

Key features



Innovative

- Silent operation
- Very low power consumption
- Extremely precise
- Short switching times
- Piezo technology

Flexible

- In-line valves
- Sub-base valves
- Simple electrical and pneumatic interfaces
- Choice of different setpoint specifications
 - Current input
 - Voltage input

Operational safety

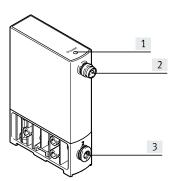
- Integrated pressure sensor with separate output
- Diagnostics
 - Operating voltage: over- and undervoltage
 - Setpoint value: falling below and exceeding
- Consistent pressure regulation performance with long-term stability
- Long service life

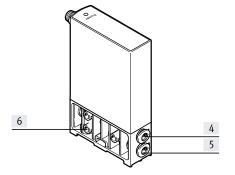
Easy to install

- Mounting the in-line valve via three lateral through-holes
- Secure wall mounting or H-rail mounting

Key features - Display and operation

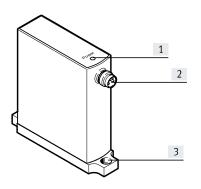
In-line valve

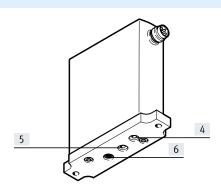




- [1] Power LED (green), fault LED (red)
- [2] Electrical connection, M8 plug
- [3] Port 2, working air
- [4] Port 1, compressed air
- [5] Port 3, exhaust air
- [6] Through-holes for mounting the valve

Sub-base valve

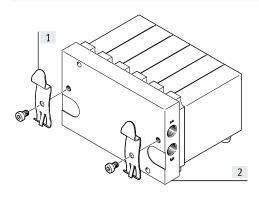




- [1] Power LED (green), fault LED (red)
- [2] Electrical connection, M8 plug
- [3] Through-holes for mounting the valve on the sub-base
- [4] Port 2, working air
- [5] Port 3, exhaust air
- [6] Port 1, compressed air

Key features – Mounting

Mounting the valve manifold assembly H-rail mounting

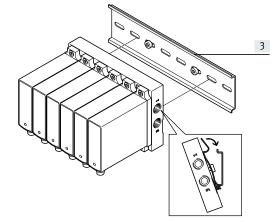


H-rail mounting
Manifold rail

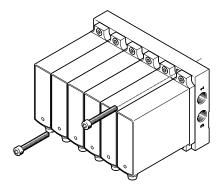
The H-rail mounting can be used to mount the manifold rail on H-rails in accordance with EN 60715.

[3] H-rail

To do this, the manifold rail with the H-rail mounting is mounted on the H-rail and latched in place.



Wall mounting



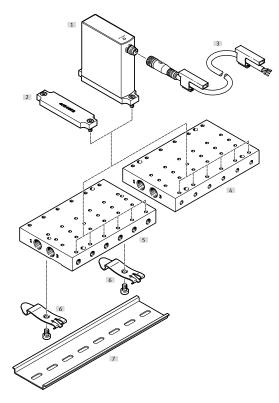
The manifold rail also has throughholes for wall mounting.

Product range overview

Design		Valve function	Pneumatic	Output pressure 2	Setpoint val	→ Page/			
			port 1, 2, 3	(pressure regulation range)	Voltage type		Current type	Internet	
				[kPa]	0 5 V	0 10 V	4 20 mA		
Pressure regulator	In-line valve								
		3-way proportional- pressure regulator	Push-in connector	-1000.5 -100 100 -100 500 -50 50 0.1 20 0.5 100 1 200 3 600 2.5 500		-	-	8	
	Sub-base valve								
		3-way proportional- pressure regulator	Via manifold rail	-1000.5 -100 100 -100 500 -50 50 0.1 20 0.5 100 1 200 3 600 2.5 500	•	-	-	8	

Peripherals overview

Valve manifold assembly VEAB



Туре		Description	→ Page/Internet
[1]	Proportional-pressure regulator VEAB	-	23
[2]	Cover plate VABB	-	24
[3]	Connecting cable NEBU	-	25
[4]	Manifold rail VABM-P7-G18MB	Connection direction underneath, for wall mounting and control cabinet installation	24
[5]	Manifold rail VABM-P7-G18M	Connection direction at the side, for control cabinet installation	24
[6]	H-rail mounting VAME	For mounting the H-rail	25
[7]	H-rail NRH352000	For control cabinet installation	25

