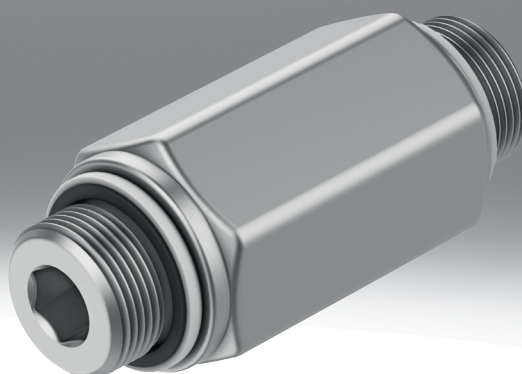


Check valve H, HA, HB

FESTO



Type code

001	Series	
H	Check valve	
HA	Check valve, flow direction: male thread - push-in connector QS	
HB	Check valve, flow direction, push-in connection QS - male thread	

002	Pneumatic connection 1	
1/8	H: G1/2; HA/HB: R1/8	
1/4	H: G1/2; HA/HB: R1/4	
3/8	H: G1/2; HA/HB: R3/8	
1/2	H: G1/2; HA/HB: R1/2	
3/4	H: G3/4	
M5	Male thread M5	
QS-4	Push-in connector 4 mm	
QS-6	Push-in connector 6 mm	
QS-8	Push-in connector 8 mm	
QS-10	Push-in connector 10 mm	
QS-12	Push-in connector 12 mm	

003	Pneumatic connection 2	
1/8	Male 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	
M5	Male thread M5	
QS-4	Push-in connector 4 mm	
QS-6	Push-in connector 6 mm	
QS-8	Push-in connector 8 mm	
QS-10	Push-in connector 10 mm	
QS-12	Push-in connector 12 mm	

Datasheet

Function



Technical data – H (push-in connector)

Pneumatic connection, port 1	QS-4	QS-6	QS-8	QS-10	QS-12	QS-5/32	QS-3/16	QS-1/4	QS-5/16	QS-3/8	QS-1/2
Pneumatic connection, port 2	QS-4	QS-6	QS-8	QS-10	QS-12	QS-5/32	QS-5/16	QS-1/4	QS-5/16	QS-3/8	QS-1/2
Valve function	Non-return function										
Type of mounting	In-line installation										
Operating pressure	-1 bar, 10 bar										
Min. diff. pressure, opening	0.1 bar										
Min. diff. pressure, closing	0.2 bar										
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)										
Ambient temperature	0°C, 60°C										
Material housing	Anodised aluminium					Aluminium					
Housing colour	Black			Silver		–					
Note on materials	RoHS-compliant										
LABS (PWIS) conformity	VDMA24364-B1/B2-L										

Technical data – H (male thread)

Pneumatic connection, port 1	M5	G1/8	G1/4	G3/8	G1/2	G3/4	
Pneumatic connection, port 2	M5	G1/8	G1/4	G3/8	G1/2	G3/4	
Valve function	Non-return function						
Type of mounting	In-line installation			Screw-in			
Mounting position	–			optional			
Max. tightening torque	–			11 Nm	20 Nm	40 Nm	60 Nm
Operating pressure	0.04 ... 0.8 MPa			0.04 ... 1.2 MPa			
Operating pressure	0.4 ... 8 bar			0.4 ... 12 bar			
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)						
Ambient temperature	-10 ... 60°C						
Media temperature	-10 ... 60°C						
Pilot medium	–						
Corrosion resistance class CRC ¹⁾	–			2 - Moderate corrosion stress			
Material housing	Brass			Anodised wrought aluminium alloy			
Note on materials	RoHS-compliant	–		RoHS-compliant			
LABS (PWIS) conformity	VDMA24364-B2-L						

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

Datasheet

Technical data – HA (flow direction male thread → push-in connector QS)

