

Non-return valves H/HA/HB/HGL

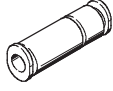
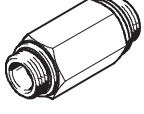
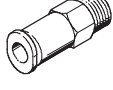
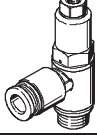
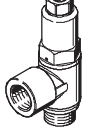
FESTO



Non-return valves H/HA/HB/HGL

Product range overview

FESTO

Version	Valve function	Version	Type	Pneumatic connection 1	Pneumatic connection 2	qnN [l/min]	→ Page/ Internet
Non-return valves	Non-return function		H	QS-4, QS-6, QS-8, QS-10, QS-12	QS-4, QS-6, QS-8, QS-10, QS-12	136 ... 1,715	4
				M5, G1/8, G1/4, G3/8, G1/2, G3/4	M5, G1/8, G1/4, G3/8, G1/2, G3/4	115 ... 5,900	5
			HA	M5, R1/8, R1/4, R3/8, R1/2	QS-4, QS-6, QS-8, QS-10, QS-12	138 ... 2,230	7
			HB	QS-4, QS-6, QS-8, QS-10, QS-12	M5, R1/8, R1/4, R3/8, R1/2	142 ... 2,206	7
Non-return valves, piloted	Piloted non-return function		HGL	QS-4, QS-6, QS-8, QS-10, QS-12	M5, G1/8, G1/4, G3/8, G1/2	130 ... 1,400	9
				M5, G1/8, G1/4, G3/8, G1/2	M5, G1/8, G1/4, G3/8, G1/2	130 ... 1,600	12

Non-return valves H/HA/HB/HGL

FESTO

Type codes

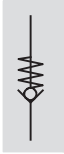
		HA	-	1/8	-	QS-6	-	
Type								
Non-return function								
H	Non-return valve							
HA	Non-return valve, flow direction: male thread → push-in connector QS							
HB	Non-return valve, flow direction: push-in connector QS → male thread							
Piloted non-return function								
HGL	Non-return valve, piloted							
Pneumatic connection 1 with H/HA, pneumatic connection 2 with HB/HGL								
H								
QS-4	Push-in connector for tubing O.D. 4 mm							
QS-6	Push-in connector for tubing O.D. 6 mm							
QS-8	Push-in connector for tubing O.D. 8 mm							
QS-10	Push-in connector for tubing O.D. 10 mm							
QS-12	Push-in connector for tubing O.D. 12 mm							
M5	Female thread M5							
1/8-A/I	Male thread/female thread G1/8							
1/4	Male thread G1/4							
3/8	Male thread G3/8							
1/2	Male thread G1/2							
3/4	Male thread G3/4							
HA/HB								
M5	Male thread M5							
1/8	Male thread R1/8							
1/4	Male thread R1/4							
3/8	Male thread R3/8							
1/2	Male thread R1/2							
HGL								
M5	Male thread M5							
1/8	Male thread G1/8							
1/4	Male thread G1/4							
3/8	Male thread G3/8							
1/2	Male thread G1/2							
Pneumatic connection 2 with H/HA, pneumatic connection 1 with HB/HGL								
H/HGL								
-	Connection size as for connection 1 or 2							
HA/HB/HGL								
QS-4	Push-in connector for tubing O.D. 4 mm							
QS-6	Push-in connector for tubing O.D. 6 mm							
QS-8	Push-in connector for tubing O.D. 8 mm							
QS-10	Push-in connector for tubing O.D. 10 mm							
QS-12	Push-in connector for tubing O.D. 12 mm							
Generation								
B	B series							

Non-return valves H

Technical data – Push-in connector QS

FESTO

Non-return function



Flow rate

136 ... 1,715 l/min

Temperature range

0 ... +60 °C

Pressure

-1 ... +10 bar



General technical data					
Valve function	Non-return function				
Pneumatic connection 1	QS-4	QS-6	QS-8	QS-10	QS-12
Pneumatic connection 2	QS-4	QS-6	QS-8	QS-10	QS-12
Type of mounting	In-line installation				
Mounting position	Any				

