

Quick exhaust valves SE/SEU



# Quick exhaust valves SE/SEU

Key features, product range overview and type codes



Features		SE	SEU
<b>Function</b>			
<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>		

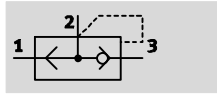
Product range overview						
Function	Version	Type	Pneumatic connection		→ Page/Internet	
			1	2		
Quick exhaust valves	<b>Compact design</b>					
		SE	Without silencer	G <sup>1</sup> / <sub>8</sub> , G <sup>1</sup> / <sub>4</sub> , G <sup>3</sup> / <sub>8</sub> , G <sup>1</sup> / <sub>2</sub> , G <sup>3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

Type codes	
SE - 1/8 - B	
<b>Type</b>	
SE	Quick exhaust valve
SEU	Quick exhaust valve with silencer
<b>Pneumatic connection</b>	
1/8	G <sup>1</sup> / <sub>8</sub>
1/4	G <sup>1</sup> / <sub>4</sub>
3/8	G <sup>3</sup> / <sub>8</sub>
1/2	G <sup>1</sup> / <sub>2</sub>
3/4	G <sup>3</sup> / <sub>4</sub>
<b>Generation</b>	
	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

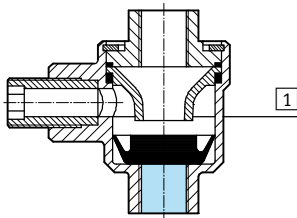


General technical data					
Pneumatic connection 1	G1/8	G1/4	G3/8	G1/2	G3/4
Pneumatic connection 2	G1/8	G1/4	G3/8	G1/2	G3/4
Pneumatic connection 3	G1/8	G1/4	G3/8	G1/2	G3/4
Nominal size [mm]	5	7	11	15	19
Valve function	Quick exhaust				
Type of mounting	Screw-in				Via through-hole
Mounting position	Any				
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:--:--]			Compressed air in accordance with ISO 8573-1:2010 [7:4:4]
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



