

# Blocking valves Series VBO - VBU

New size G1/2

2

Unidirectional and bidirectional  
Ports G1/8, G1/4, G3/8 and G1/2



- » Direct mounting on cylinders
- » VBU operating pressure:  
0,3 ÷ 10 bar
- » VBO operating  
pressure: 0 ÷ 10 bar

These unidirectional and bidirectional blocking valves have been realised in order to enable mounting directly on cylinders.

The inner design of the blocking valves Series VBO and VBU allows a very high flow rate and reliable operation.

## GENERAL DATA

<b>Construction</b>	poppet type
<b>Valve group</b>	unidirectional and bidirectional blocking valve
<b>Materials</b>	Brass - NBR seals
<b>Mounting</b>	by male thread
<b>Ports</b>	G1/8 - G1/4 - G3/8 - G1/2
<b>Position</b>	in any position
<b>Operating temperature</b>	0°C + 80°C (with dry air -20°C)
<b>Operating pressure</b>	VBU: 0,3 + 10 bar, VBO: 0 + 10 bar
<b>Nominal pressure</b>	6 bar
<b>Nominal flow</b>	see graph
<b>Nominal diam.</b>	G1/8 ø 5,5 mm - G1/4 ø 8 mm - G3/8 ø 11 mm - G1/2 ø 15 mm
<b>Fluid</b>	filtered air, without lubrication. If lubricated air is used, it is recommended to use oil ISO VG32. Once applied, the lubrication should never be interrupted.

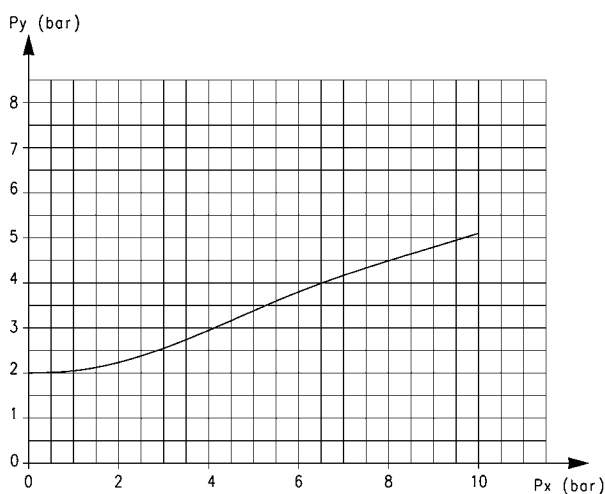
## CODING EXAMPLE

VB	U	1/8
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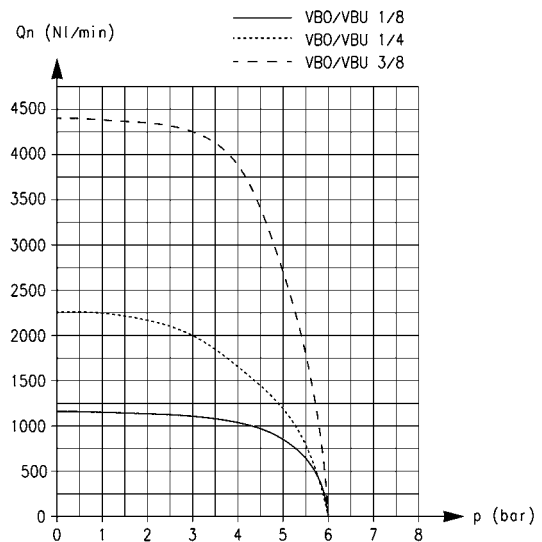
**VB**SERIES:  
VB**U**VERSIONS:  
U = unidirectional  
O = bidirectional**1/8**PORTS:  
G1/8  
G1/4  
G3/8  
G1/2

## UNIDIRECTIONAL AND BIDIRECTIONAL BLOCKING VALVES

New size G1/2



**PILOT PRESSURE:** This diagram shows the relation between working pressure ( $P_x$ ) and pilot pressure required in order to operate the valve ( $P_y$ ).  
The opening pressure of the unidirectional valve is 0,3 bar.



