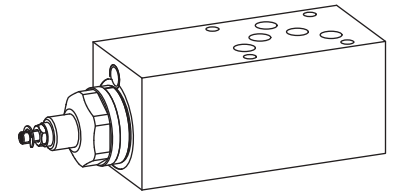


2-way flow control valve
Flange- and sandwich construction

- $Q_{max} = 85 \text{ l/min}$, $p_{max} = 350 \text{ bar}$
- $Q_{Nmax} = 70 \text{ l/min}$

NG10
 ISO 4401-05

DESCRIPTION

Direct operated, pressure compensated flow control valve in flange- and sandwich construction. Flow control screw-in cartridges M33x2 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 irrespective 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. Depending on the application, a distinction is made between restricting the forward flow or the return flow.

TYPE CODE

		Q	Z	<input type="checkbox"/>	<input type="checkbox"/>	A10	<input type="checkbox"/>	-	<input type="checkbox"/>	#	<input type="checkbox"/>
Flow control valve											
2-way-construction											
Setting versions:	Key	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Control knob	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Lock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flange construction	<input type="checkbox"/>										
Sandwich construction	<input type="checkbox"/>										
International standard interface ISO, NG10											
Type list / Function:	Flange construction flow control from	Sandwich construction flow control in	Sandwich construction meter-out flow control in	Sandwich construction meter-in flow control in							
	A to B	P	A	A							
		T	B	B							
			A and B	A and B							
Nominal volume flow rates Q_N :	32 l/min	70 l/min									
Design-Index (Subject to change)											

GENERAL SPECIFICATIONS

Description	2-way flow control valve
Nominal size	NG10 acc. to ISO 4401-05
Construction	Flange- and sandwich construction
Mounting	4 holes for socket cap screws M6 or studs screws M6
Connection	Threaded connection plates Multi-flange subplate Longitudinal stacking system
Ambient temperature	-20...50 °C
Mounting position	any
Fastening torque	$M_D = 9,5 \text{ Nm}$ (Qual. 8.8), for fastening screws $M_D = 80 \text{ Nm}$ for screw-in cartridge
Weight	<ul style="list-style-type: none"> • Flange type $m = 2,20 \text{ kg}$ • Sandwich type P,T,A,B $m = 3,10 \text{ kg}$ • Sandwich type AB $m = 3,75 \text{ kg}$
(without screw-in cartridge)	

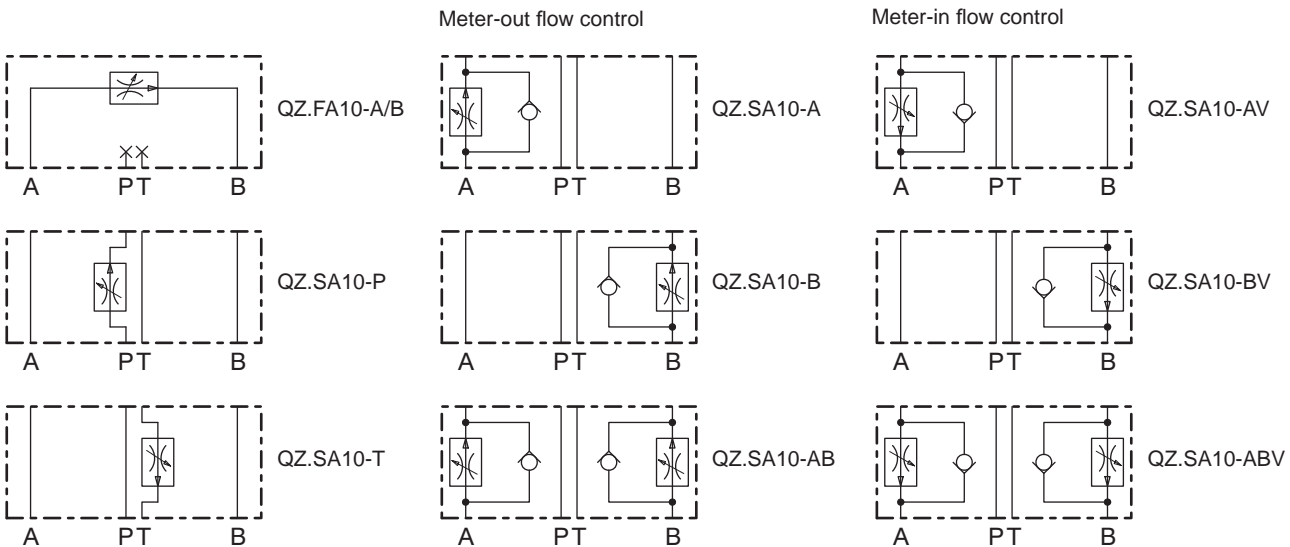
HYDRAULIC SPECIFICATIONS

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	$Q_{min} = 0,2 \text{ l/min}$
Max. volume flow	$Q_{max} = 85 \text{ l/min}$

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.PM33	flow control valve •2-way	2.5-550

TYPE CHARTS


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!