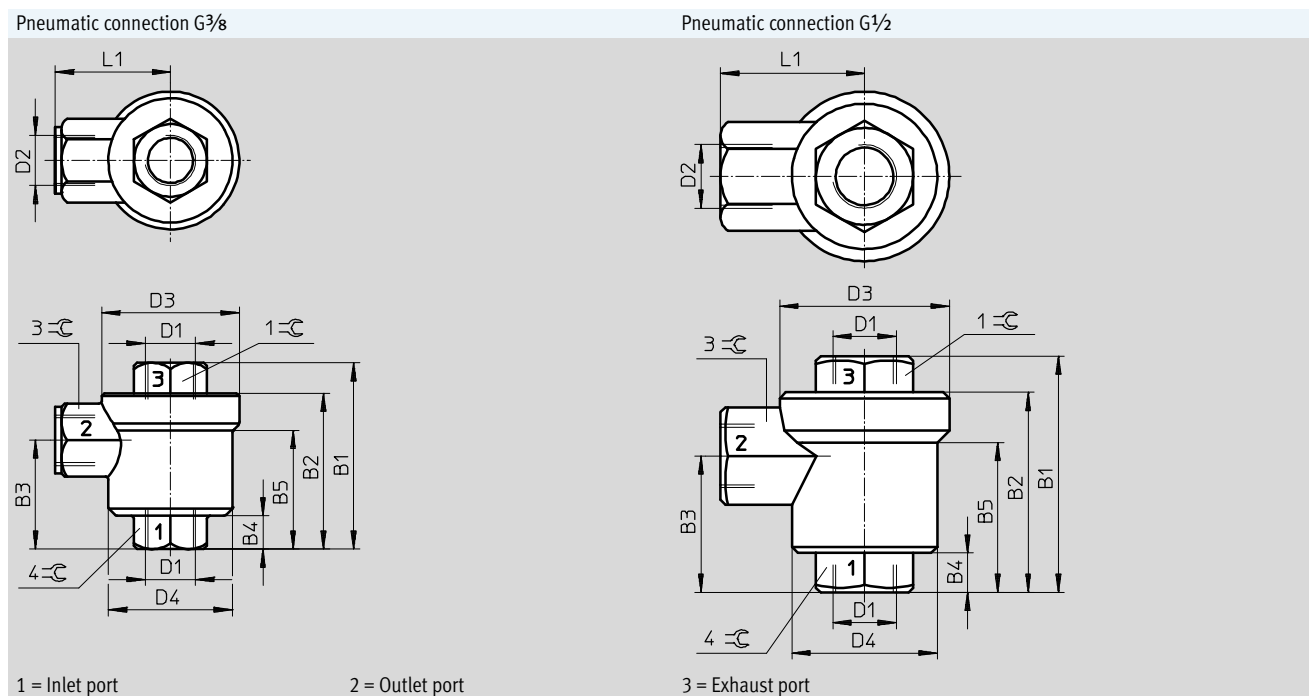
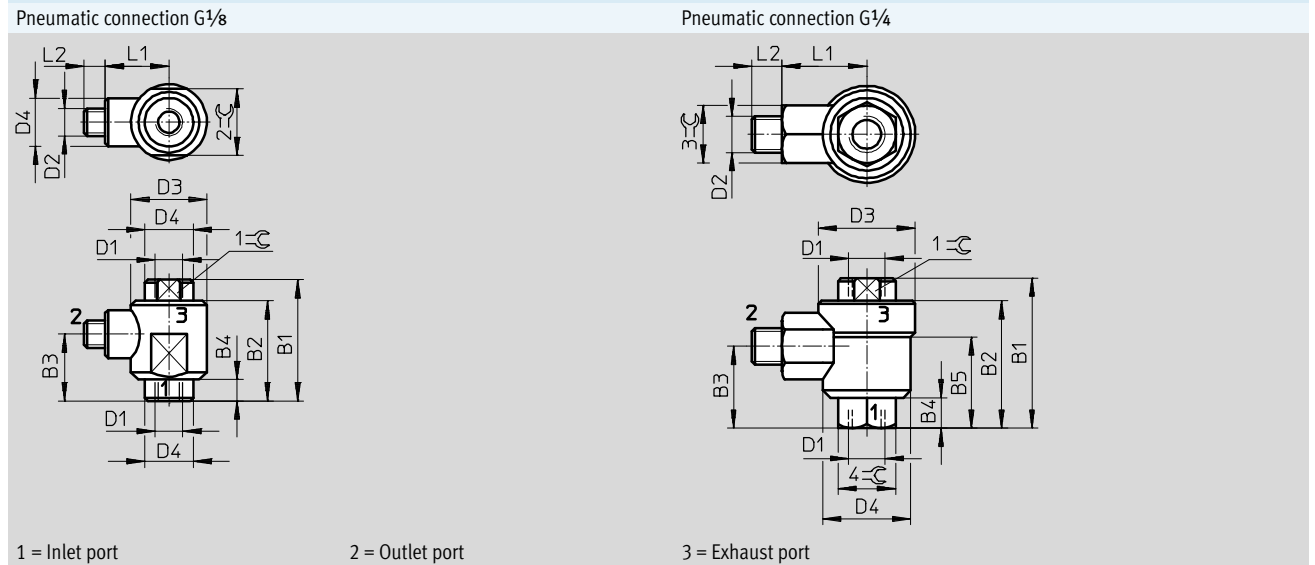
Quick exhaust valve			
1	Housing	G1/8, G1/4 G3/8, G1/2 G3/4	Die-cast zinc Die-cast aluminium Anodised wrought aluminium alloy
	Seals		NBR
	Note on materials	G3/8, G3/4	RoHS-compliant

# Quick exhaust valves SE

Technical data

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Dimensions Download CAD data → [www.festo.com](http://www.festo.com)



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

# Quick exhaust valves SE

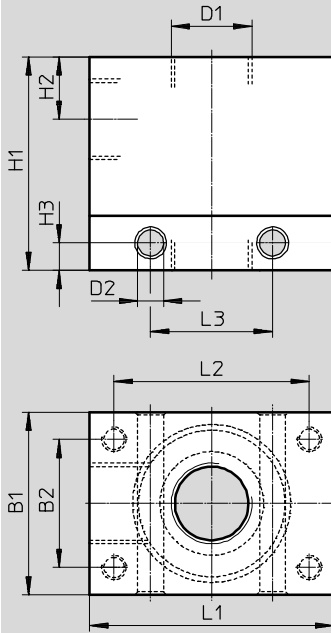
Technical data

FESTO

## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

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

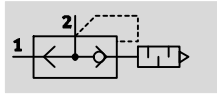
	Pneumatic connection			Standard nominal flow rate q <sub>nN</sub> at 6 → 5 bar		Weight [g]	Part No.	Type
	1	2	3	Pressurisation 1 → 2	Exhausting 2 → 3			
				[l/min]	[l/min]			
	G $\frac{1}{8}$	G $\frac{1}{8}$	G $\frac{1}{8}$	300	660	75	<b>9685</b>	SE- $\frac{1}{8}$ -B
	G $\frac{1}{4}$	G $\frac{1}{4}$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




