

Clamping modules EV

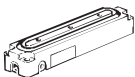
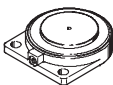
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Clamping modules EV

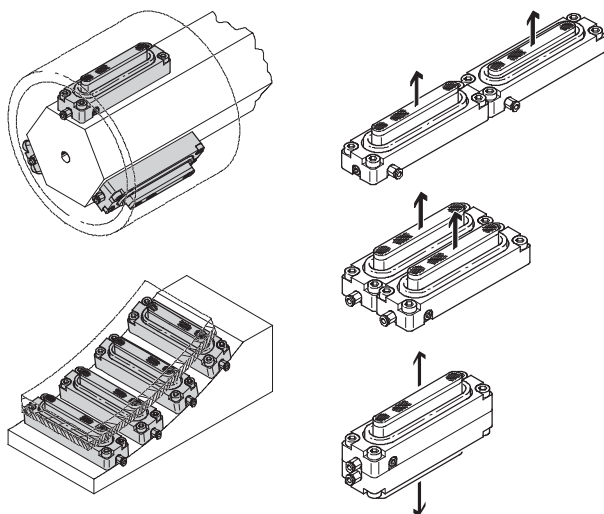
Product range overview

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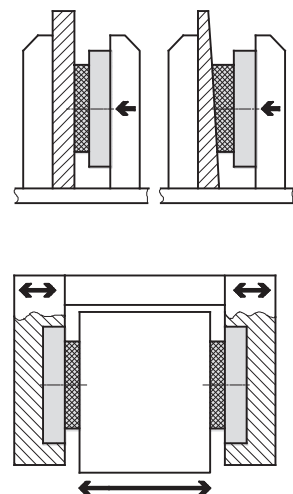
Function	Version	Type	Clamping area [mm]	Stroke [mm]
Single-acting	Clamping module, block shaped			
		EV	10x30	3
			15x40	4
			15x63	4
			20x75	5
			20x120	5
			20x180	5
	Clamping module, round			
		EV	Ø 12	3
			Ø 16	4
			Ø 20	4
			Ø 25	4
			Ø 32	5
			Ø 40	5
			Ø 50	5
			Ø 63	5

Examples of applications and installations

Clamping module, block shaped



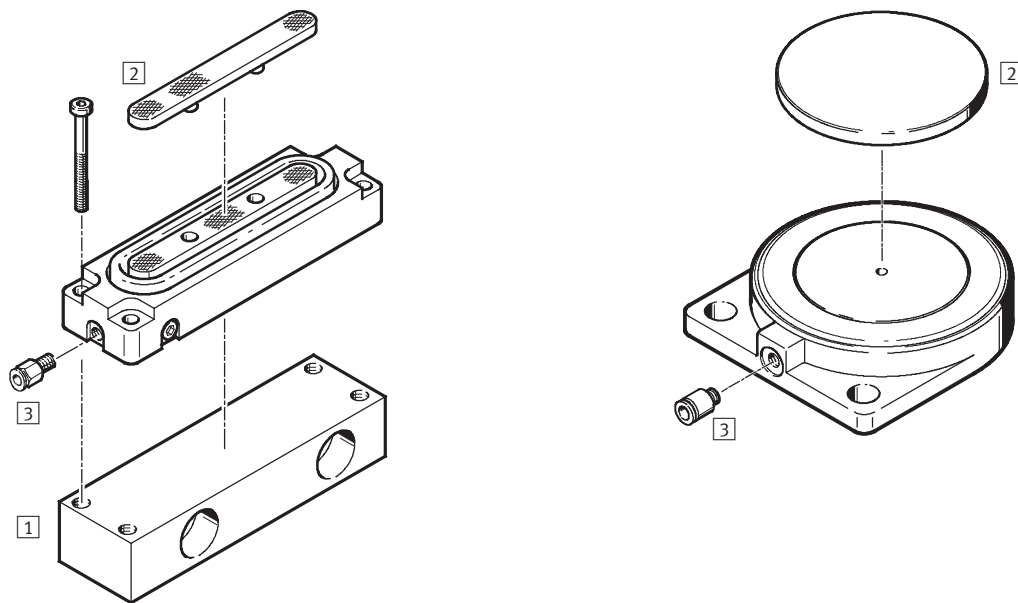
Clamping module, round



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

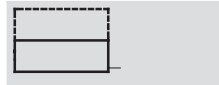
EV		–	20/75	–	5
Type					
Single-acting					
EV	Clamping module				
Clamping area [mm]					
Stroke [mm]					

Clamping modules EV

Technical data

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Function



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

www.festo.com/en/Spare_parts_service



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 in accordance with ISO 8573-1:2010 [7:--]					
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

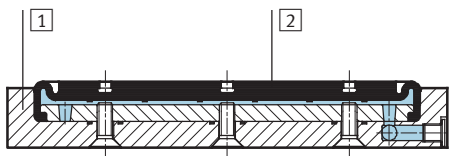
Clamping module must be operated against a stop.