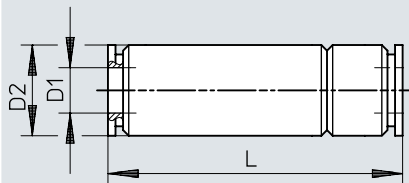
Pneumatic connection, port 1	M5	R1/8	R1/4	R3/8	R1/2	10-32 UNF-2A	1/8 NPT	1/4 NPT	3/8 NPT	1/2 NPT
Pneumatic connection, port 2	QS-4	QS-4 QS-6 QS-8	QS-6 QS-8	QS-10 QS-12	QS-12	QS-5/32	QS-5/32 QS-3/16 QS-1/4 QS-5/16	QS-3/16 QS-1/4 QS-5/16	QS-3/8	
Valve function	Non-return function									
Type of mounting	Screw-in									
Operating pressure	-1 ... 10 bar									
Min. diff. pressure, opening	0.1 bar									
Min. diff. pressure, closing	0.2 bar									
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)									
Ambient temperature	0 ... 60°C									
Material housing	Brass, nickel-plated			Anodised aluminium		Brass				
Housing colour	–			Silver		–				
Note on materials	RoHS-compliant									
LABS (PWIS) conformity	VDMA24364-B1/B2-L						VDMA24364-B2-L VDMA24364-B1/B2-L		VDMA24364-B1/B2-L	

Technical data – HB (flow direction plug connection QS → male thread)

Technical data - HS (flow direction plug connection QS → mate thread)										
Pneumatic connection, port 1	QS-4	QS-6	QS-8	QS-10	QS-12	QS-5/32	QS-3/16	QS-1/4	QS-5/16	QS-3/8
Pneumatic connection, port 2	M5 R1/8	R1/8 R1/4		R3/8	R3/8 R1/2	10-32 UNF- 2A 1/8 NPT	1/8 NPT 1/4 NPT			3/8 NPT 1/2 NPT
Valve function	Non-return function									
Type of mounting	Screw-in									
Operating pressure	-1 ... 10 bar									
Min. diff. pressure, opening	0.1 bar									
Min. diff. pressure, closing	0.2 bar									
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)									
Ambient temperature	0 ... 60°C									
Material housing	Brass, nickel-plated			Anodised aluminium		Brass				
Housing colour	–			Silver		–				
Note on materials	RoHS-compliant									
LABS (PWIS) conformity	VDMA24364-B1/B2-L					VDMA24364-B2-L VD- MA24364-B1/B2-L	VDMA24364-B2-L	VDMA24364-B1/B2-L		VDMA24364-B2-L VD- MA24364-B1/B2-L