Operating and environmental conditions	
Operating pressure [bar]	-1 ... +10
Operating medium	Filtered compressed air, lubricated or unlubricated
Ambient temperature [°C]	0 ... +60

Materials	
Housing	Aluminium
Note on materials	Free of copper and PTFE

Dimensions	Download CAD Data → www.festo.com/us/cad
<p>← Flow direction</p>	

Type	Tubing O.D. D1	D2 Ø	L
H-QS-4	4	9	34.8
H-QS-6	6	12	38.8
H-QS-8	8	15	54.9
H-QS-10	10	25	73.4
H-QS-12	12	25	78.6

Ordering data					
	Pneumatic connection		Standard nominal flow rate qnN	Weight	Part No. Type
	1	2	[l/min]	[g]	
	QS-4	QS-4	136	5.3	153462 H-QS-4
	QS-6	QS-6	282	10	153463 H-QS-6
	QS-8	QS-8	681	21	153464 H-QS-8
	QS-10	QS-10	1,480	63	153465 H-QS-10
	QS-12	QS-12	1,715	69	153466 H-QS-12

Non-return valves H

Technical data – Female/male thread

FESTO

Non-return function



Flow rate

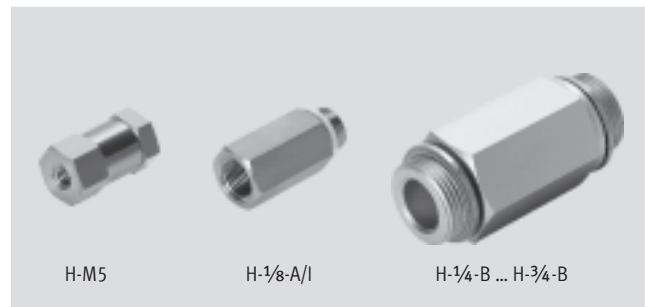
115 ... 5,900 l/min

Temperature range

–10 ... +60 °C

Pressure

0.4 ... 12 bar



General technical data						
Valve function	Non-return function					
Pneumatic connection 1	M5	G1/8	G1/4	G3/8	G1/2	G3/4
Pneumatic connection 2	M5	G1/8	G1/4	G3/8	G1/2	G3/4
Type of mounting	In-line installation		Screw-in			
Mounting position	Any					
Max. tightening torque [Nm]	–	–	11	20	40	60

Note: This product conforms to ISO 1179-1 and ISO 228-1

Operating and environmental conditions						
Pneumatic connection 1	M5	G1/8	G1/4	G3/8	G1/2	G3/4
Operating pressure [bar]	0.4 ... 8		0.4 ... 12			
Operating medium	Filtered compressed air, lubricated or unlubricated		Dried air, lubricated or unlubricated			
Ambient temperature [°C]	−10 ... +60					
Temperature of medium [°C]	−10 ... +60					
Storage temperature [°C]	−		−10 ... +60			
Corrosion resistance class CRC ¹⁾	−		2			

1) Corrosion resistance class 2 according to Festo standard 940 070

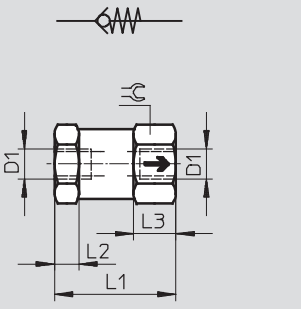
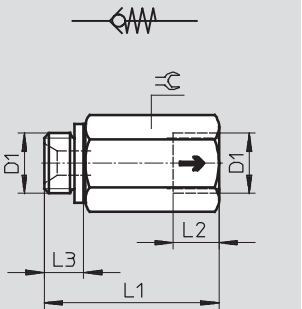
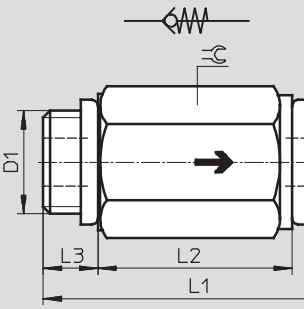
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Materials						
Pneumatic connection 1	M5	G1/8	G1/4	G3/8	G1/2	G3/4
Housing	Brass		Anodised wrought aluminium alloy			
Seals	NBR					
Note on materials	–		Free of copper and PTFE			

