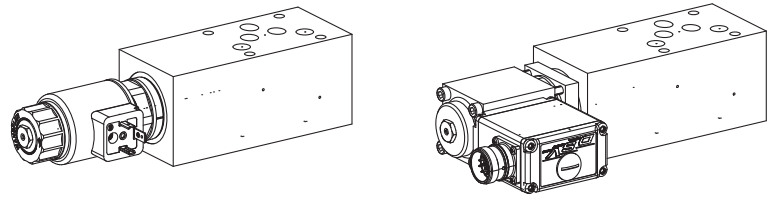


Proportional 2-way flow control valve
Flange- and sandwich construction

- Direct operated, pressure compensated
- $p_{max} = 350 \text{ bar}$

NG10
 ISO 4401-05

DESCRIPTION

Direct operated, pressure compensated proportional flow control valve in flange- and sandwich construction. Proportional 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 phosphatized.

FUNCTION

The 2-way flow control valve with series connected pressure balance (primary controller) serves to maintain the speed of a consumer constant independent of the load.

APPLICATION

Proportional flow control valves in flange- and sandwich construction are suitable for precise feed control systems, where the supply flow has to be maintained constant with a changing load. 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 controlling the forward flow or the return flow.

TYPE CODE

Flow control valve	<input type="checkbox"/>	Q	<input type="checkbox"/>	N	<input type="checkbox"/>	<input type="checkbox"/>	A10 -	<input type="checkbox"/>	-	<input type="checkbox"/>	#	<input type="checkbox"/>
Normally closed	<input type="checkbox"/>											
Proportional	<input type="checkbox"/>											
Proportional with integrated electronics	<input type="checkbox"/>											
Flange construction	<input type="checkbox"/>											
Sandwich construction	<input type="checkbox"/>											
International standard interface ISO, NG10	<input type="checkbox"/>											
Type list / Function:												
<i>Flange construction flow control from:</i>		<i>Sandwich construction flow control in:</i>		<i>Sandwich construction meter-out flow control in:</i>		<i>Sandwich construction meter-in flow control in:</i>						
A to B	<input type="checkbox"/>	P	<input type="checkbox"/>	A	<input type="checkbox"/>	A	<input type="checkbox"/>					
	<input type="checkbox"/>	T	<input type="checkbox"/>	B	<input type="checkbox"/>	B	<input type="checkbox"/>					
	<input type="checkbox"/>		<input type="checkbox"/>	A and B	<input type="checkbox"/>	A and B	<input type="checkbox"/>					
Nominal volume flow level, etc.: see data sheet of the installed screw-in cartridges												
Examples:	QNPFA10 - A/B - <input type="checkbox"/> 32 - G24/WD - D1											
	QNVSA10 - A - <input type="checkbox"/> 63 - 12C1											
Design-Index (Subject to change)												

GENERAL SPECIFICATIONS

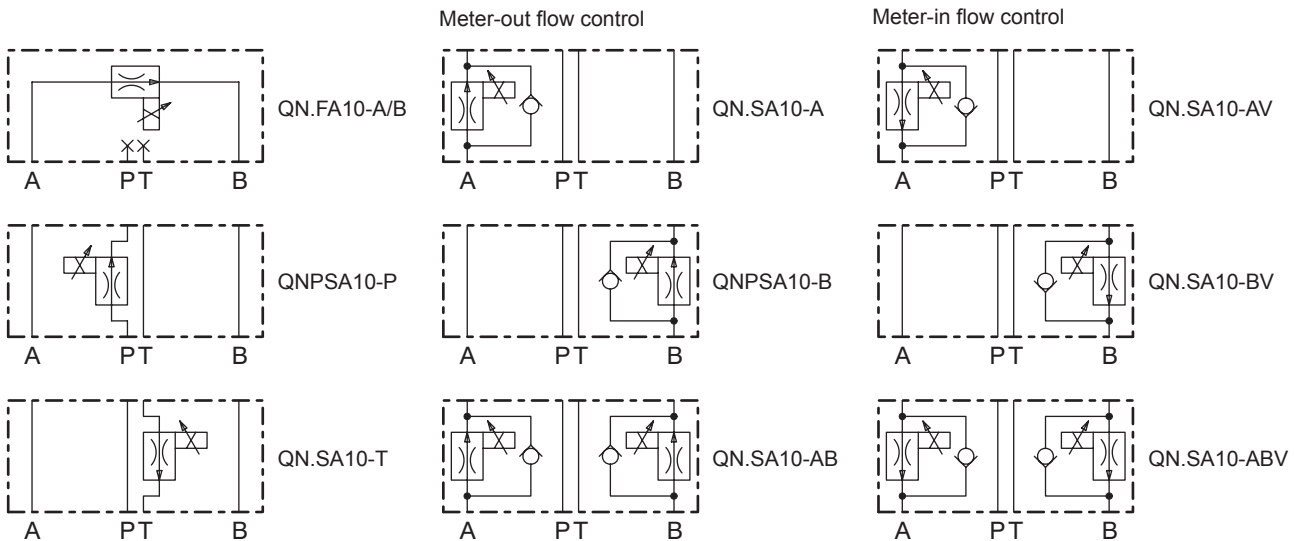
Description	Direct operated proportional 2-way flow control valve	
Nominal size	NG10 acc. to ISO 4401-05	
Construction	Flange- and sandwich construction	
Operation	Proportional solenoid	
Mounting	4 holes for socket cap screws M6 or studs screws M6	
Connection	Threaded connection plates Multi-flange subplates Longitudinal stacking system	
Weight	• Flange type	m = 2,20 kg
(without screw-in cartridge)	• Sandwich type P,T,A,B	m = 3,10 kg
	• Sandwich type AB	m = 3,75 kg

