

Quick exhaust valves SE/SEU



Quick exhaust valves SE/SEU

Key features, product range overview and type codes



Features		SE	SEU
Function			
<p>These components allow higher piston speeds to be achieved on the return stroke of single and double-acting cylinders.</p> <p>Compressed air flows from the pilot valve and via the quick exhaust valve to the cylinder. The exhaust port 3 is closed at this time. When the pressure at 1 falls, exhaust flow occurs from 2 to 3.</p>	<p>In order to achieve the full benefit of the quick exhaust function, the valve must be connected directly to the port of the cylinder.</p> <p>In the quick exhaust valve SEU the exhaust noise is reduced by a silencer.</p>		

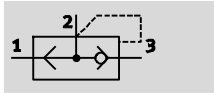
Product range overview						
Function	Version	Type	Pneumatic connection		→ Page/Internet	
			1	2		
Quick exhaust valves	Compact design					
		SE	Without silencer	G ¹ / ₈ , G ¹ / ₄ , G ³ / ₈ , G ¹ / ₂ , G ³ / ₄	G ¹ / ₈ , G ¹ / ₄ , G ³ / ₈ , G ¹ / ₂ , G ³ / ₄	3
		SEU	With silencer	G ¹ / ₈ , G ¹ / ₄ , G ³ / ₈ , G ¹ / ₂	G ¹ / ₈ , G ¹ / ₄ , G ³ / ₈ , G ¹ / ₂	6
	Flat design					
		VBQF-D	Without silencer	G ¹ / ₈ G ¹ / ₄	G ¹ / ₈ , QS-6 G ¹ / ₄	vbqf
		VBQF-U	With silencer	G ¹ / ₈ G ¹ / ₄	G ¹ / ₈ , QS-6 G ¹ / ₄ , QS-8	




Type codes	
SE - 1/8 - B	
Type	
SE	Quick exhaust valve
SEU	Quick exhaust valve with silencer
Pneumatic connection	
1/8	G ¹ / ₈
1/4	G ¹ / ₄
3/8	G ³ / ₈
1/2	G ¹ / ₂
3/4	G ³ / ₄
Generation	
	Series A
B	Series B

Quick exhaust valves SE

Technical data

Function



-  Flow rate
300 ... 4,560 l/min
-  Temperature range
-20 ... +75 °C
-  Operating pressure
0.2 ... 10 bar

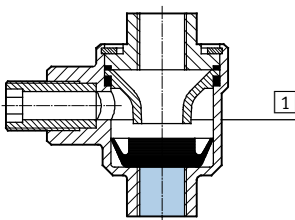


General technical data					
Pneumatic connection 1	G1/8	G1/4	G3/8	G1/2	G3/4
Pneumatic connection 2	G1/8	G1/4	G3/8	G1/2	G3/4
Pneumatic connection 3	G1/8	G1/4	G3/8	G1/2	G3/4
Nominal size [mm]	5	7	11	15	19
Valve function	Quick exhaust				
Type of mounting	Screw-in				Via through-hole
Mounting position	Any				
Noise level [dB(A)]	100	-			

Operating and environmental conditions					
Pneumatic connection 1	G1/8	G1/4	G3/8	G1/2	G3/4
Operating pressure [bar]	0.5 ... 10	0.5 ... 10	0.2 ... 10	0.3 ... 10	0.5 ... 10
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:4:4]	Compressed air in accordance with ISO 8573-1:2010 [7:--:--]			
Note on operating/pilot medium	Operation with lubricated medium possible (in which case lubricated operation will always be required)				
Ambient temperature [°C]	-20 ... +75				
Temperature of medium [°C]	-20 ... +75				

Materials

Sectional view



Quick exhaust valve			
1	Housing	G1/8, G1/4 G3/8, G1/2 G3/4	Die-cast zinc Die-cast aluminium Anodised wrought aluminium alloy
	-	Seals	NBR

Quick exhaust valves SE

Technical data

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Dimensions Download CAD data → www.festo.com