Type codes

001	Series	
VEAB	Proportional pressure regulator	
002	Valve function	
26	2x2/2-way valve, normally closed	
003	Directional control valve type	
L	In-line valve	
В	Sub-base valve	
004	Pressure range [bar]	
D2	02	
D7	01	
D9	06	
D12	00.2	
D13	-11	
	-11	
D14	-10	
D14 D15		
	-1 0	

005	Pneumatic connection	
F	Flange/sub-base	
Q4	Push-in connector 4 mm	
006	Setpoint input for individual valves	
A4	4 20 mA	
V1	0 10 V	
V2	0 5 V	
007	Nominal operating voltage	
1	24 V DC	
008	Electrical connection	
R1	Individual connector M8, 4-pin	

Datasheet

- 🔰 Flow rate 4.5 ... 20 l/min
- **L**. Voltage 24 V DC
- 📥 -Output pressure 2 (pressure regulation range) –100 ... –0.5 kPa 0.1 ... 20 kPa 0.5 ... 100 kPa 1 ... 200 kPa 2.5 ... 500 kPa 3 ... 600 kPa –100 ... 100 kPa -100 ... 500 kPa -50 ... 50 kPa



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General technical data

Туре	VEAB-L	VEAB-B				
Valve type	In-line valve	Sub-base valve				
Valve function	3-way proportional-pressu	re regulator				
Dimensions W x L x H [mm] 18 x 60.5 x 85	18 x 67 x 66				
Standard nominal flow rate	→ Page 11					
Pneumatic port 1, 2, 3	Push-in connector 4 mm	Flange/via sub-base				
Sealing principle	Soft	·				
Actuation type	Electrical					
Display type	LED					
Type of control	Direct					
Reset method	Mechanical spring	Mechanical spring				
Type of mounting	Optionally with through-ho	le, with accessories				
Mounting position	Any					
Product weight [g]	70					

Electrical data			
Electrical connection			Plug, M8x1, 4-pin, to EN 60947-5-2
Nominal operating voltage		[V DC]	24
Operating voltage range		[V DC]	19 29
Residual ripple		[%]	10
Max. electrical power consumption		[W]	1
Setpoint input signal	Voltage type [V DC]		010
			05
	Current type	[mA]	420
Analogue output signal range (actual value)	Voltage type	[V DC]	010
			15
	Current type	[mA]	420
Accuracy of analogue output		[%]	2
Short circuit current rating			For all electrical connections
Reverse polarity protection			For all electrical connections
Degree of protection			IP65

- 🛔 - Note

Safety position VEAB: If the electrical power supply fails, the output pressure will be unregulated and may rise or fall – valve blocked.

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Datasheet

Operating and environmental conditions

Operating and environmental conditions	0.5.1	1	I	I	l			
Output pressure 2 (pressure regulation range)	[kPa]	-1000.5	-100 100	-100 500	-50 50			
	[bar]	-10.005	-1 1	-1 5	-0.5 0.5			
	[psi]	-14.50.0725	-14.5 14.5	-14.5 72.5	-7.25 7.25			
Operating medium		Compressed air to IS	50 8573-1:2010 [7:4	4]				
		Inert gases						
Note on the operating/pilot medium		Lubricated operation	n not possible					
Input pressure at port 1	[MPa]	0.1	0 0.2	0 0.55	0 0.2			
	[bar]	1	0 2	0 5.5	0 2			
	[psi]	14.5	0 29	0 79.75	0 29			
Input pressure at port 3	[MPa]	-0.1	-0.1	-0.1	-0.1			
	[bar]	-1	-1	-1	-1			
	[psi]	-14.5	-14.5	-14.5	-14.5			
Hysteresis FS (full scale)	[%]	0.25	0.25	0.25	0.25			
Linearity error FS (full scale)	[%]	0.5	0.5	0.5	0.5			
Repetition accuracy FS (full scale)	[%]	0.4	<u>.</u>		· · ·			
Absolute accuracy at room temperature FS (full scale)	[%]	0.75	0.75	0.75	0.75			
Accuracy of analogue output FS (full scale)	[%]	2						
Temperature coefficient	[%/K]	0.05						
Ambient temperature	[°C]	050						
Temperature of medium	[°C]	5 50						
Storage temperature	[°C]	-20 +70						
Corrosion resistance class CRC ¹⁾		2						
CE marking (see declaration of conformity)		To EU EMC Directive ²	2)					
		To EU RoHS Directive	To EU RoHS Directive ²⁾					
UKCA marking (see declaration of conformity)		To UK instructions fo	or EMC ²⁾					
		To UK RoHS instructi	ons ²⁾					
Certification		RCM						

