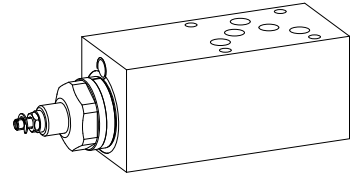


**2-way flow control valve**  
**Flange- and sandwich construction**

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

**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											
Type of adjustment	Key	<input type="checkbox"/>									
	Control knob	<input type="checkbox"/>									
	Cover	<input type="checkbox"/>									
Flange construction		<input type="checkbox"/>									
Sandwich construction		<input type="checkbox"/>									
International standard interface ISO, NG10											
Type list/Function	Flange construction	Sandwich construction	Sandwich construction	Sandwich construction							
	Meter-out flow control	Meter-in flow control	Meter-in flow control	Sandwich construction							
	A → B	in P	in A	in A							
	<input type="checkbox"/>	in T	in B	in B							
	<input type="checkbox"/>	<input type="checkbox"/>	in A and B	in A and B							
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							
Nominal volume flow rate $Q_N$	32 l/min	<input type="checkbox"/>									
	70 l/min	<input type="checkbox"/>									
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	• Flange type $m = 2,20 \text{ kg}$	
(without screw-in cartridge)	• Sandwich type P,T,A,B $m = 3,10 \text{ kg}$	
	• Sandwich type AB $m = 3,75 \text{ kg}$	

**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 <sup>2</sup> /s...320 mm <sup>2</sup> /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**

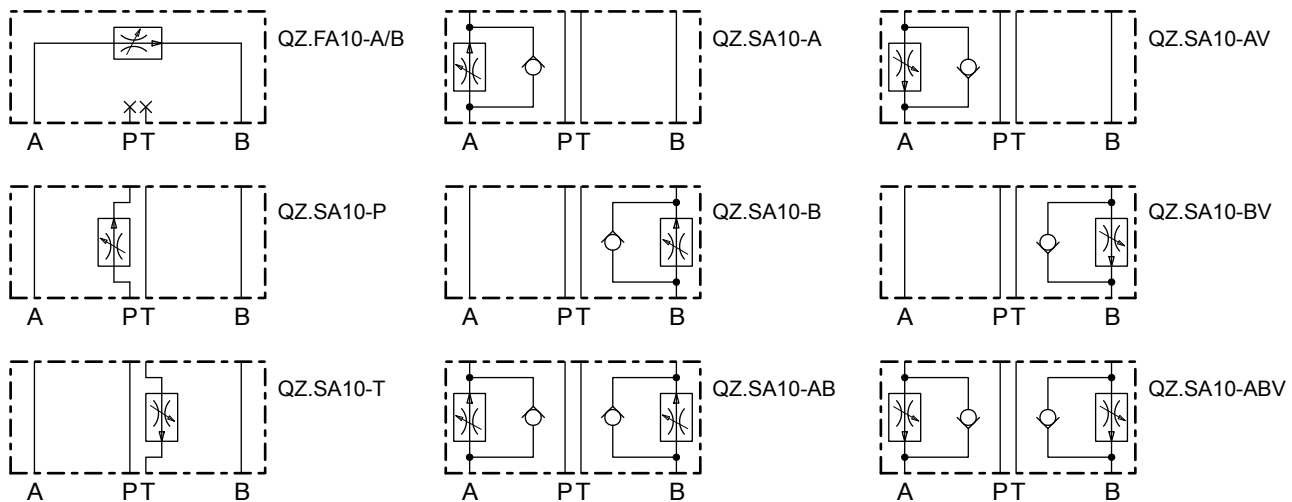
The following screw-in cartridges are used in either the flange body or the sandwich body:

Type	Designation	Data sheet no.
QZ.PM33	flow control valve •2-way	2.5-550

**TYPE CHARTS**

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!**

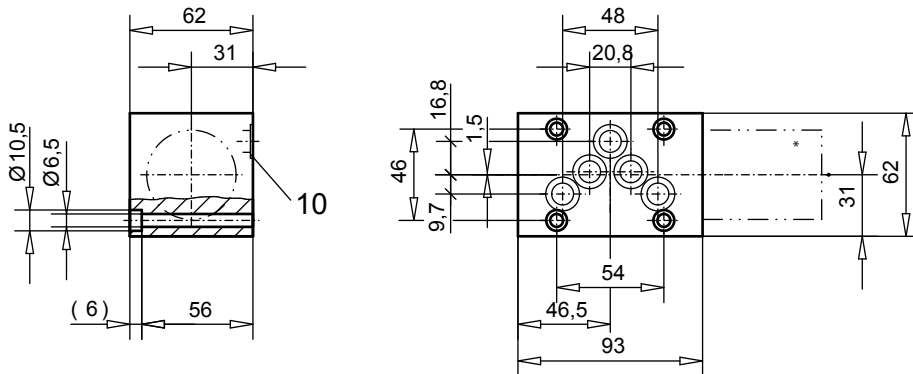
Detailed performance data and additional hydraulic specifications may be drawn from the data sheets of the corresponding installed pressure relief cartridge.


**CAUTION!**

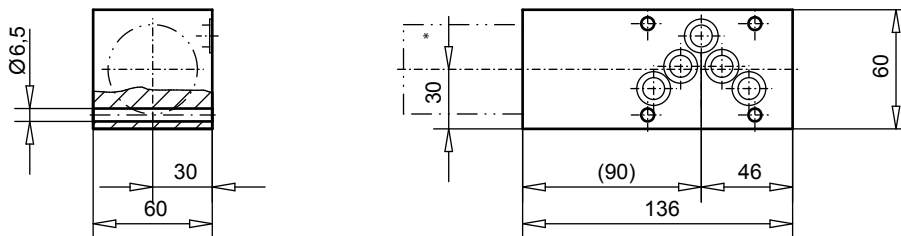
The performance data especially the „**pressure-flow-characteristic**„ on the data sheets of the screw-in cartridges refer to the screw-in cartridges only. The additional pressure drop of the flange body respectively sandwich body must be taken into consideration.

**DIMENSIONS**

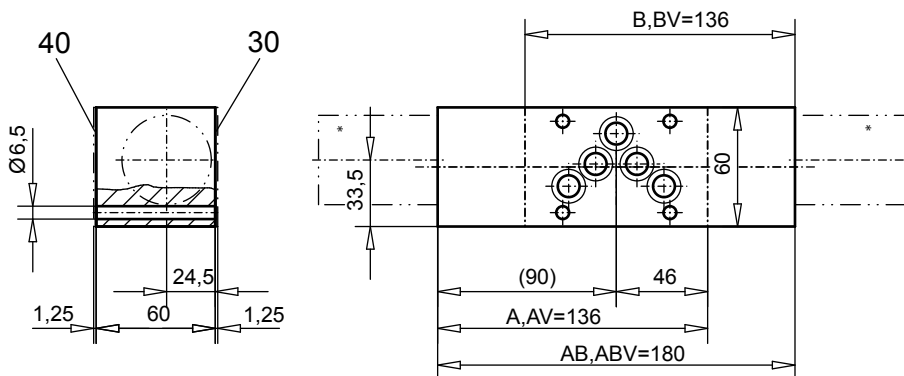
Flange construction QZ.FA10 - A/B



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	160.2140	O-ring ID 14,00 x 1,78 (NBR) for flange and sandwich P, T
	160.2120	O-ring ID 12,42 x 1,78 (NBR) for sandwich A, B, AB, VA, VB, VAB
	160.2132	O-ring ID 13,10 x 2,62 (NBR) in line with RV
30	173.4700	Intermediate plate AZB10
40	173.4650	Sealing plate ADB10

Technical explanation see data sheet 1.0-100