
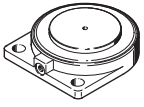


Clamping modules EV

FESTO



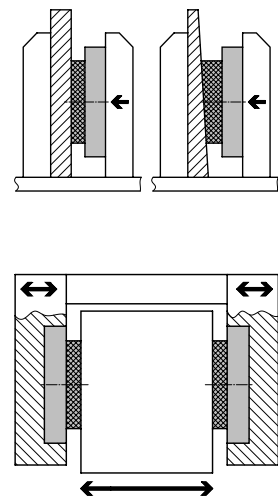
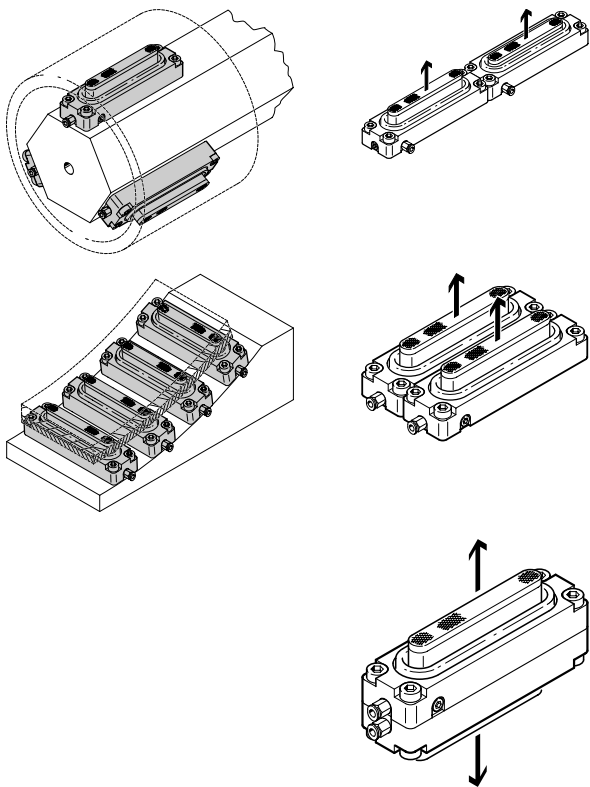
Product range overview

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

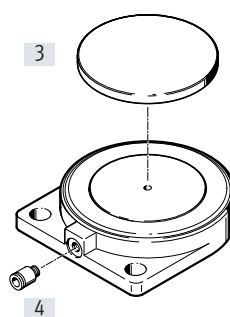
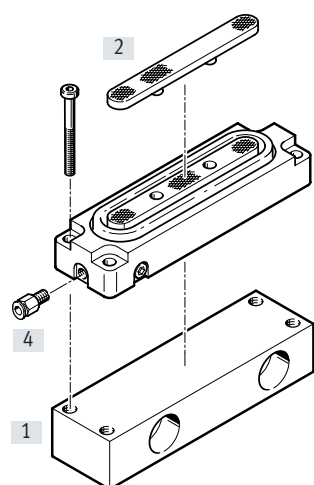
Examples of applications and installations

Clamping module, rectangular

Clamping module, round



Peripherals overview and type codes



Mounting components and accessories

	Description	Clamping module, rectangular	Clamping module, round	→ Page/Internet
[1] Foot mounting HBEV	For horizontal clamping direction	■	–	8
[2] Pressure plate, rectangular EV-...-DP	Protects the diaphragm against external damage	■	–	8
[3] Pressure plate, round EV-...-DP	Protects the diaphragm against external damage	–	■	9
[4] Push-in fitting QS	For connecting compressed air tubing with standard O.D.	■	■	qs

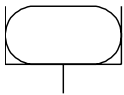
Type codes

001	Series
EV	Clamping module, single-acting

002	Clamping area
12	Ø12
16	Ø16
20	Ø20
25	Ø25
32	Ø32
40	Ø40
50	Ø50
63	Ø63
1030	10x30 mm
1540	15x40 mm
1563	15x63 mm
2075	20x75 mm
20120	20x120 mm
20180	20x180 mm