1) More information: www.festo.com/x/topic/kbk

2) For information about the area of use, see the EC declaration of conformity at: www.festo.com/catalogue/... → Support/Downloads.

If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

Operating and environmental conditions

Operating and environmental conditions								
Output pressure 2 (pressure regulation range)	[kPa]	0.5 100	0.1 20	1 200	2.5 500	3 600		
	[bar]	0.005 1	0.001 0.2	0.01 2	0.025 5	0.03 6		
	[psi]	0.0725 14.5	0.0145 2.9	0.145 29	0.362572.5	0.435 87		
Operating medium		Compressed air t	o ISO 8573-1:201	0 [7:4:4]				
		Inert gases						
Note on the operating/pilot medium	Lubricated opera	ition not possible						
Input pressure at port 1	[MPa]	00.3	0 0.1	0 0.4	0 0.55	0 0.65		
	[bar]	03	01	0 4	0 5.5	0 6.5		
	[psi]	0 43.5	0 14.5	0 58	0 79.75	0 94.25		
Hysteresis FS (full scale)	[%]	0.25	0.25	0.5	0.25	0.25		
Linearity error FS (full scale)	[%]	0.5	0.5	0.8	0.5	0.5		
Repetition accuracy FS (full scale)	[%]	0.4						
Absolute accuracy at room temperature FS (full scale)	[%]	0.75	0.75	0.8	0.75	0.75		
Accuracy of analogue output FS (full scale)	[%]	2						
Temperature coefficient	[%/K]	0.05						
Ambient temperature	[°C]	050						
Temperature of medium	[°C]	5 50						
Storage temperature	[°C]	-20 +70						
Corrosion resistance class CRC ¹⁾		2						
CE marking (see declaration of conformity)		To EU EMC Direct	ive²)					
Certification		RCM						

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If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

Datasheet

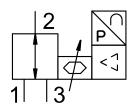
Materials

Materials	
Seals	NBR
Housing	PA-reinforced
Note on materials	RoHS-compliant
PWIS conformity	VDMA24364 zone

Pin allocation

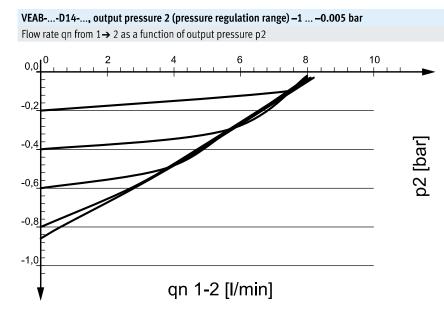
Pin allocation		
	Pin	Function
	1	+24 V DC supply voltage
2 + + 4	2	+ setpoint value
1 (+ +) 3	3	GND
	4	+ actual value

Function

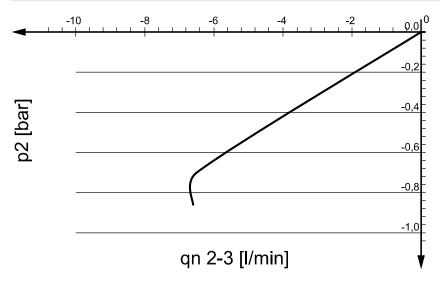


An integrated pressure sensor records the pressure at the working port and compares this value with the setpoint value.

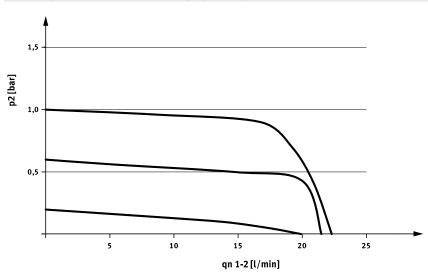
The pressure is automatically readjusted in the event of deviations.