Pneumatic connection G¹/₈

1 = Inlet port 2 = Outlet port

Pneumatic connection G¹/₄

3 = Exhaust port

Pneumatic connection G³/₈

1 = Inlet port 2 = Outlet port

Pneumatic connection G¹/₂

3 = Exhaust port

Type	Connection		B1	B2	B3	B4	B5	D3 ∅	D4 ∅	L1	L2	1-C	2-C	3-C	4-C
	D1	D2													
SE-1/8-B	G ¹ / ₈	G ¹ / ₈	40	33	22	7	-	25	16	21	7	14	22	-	-
SE-1/4-B	G ¹ / ₄	G ¹ / ₄	49.5	42	27	10	30	33	29	28	10	17	-	19	19
SE-3/8-B	G ³ / ₈	G ³ / ₈	61.5	51.5	36	11	39.2	45.5	41	38	-	24	-	24	24
SE-1/2-B	G ¹ / ₂	G ¹ / ₂	78	66	45	13	49.5	56.5	48	47.5	-	30	-	32	32

Quick exhaust valves SE

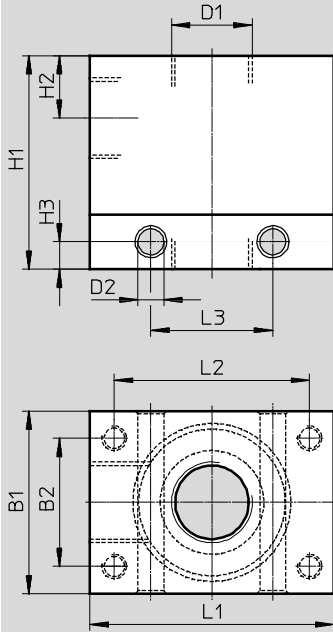
Technical data

FESTO

Dimensions

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Pneumatic connection G $\frac{3}{4}$



Type	Connection D1	B1	B2	D2 Ø	H1	H2	H3	L1	L2	L3
SE- $\frac{3}{4}$	G $\frac{3}{4}$	60	42	8.5	70	20.5	9	80	64	40

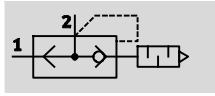
Ordering data

	Pneumatic connection			Standard nominal flow rate qnN at 6 → 5 bar		Weight [g]	Part No.	Type
	1	2	3	Pressurisation 1 → 2	Exhausting 2 → 3			
				[l/min]	[l/min]			
	G $\frac{1}{8}$	G $\frac{1}{8}$	G $\frac{1}{8}$	300	660	75	9685	SE- $\frac{1}{8}$ -B
	G $\frac{1}{4}$	G $\frac{1}{4}$	G $\frac{1}{4}$	960	1,200	100	9686	SE- $\frac{1}{4}$ -B
	G $\frac{3}{8}$	G $\frac{3}{8}$	G $\frac{3}{8}$	2,880	2,760	125	9687	SE- $\frac{3}{8}$ -B
	G $\frac{1}{2}$	G $\frac{1}{2}$	G $\frac{1}{2}$	4,560	6,480	200	9688	SE- $\frac{1}{2}$ -B
	G $\frac{3}{4}$	G $\frac{3}{4}$	G $\frac{3}{4}$	2,500	7,500	710	2280	SE- $\frac{3}{4}$

Quick exhaust valves SEU

Technical data

Function



- - Flow rate
300 ... 4,560 l/min
- - Temperature range
-20 ... +75 °C
- - Operating pressure
0.2 ... 10 bar

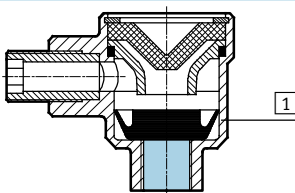


General technical data				
Pneumatic connection 1	G1/8	G1/4	G3/8	G1/2
Pneumatic connection 2	G1/8	G1/4	G3/8	G1/2
Nominal size [mm]	5	7	11	15
Valve function	Quick exhaust			
Type of mounting	Screw-in			
Mounting position	Any			
Noise level [dB(A)]	85	85	83	86

Operating and environmental conditions				
Pneumatic connection 1	G1/8	G1/4	G3/8	G1/2
Operating pressure [bar]	0.5 ... 10	0.5 ... 10	0.2 ... 10	0.3 ... 10
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:4:4]	Compressed air in accordance with ISO 8573-1:2010 [7:-:-]		
Note on operating/pilot medium	Operation with lubricated medium possible (in which case lubricated operation will always be required)			
Ambient temperature [°C]	-20 ... +75			
Temperature of medium [°C]	-20 ... +75			

