

# SERIES

# L30

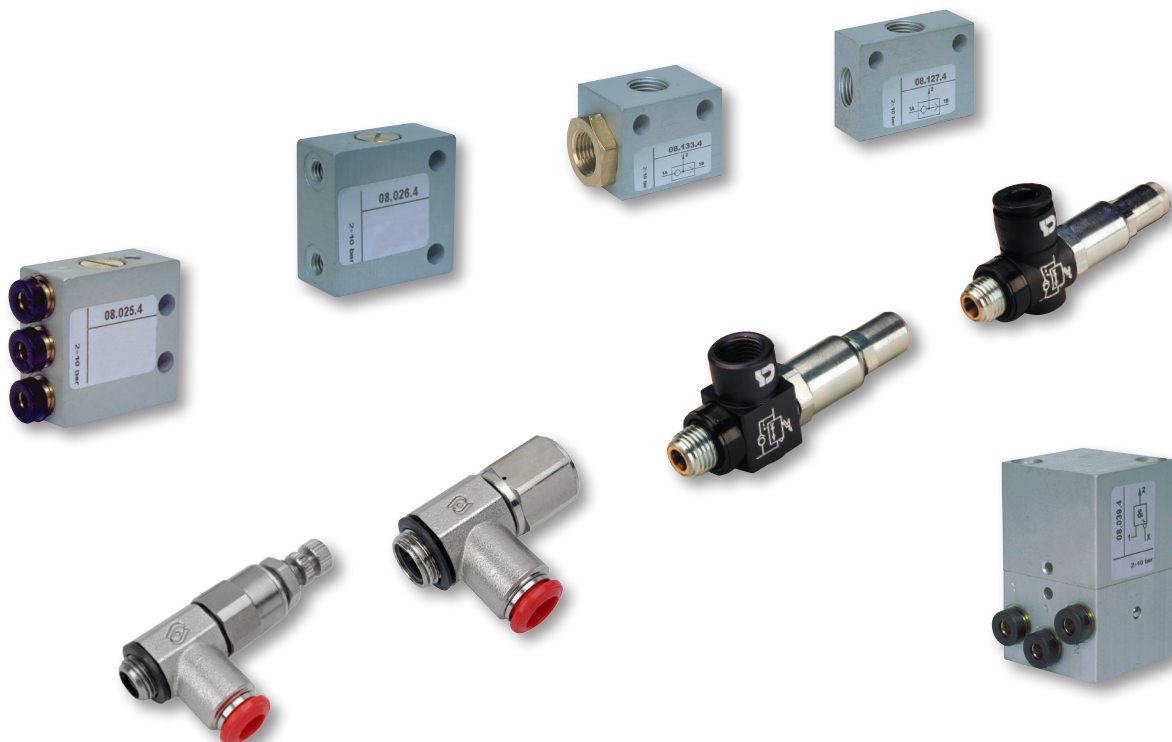
# Function valves

OR-valve  
AND-valve  
NOT-valve  
YES-valve  
Pilot check valve  
Pressure regulator

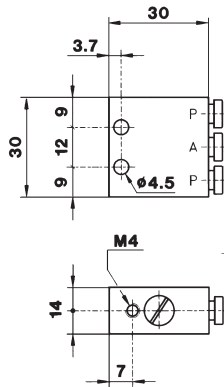
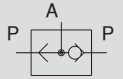


Function	Technical data	Assembly
<p><b>OR-valve</b></p> <p>The output signal of the valve is available when either of the valve inputs is piloted. input pressure = output pressure If both valve inputs are piloted, the higher pressure pulse has priority.</p> <p><b>AND-valve</b></p> <p>The output signal of the valve is only available when both valve inputs are piloted, whereas the input with the lower pressure forms the output signal.</p> <p><b>NOT-valve</b></p> <p>This 3/2-way valve is opened in the basic position. As soon as the control connection is pressurized the valve operates.</p> <p><b>YES-valve</b></p> <p>This 3/2-way valve is closed in the basic position. As soon as the control connection is pressurized the valve operates.</p> <p><b>Pilot check valve</b></p> <p>This 2/2-way valve is closed in the basic position. If the control connection is pressurized the valve opens but closes as soon as the control connection is depressurized.</p>	<p>The specifications are assigned to the respective article in the catalog.</p> <p><b>Application:</b> typical pneumatic applications</p>	<p>■ Please look at the letters, numbers or direction signs which are placed on the respective valve body.</p>

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## Function

As soon as one of both valve inputs (P) is pressurized there is a passage from P to A.  
As soon as both P-connections are pressurized the higher pressure has a passage from P to A.