003	Stroke
3	3
4	4
5	5

Data sheet



- | - Stroke length
3 ... 5 mm

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- Ø - Diameter
Clamping module, rectangular:
approx. Ø 20 ... 68 mm
Clamping module, round:
12 ... 63 mm

General technical data – Clamping module, rectangular

Clamping area	10x30	15x40	15x63	20x75	20x120	20x180
Pneumatic connection	M3	M5				
Operating medium	Compressed air to ISO 8573-1:2010 [7:-:-]					
Design	Diaphragm					
Cushioning	None					
Position sensing	None					
Type of mounting	With through-hole 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 to ISO 8573-1:2010 [7:-:-]							
Design	Diaphragm							
Cushioning	None							
Position sensing	None							
Type of mounting	With through-hole							
Mounting position	Any							

Operating conditions – Clamping module, rectangular

Clamping area	10x30	15x40	15x63	20x75	20x120	20x180
Operating pressure	[MPa]	≤ 0.6	0.2 ... 0.6			
	[psi]	≤ 87	2.9 ... 87			
	[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	[MPa]	≤ 0.6						
	[psi]	≤ 87						
	[bar]	≤ 6						
Ambient temperature	[°C]	-10 ... +40						


Data sheet

Forces [N] – Clamping module, rectangular						
Clamping area	10x30	15x40	15x63	20x75	20x120	20x180
Clamping force at 6 bar, stroke 1 mm ¹⁾	95	195	350	660	1100	1690
Clamping force at 6 bar, maximum stroke ¹⁾	80	165	290	600	1000	1480

1) With 0.6 MPa, 87 psi, 6 bar

Forces [N] – Clamping module, round								
Clamping area \varnothing	12	16	20	25	32	40	50	63
Clamping force at 6 bar, stroke 1 mm ¹⁾	55	102	162	226	376	680	1090	1660
Clamping force at 6 bar, maximum stroke ¹⁾	56	125	187	271	456	675	1075	1640

1) With 0.6 MPa, 87 psi, 6 bar

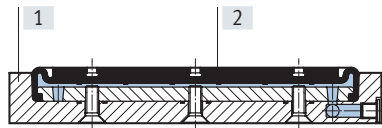
 **Note**
Only operate the clamping module with a counter-stop.

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

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

Materials

Sectional view



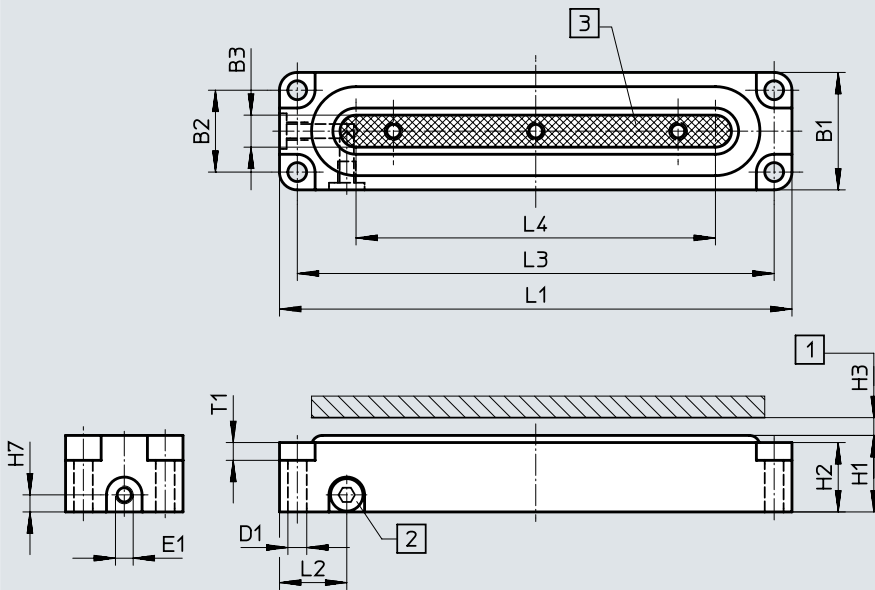
Clamping module	
[1] Housing	Aluminium
[2] Diaphragm	Polyurethane
– Note on materials	Free of copper and PTFE
	RoHS-compliant
PWS conformity	VDMA24364-B1/B2-L