Non-return valves H



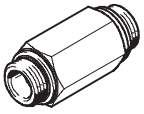
Technical data – Female/male thread

FESTO

Dimensions		Download CAD Data → www.festo.com/us/cad	
H-M5	H-1/8-A/I	H-1/4-B ... H-3/4-B	
 <p>→ Flow direction</p>	 <p>→ Flow direction</p>	 <p>→ Flow direction</p>	

Type	Connection D1	L1	L2	L3	⌀
H-M5	M5	20	4	7	11
H-1/8-A/I	G1/8	28.5	7.5	6.5	14
H-1/4-B	G1/4	48	32	8	19
H-3/8-B	G3/8	50	32	9	22
H-1/2-B	G1/2	65	44	10.5	27
H-3/4-B	G3/4	74	50	12	32

Note: This product conforms to ISO 1179-1 and ISO 228-1

Ordering data						
	Pneumatic connection		Standard nominal flow rate qnN	Weight	Part No.	Type
	1	2	[l/min]	[g]		
	M5	M5	115	15	3671	H-M5
	G1/8	G1/8	280	21	3324	H-1/8-A/I ¹⁾
	G1/4	G1/4	1,000	25.4	11689	H-1/4-B ¹⁾
	G3/8	G3/8	2,000	34	11690	H-3/8-B ¹⁾
	G1/2	G1/2	5,500	58.3	11691	H-1/2-B ¹⁾
	G3/4	G3/4	5,900	101	11692	H-3/4-B ¹⁾

1) Sealing rings for male thread are included in the scope of delivery.

Non-return valves HA/HB

FESTO

Technical data

Non-return function



Flow rate

138 ... 2,230 l/min

Temperature range

0 ... +60 °C

Pressure

-1 ... +10 bar



General technical data											
Valve function	Non-return function										
Type	HA					HB					
Pneumatic connection 1	M5	R $\frac{1}{8}$	R $\frac{1}{4}$	R $\frac{3}{8}$	R $\frac{1}{2}$	QS-4	QS-6	QS-8	QS-10	QS-12	
Pneumatic connection 2	QS-4	QS-4, QS-6, QS-8	QS-6, QS-8	QS-10, QS-12	QS-12	M5, R $\frac{1}{8}$	R $\frac{1}{8}$, R $\frac{1}{4}$	R $\frac{1}{8}$, R $\frac{1}{4}$	R $\frac{3}{8}$	R $\frac{3}{8}$, R $\frac{1}{2}$	
Type of mounting	Screw-in										
Mounting position	Any										

Operating and environmental conditions	
Operating pressure [bar]	-1 ... +10
Operating medium	Filtered compressed air, lubricated or unlubricated
Ambient temperature [°C]	0 ... +60

Materials	
Housing	Nickel-plated brass

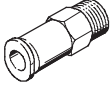
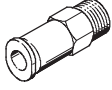
Dimensions		Download CAD Data → www.festo.com/us/cad
HA/HB-M5-QS		HA/HB-...-QS

Type	Connection D	Tubing O.D. D1	D2 Ø	L	L1	L2	≙
HA/HB-M5-QS-4	M5	4	8	—	25.4	3	8
HA/HB- $\frac{1}{8}$ -QS-4	R $\frac{1}{8}$	4	9	24.5	20.5	8	10
HA/HB- $\frac{1}{8}$ -QS-6		6	10	29.3	25.3	8	10
HA/HB- $\frac{1}{8}$ -QS-8		8	13.5	35.5	31.5	8	14
HA/HB- $\frac{1}{4}$ -QS-6	R $\frac{1}{4}$	6	12	29.3	23.3	11	14
HA/HB- $\frac{1}{4}$ -QS-8		8	13.5	39.2	33.2	11	14
HA/HB- $\frac{3}{8}$ -QS-10	R $\frac{3}{8}$	10	25	61.7	55.4	12	24
HA/HB- $\frac{3}{8}$ -QS-12		12	25	64.3	58	12	24
HA/HB- $\frac{1}{2}$ -QS-12	R $\frac{1}{2}$	12	28	70.8	62.6	15	27

