

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 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

003	Pneumatic connection 1
1/8	G1/8
1/8	R1/8
1/4	G1/4
1/4	R1/4
3/8	G3/8
3/8	R3/8
1/2	G1/2
1/2	R1/2
3/4	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	–			Compressed air to ISO 8573-1:2010 [7:4:4]		
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/crc

Datasheet

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

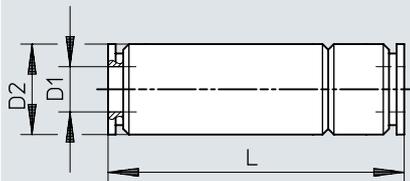
Pneumatic connection, port 1	M5	R1/8	R1/4	R3/8	R1/2	10-32 UNF-2A	1/8 NPT	1/4 NPT	3/8 NPT	1/2 NPT	
Pneumatic connection, port 2	QS-4	QS-4 QS-6 QS-8	QS-6 QS-8	QS-10 QS-12	QS-12	QS-5/32	QS-5/32 QS-3/16 QS-1/4 QS-5/16	QS-3/16 QS-1/4 QS-5/16	QS-3/8		
Valve function	Non-return function										
Type of mounting	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)

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					VD-MA24364-B2-L	VD-MA24364-B2-L	VDMA24364-B1/B2-L		VD-MA24364-B2-L

Dimensions

Dimensions – Push-in connector

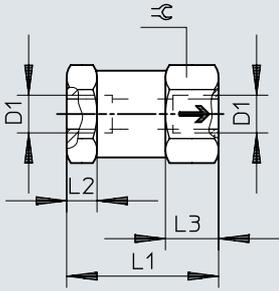
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	D1	D2 ∅	L
H-QS-4	4	9	34,8
H-QS-6	6	12	38,8
H-QS-8	8	15	54,9
H-QS-10	10	25	73,4
H-QS-12	12	25	78,6

Dimensions

Dimensions – H-M5

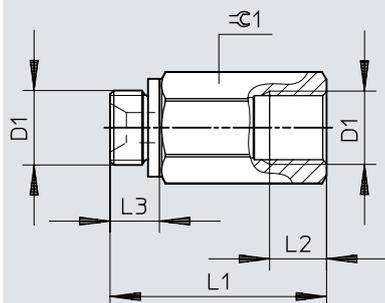
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	D1	L1	L2	L3	⊘
H-M5	M5	20	4	7	11

Dimensions

Dimensions – H-1/8-A/I

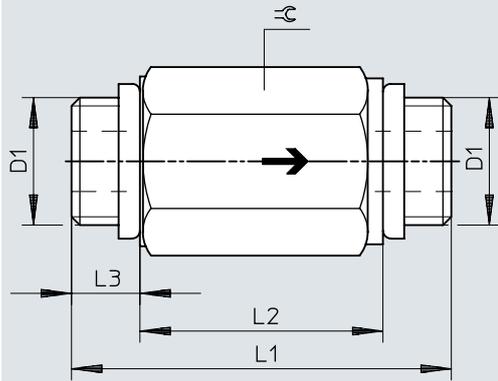
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	D1	L1	L2	L3	±0.1
H-1/8-A/I	G1/8	28,5	7,5	6,5	13

Dimensions

Dimensions – H...-B

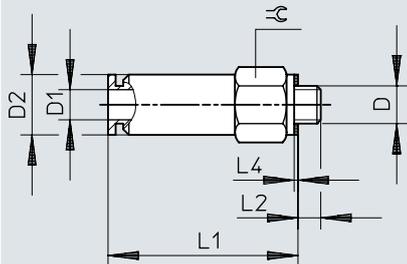
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	D1	L1	L2	L3	⌀
H-1/4-B	G1/4	48	32	8	19
H-3/8-B	G3/8	50		9	22
H-1/2-B	G1/2	65	44	10,5	27
H-3/4-B	G3/4	74	50	12	32

Dimensions

Dimensions – HA/HB-M5-QS

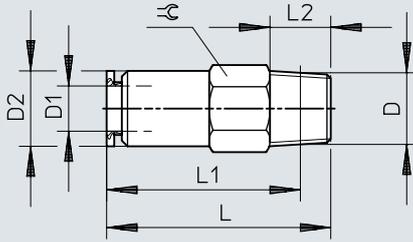
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	D	D1 ∅	D2 ∅	L1	L2	L4	☞
HA/HB-M5-QS-4	M5	4	8	25,4	3	0,5	8

Dimensions

Dimensions – HA/HB-...-QS

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	D	D1 ∅	D2 ∅	L	L1	L2	☉
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	Pneumatic connection, port 2	Standard nominal flow rate (standardised to DIN 1343)	Product weight	Part no.	Type
	M5	M5	115 l/min		3671	H-M5
	G1/8	G1/8	280 l/min	21 g	3324	H-1/8-A/I
	G1/4	G1/4		25.4 g	11689	H-1/4-B
	G3/8	G3/8		34 g	11690	H-3/8-B
	G1/2	G1/2		58.3 g	11691	H-1/2-B
	G3/4	G3/4		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