## Technical data

Function	:	OR-valve
Operating pressure	:	2 - 10 bar
Temperature range	:	-10°C up to +80°C
Nominal width	:	2,5 mm diameter
Flow rate	:	200 l/min
Medium	:	filtered compressed air
Circuit speed	:	3 ms

**Logic symbol**



**Housing:** aluminium

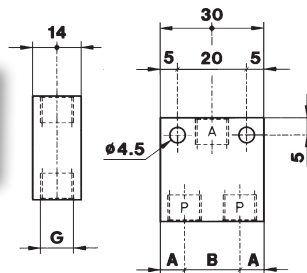
**sealings: NBR**

**valve ball:** stainless steel

## OR-valve - with push-in connection

aluminium

Order-no.	type	hose outer ø	VPE
21170533	L-OR-4-AL	4	1

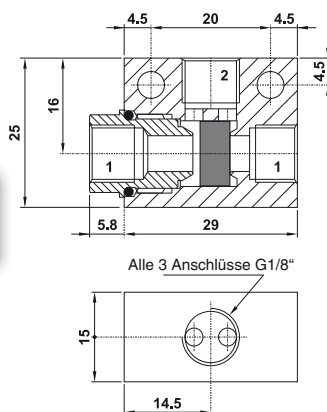
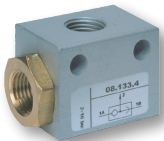


## OR-valve - with female thread

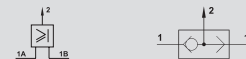


aluminium

Order-no.	type	thread	A	B	VPE
21170531	L-OR-M5-AL	M5	5,2	19,6	1
21170532	L-OR-1/8-AL	G1/8	7,0	16,0	10

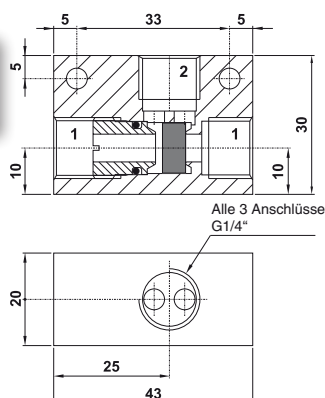
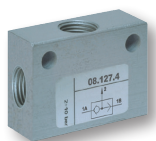


## OR-valve - t-form

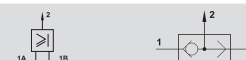


G1/8

Order-no.	type	connections	VPE
21170534	L-ORT-1/8-AL	G1/8	1



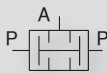
## OR-valve - t-form



**G1/4**

Order-no.	type	connections	VPE
21170535	L-ORT-1/4-AL	G1/4	1





Function

The output signal of the valve (A) is only available when both valve inputs (P) are piloted, whereas the input with the lower pressure has a passage from P to A.

Technical data

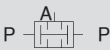
Operating pressure	: 2 - 10 bar
Temperature range	: -10°C up to +80°C
Nominal width	: 2,5 mm diameter
Flow rate	: 200 l/min
Medium	: filtered compressed air
Circuit speed	: 3 ms

Logic symbol



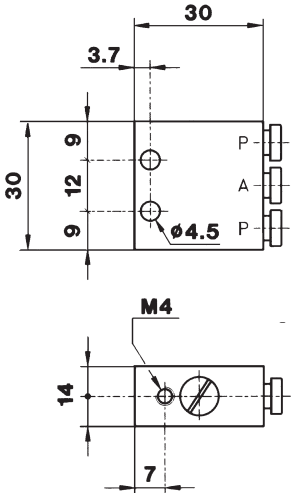
Housing: aluminium      sealings: NBR      valve ball: stainless steel

AND-valve - with push-in connection



aluminium

Order-no.	type	hose outer ø	VPE
21178723	L-AND-4-AL	4	1



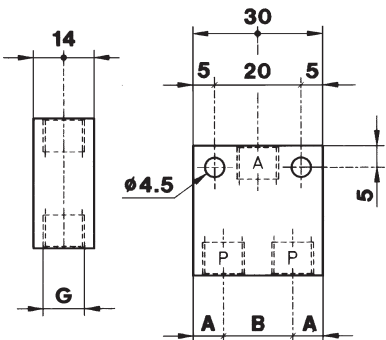
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AND-valve - with female thread



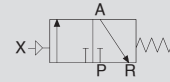
aluminium

Order-no.	type	thread	A	B	VPE
21178721	L-AND-M5-AL	M5	5,2	19,6	1
21178722	L-AND-1/8-AL	G1/8	7,0	16,0	1





## Function YES-valve



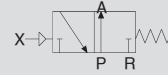
3/2-way NG

YES-valves are pneumatically piloted 3/2-way valves which are turned back with a spring. In the basic position the valve is closed. The input connection P is blocked. The output connection A is exhausted.