Non-return valves HA/HB

Technical data

FESTO

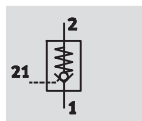
Ordering data						
	Pneumatic connection		Standard nominal flow rate qnN	Weight	Part No.	Type
	1	2				
			[l/min]	[g]		
Flow direction: male thread → push-in connector QS						
	M5	QS-4	148	7.2	153444	HA-M5-QS-4
	R1/8	QS-4	138	11	153446	HA-1/8-QS-4
		QS-6	311	11	153448	HA-1/8-QS-6
		QS-8	331	22	153452	HA-1/8-QS-8
	R1/4	QS-6	302	23	153450	HA-1/4-QS-6
		QS-8	670	24	153454	HA-1/4-QS-8
	R3/8	QS-10	1,740	47	153456	HA-3/8-QS-10
		QS-12	1,876	50	153458	HA-3/8-QS-12
	R1/2	QS-12	2,230	69	153460	HA-1/2-QS-12
Flow direction: push-in connector QS → male thread						
	QS-4	M5	144	7.2	153445	HB-M5-QS-4
		R1/8	142	11	153447	HB-1/8-QS-4
	QS-6	R1/8	335	11	153449	HB-1/8-QS-6
		R1/4	292	23	153451	HB-1/4-QS-6
	QS-8	R1/8	314	22	153453	HB-1/8-QS-8
		R1/4	696	24	153455	HB-1/4-QS-8
	QS-10	R3/8	1,700	47	153457	HB-3/8-QS-10
	QS-12	R3/8	1,886	50	153459	HB-3/8-QS-12
		R1/2	2,206	69	153461	HB-1/2-QS-12

Non-return valves HGL, piloted

FESTO

Technical data – Push-in connector QS

Function



Flow rate

130 ... 1,400 l/min

Temperature range

–10 ... +60 °C

Pressure

0.5 ... 10 bar



The piloted non-return valve is suitable for short-duration positioning and braking functions in pneumatic drives.

Compressed air flows to and from the drive as long as a pilot signal is

applied to pneumatic connection 21. If no pilot signal is applied, the valve shuts off the exhaust air from the drive in flow direction 2 → 1 and the movement of the drive is stopped.

- Proven component suitable for use in safety-related systems
- Swivel connection can be swivelled after mounting
- Manual exhausting of air trapped in the cylinder with manual override HAB → 15 as an accessory

General technical data					
Pneumatic connection 2	M5	G1/8	G1/4	G3/8	G1/2
Pneumatic connection 1	QS-4	QS-4, QS-6	QS-8, QS-10	QS-8, QS-10	QS-12
Pilot air connection 21	QS-4	M5	G1/8	G1/4	G3/8
Valve function	Piloted non-return function				
Actuation type	Pneumatic				
Type of mounting	Screw-in, via male thread				
Mounting position	Any				
Max. tightening torque [Nm]	1.5	5	12	15	18

Note: This product conforms to ISO 1179-1 and ISO 228-1

Operating and environmental conditions					
Pneumatic connection 2	M5	G1/8	G1/4	G3/8	G1/2
Operating pressure [bar]	0.5 ... 10				
Pilot pressure [bar]	2 ... 10			1 ... 10	
Operating/pilot medium	Dried air, lubricated or unlubricated				
Ambient temperature [°C]	−10 ... +60				
Temperature of medium [°C]	−10 ... +60				
Storage temperature [°C]	−10 ... +60				
Corrosion resistance class CRC ¹⁾	2				

- 1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Note

Additional measures are required for use in safety-related applications; in Europe, for example, the standards listed under the EC Machinery Directive must be observed.

