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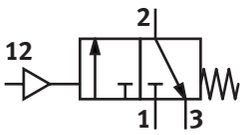
On/off valve, pneumatic HEP



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Characteristics

At a glance



Pneumatically actuated on/off valve for pressurising and exhausting pneumatic systems.
The valve can be used as an individual device or in combination with other modules from the D series.

Version

[D]	D series, metal

Sturdy in full metal design for the specific requirements of the process automation industry

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Type code

001	Series	
HEP	On/off valve	

002	Pneumatic connection	
	None	
1/8	Female thread G1/8	
1/4	Female thread G1/4	
3/8	Female thread G3/8	
1/2	Female thread G1/2	
3/4	Female thread G3/4	
1	Female thread G1	

003	Version	
D	D series, metal	

004	Size	
MINI	Grid dimension 40 mm (without connecting plates)	
MIDI	Grid dimension 55 mm (without connecting plates)	
MAXI	Grid dimension 66 mm (without connecting plates)	

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Datasheet

General technical data

Size	Grid dimension 40 mm (without connecting plates)	Grid dimension 55 mm (without connecting plates)	Grid dimension 66 mm (without connecting plates)
Pneumatic connection, port 1 [1]	G1/8, G1/4, G3/8	G1/4, G3/8, G1/2, G3/4	G1/2, G3/4, G1
Pneumatic connection, port 2 [2]	G1/8, G1/4, G3/8	G1/4, G3/8, G1/2, G3/4	G1/2, G3/4, G1
Pneumatic connection, port 3	G1/8	G1/4	G3/8
Pilot air port 12	G1/8		
Design	Piston gate valve		
Type of actuation	Pneumatic		
Type of mounting	In-line installation With accessories		
Mounting position	optional		
Air purity class at output	Compressed air to ISO 8573-1:2010 [7:4:4], Inert gases		
Valve function	3/2-way, closed, monostable		
Exhaust-air function	Without flow control option		
Type of reset	Mechanical spring		
Manual override	None		
Sealing principle	Soft		
Flow direction	Non-reversible		

Characteristic flow rate

Pneumatic connection, port 1	G1/8	G1/4		G3/8		G1/2		G3/4		G1
Pneumatic connection, port 3	G1/8		G1/4	G1/8	G1/4		G3/8	G1/4	G3/8	
Standard nominal flow rate (standardised to DIN 1343)[1]	1,000 l/min	1,500 l/min	2,600 l/min	1,600 l/min	3,500 l/min	3,900 l/min	5,600 l/min	4,100 l/min	6,000 l/min	6,500 l/min
C value	4.3 l/sbar	7.2 l/sbar	10.1 l/sbar	7.7 l/sbar	15.5 l/sbar	16.6 l/sbar	24.2 l/sbar	16.2 l/sbar	28 l/sbar	27.6 l/sbar
b value	0.48	0.34	0.46	0.3	0.33	0.4	0.3	0.47	0.32	

1) Measured at p1 = 6 bar and p2 = 5 bar, Δp = 1 bar.

Operating and environmental conditions

Operating pressure	0 ... 1.6 MPa
Operating pressure	0 ... 16 bar
Pilot pressure	3 ... 16 bar
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4], Inert gases
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
Corrosion resistance class CRC [1]	2 - Moderate corrosion stress