Data sheet

Dimensions

Download CAD data → www.festo.com

Clamping module, rectangular



- [1] Maximum permissible stroke against a stop
- [2] Choice of supply port connection by repositioning sealing plug
- [3] Clamping area

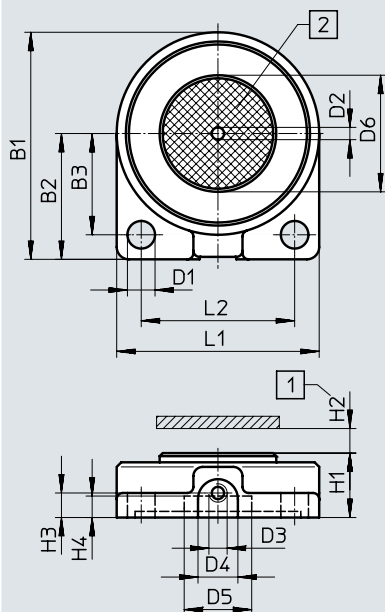
Clamping area [mm]	B1	B2	B3	D1 ∅	E1	H1	H2	H3	H7	L1	L2	L3	L4	T1
10x30	17	9	3	3.3	M3	14.5 ^{+0.3}	12.5	3	3	45	13.5	37	16	4.6
15x40	23	15.5	4.9	4.3	M5	18 ^{±0.54}	16	4	4.8	55	13	47	25	3
15x63										80	13	72	50	3
20x75	33	23	9.5	5.3	M5	21.5 ^{±0.57}	19.5	5	4.8	98	18.9	88	55	5.2
20x120										144	18.9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

Data sheet

Dimensions

Download CAD data → www.festo.com

Clamping module, round



- [1] Maximum permissible stroke
against a stop
- [2] Clamping area

Clamping area \varnothing [mm]	B1	B2	B3	D1 \varnothing	D2 \varnothing	D3	D4 \varnothing	D5 \varnothing	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, rectangular

Clamping area [mm]	Stroke [mm]	Part no.	Type
10x30	3	151993	EV-1 0/30-3
15x40	4	13289	EV-1 5/40-4
15x63	4	13290	EV-1 5/63-4
20x75	5	13291	EV-2 0/75-5
20x120	5	13292	EV-2 0/120-5
20x180	5	13293	EV-2 0/180-5

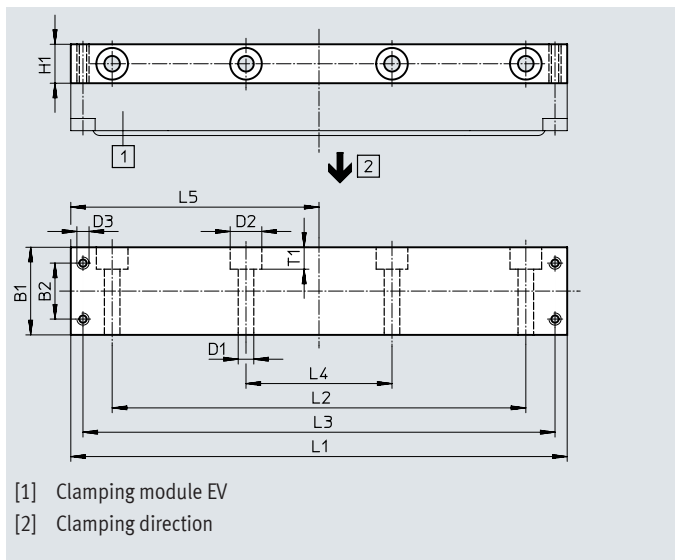
Ordering data – Clamping module, round

Clamping area \varnothing [mm]	Stroke [mm]	Part no.	Type
12	3	150681	EV-12-3
16	4	150682	EV-16-4
20	4	150683	EV-20-4
25	4	150684	EV-25-4
32	5	150685	EV-32-5
40	5	184857	EV-40-5
50	5	184858	EV-50-5
63	5	184859	EV-63-5

