

Clamping modules EV

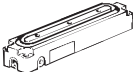
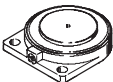
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Clamping modules EV

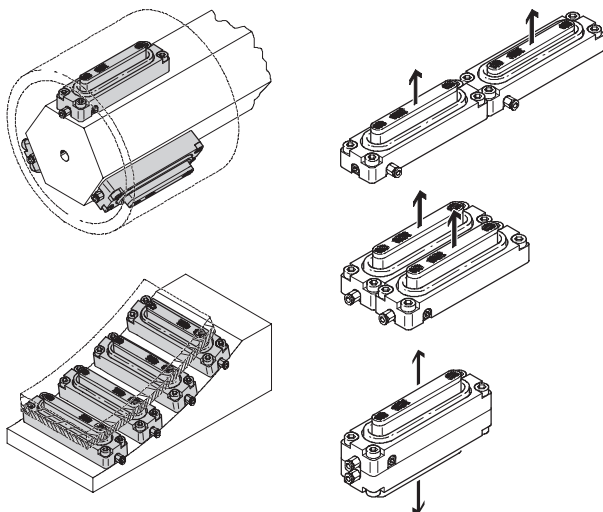
Product range overview

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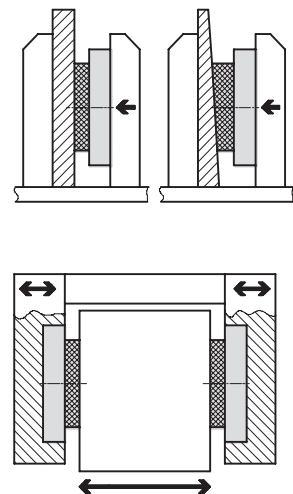
Function	Version	Type	Clamping area [mm]	Stroke [mm]
Single-acting	Clamping module, block shaped			
		EV	10x30	3
			15x40	4
			15x63	4
			20x75	5
			20x120	5
			20x180	5
	Clamping module, round			
		EV	Ø 12	3
			Ø 16	4
			Ø 20	4
			Ø 25	4
			Ø 32	5
			Ø 40	5
			Ø 50	5
Ø 63			5	

Examples of applications and installations

Clamping module, block shaped



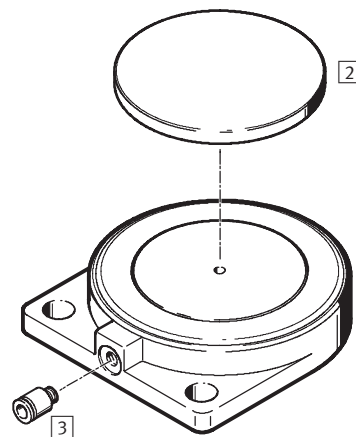
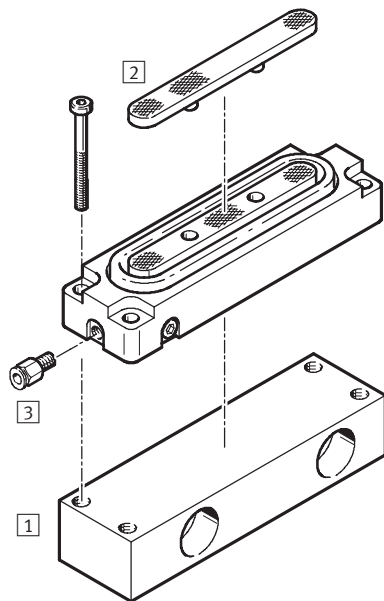
Clamping module, round



Clamping modules EV

Peripherals overview and type code

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Mounting attachments and accessories				
	Brief description	Clamping module, block shaped	Clamping module, round	➔ Page/Internet
1	Foot mounting HBEV		–	8
2	Pressure plate EV-...-DP			8
3	Push-in fitting QS			quick star

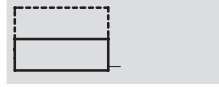
EV		–	20/75	–	5
Type Single-acting EV Clamping module					
Clamping area [mm]					
Stroke [mm]					