Dimensions

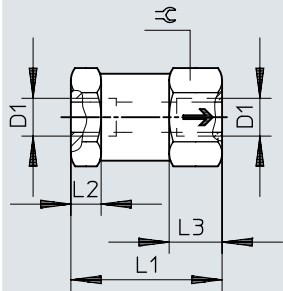
Dimensions – Push-in connector

[Download CAD data](#) www.festo.com


	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

Dimensions

Dimensions – H-M5 Download CAD data www.festo.com

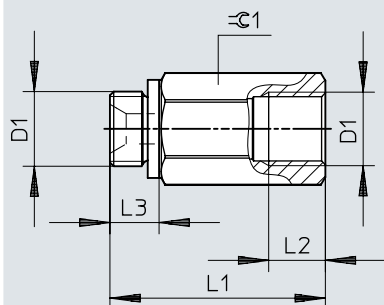


	D1	L1	L2	L3	
H-M5	M5	20	4	7	11

Dimensions

Dimensions – H-1/8-A/I

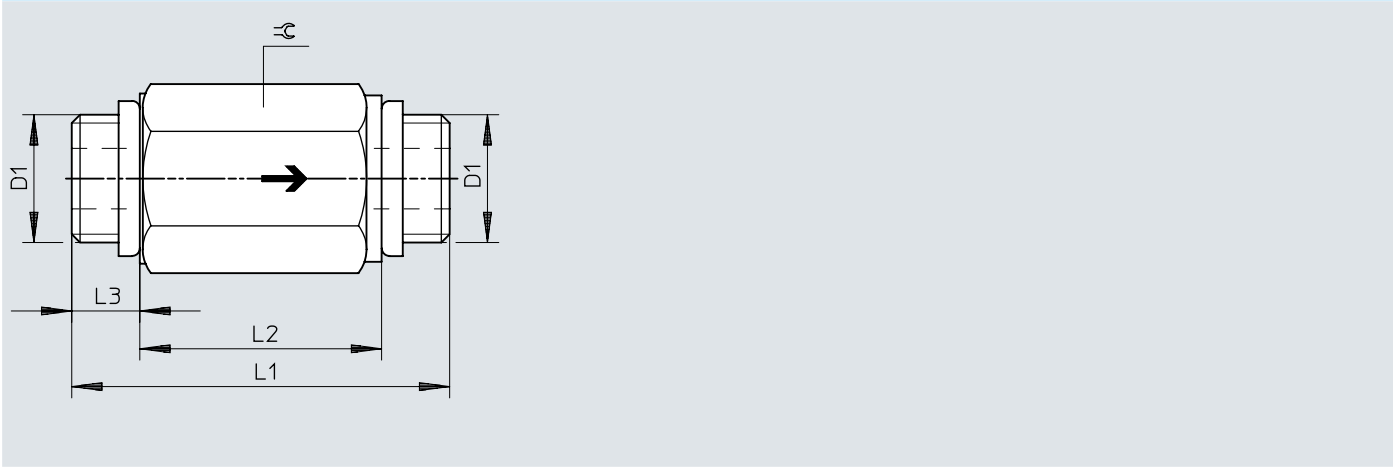
Download CAD data www.festo.com



	D1	L1	L2	L3	≡
H-1/8-A/I	G1/8	28,5	7,5	6,5	13

Dimensions

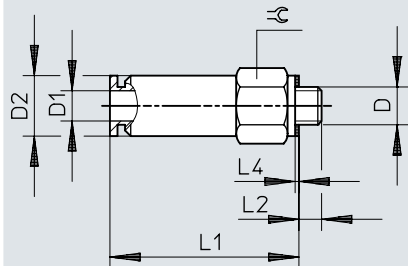
Dimensions – H-...-B Download CAD data www.festo.com



	D1	L1	L2	L3	≙
H-1/4-B	G1/4	48	32	8	19
H-3/8-B	G3/8	50		9	22
H-1/2-B	G1/2	65	44	10,5	27
H-3/4-B	G3/4	74	50	12	32

Dimensions

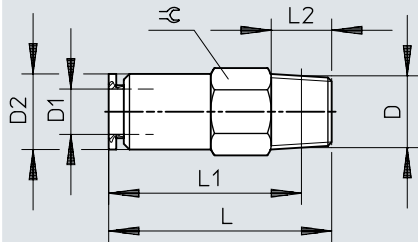
Dimensions – HA/HB-M5-QS

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


	D	D1 Ø	D2 Ø	L1	L2	L4	≡
HA/HB-M5-QS-4	M5	4	8	25,4	3	0,5	8

Dimensions

Dimensions – HA/HB-...-QS

Download CAD data www.festo.com

	D	D1 ø	D2 ø	L	L1	L2	≡C
HA/HB-1/8-QS-4	R1/8	4	9	24,5	20,5	8	10
HA/HB-1/8-QS-6	R1/8	6	10	29,3	25,3	8	10
HA/HB-1/8-QS-8	R1/8	8	13,5	35,5	31,5	8	14
HA/HB-1/4-QS-6	R1/4	6	12	29,3	23,3	11	14
HA/HB-1/4-QS-8	R1/4	8	13,5	39,2	33,2	11	14
HA/HB-3/8-QS-10	R3/8	10	25	61,7	55,4	12	24
HA/HB-3/8-QS-12	R3/8	12	25	64,3	58	12	24
HA/HB-1/2-QS-12	R1/2	12	28	70,8	62,6	15	27

Ordering data

H – Push-in connector

	Pneumatic connection, port 1 ¹⁾	Pneumatic connection, port 2	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type
	QS-4	QS-4	136 l/min	5.3 g	153462	H-QS-4
	QS-6	QS-6	282 l/min	10 g	153463	H-QS-6
	QS-8	QS-8	681 l/min	21 g	153464	H-QS-8
	QS-10	QS-10	1,480 l/min	63 g	153465	H-QS-10
	QS-12	QS-12	1,715 l/min	69 g	153466	H-QS-12
	QS-5/32	QS-5/32	139 l/min	5.3 g	190841	H-QSM-5/32-U
	QS-3/16	QS-5/16	189 l/min	10 g	190842	H-QSM-3/16-U
	QS-1/4	QS-1/4	314 l/min	14 g	190843	H-QS-1/4-U
	QS-5/16	QS-5/16	754 l/min	21 g	190844	H-QS-5/16-U
	QS-3/8	QS-3/8	1,550 l/min	62 g	190845	H-QS-3/8-U
	QS-1/2	QS-1/2	2,000 l/min	68 g	190846	H-QS-1/2-U