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

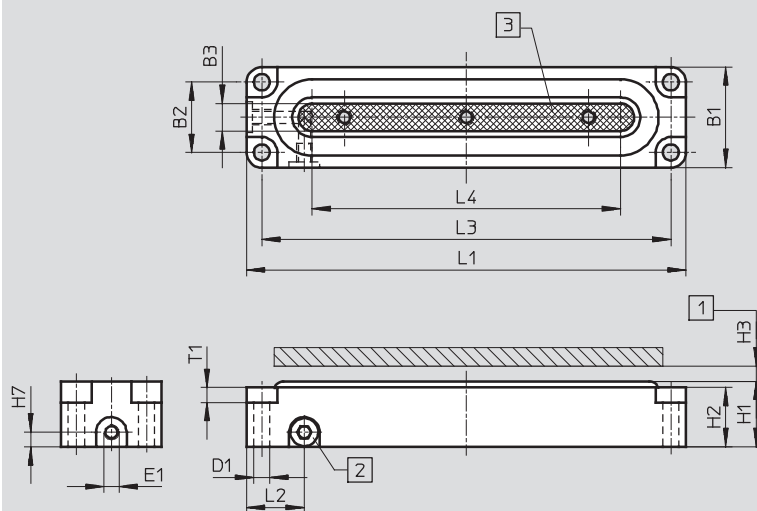
Technical data

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Dimensions

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

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

Clamping 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

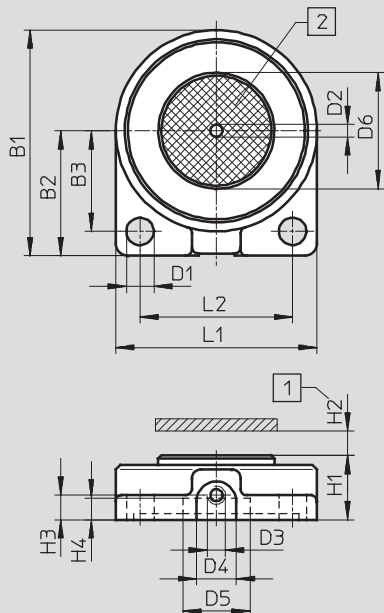
Technical data

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Dimensions

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

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

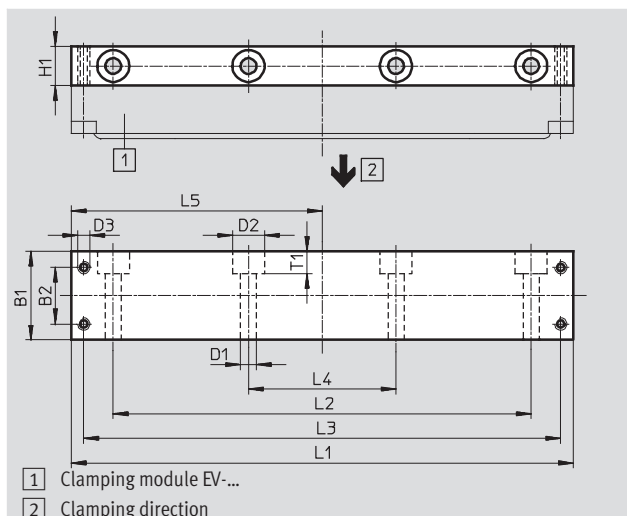
Accessories

Foot mounting HBEV

For clamping module, block shaped

Material:

Wrought aluminium alloy



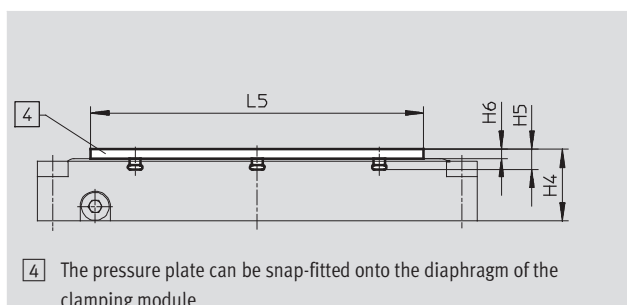
Dimensions and ordering data														
For clampin g area	B1	B2	D1 Ø	D2 Ø	D3	H1	L1	L2	L3	L4	L5	T1	Part No.	Type
10x30	20	9	4.5	8	M3	10	45	23	37	–	22.5	4.6	152 512	HBEV-10/30
15x40	25	15.5	5.4	11	M4	15	55	29	47	–	27.5	7	34 562	HBEV-15/40
15x63							80	50	72	–	40	7	34 563	HBEV-15/63
20x75	36	23	6.4	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 clampin g 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.

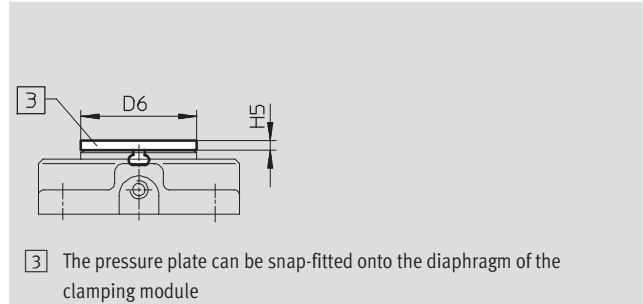
Clamping modules EV

Accessories

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

Material:
Steel



Dimensions and ordering data					
For clamping 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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