Accessories

Foot mounting HBEV for clamping module, rectangular

Material:
Wrought aluminium alloy



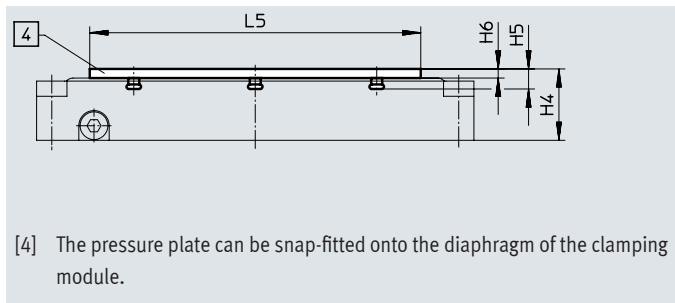
[1] Clamping module EV
[2] Clamping direction

Dimensions and ordering data

For clamping area	B1	B2	D1 ∅	D2 ∅	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	152512	HBEV-1 0/30
15x40	25	15.5	5.4	11	M 4	15	55	29	47	-	27.5	7	34562	HBEV-1 5/40
15x63							80	50	72	-	40	7	34563	HBEV-1 5/63
20x75	36	23	6.4	13	M5	16	98	64	88	-	49	9	34564	HBEV-2 0/75
20x120							144	110	134	-	72	9	34565	HBEV-2 0/120
20x180							204	170	194	60	102	9	34566	HBEV-2 0/180

Pressure plate EV-...-DP for clamping module, rectangular

Material:
Steel



[4] The pressure plate can be snap-fitted onto the diaphragm of the clamping module.

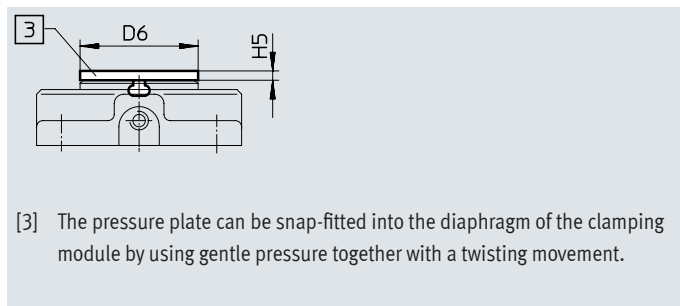
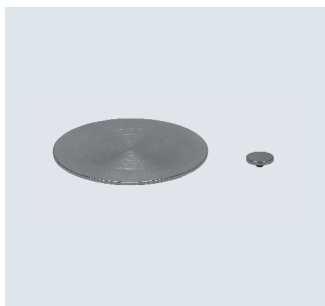
Dimensions and ordering data

For clamping area	H4	H5	H6	L5	KBK ¹⁾	Part no.	Type
10x30	17	5	2.5	19	2	151994	EV-1 0/30-DP
15x40	20.5	5.6	2.5	29	2	13783	EV-1 5/40-DP
15x63				54	2	13784	EV-1 5/63-DP
20x75	24.5	6.6	3	63	2	13785	EV-2 0/75-DP
20x120				109	2	13786	EV-2 0/120-DP
20x180				169	2	13787	EV-2 0/180-DP

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Accessories

Pressure plate EV-...-DP
for clamping module, roundMaterial:
Steel

[3] The pressure plate can be snap-fitted into the diaphragm of the clamping module by using gentle pressure together with a twisting movement.

Dimensions and ordering data						
For clamping area	D6	H5	KBK ¹⁾	Part no.	Type	
∅	∅					
12	11	1.6	2	150690	EV-12-DP	
16	15	1.6	2	150691	EV-16-DP	
20	19	1.6	2	150692	EV-20-DP	
25	24	1.6	2	150693	EV-25-DP	
32	31	1.6	2	150694	EV-32-DP	
40	39	1.6	2	184860	EV-40-DP	
50	49	1.6	2	184861	EV-50-DP	
63	62	1.6	2	184862	EV-63-DP	

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

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