Flow rate qn from $2 \rightarrow 3$ as a function of output pressure p2

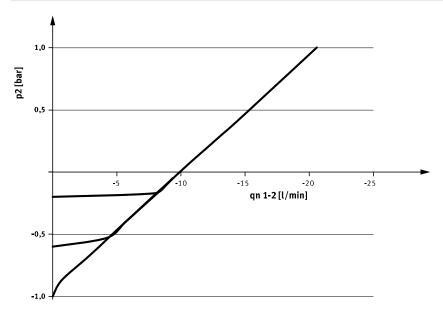


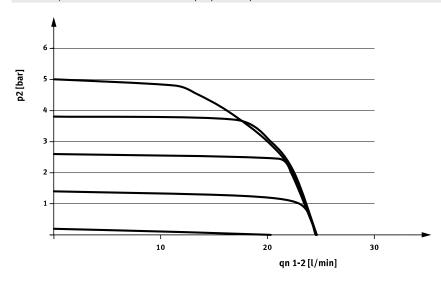
Datasheet



VEAB-...-D13-..., output pressure 2 (pressure regulation range) -1 ... 1 bar Flow rate qn from $1 \rightarrow 2$ as a function of output pressure p2

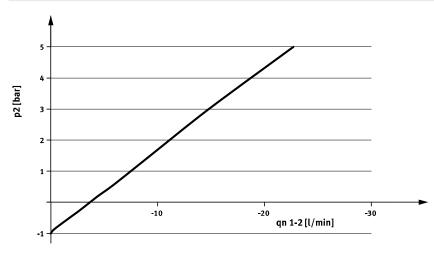
Flow rate qn from $2 \rightarrow 3$ as a function of output pressure p2



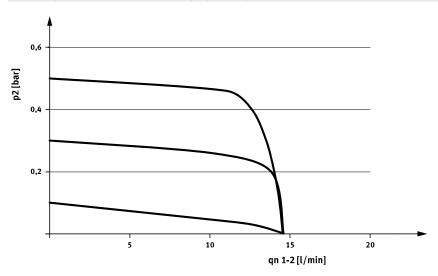


VEAB-...-D18-..., output pressure 2 (pressure regulation range) $-1 \dots 5$ bar Flow rate qn from $1 \rightarrow 2$ as a function of output pressure p2

Flow rate qn from $2 \rightarrow 3$ as a function of output pressure p2

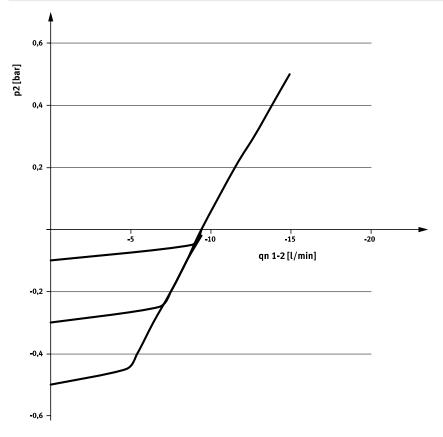


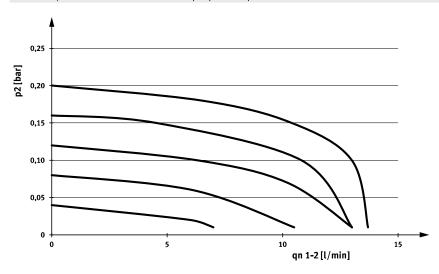
Datasheet



VEAB-...-D15-..., output pressure 2 (pressure regulation range) –0.5 ... 0.5 bar Flow rate qn from $1 \rightarrow 2$ as a function of output pressure p2

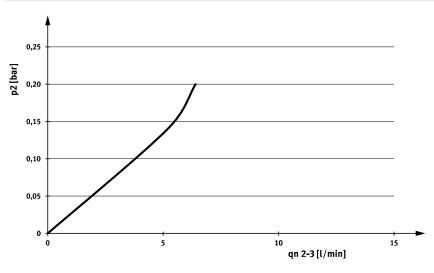
Flow rate qn from $2 \rightarrow 3$ as a function of output pressure p2