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.	Qmax*
QNPPM33	normally closed	2.6-651	80 l/min
QNPPM33 **	normally closed	2.6-650	63 l/min
QNVPM33	normally closed, with integrated electronics	2.6-660	63 l/min

* Can deviate from the values on the data sheets of the screw-in cartridges.
 ** Do not use anymore for new applications.

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!

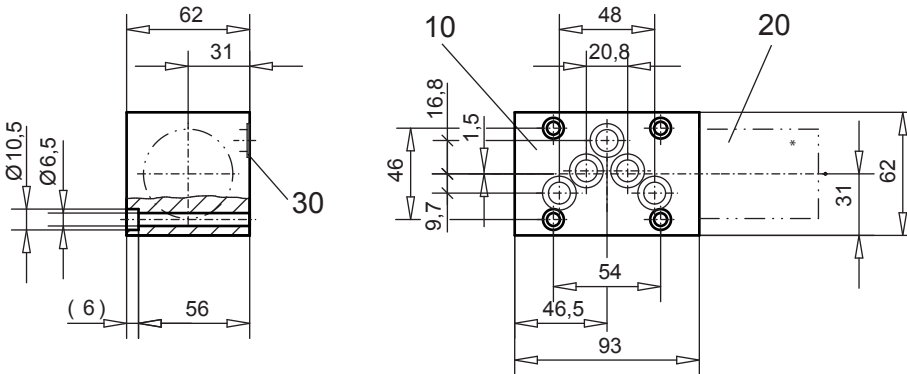
Detailed performance data and additional hydraulic and electric specifications may be drawn from the data sheets of the corresponding installed screw-in cartridge.


CAUTION!

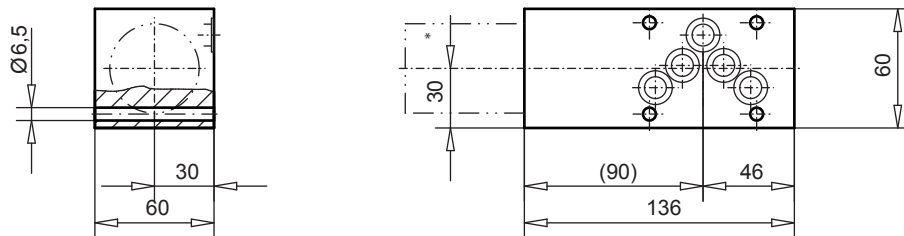
 The performance data, especially the „**pressure-flow-characteristic**„, on the data sheets of the screw-in cartridges, refer to the screw-in cartridges only. The additional pressure drop of the flange body, resp. sandwich body must be taken into consideration.

DIMENSIONS

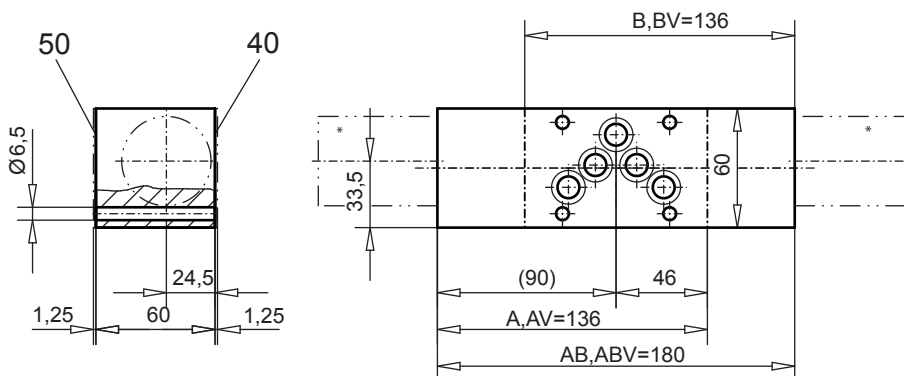
Flange construction QN.FA10 - A/B



Sandwich construction QN.SA10 - P, T



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



* The envelop dimensions of the screw-in cartridge are shown on their corresponding data sheets.

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	650.8 . . .	Screw-in cartridge
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

ACCESSORIES

Proportional amplifier

register 1.13

Technical explanation see data sheet 1.0-100