As soon as a pilot pulse is effected on X the valve turns and the air passage from P to A is opened. If the pilot pulse at X stops the valve turns to the blocking position (basic position) and the line from P to A is blocked.



## Function NOT-valve



3/2-way NO

NOT-valves are pneumatically piloted 3/2-way valves which are turned back with a spring. In the basic position the valve is opened. The input connection P has a passage to A.

As soon as the pilot pulse is effected on X the valve turns to the blocking position and the line from P to A is blocked. The connection A is exhausted. If the pilot pulse at X stops the valve turns to passage (basic position) and the line from P to A has a free passage.



## Technical data

Function	: 3/2-way-valve pneumatically actuated
Operating pressure	: 2 - 10 bar
Temperature range	: -10°C up to +80°C
Nominal width	: 2,5 mm diameter
Flow rate	: 200 l/min
Medium	: filtered compressed air
Circuit speed	: 3 ms

Housing: aluminium

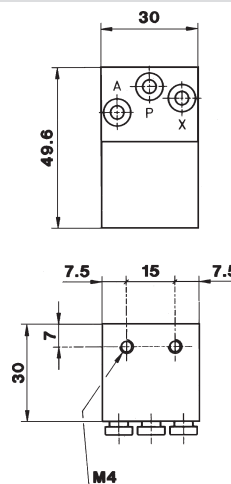
sealings: NBR

spring: stainless steel

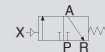
piston: brass

## Dimensions

The YES- and NOT-valves have the same dimensions.



## YES-valve - with push-in connection



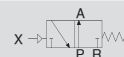
aluminium

**Application:** In the basic position the valve is blocked, there is no passage from P to A and the connection A is exhausted. If the connection X is pressurized with a pilot pulse the valve opens and the passage from P to A is opened.

Order-no.	type	hose outer ø	flow rate NI/min	VPE
21178725	L-Yes-4-AL	4	200	1



## NOT-valve - with push-in connection



aluminium

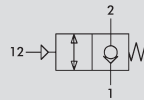
**Application:** In the zero position the valve is opened, the passage from P to A is opened. If the connection X is pressurized with a pilot pulse the valve closes and the passage from P to A is closed und the connection A is exhausted.

Order-no.	type	hose outer ø	flow rate NI/min	VPE
21178724	L-NOT-4-AL	4	200	1



# Piloted check valve

## 2/2-way-Stopp-valve



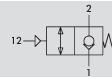
pneumatic

Series L30

### Application

In pneumatic constructions for positioning pneumatic cylinders in every position or with a compressed air failure for securing the pneumatic clamping of the piston. The valve is screwed-in directly at the inlet of the cylinder.

### Function



In the basic position the passage from 2 to 1 is blocked by an installed check valve. The passage from 1 to 2 is free. As soon as a permanent control pressure is effected to the connection 12 the check valve is opened and the work function is ensured. Now the pneumatic cylinder can move in both directions. As soon as the control connection at 12 is exhausted by a hose breakage or a controlled exhaust the check valve blocks the passage from 2 to 1. The cylinder stops clamped in its just reached position. The passage from 1 to 2 is always preserved as free passage. With pressure drops due to leakages compressed air can flow-in so that strength functions can be continued.

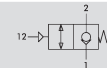
### Technical data

Operating pressure	:	max. 0,5 up to 10 bar	
Opening pressure	:	with 6 bar operating pressure a control pressure of approx. 3 bar is necessary for opening	
Opening pressure min.:	:	with 2, 5 bar operating pressure a control pressure of approx. 1,5 bar is necessary for opening	
Temperature range	:	+5°C up to +50°C	
Flow rate	:	see tabel; at 6 bar $\Delta p=1\text{bar}$	Medium : filtered compressed air