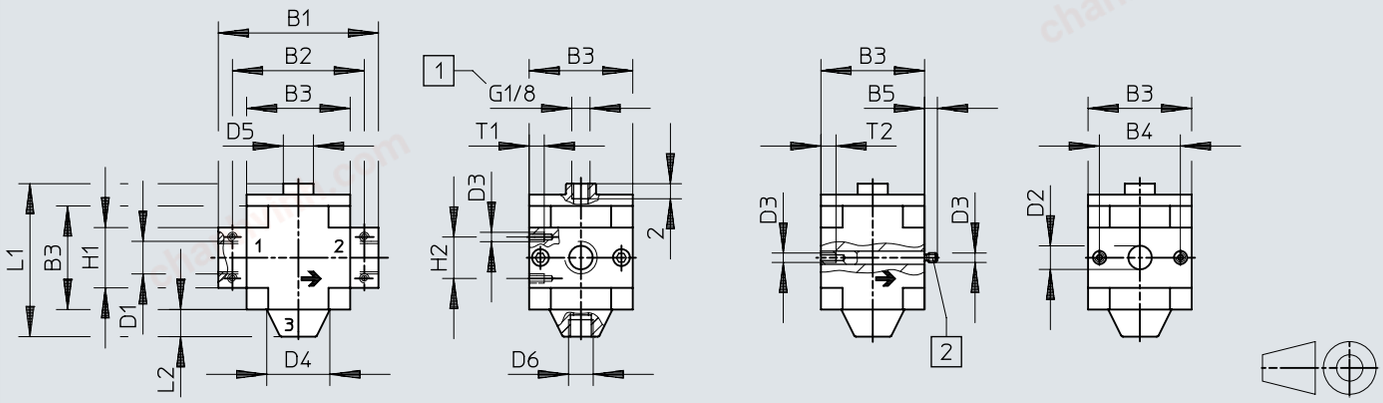
1) More information: www.festo.com/x/topic/crc

Materials

Material housing	Die-cast aluminium
Material seals	NBR
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-B1/B2-L

Dimensions

Dimensions – With sub-bases with threaded connection, without sub-bases Download CAD data www.festo.com



[1] Threaded connection for auxiliary pilot air (12)
[2] Threaded bolt (exchangeable)

	B1	B2	B3	B4	B5	D1	D2 ø	D3	D4 ø	D5	D6	H1	H2	L1	L2	T1	T2
HEP-1/8-D-MINI	64	52	40	30	–	G1/8	–	M4	24	16	G1/8	20	11	73,8	11	7	–
HEP-1/4-D-MINI						G1/4											
HEP-3/8-D-MINI	70					G3/8											
HEP-D-MINI	–	–			5,8	–	11					–	–			–	10
HEP-1/4-D-MIDI	85	70	55	43	–	G1/4	–	M5	34	32	G1/4	32	22	94,6	14	8	–
HEP-3/8-D-MIDI						G3/8											
HEP-1/2-D-MIDI						G1/2											
HEP-3/4-D-MIDI						G3/4											
HEP-D-MIDI	–	–			6,8	–	24					–	–			–	11
HEP-1/2-D-MAXI	96	80	66	46	–	G1/2	–	M5	38	16	G3/8	32	22	95,6	16	8	–
HEP-3/4-D-MAXI						G3/4											
HEP-1-D-MAXI	116	91				G1						40					
HEP-D-MAXI	–	–			6,8	–	30					–	–			–	11

1) Note: This product complies with ISO 1179-1 and ISO 228-1.

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Ordering data

Ordering data

Size	Pneumatic connection, port 1 [1]	Pneumatic connection, port 2 [2]	Pneumatic connection, port 3	Product weight	Part no.	Type
Grid dimension 40 mm (without connecting plates)			G1/8	223 g	**193242**	**HEP-D-MINI**
	G1/8	G1/8			**193243**	**HEP-1/8-D-MINI**
	G1/4	G1/4			**193244**	**HEP-1/4-D-MINI**
	G3/8	G3/8			**193245**	**HEP-3/8-D-MINI**
Grid dimension 55 mm (without connecting plates)			G1/4	500 g	**193249**	**HEP-D-MIDI**
	G1/4	G1/4			**193250**	**HEP-1/4-D-MIDI**
	G3/8	G3/8			**193251**	**HEP-3/8-D-MIDI**
	G1/2	G1/2			**193252**	**HEP-1/2-D-MIDI**
	G3/4	G3/4			**193253**	**HEP-3/4-D-MIDI**
Grid dimension 66 mm (without connecting plates)				800 g	**193257**	**HEP-D-MAXI**
	G1/2	G1/2	G3/8		**193258**	**HEP-1/2-D-MAXI**
	G3/4	G3/4			**193259**	**HEP-3/4-D-MAXI**
	G1	G1			**193260**	**HEP-1-D-MAXI**