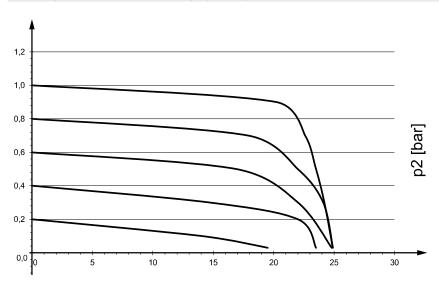


VEAB-...-D12-..., output pressure 2 (pressure regulation range) 0.001 ... 0.2 bar Flow rate qn from $1 \rightarrow 2$ as a function of output pressure p2

Flow rate qn from $2 \rightarrow 3$ as a function of output pressure p2

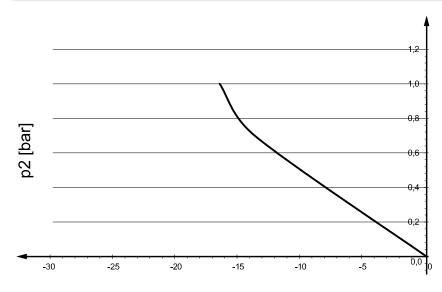


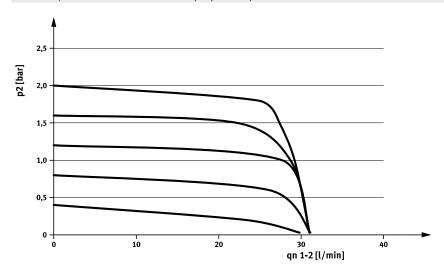
Datasheet



VEAB-...-D7-..., output pressure 2 (pressure regulation range) 0.005 ... 1 bar Flow rate qn from $1 \rightarrow 2$ as a function of output pressure p2

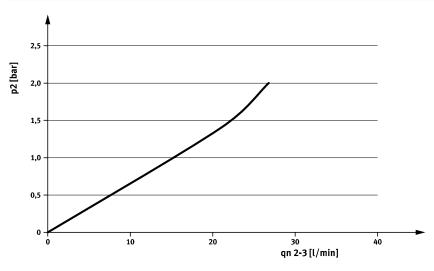
Flow rate qn from $2 \rightarrow 3$ as a function of output pressure p2



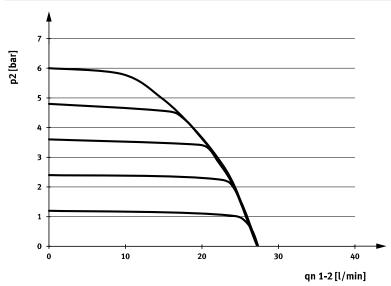


VEAB-...-D2-..., output pressure 2 (pressure regulation range) 0.01 ... 2 bar Flow rate qn from $1 \rightarrow 2$ as a function of output pressure p2

Flow rate qn from $2 \rightarrow 3$ as a function of output pressure p2

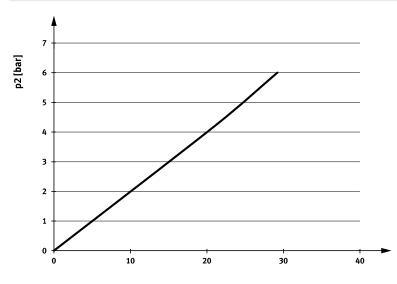


Datasheet



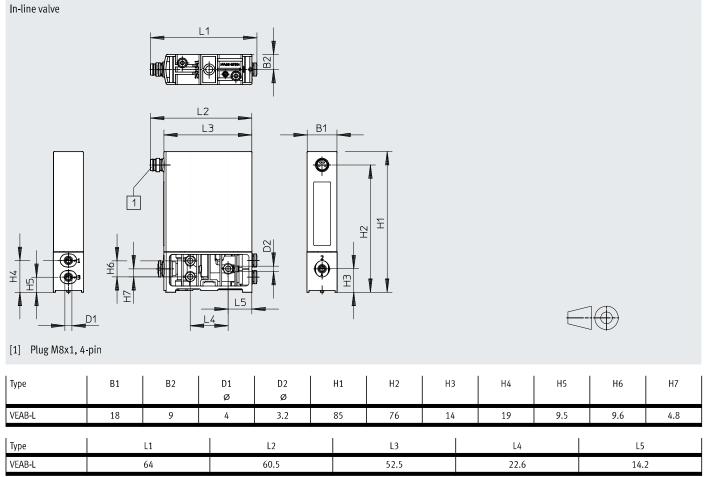
VEAB-...-D9-..., output pressure 2 (pressure regulation range) 0.03 ... 6 bar Flow rate qn from $1 \rightarrow 2$ as a function of output pressure p2