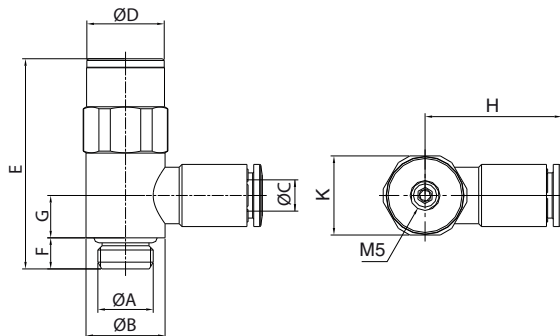
**Housing:** aluminium **sealings:** NBR **spring:** stainless steel **inner parts:** brass

### Pilotec check valve - pneumatic

#### push-in connection



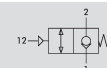
Order-no.	type	thread	hose outer ø	ØB	ØD	E	F	G	H	SW	flow rate NI/min	VPE
23020210	VP-RVE-1/8-B-4	1/8	4	14	13,7	37,2	5,5	6,5	21,1	14	285	1
23020211	VP-RVE-1/8-B-6	1/8	6	14	13,7	37,2	5,5	6,5	22,6	14	285	1
23020212	VP-RVE-1/8-B-8	1/8	8	14	13,7	37,2	5,5	6,5	23,6	14	285	1
23020213	VP-RVE-1/4-B-6	1/4	6	17	16,8	42,5	6	8	25,8	17	530	1
23020214	VP-RVE-1/4-B-8	1/4	8	17	16,8	42,5	6	8	26,3	17	530	1
23020215	VP-RVE-1/4-B-10	1/4	10	17	16,8	42,5	6	8	29,6	17	530	1



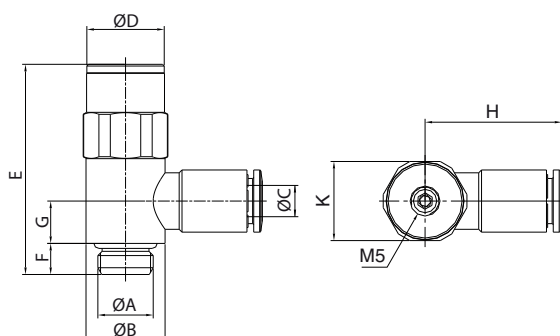
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### Pilotec check valve - pneumatic

#### female thread



Order-no.	type	thread	ØB	ØC	ØD	E	F	G	H	SW	flow rate NI/min	VPE
23020218	VP-RVE-1/8-F-1/8	1/8	14	1/8	13,7	37,2	5,5	7,5	20	14	285	1
23020219	VP-RVE-1/4-F-1/4	1/4	18	1/4	16,8	42,5	6,5	8,5	24	17	530	1
23020220	VP-RVE-3/8-F-3/8	3/8	21	3/8	21,8	53,5	9	10	28,5	22	1000	1
23020221	VP-RVE-1/2-F-1/2	1/2	26	1/2	26,8	65,6	11	12	34,5	27	1300	1

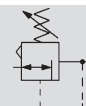


Technical and visual modifications are reserved.

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# Miniature pressure controller



## Application

Miniature pressure regulators are generally used in the secondary circuit of pneumatic control systems. Thanks to their small dimensions, they can be used close to or directly at the supply air

## Function

The adjustment of the pressure is effected by a hexagon screwdriver.

## Technical data

max. inlet pressure : 10 bar  
 max. operating temp. : +50°C  
 flow rate NI/min 6 bar : see table  
 Medium : filtered compressed air

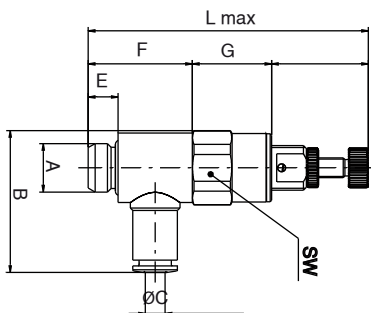
**Housing:** brass vernickelt **sealings:** NBR **spring:** stainless steel **inner parts:** brass



## Miniature pressure controller push-in connection



Order-no.	type	thread	B	hose outer ø	L max	E	F	G	SW	flow rate NI/ min at 6 bar	VPE
23020108	VP-RES-1/8-B-4	1/8	28,6	4	56,5	6	21	16	14	285	1
23020109	VP-RES-1/8-B-6	1/8	30,3	6	56,5	6	21	16	14	285	1
23020110	VP-RES-1/8-B-8	1/8	31,3	8	56,5	6	21	16	14	285	1
23020111	VP-RES-1/4-B-6	1/4	34,3	6	71,5	6	24	20	17	530	1
23020112	VP-RES-1/4-B-8	1/4	35,3	8	71,5	6	24	20	17	530	1
23020113	VP-RES-1/4-B-10	1/4	38,4	10	71,5	6	24	20	17	530	1