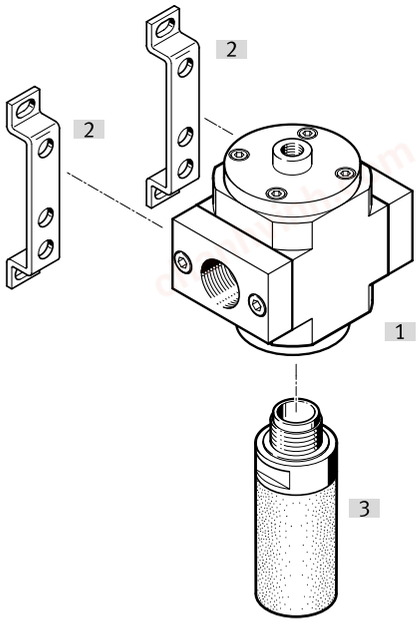
1) Connecting plates

2) Connecting plates

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Peripherals

Individual unit with connecting plates

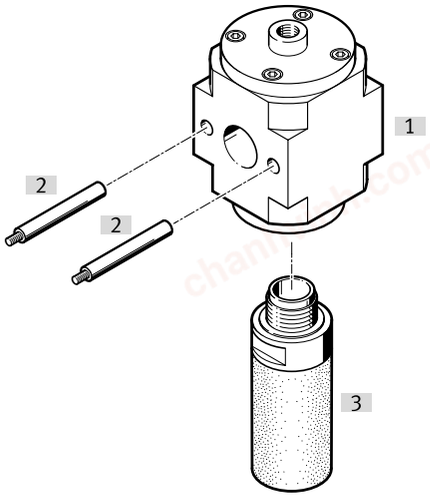


Accessories			→ Link
	Type/order code	Description	
[1]	On/off valve HEP		hep-d
[2]	Mounting bracket HFOE		9
[3]	Silencer U		9

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Peripherals

Individual unit without connecting plates, for service unit combination

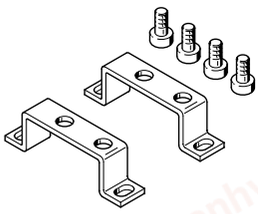


Accessories			→ Link
	Type/order code	Description	
[1]	On/off valve HEP		hep-d
[2]	Threaded bolt FRB	Included in the scope of delivery	9
[3]	Silencer U		9

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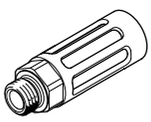
Accessories

Mounting bracket HFOE

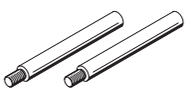
	Corrosion resistance class CRC [1]	LABS (PWIS) conformity	Part no.	Type
	2 - Moderate corrosion stress	VDMA24364-B2-L	**159593**	**HFOE-D-MIDI/MAXI**
		VDMA24364-B1/B2-L	**159638**	**HFOE-D-MINI**

1) More information: www.festo.com/x/topic/crc

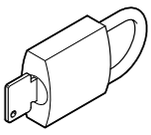
Silencer U

	Pneumatic connection	Flow rate to atmosphere	Sound pressure level	Product weight	Part no.	Type
	G1/8	1,340 l/min	74 dB(A)	8 g	**6841**	**U-1/8-B**
	G1/4	2,440 l/min	80 dB(A)	17 g	**6842**	**U-1/4-B**
	G3/8	5,800 l/min		37 g	**6843**	**U-3/8-B**
	G1/2	7,500 l/min	81 dB(A)	75 g	**6844**	**U-1/2-B**
	G3/4	10,000 l/min	83 dB(A)	120 g	**6845**	**U-3/4-B**
	G1	17,500 l/min	85 dB(A)	233 g	**151990**	**U-1-B**

Threaded bolt FRB

	Size	Part no.	Type
	Grid dimension 40 mm (without sub-bases)	**159642**	**FRB-D-MINI**
	Grid dimension 55 mm (without sub-bases)	**159595**	**FRB-D-MIDI**
	Grid dimension 66 mm (without sub-bases)	**159643**	**FRB-D-MAXI**

Padlock LRVS-D

	Corrosion resistance class CRC [1]	LABS (PWIS) conformity	Note on materials	Product weight	Part no.	Type
	2 - Moderate corrosion stress	VDMA24364-B1/B2-L	RoHS-compliant	120 g	**193786**	**LRVS-D**

1) More information: www.festo.com/x/topic/crc