1) H-...-U: for North America only

H – male thread

	Pneumatic connection, port 1	Standard nominal flow rate (standardised to DIN 1343)	Standard nominal flow rate 1->2 (6-5)	Product weight	Part no.	Type
	M5	140 l/min			3671	H-M5
	G1/8	280 l/min		21 g	3324	H-1/8-A/I
	G1/4		1,000 l/min	25.4 g	11689	H-1/4-B
	G3/8		2,000 l/min	34 g	11690	H-3/8-B
	G1/2		5,500 l/min	58.3 g	11691	H-1/2-B
	G3/4		5,900 l/min	101 g	11692	H-3/4-B

HA – Flow direction male thread → Push-in connector QS

	Pneumatic connection, port 1 ¹⁾	Pneumatic connection, port 2	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type
	M5	QS-4	148 l/min	7.2 g	153444	HA-M5-QS-4
	R1/8		138 l/min	11 g	153446	HA-1/8-QS-4
		QS-6	311 l/min		153448	HA-1/8-QS-6
		QS-8	331 l/min	22 g	153452	HA-1/8-QS-8
	R1/4	QS-6	302 l/min	23 g	153450	HA-1/4-QS-6
		QS-8	670 l/min	24 g	153454	HA-1/4-QS-8
	R3/8	QS-10	1,740 l/min	47 g	153456	HA-3/8-QS-10
		QS-12	1,876 l/min	50 g	153458	HA-3/8-QS-12
	R1/2		2,230 l/min	69 g	153460	HA-1/2-QS-12
	10-32 UNF-2A	QS-5/32	143 l/min	7.2 g	190847	HA-10-32-UNF-QSM-5/32-U
	1/8 NPT		146 l/min	12 g	190848	HA-1/8-QSM-5/32-U
		QS-3/16	238 l/min	13 g	190849	HA-1/8-QSM-3/16-U
		QS-1/4	313 l/min	21 g	190850	HA-1/8-QS-1/4-U
		QS-5/16	331 l/min	22 g	190851	HA-1/8-QS-5/16-U
	1/4 NPT	QS-3/16	238 l/min	24 g	190852	HA-1/4-QSM-3/16-U
		QS-1/4	326 l/min	27 g	190853	HA-1/4-QS-1/4-U
		QS-5/16	766 l/min	24 g	190854	HA-1/4-QS-5/16-U
	3/8 NPT	QS-3/8	1,700 l/min	48 g	190855	HA-3/8-QS-3/8-U
	1/2 NPT		1,800 l/min	67 g	190856	HA-1/2-QS-3/8-U

1) HA-...-U: only for North America

Ordering data

HB – Flow direction push-in connector QS → male thread						
	Pneumatic connection, port 1 ¹⁾	Pneumatic connection, port 2	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type
	QS-4	M5	144 l/min	7.2 g	153445	HB-M5-QS-4
		R1/8	142 l/min	11 g	153447	HB-1/8-QS-4
	QS-6		335 l/min		153449	HB-1/8-QS-6
		R1/4	294 l/min	23 g	153451	HB-1/4-QS-6
	QS-8	R1/8	314 l/min	22 g	153453	HB-1/8-QS-8
		R1/4	696 l/min	24 g	153455	HB-1/4-QS-8
	QS-10	R3/8	1,700 l/min	47 g	153457	HB-3/8-QS-10
	QS-12		1,886 l/min	50 g	153459	HB-3/8-QS-12
		R1/2	2,206 l/min	69 g	153461	HB-1/2-QS-12
	QS-5/32	10-32 UNF-2A	145 l/min	7.2 g	190857	HB-10-32-UNF-QSM-5/32-U
		1/8 NPT	150 l/min	12 g	190858	HB-1/8-QSM-5/32-U
	QS-3/16		216 l/min	13 g	190859	HB-1/8-QSM-3/16-U
		1/4 NPT		24 g	190862	HB-1/4-QSM-3/16-U
	QS-1/4	1/8 NPT	303 l/min	21 g	190860	HB-1/8-QS-1/4-U
		1/4 NPT	304 l/min	27 g	190863	HB-1/4-QS-1/4-U
	QS-5/16	1/8 NPT	330 l/min	22 g	190861	HB-1/8-QS-5/16-U
		1/4 NPT	739 l/min	24 g	190864	HB-1/4-QS-5/16-U
	QS-3/8	3/8 NPT	1,550 l/min	48 g	190865	HB-3/8-QS-3/8-U
		1/2 NPT	1,650 l/min	67 g	190866	HB-1/2-QS-3/8-U

1) HB-...-U: for North America only