Flow rate qn from $2 \rightarrow 3$ as a function of output pressure p2





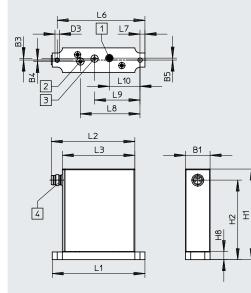
Download CAD data at www.festo.com



Datasheet

Dimensions





Download CAD data at www.festo.com

- [1] Port 1, compressed air
- [2] Port 2, working air
- [3] Port 3, exhaust air
- [4] Plug M8x1, 4-pin

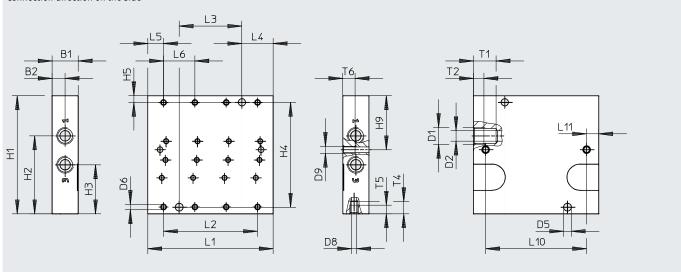


Туре	B1	B3	B4	B5	D3 Ø	H1	H2	H8
VEAB-B	18	1.1	1	1.5	3.2	66	58	6
Туре	L1	L2	L3	L6	L7	L8	L9	L10
VEAB-B	67.2	60.5	52.5	63.6	3.6	43.3	33	22.3

Dimensions – Manifold rail

Connection direction on the side

Download CAD data at www.festo.com

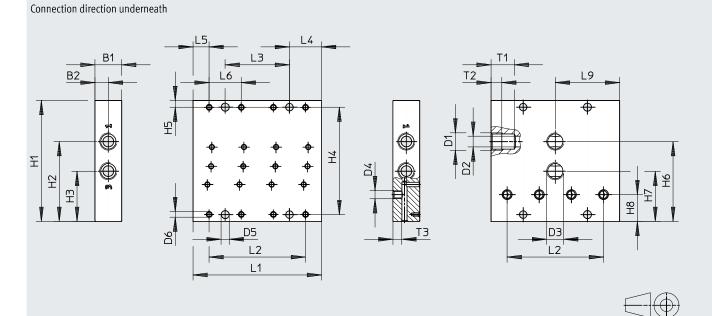


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Туре	B1	B2	B3	D1	D2 Ø	D5 Ø	D6	D7	D8 Ø	D9	H1	H2	H3	H4	H5	H9
VABM-P7-18M-G18-M5-4 VABM-P7-18M-G18-M5-6 VABM-P7-18M-G18-M5-8	15	7.5	8.5	G1/8	6	4.5	M3	M5	2.9	M4	67.8	44.8	28.2	60.2	3.8	31
Туре	L1	L2		L3	L4	L5	L6	L:	10	L11	T1	T2	т4	4	T5	T6
VABM-P7-18M-G18-M5-4	72	54		36	18	9	18	5	8	7	13	6	7	,	5	7
VABM-P7-18M-G18-M5-6	108	90		72				9	4						ĺ	
VADIM-F7-10M-010-MD-0																

Dimensions – Manifold rail

Download CAD data at www.festo.com



Туре	B1	B2	B3	D1	D2 Ø	D3	D4	D5 Ø	D6	D7 Ø	H1	H2	НЗ	H4	H5	H6
VABM-P7-18MB-G18-M5-4 VABM-P7-18MB-G18-M5-6 VABM-P7-18MB-G18-M5-8	15	7.5	8.5	G1/8	6	G1/8	M5	4.5	М3	2.9	67.8	44.8	28.2	60.2	3.8	44.8
Туре	H7	н	8	L1	L2	L	3	L4	L5	L	.6	L9	T1	т	2	T3
VABM-P7-18MB-G18-M5-4 VABM-P7-18MB-G18-M5-6 VABM-P7-18MB-G18-M5-8	28.2	1	5	72 108 144	54 90 126	7	6 2 08	18	9	1	8	36	13		5	5