Materials

Sectional view



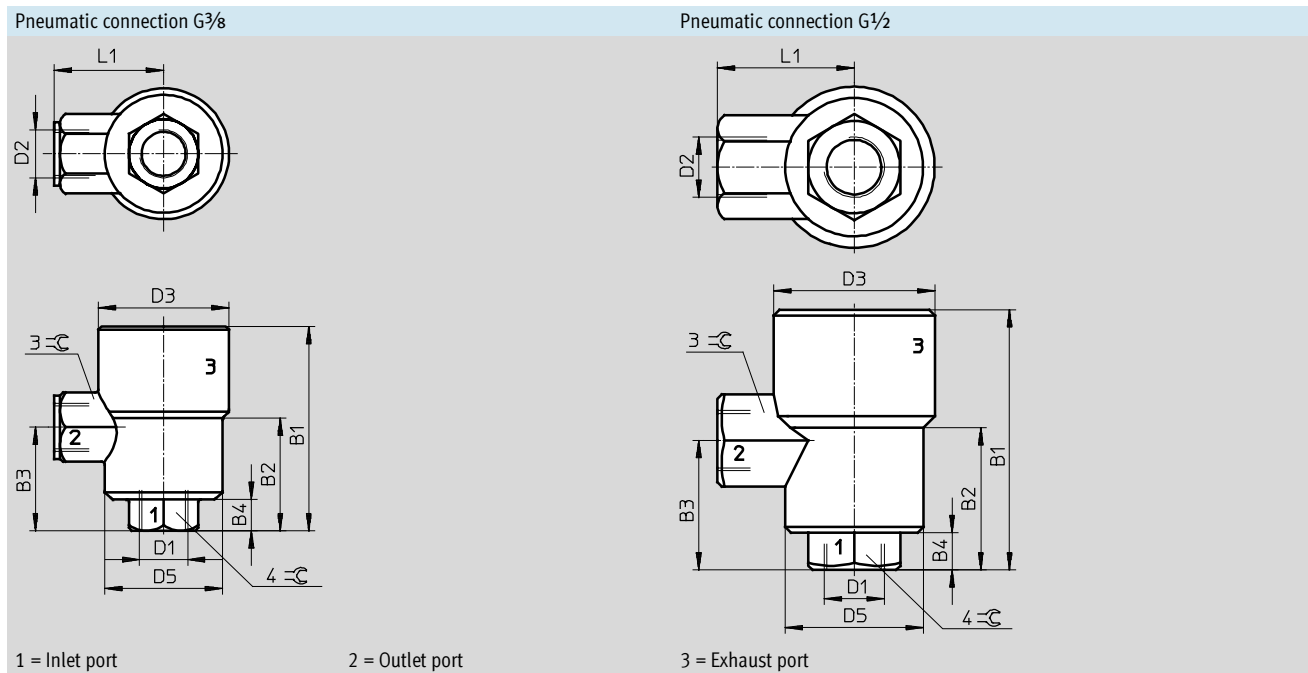
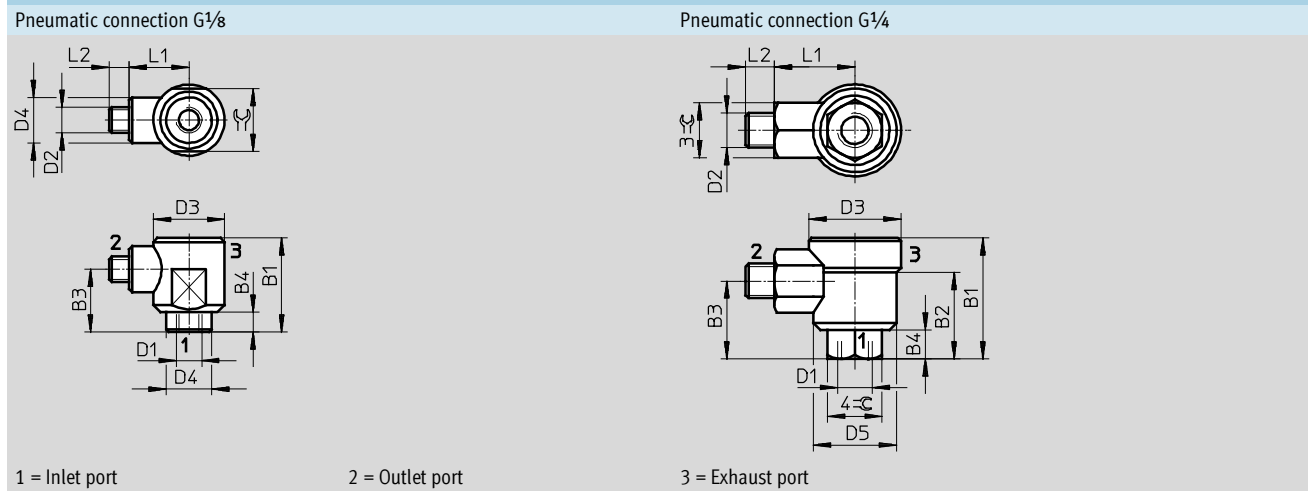
Quick exhaust valve		
1	Housing	G1/8, G1/4 G3/8, G1/2
		Die-cast zinc Die-cast aluminium
-	Seals	NBR