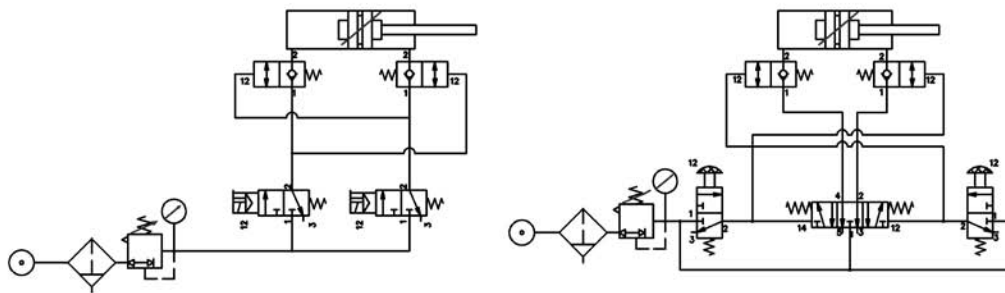
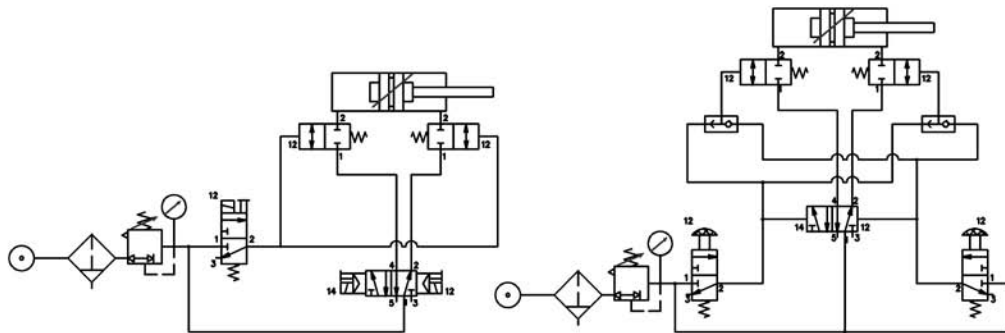
**FLOW RATE**  
Flow Q (NI/min.)  
N.B.: Q is determined with an inlet pressure of 6 bar.  
VBO 1/2 and VBU 1/2: FLOW 6 bar  $\Delta P_1 = 4500$  NI/min.

APPLICATION SCHEMES

New size G1/2

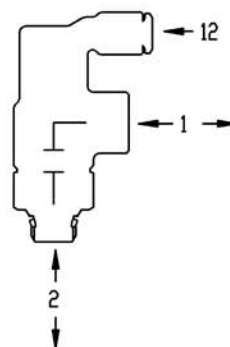
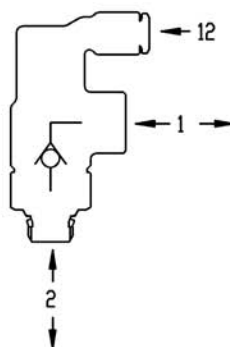
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VBU = UNIDIRECTIONAL blocking valve  
 VBO = BIDIRECTIONAL blocking valve



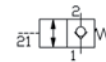
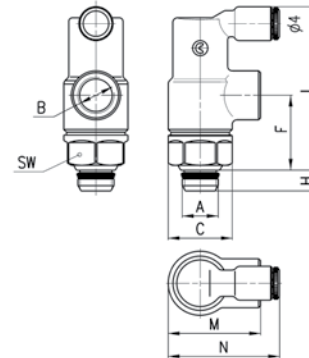
VBU

VBO



Unidirectional blocking valve

New size G1/2

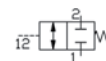
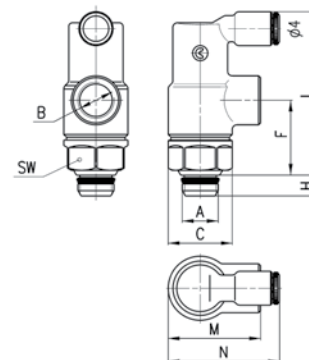


DIMENSIONS

Mod.	A	B	C	F	H	L	M	N	SW
<b>VBU 1/8</b>	1/8	1/8	16,9	20	5,5	43	24,5	30	15
<b>VBU 1/4</b>	1/4	1/4	20,5	25	7	50	32,2	33,5	19
<b>VBU 3/8</b>	3/8	3/8	26,8	33	8	67	40	39,5	24
<b>VBU 1/2</b>	1/2	1/2	30	45,5	9	85,7	52	48	27

Bidirectional blocking valve

New size G1/2



DIMENSIONS

Mod.	A	B	C	F	H	L	M	N	SW
<b>VBO 1/8</b>	1/8	1/8	16,9	20	5,5	43	24,5	30	15
<b>VBO 1/4</b>	1/4	1/4	20,5	25	7	50	32,2	33,5	19
<b>VBO 3/8</b>	3/8	3/8	26,8	33	8	67	40	39,5	24
<b>VBO 1/2</b>	1/2	1/2	30	45,5	9	85,7	52	48	27