Clamping modules EV

Technical data

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Function



-  - Diameter
Clamping module, block shaped:
approx. Ø 20 ... 68 mm
Clamping module, round:
Ø 12 ... 63 mm
-  - Stroke length
3 ... 5 mm
-  - www.festo.com



General technical data – Clamping module, block shaped						
Clamping area	10x30	15x40	15x63	20x75	20x120	20x180
Equivalent piston Ø	20	28	35	44	55	68
Pneumatic connection	M3	M5				
Operating medium	Compressed air, filtered, lubricated or unlubricated					
Constructional design	Diaphragm					
Cushioning	No					
Position sensing	No					
Type of mounting	Via through holes					
	With accessories					
Mounting position	Any					

General technical data – Clamping module, round								
Clamping area Ø	12	16	20	25	32	40	50	63
Pneumatic connection	M3							
Operating medium	Compressed air, filtered, lubricated or unlubricated							
Constructional design	Diaphragm							
Cushioning	No							
Position sensing	No							
Type of mounting	Via through holes							
Mounting position	Any							

Operating conditions – Clamping module, block shaped						
Clamping area	10x30	15x40	15x63	20x75	20x120	20x180
Operating pressure [bar]	≤ 6	2 ... 6				
Ambient temperature [°C]	-20 ... +40					

Operating conditions – Clamping module, round								
Clamping area Ø	12	16	20	25	32	40	50	63
Operating pressure [bar]	≤ 6							
Ambient temperature [°C]	-10 ... +40							

Clamping modules EV

Technical data

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Forces [N] – Clamping module, block shaped						
Clamping area	10x30	15x40	15x63	20x75	20x120	20x180
Clamping force at 6 bar, stroke 1 mm	95	195	350	660	1 100	1 690
Clamping force at 6 bar, maximum stroke	80	165	290	600	1 000	1 480

Forces [N] – Clamping module, round								
Clamping area Ø	12	16	20	25	32	40	50	63
Clamping force at 6 bar, stroke 1 mm	55	102	162	226	376	680	1 090	1 660
Clamping force at 6 bar, maximum stroke	56	125	187	271	456	675	1 075	1 640

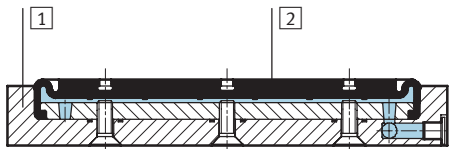
 Note
 Clamping module must be operated against a stop.

Weights [g] – Clamping module, block shaped						
Clamping area	10x30	15x40	15x63	20x75	20x120	20x180
Product weight	20	45	65	130	190	270

Weights [g] – Clamping module, round								
Clamping area Ø	12	16	20	25	32	40	50	63
Product weight	11	15	19	24	34	52	68	100

Materials

Sectional view



Clamping module	
1 Housing	Die-cast aluminium
2 Diaphragm	Polyurethane
– Note on material	Versions free of copper, PTFE and silicone → Ordering data
	Conforms to RoHS

Clamping modules EV

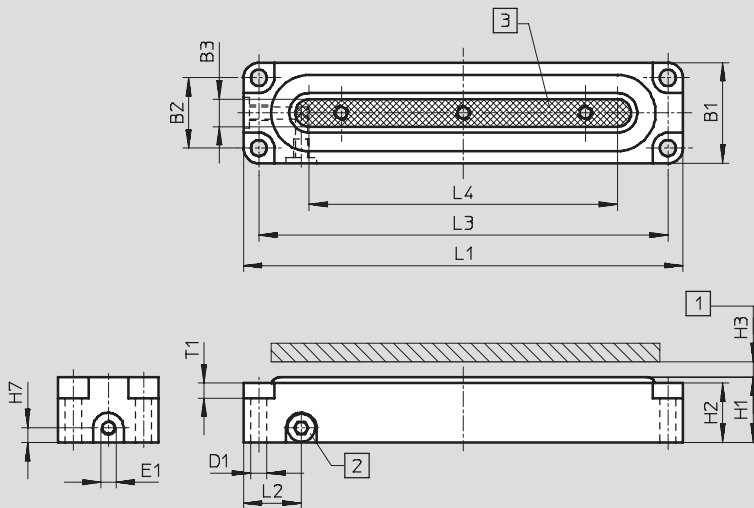
Technical data

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Dimensions

Download CAD data → www.festo.com

Clamping module, block shaped



- [1] Maximum permissible stroke against stop
- [2] Choice of positions for air connection, achieved by re-positioning blanking plug
- [3] Clamping area