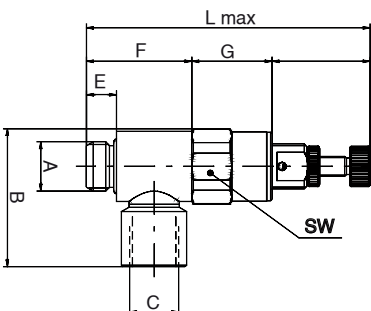
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## Miniature pressure controller female thread

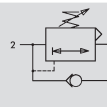


Order-no.	type	thread	B	C	L max	E	F	G	SW	flow rate NI/ min at 6 bar	VPE
23020114	VP-RES-1/8-F-1/8	1/8	27,5	1/8	56,5	6	21	16	14	285	1
23020115	VP-RES-1/4-F-1/4	1/4	33,3	1/4	71,5	6	24	20	17	530	1





# Pressure controller - energy-saving system



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## Application

The pressure controller is mounted at the control valve of the cylinder to drive with the maximal working pressure in one direction e. g. with the extending movement and to drive with reduced pressure with the retracting movement in order to save energy.

## Function

Whereas the pressure from 1 to 2 is adjustable the pressure from 2 to 1 has a free passage due to a bypass (check valve).

The adjustment of the pressure is effected by a hexagon screwdriver.

## Technical data

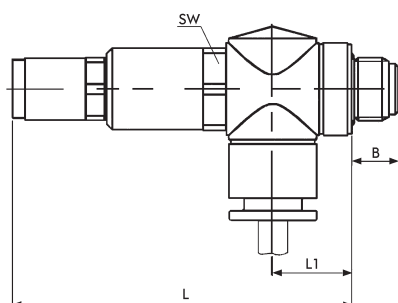
Inlet pressure	: 1 - 16 bar
Outlet pressure	: 1 - 8 bar
Temperature range	: -10°C up to +70°C
Flow rate	: see table
Medium	: filtered compressed air

**Housing:** aluminium    **sealings:** NBR    **spring:** stainless steel    **inner parts:** brass

## Pressure controller-energy-saving system push-in connection



Order-no.	type	thread	hose outer ø	B	L max	L1	SW	flow rate NI/ min at 6 bar	VPE
23020150	VFP-RES-1/8-B-4-8	G1/8	4	6	65,0	21,5	17	780	1
23020151	VFP-RES-1/8-B-6-8	G1/8	6	6	65,0	24,0	17	780	1
23020152	VFP-RES-1/8-B-8-8	G1/8	8	6	65,0	25,0	17	780	1
23020153	VFP-RES-1/4-B-6-8	G1/4	6	9	70,5	25,5	17	1580	1
23020154	VFP-RES-1/4-B-8-8	G1/4	8	9	70,5	26,0	17	1580	1
23020155	VFP-RES-1/4-B-10-8	G1/4	10	9	70,5	26,5	17	1580	1
23020156	VFP-RES-3/8-B-8-8	G3/8	8	9	77,5	29,5	22	2300	1
23020157	VFP-RES-3/8-B-10-8	G3/8	10	9	77,5	29,5	22	2300	1

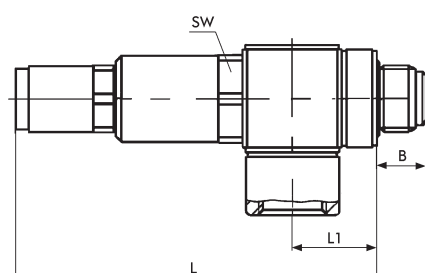


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## Pressure controller-energy-saving system female thread



Order-no.	type	thread	B	L max	L1	SW	flow rate NI/ min at 6 bar	VPE
23020100	VFP-RES-1/8-F-1/8-8	G1/8	6	65,0	18,5	17	780	1
23020101	VFP-RES-1/4-F-1/4-8	G1/4	9	70,5	22,5	17	1580	1
23020102	VFP-RES-3/8-F-3/8-8	G3/8	9	77,5	28,5	22	2300	1
23020103	VFP-RES-1/2-F-1/2-8	G1/2	9	78,0	31,0	27	2300	1





notes

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