# Quick exhaust valves SEU

Technical data

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Function



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

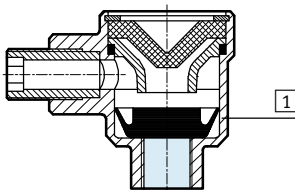


General technical data				
Pneumatic connection 1	G1/8	G1/4	G3/8	G1/2
Pneumatic connection 2	G1/8	G1/4	G3/8	G1/2
Nominal size [mm]	5	7	11	15
Valve function	Quick exhaust			
Type of mounting	Screw-in			
Mounting position	Any			
Noise level [dB(A)]	85	85	83	86

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

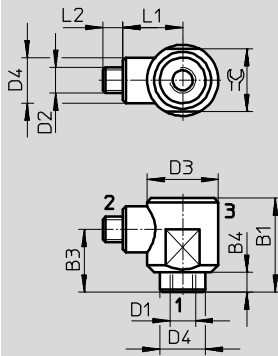
Technical data

FESTO

## Dimensions

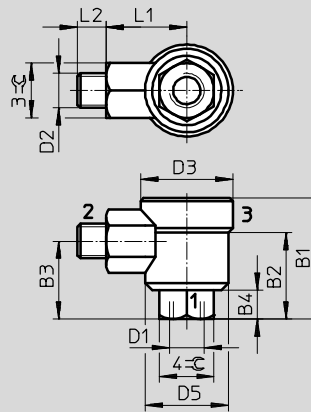
Download CAD data → [www.festo.com](http://www.festo.com)

Pneumatic connection G $\frac{1}{8}$



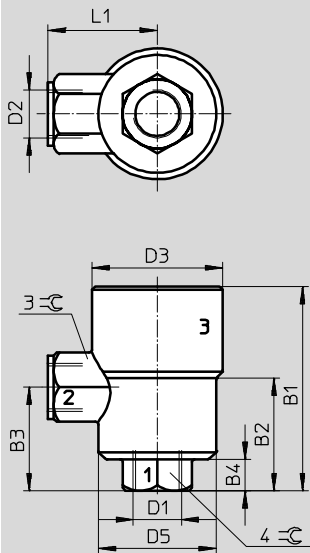
1 = Inlet port

Pneumatic connection G $\frac{1}{4}$



3 = Exhaust port

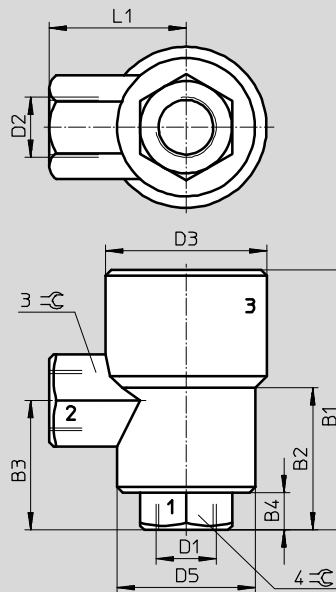
Pneumatic connection G $\frac{3}{8}$



1 = Inlet port

2 = Outlet port

Pneumatic connection G $\frac{1}{2}$



3 = Exhaust port

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

## Ordering data

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

# Quick exhaust valves SE/SEU

Accessories



## Mounting bracket HSE

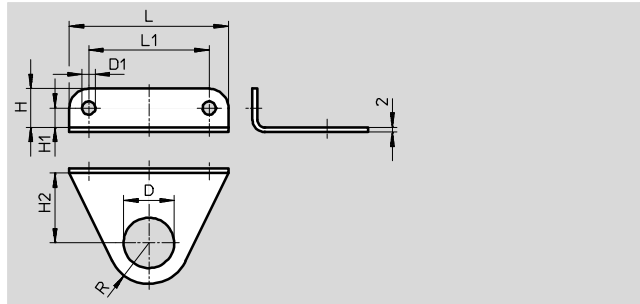
For attachment of quick exhaust valve SE/SEU, irrespective of cylinder.

Material:

Anodised wrought aluminium alloy

Note on materials:

RoHS-compliant



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