Quick exhaust valves SEU

Technical data

FESTO

Dimensions Download CAD data → www.festo.com



Type	Connection		B1	B2	B3	B4	D3 ∅	D4 ∅	D5 ∅	L1	L2	∅	3∅	4∅
	D1	D2												
SEU-1/8	G ¹ / ₈	G ¹ / ₈	33	-	22	7	25	16	-	21	7	22	-	-
SEU-1/4	G ¹ / ₄	G ¹ / ₄	42.5	30	27	9.5	33	-	29	28	10	-	19	19
SEU-3/8	G ³ / ₈	G ³ / ₈	71	39	36	11	45.5	-	41	38	-	-	24	24
SEU-1/2	G ¹ / ₂	G ¹ / ₂	90.5	49.5	45	13	56.5	-	48	47.5	-	-	32	32

Ordering data									
	Pneumatic connection		Standard nominal flow rate q _{nN} at 6 bar → 5 bar			Standard flow rate q _N at 6 bar → 0 bar	Weight	Part No.	Type
			Pressurisation 1 → 2		Exhausting 2 → 3				
	1	2	[l/min]	[l/min]	[l/min]	[g]			
	G ¹ / ₈	G ¹ / ₈	300	550	1,000	65	4616	SEU-1/8	
	G ¹ / ₄	G ¹ / ₄	960	1,100	2,300	120	6753	SEU-1/4	
	G ³ / ₈	G ³ / ₈	2,880	2,280	4,680	160	6755	SEU-3/8	
	G ¹ / ₂	G ¹ / ₂	4,560	4,020	6,500	320	6822	SEU-1/2	

Quick exhaust valves SE/SEU

Accessories

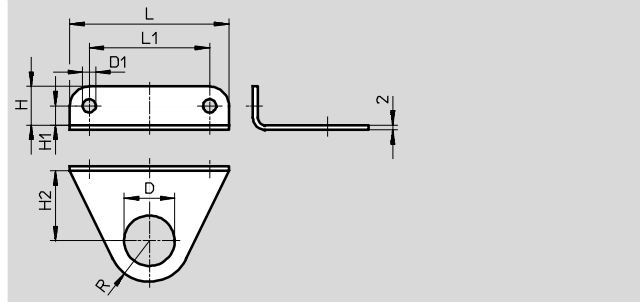
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Mounting bracket HSE

For attachment of quick exhaust valve SE/SEU, irrespective of cylinder.

Material:

Anodised wrought aluminium alloy



Dimensions and ordering data											
For connecting thread	D ∅	D1 ∅	H	H1	H2	L	L1	R	Weight [g]	Part No.	Type
G ¹ / ₈	10	4.5	11	6	13.5	40	30	10	5.1	8710	HSE- ¹ / ₈
G ¹ / ₄	13.2	4.5	11	6	17	42	32	14	6.4	8711	HSE- ¹ / ₄
G ³ / ₈	16.8	5.5	13	7	23.5	54	42	13	9	8712	HSE- ³ / ₈
G ¹ / ₂	21	5.5	16	8	29	66	50	17	14	8713	HSE- ¹ / ₂