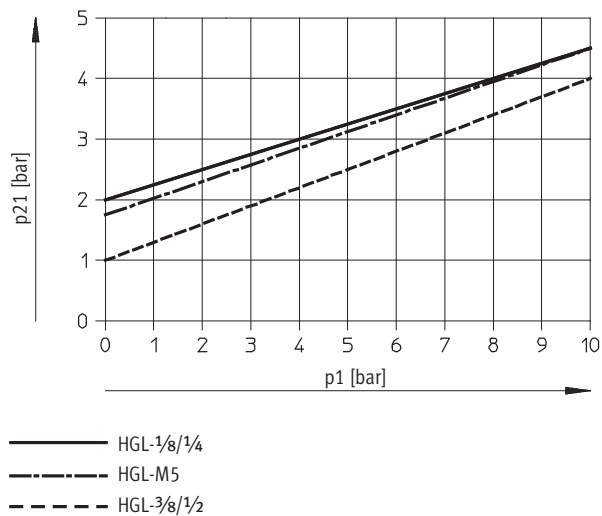
Without additional measures in accordance with statutory minimum requirements, the product is not suitable for use in safety-related sections of control systems.

Non-return valves HGL, piloted

Technical data – Push-in connector QS

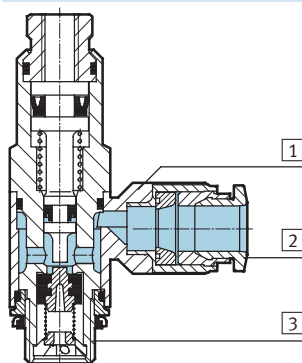
FESTO

Minimum pilot pressure p21 as a function of operating pressure p1



Materials

Sectional view



Non-return valve, piloted

1	Swivel connection	Die-cast zinc
2	Releasing ring	POM
3	Hollow bolt	Anodised wrought aluminium alloy
–	Seals, non-return collar	NBR
Note on materials		Free of copper and PTFE

Non-return valves HGL, piloted

FESTO

Technical data – Push-in connector QS

Dimensions		Download CAD Data → www.festo.com/us/cad									
HGL-M5		HGL-1/8, HGL-1/4, HGL-3/8				HGL-1/2					

Type	Connection D	Tubing O.D. D2	D1	D3 Ø	D4 Ø	D5 Ø	H1	H2	L1	L2	L3	L4	1	2
HGL-1/8-QS-4	G1/8	4	M5	13.8	11.8	10.2	29.4	22.5	42.6	5.4	13.9	37.8	8	12
HGL-1/8-QS-6	G1/8	6				12.5	32.6	25.7			13.2			
HGL-1/4-QS-8	G1/4	8	G1/8	17.8	16	14.5	39.6	30.7	50.8	6.5	16.6	44.5	12	16
HGL-1/4-QS-10	G1/4	10				17.5	42	33.1			15.5			
HGL-3/8-QS-8	G3/8	8	G1/4	22.4	18.8	14.5	44.1	32.9	56.3	7	18.2	49.5	15	19
HGL-3/8-QS-10	G3/8	10				17.5	46.7	35.5			18.2			
HGL-1/2-QS-12	G1/2	12	G3/8	27.8	23.5	20.5	55.3	41.4	75.8	8.8	22.4	–	–	24

Note: This product conforms to ISO 1179-1 and ISO 228-1

Ordering data									
	Pneumatic connection		Pilot air connection	Standard nominal flow rate qnN at 6 → 5 bar [l/min]	Standard flow rate qn at 6 → 0 bar [l/min]	Weight [g]	Part No.	Type	
	2	1	21						
	M5	QS-4	QS-4	130	200	21	530038	HGL-M5-QS-4 ¹⁾	
	G1/8	QS-4	M5	200	300	18.4	530039	HGL-1/8-QS-4 ¹⁾	
		QS-6	M5	270	400	21.4	530040	HGL-1/8-QS-6 ¹⁾	
	G1/4	QS-8	G1/8	390	640	38.7	530041	HGL-1/4-QS-8 ¹⁾	
		QS-10	G1/8	400	670	45	530042	HGL-1/4-QS-10 ¹⁾	
	G3/8	QS-8	G1/4	830	1,200	54.7	530043	HGL-3/8-QS-8 ¹⁾	
		QS-10	G1/4	890	1,300	60.3	530044	HGL-3/8-QS-10 ¹⁾	
	G1/2	QS-12	G3/8	1,400	2,100	116.9	530045	HGL-1/2-QS-12 ¹⁾	

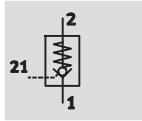
1) Sealing ring for male thread is included in the scope of delivery.