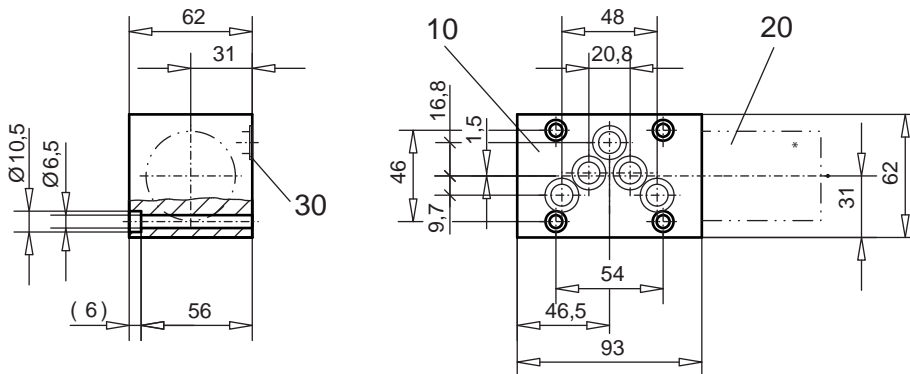
Detailed performance data and additional hydraulic specifications may be drawn from the data sheets of the corresponding installed pressure relief cartridge.


CAUTION!

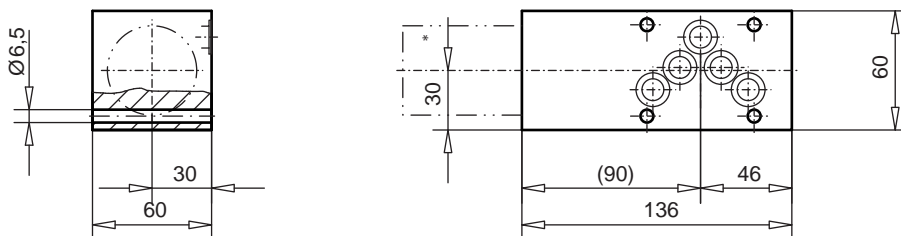
The performance data especially the „**pressure-flow-characteristic**„, on the data sheets of the screw-in cartridges refer to the screw-in cartridges only. The additional pressure drop of the flange body respectively sandwich body must be taken into consideration.

DIMENSIONS

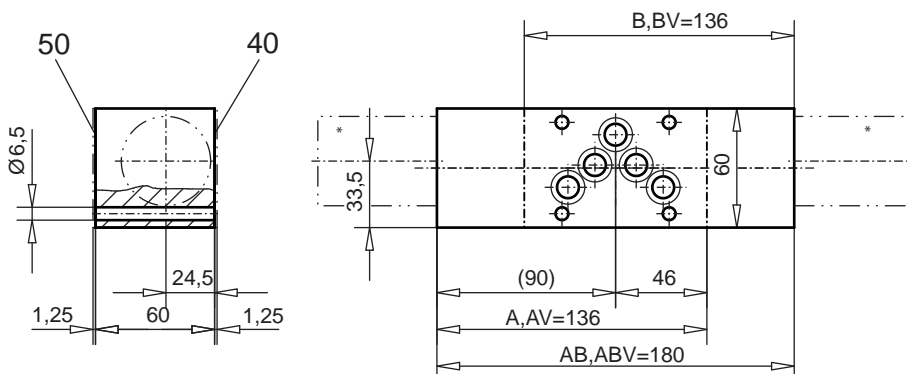
Flange construction QZ.FA10 - A/B



Sandwich construction QZ.SA10 - P, T



Sandwich construction QZ.SA10 - A, B, AB, AV, BV, ABV



* The total lengths depends on the cartridge type, see data sheet 2.5-550

PARTS LIST

Position	Article	Description
10	136.5201	Flange body
	136.5621	Sandwich plate P
	136.5624	Sandwich plate T
	136.6633	Sandwich plate A
	136.6634	Sandwich plate B
	136.6631	Sandwich plate AB
20	633.8 . . .	Flow control cartridge M33x2 see data sheet 2.5-550
30	160.2140	O-ring ID 14,00x1,78 for flange and sandwich construction
	160.2120	O-Ring ID 12,42x1,78 for sandwich construction A, B, AB, VA, VB, VAB
	160.2132	O-Ring ID 13,10x2,62 in line with RV
40	173.4700	Intermediate plate AZB10
50	173.4650	Sealing plate ADB10

Technical explanation see data sheet 1.0-100