Ordering data							
		Output pressure 2 (pressure regulation range)			Part no.	Туре	
		[kPa]	[bar]	[psi]			
In-line valve			-				
	Voltage type, 0 5 V	-1000.5	-10.005	-14.50.0725	8153676	VEAB-L-26-D14-Q4-V2-1R1	
		-100 100	-1 1	-14.5 14.5	8153681	VEAB-L-26-D13-Q4-V2-1R1	
		-100 500	-1 5	-14.5 72.5	8153682	VEAB-L-26-D18-Q4-V2-1R1	
		<u>-</u> 50 50	-0.5 0.5	-7.25 7.25	8153680	VEAB-L-26-D15-Q4-V2-1R1	
		0.1 20	0.001 0.2	0.0145 2.9	8153673	VEAB-L-26-D12-Q4-V2-1R1	
		0.5 100	0.005 1	0.0725 14.5	8153674	VEAB-L-26-D7-Q4-V2-1R1	
		1 200	0.01 2	0.145 29	8153675	VEAB-L-26-D2-Q4-V2-1R1	
		2.5 500	0.025 5	0.362572.5	8153685	VEAB-L-26-D25-Q4-V2-1R1	
		3 600	0.03 6	0.435 87	8153672	VEAB-L-26-D9-Q4-V2-1R1	
	Voltage type, 0 10 V	-1000.5	-10.005	-14.50.0725	8046307	VEAB-L-26-D14-Q4-V1-1R1	
		-100 100	-1 1	-14.5 14.5	8067677	VEAB-L-26-D13-Q4-V1-1R1	
		-100 500	-1 5	-14.5 72.5	8067679	VEAB-L-26-D18-Q4-V1-1R1	
		- 50 50	-0.5 0.5	-7.25 7.25	8067675	VEAB-L-26-D15-Q4-V1-1R1	
		0.1 20	0.001 0.2	0.0145 2.9	8046301	VEAB-L-26-D12-Q4-V1-1R1	
		0.5 100	0.005 1	0.0725 14.5	8046303	VEAB-L-26-D7-Q4-V1-1R1	
		1 200	0.01 2	0.145 29	8046305	VEAB-L-26-D2-Q4-V1-1R1	
		3 600	0.03 6	0.435 87	8046299	VEAB-L-26-D9-Q4-V1-1R1	
	Current type, 4 20 mA	-1000.5	-10.005	-14.50.0725	8046308	VEAB-L-26-D14-Q4-A4-1R1	
		-100 100	-1 1	-14.5 14.5	8067678	VEAB-L-26-D13-Q4-A4-1R1	
		-100 500	-1 5	-14.5 72.5	8067680	VEAB-L-26-D18-Q4-A4-1R1	
		- 50 50	-0.5 0.5	-7.25 7.25	8067676	VEAB-L-26-D15-Q4-A4-1R1	
		0.1 20	0.001 0.2	0.0145 2.9	8046302	VEAB-L-26-D12-Q4-A4-1R1	
		0.5 100	0.005 1	0.0725 14.5	8046304	VEAB-L-26-D7-Q4-A4-1R1	
		1 200	0.01 2	0.145 29	8046306	VEAB-L-26-D2-Q4-A4-1R1	
		3 600	0.03 6	0.435 87	8046300	VEAB-L-26-D9-Q4-A4-1R1	
Sub-base valve							
	Voltage type, 0 5 V	-1000.5	-10.005	-14.50.0725	8153671	VEAB-B-26-D14-F-V2-1R1	
		-100 100	-1 1	-14.5 14.5	8153678	VEAB-B-26-D13-F-V2-1R1	
		-100 500	-1 5	-14.5 72.5	8153679	VEAB-B-26-D18-F-V2-1R1	
T Co		- 50 50	-0.5 0.5	-7.25 7.25	8153677	VEAB-B-26-D15-F-V2-1R1	
		0.1 20	0.001 0.2	0.0145 2.9	8153668	VEAB-B-26-D12-F-V2-1R1	
		0.5 100	0.005 1	0.0725 14.5	8153669	VEAB-B-26-D7-F-V2-1R1	
		1 200	0.01 2	0.145 29	8153670	VEAB-B-26-D2-F-V2-1R1	
		2.5 500	0.025 5	0.362572.5	8153684	VEAB-B26-D25-F-V2-1R1	
·		3 600	0.03 6	0.435 87	8153667	VEAB-B-26-D9-F-V2-1R1	
	Voltage type, 0 10 V	-1000.5	-10.005	-14.50.0725	8046271	VEAB-B-26-D14-F-V1-1R1	
		-100 100	-1 1	- 14.5 14.5	8067669	VEAB-B-26-D13-F-V1-1R1	
		-100 500	-1 5	-14.5 72.5	8067671	VEAB-B-26-D18-F-V1-1R1	
		- 50 50	-0.5 0.5	-7.25 7.25	8067667	VEAB-B-26-D15-F-V1-1R1	
		0.1 20	0.001 0.2	0.0145 2.9	8046265	VEAB-B-26-D12-F-V1-1R1	
		0.5 100	0.005 1	0.0725 14.5	8046267	VEAB-B-26-D7-F-V1-1R1	
		1 200	0.01 2	0.145 29	8046269	VEAB-B-26-D2-F-V1-1R1	
		3 600	0.03 6	0.435 87	8046263	VEAB-B-26-D9-F-V1-1R1	
	Current type, 4 20 mA	-1000.5	-10.005	-14.50.0725	8046272	VEAB-B-26-D14-F-A4-1R1	
		-100 100	-1 1	-14.5 14.5	8067670	VEAB-B-26-D13-F-A4-1R1	
		-100 500	-1 5	-14.5 72.5	8067672	VEAB-B-26-D18-F-A4-1R1	
		- 50 50	-0.5 0.5	- 7.25 7.25	8067668	VEAB-B-26-D15-F-A4-1R1	
		0.1 20	0.001 0.2	0.0145 2.9	8046266	VEAB-B-26-D12-F-A4-1R1	
		0.5 100	0.005 1	0.0725 14.5	8046268	VEAB-B-26-D7-F-A4-1R1	
		1 200	0.01 2	0.145 29	8046270	VEAB-B-26-D2-F-A4-1R1	
		3 600	0.03 6	0.435 87	8046264	VEAB-B-26-D9-F-A4-1R1	