Non-return valves HGL, piloted

Technical data – Female thread

FESTO

Function



Flow rate

130 ... 1,600 l/min

Temperature range

–10 ... +60 °C

Pressure

0.5 ... 10 bar



The piloted non-return valve is suitable for short-duration positioning and braking functions in pneumatic drives.

Compressed air flows to and from the drive as long as a pilot signal is

applied to pneumatic connection 21. If no pilot signal is applied, the valve shuts off the exhaust air from the drive in flow direction 2 → 1 and the movement of the drive is stopped.

- Proven component suitable for use in safety-related systems
- Swivel connection can be swivelled after mounting
- Manual exhausting of air trapped in the cylinder with manual override HAB → 15 as an accessory

General technical data					
Pneumatic connection 2	M5	G1/8	G1/4	G3/8	G1/2
Pneumatic connection 1	M5	G1/8	G1/4	G3/8	G1/2
Pilot air connection 21	M5	M5, G1/8	G1/8	G1/4	G3/8
Valve function	Piloted non-return function				
Actuation type	Pneumatic				
Type of mounting	Screw-in, via male thread				
Mounting position	Any				
Max. tightening torque [Nm]	1.5	5	12	15	18

Note: This product conforms to ISO 1179-1 and ISO 228-1

Operating and environmental conditions						
Pneumatic connection 2		M5	G1/8	G1/4	G3/8	G1/2
Operating pressure [bar]		0.5 ... 10				
Pilot pressure [bar]		2 ... 10			1 ... 10	
Operating/pilot medium		Dried air, lubricated or unlubricated				
Ambient temperature [°C]		−10 ... +60				
Temperature of medium [°C]		−10 ... +60				
Storage temperature [°C]		−10 ... +60				
Corrosion resistance class CRC ¹⁾		2				

- 1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Note

Additional measures are required for use in safety-related applications; in Europe, for example, the standards listed under the EC Machinery Directive must be observed.

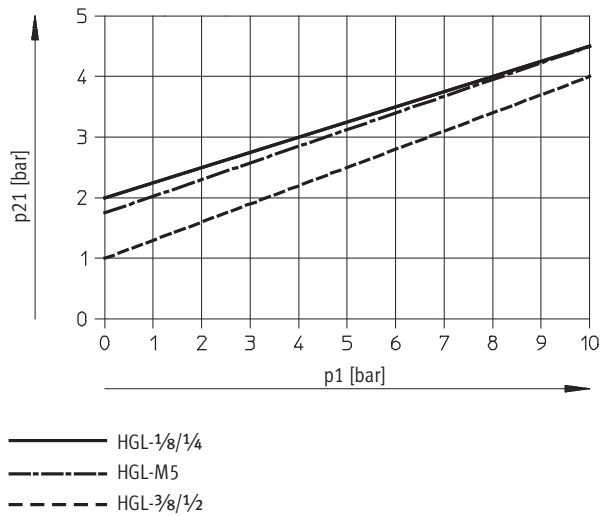
Without additional measures in accordance with statutory minimum requirements, the product is not suitable for use in safety-related sections of control systems.

Non-return valves HGL, piloted

Technical data – Female thread

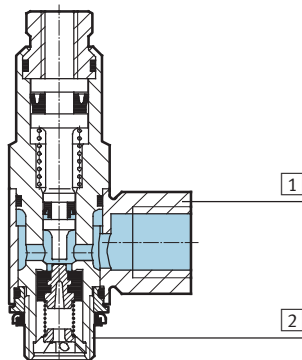
FESTO

Minimum pilot pressure p21 as a function of operating pressure p1



Materials

Sectional view



Non-return valve, piloted		
1	Swivel connection	Die-cast zinc
2	Hollow bolt	Anodised wrought aluminium alloy
–	Seals, non-return collar	NBR
Note on materials		Free of copper and PTFE
		RoHS-compliant (HGL-1/8-1/8-B only)