Clamp- ing area [mm]	B1	B2	B3	D1 Ø	E1	H1	H2	H3	H7	L1	L2	L3	L4	T1
10x30	17	9	3	3.3	M3	14.5 _{+0.3}	12.5	3	3	45	13.5	37	16	4.6
15x40	23	15.5	4.9	4.3	M5	18 _{±0.54}	16	4	4.8	55	13	47	25	3
15x63										80	13	72	50	3
20x75	33	23	9.5	5.3	M5	21.5 _{±0.57}	19.5	5	4.8	98	18.9	88	55	5.2
20x120										144	18.9	134	103	5.2
20x180										204	18.9	194	161	5.2

Clamping modules EV

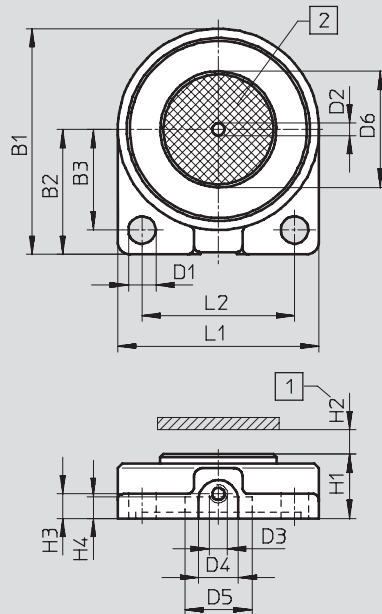
Technical data

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Dimensions

Download CAD data → www.festo.com

Clamping module, round



- 1 Maximum permissible stroke against stop
- 2 Clamping area

Clamping area Ø [mm]	B1	B2	B3	D1 Ø	D2 Ø	D3	D4 Ø	D5 Ø	H1	H2	H3	H4	L1	L2
12	29	16.5	13	3.5	2	M3	6.5	3	10.5	3	4	3.5	25	18
16	33	18.5	15	3.5	2	M3	6.5	7	10.5	4	4	3.5	29	22
20	37	20.5	16.5	4.5	2	M3	6.5	11	10.5	4	4	3.5	33	25
25	42	23	18.5	5.5	2	M3	6.5	16	10.5	4	4	3.5	38	28
32	49	26.5	21	5.5	2	M3	6.5	23	10.5	5	4	3.5	45	34
40	57	30.5	25	5.5	2	M3	6.5	31	10.5	5	4	2.5	53	42
50	67	35.5	29	5.5	2	M3	6.5	41	10.5	5	4	2.5	63	49
63	80	42	34	5.5	2	M3	6.5	54	10.5	5	4	2.5	76	60

Ordering data – Clamping module, block shaped

Clamping area [mm]	Stroke [mm]	Part No.	Type
10x30	3	151 993	EV-10/30-3
15x40	4	13 289	EV-15/40-4
15x63	4	13 290	EV-15/63-4
20x75	5	13 291	EV-20/75-5
20x120	5	13 292	EV-20/120-5
20x180	5	13 293	EV-20/180-5

Ordering data – Clamping module, round

Clamping area Ø [mm]	Stroke [mm]	Part No.	Type
12	3	150 681	EV-12-3
16	4	150 682	EV-16-4
20	4	150 683	EV-20-4
25	4	150 684	EV-25-4
32	5	150 685	EV-32-5
40	5	184 857	EV-40-5 ¹⁾
50	5	184 858	EV-50-5 ¹⁾
63	5	184 859	EV-63-5 ¹⁾