Datasheet

•	Description		Part no.	Туре
Manifold rail				
	Connection direction on the side	4 valve positions	8076386	VABM-P7-18M-G18-M5-4
		6 valve positions	8076388	VABM-P7-18M-G18-M5-6
		8 valve positions	8076390	VABM-P7-18M-G18-M5-8
	Connection direction underneath	4 valve positions	8076387	VABM-P7-18MB-G18-M5-4
		6 valve positions	8076389	VABM-P7-18MB-G18-M5-6
		8 valve positions	8076391	VABM-P7-18MB-G18-M5-8
Cover plate				
	Including screws (2) and O-rings (3, premoun	ted)	4054658	VABB-P7-M

Accessories

	Description		Part no.	Туре		
Connecting cable				Datasheets at Internet: nebu		
	Straight socket, M8x1, 4-pin Open end, 4-wire	2.5 m	541342	NEBU-M8G4-K-2.5-LE4		
a and		5 m	541343	NEBU-M8G4-K-5-LE4		
Cont of the second seco	Angled socket, M8x1, 4-pin Open end, 4-wire	2.5 m	541344	NEBU-M8W4-K-2.5-LE4		
		5 m	541345	NEBU-M8W4-K-5-LE4		
STATE OF	Straight socket, M8x1, 4-pin Straight plug M8x1, 4-pin	2.5 m	554035	NEBU-M8G4-K-2.5-M8G4		
H-rail						
	To EN 60715, 35 x 7.5 (WxH), for control ca	abinet installation	35430	NRH-35-2000		
H-rail mounting						
	For H-rail NRH-35-2000		4054652	VAME-P7-T		
Mounting plate						
e a a a a a a a a a a a a a a a a a a a	For in-line valve			VAME-P7-Y		