Technical data – Female thread

Dimensions

Download CAD Data → www.festo.com/us/cad



HGL-M5-B

HGL-1/8-B, HGL-1/4-B, HGL-3/8-B

HGL-1/8-1/8-B

HGL-1/2-B

Type	Connection D	Connection D2	D1	D3 Ø	D4 Ø	D5 Ø	H1	H2	L1	L2	L3	L4	≡C 1	≡C 2
HGL-1/8-B	G1/8	G1/8	M5	14	11.8	14	25.1	18.1	42.6	5.4	11.2	37.8	8	12
HGL-1/8-1/8-B	G1/8	G1/8	G1/8	14	13.8	14	25.1	18.1	46.7	5.2	11.2	–	–	14
HGL-1/4-B	G1/4	G1/4	G1/8	18	16	17.5	34	25	50.8	6.5	13.5	44.5	12	16
HGL-3/8-B	G3/8	G3/8	G1/4	23.8	18.8	20	39.3	27.4	56.3	7	15.1	49.5	15	19
HGL-1/2-B	G1/2	G1/2	G3/8	30	23.5	25	47.8	32.8	75.8	8.8	17.7	–	–	24

Ordering data								
	Pneumatic connection		Pilot air connection	Standard nominal flow rate q _N at 6 \rightarrow 5 bar [l/min]	Standard flow rate q _n at 6 \rightarrow 0 bar [l/min]	Weight [g]	Part No.	Type
	2	1	21					
	M5	M5	M5	130	200	21	530029	HGL-M5-B ¹⁾
	G ¹ / ₈	G ¹ / ₈	M5	300	430	20.8	530030	HGL- ¹ / ₈ -B ¹⁾
			G ¹ / ₈	300	430	26.2	543253	HGL- ¹ / ₈ - ¹ / ₈ -B ¹⁾
	G ¹ / ₄	G ¹ / ₄	G ¹ / ₈	550	680	41.2	530031	HGL- ¹ / ₄ -B ¹⁾
	G ³ / ₈	G ³ / ₈	G ¹ / ₄	1,100	1,500	62.9	530032	HGL- ³ / ₈ -B ¹⁾
	G ¹ / ₂	G ¹ / ₂	G ³ / ₈	1,600	2,100	129.4	530033	HGL- ¹ / ₂ -B ¹⁾

14

Non-return valves HGL, piloted

FESTO

Accessories

Manual override HAB
for non-return valve HGL

- For manual exhausting of air trapped in a cylinder

Material:
Housing: Anodised wrought
aluminium alloy



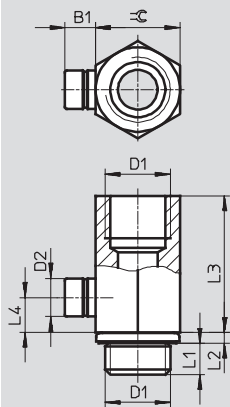
General technical data				
Pneumatic connection 2	G1/8	G1/4	G3/8	G1/2
Pneumatic connection 1	G1/8	G1/4	G3/8	G1/2
Nominal size [mm]	4.1	7	11	14
Valve function	Exhaust component			
Type of mounting	Screw-in			
Mounting position	Any			
Standard nominal flow rate, exhausting, at 6 → 0 bar [l/min]	165			
Max. tightening torque [Nm]	4	11	40	50

Operating and environmental conditions	
Operating pressure [bar]	0 ... 10
Operating medium	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 ... +80
Temperature of medium [°C]	-20 ... +80
Corrosion resistance class CRC ¹⁾	2

- 1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Dimensions

Download CAD Data → www.festo.com/us/cad



Dimensions and ordering data								
Connection	B1	D2	L1	L2	L3	L4	≡	Part No. Type
D1		Ø						
G1/8	6.2	7.7	4.7	1.8	19.1	5	13	184585 HAB-1/8
G1/4	6.2	7.7	5.8	2.2	28	7	17	184586 HAB-1/4
G3/8	6.2	7.7	6.05	3.35	28.4	7	19	184587 HAB-3/8
G1/2	6.2	7.7	7.9	2.6	38.5	7	24	184588 HAB-1/2

Note: This product conforms to ISO 1179-1 and ISO 228-1

Product Range and Company Overview

A Complete Suite of Automation Services

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components
Complete custom engineered solutions



Custom Control Cabinets
Comprehensive engineering support and on-site services



Complete Systems
Shipment, stocking and storage services

The Broadest Range of Automation Components

With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



Electromechanical
Electromechanical actuators, motors, controllers & drives



Pneumatics
Pneumatic linear and rotary actuators, valves, and air supply



PLCs and I/O Devices
PLC's, operator interfaces, sensors and I/O devices

Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 12,000 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

Quality Assurance, ISO 9001 and ISO 14001 Certifications

Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.