1) Free of copper, PTFE and silicone

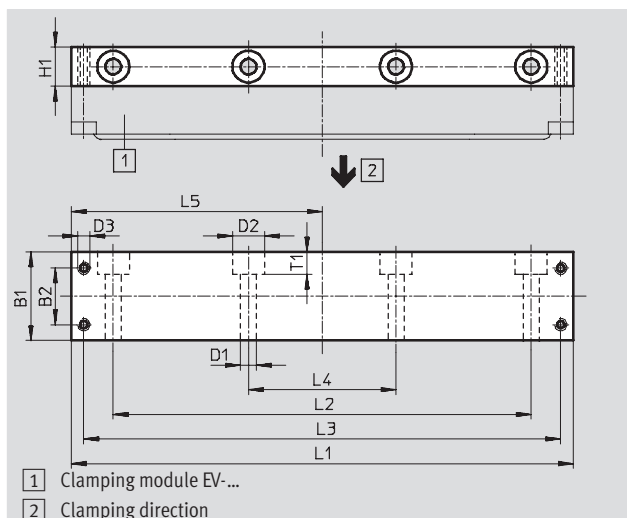
Accessories

Foot mounting HBEV

For clamping module, block shaped

Material:

Wrought aluminium alloy



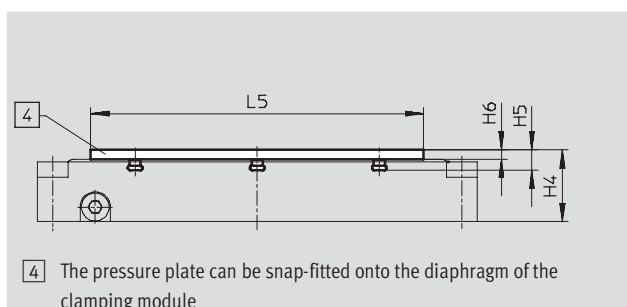
Dimensions and ordering data														
For clamping area	B1	B2	D1 Ø	D2 Ø	D3	H1	L1	L2	L3	L4	L5	T1	Part No.	Type
10x30	20	9	4.5	8	M3	10	45	23	37	–	22.5	4.6	152 512	HBEV-10/30
15x40	25	15.5	5.4	11	M4	15	55	29	47	–	27.5	7	34 562	HBEV-15/40
15x63							80	50	72	–	40	7	34 563	HBEV-15/63
20x75	36	23	6.4	13	M5	16	98	64	88	–	49	9	34 564	HBEV-20/75
20x120							144	110	134	–	72	9	34 565	HBEV-20/120
20x180							204	170	194	60	102	9	34 566	HBEV-20/180

Pressure plate EV-...-DP

For clamping module, block shaped

Material:

Steel



Dimensions and ordering data							
For clamp- ing area	H4	H5	H6	L5	CRC ¹⁾	Part No.	Type
10x30	17	5	2.5	19	2	151 994	EV-10/30-DP
15x40	20.5	5.6	2.5	29	2	13 783	EV-15/40-DP
15x63				54	2	13 784	EV-15/63-DP
20x75	24.5	6.6	3	63	2	13 785	EV-20/75-DP
20x120				109	2	13 786	EV-20/120-DP
20x180				169	2	13 787	EV-20/180-DP

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

Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

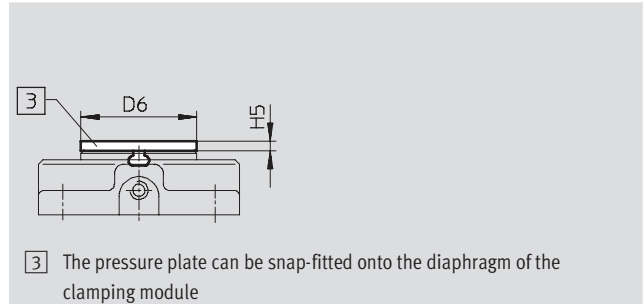
Clamping modules EV

Accessories

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Pressure plate EV-...-DP For clamping module, round

Material:
Steel



Dimensions and ordering data					
For clamp- ing area Ø	D6 Ø	H5	CRC ¹⁾	Part No.	Type
12	11	1.5	2	150 690	EV-12-DP
16	15	1.5	2	150 691	EV-16-DP
20	19	1.5	2	150 692	EV-20-DP
25	24	1.5	2	150 693	EV-25-DP
32	31	1.5	2	150 694	EV-32-DP
40	39	1.6	2	184 860	EV-40-DP
50	49	1.6	2	184 861	EV-50-DP
63	62	1.6	2	184 862	EV-63-DP

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

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