.5-535

TYPE CHARTS

Meter-out flow control

Meter-in flow control



By turning around valves with meter-out function, meter-in function can be achieved:

- A turns into BV
- B turns into AV
- AB turns into ABV

Valves for flow control are supplied respectively with a sealing plate and an intermediate plate.


REMARK!

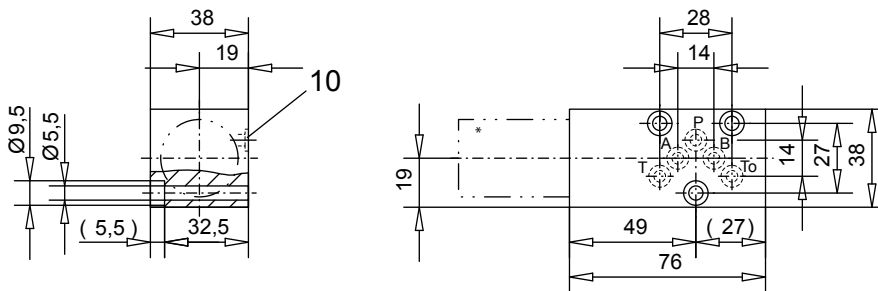
Detailed performance data and additional hydraulic specifications may be drawn from the data sheets of the corresponding installed pressure relief cartridge.


CAUTION!

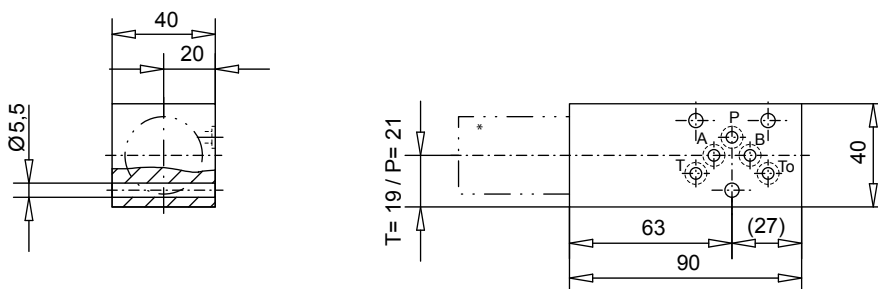
The performance data especially the „**pressure-flow-characteristic**„, on the data sheets of the screw-in cartridges refer to the screw-in cartridges only. The additional pressure drop of the flange body respectively sandwich body must be taken into consideration.

DIMENSIONS

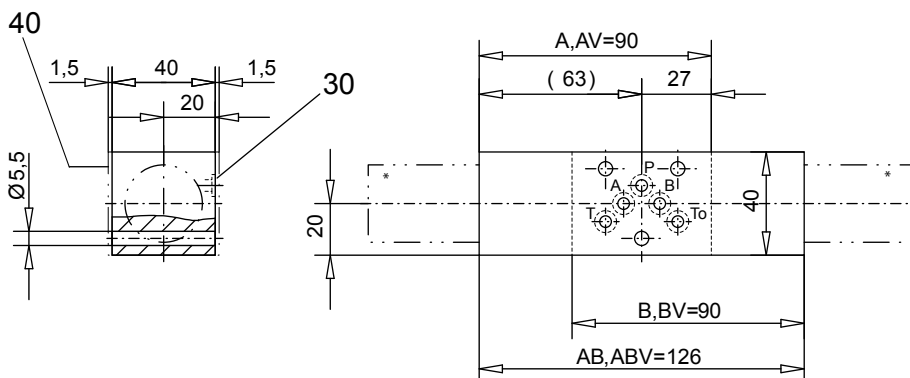
Flange construction QZ.FA04 - A/B



Sandwich construction QZ.SA04 - P, T



Sandwich construction QZ.SA04 - A, B, AB, AV, BV, ABV



* The total lengths depends on the cartridge type, see data sheet 2.5-535

PARTS LIST

Position	Article	Description
10	160.2052	O-ring ID 5,28x1,78 (NBR)
30	173.1700	Intermediate plate BZB4
40	173.1650	Sealing plate BDB4

Technical explanation see data sheet 1.0-100