© Copyright 2008, Festo Corporation. While every effort is made to ensure that all dimensions and specifications are correct, Festo cannot guarantee that publications are completely free of any error, in particular typing or printing errors. Accordingly, Festo cannot be held responsible for the same. For Liability and Warranty conditions, refer to our "Terms and Conditions of Sale", available from your local Festo office. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior written permission of Festo. All technical data subject to change according to technical update.



Printed on recycled paper at New Horizon Graphic, Inc., FSC certified as an environmentally friendly printing plant.

Festo North America

Festo Regional Contact Center

5300 Explorer Drive
Mississauga, Ontario L4W 5G4
Canada

USA Customers:

For ordering assistance,

Call: 1.800.99.FESTO (1.800.993.3786)

Fax: 1.800.96.FESTO (1.800.963.3786)

Email: customer.service@us.festo.com

For technical support,

Call: 1.866.GO.FESTO (1.866.463.3786)

Fax: 1.800.96.FESTO (1.800.963.3786)

Email: product.support@us.festo.com

Canadian Customers:

Call: 1.877.GO.FESTO (1.877.463.3786)

Fax: 1.877.FX.FESTO (1.877.393.3786)

Email: festo.canada@ca.festo.com

USA Headquarters

Festo Corporation
395 Moreland Road
P.O. Box 18023
Hauppauge, NY 11788, USA
www.festo.com/us

USA Sales Offices

Appleton

North 922 Tower View Drive, Suite N
Greenville, WI 54942, USA

Boston

120 Presidential Way, Suite 330
Woburn, MA 01801, USA

Chicago

1441 East Business Center Drive
Mt. Prospect, IL 60056, USA

Dallas

1825 Lakeway Drive, Suite 600
Lewisville, TX 75057, USA

Detroit – Automotive Engineering Center

2601 Cambridge Court, Suite 320
Auburn Hills, MI 48326, USA

New York

395 Moreland Road
Hauppauge, NY 11788, USA

Silicon Valley

4935 Southfront Road, Suite F
Livermore, CA 94550, USA

United States



USA Headquarters, East: Festo Corp., 395 Moreland Road, Hauppauge, NY 11788

Phone: 1.631.435.0800; Fax: 1.631.435.8026;

Email: info@festo-usa.com

www.festo.com/us

Canada



Headquarters: Festo Inc., 5300 Explorer Drive, Mississauga, Ontario L4W 5G4

Phone: 1.905.624.9000; Fax: 1.905.624.9001;

Email: festo.canada@ca.festo.com

www.festo.ca

Mexico



Headquarters: Festo Pneumatic, S.A., Av. Ceylán 3, Col. Tequesquahuac,
54020 Tlalneapantla, Edo. de México

Phone: 011 52 [55] 53 21 66 00; Fax: 011 52 [55] 53 21 66 65;

Email: festo.mexico@mx.festo.com

www.festo.com/mx

Central USA

Festo Corporation
1441 East Business
Center Drive
Mt. Prospect, IL 60056, USA
Phone: 1.847.759.2600
Fax: 1.847.768.9480



Western USA

Festo Corporation
4935 Southfront Road,
Suite F
Livermore, CA 94550, USA
Phone: 1.925.371.1099
Fax: 1.925.245.1286



Festo Worldwide

Argentina Australia Austria Belarus Belgium Brazil Bulgaria Canada Chile China Colombia Croatia Czech Republic Denmark
Estonia Finland France Germany Great Britain Greece Hong Kong Hungary India Indonesia Iran Ireland Israel Italy Japan Latvia
Lithuania Malaysia Mexico Netherlands New Zealand Norway Peru Philippines Poland Romania Russia Serbia Singapore
Slovakia Slovenia South Africa South Korea Spain Sweden Switzerland Taiwan Thailand Turkey Ukraine United States Venezuela

www.festo.com