

Suction cup holders ESH

FESTO

Technical data

- With or without height compensation
- 6 holder sizes
- 8 holder types
- 3 tubing connectors

— — Temperature range
–10 ... +60



General technical data							
ESH-HA-... without height compensation							
	Holder size	Vacuum connection	Volume [cm ³]	Mounting thread	Suction cup connection	Max. tightening torque [Nm]	Weight [g]
Male thread, 2 nuts, vacuum connection on top							
QS	1	QS4	0.239	M6x0.75	∅ 3 mm	3	6
		PK-3	0.090	M5x0.5		2	3
	2	QS4	0.501	M10x1	∅ 4 mm	7	12
		PK-4	0.169	M8x0.75		3.5	7
PK	3	QS6	0.520	M12x1	M4x0.7	14	20
		PK-4	0.274	M8x0.75		3.5	10
	4	QS6	0.719	M14x1	M6x1	21	30
		PK-4	0.668	M12x1		14	23
G	5	G $\frac{1}{8}$	1.862	M20x1	M10x1.5	21	84
	6	G $\frac{1}{4}$	7.234	M24x2	M20x2	50	200

General technical data						
ESH-HB-... without height compensation						
	Holder size	Vacuum connection	Volume [cm ³]	Mounting thread Female thread	Suction cup connection	Weight [g]
Female thread, vacuum connection on side						
QS	1	QS4	0.228	M3x0.5	∅ 3 mm	5
		PK-3	0.108			4
	2	QS6	0.418	M4x0.75	∅ 4 mm	13
		PK-4	0.188			11
PK	3	QS6	0.539	M6x1	M4x0.7	29
		PK-4	0.313			27
	4	QS6	0.646	M6x1	M6x1	27
		PK-4	0.416			25
G	5	G $\frac{1}{8}$	1.921	M8x1.25	M10x1.5	91
	6	G $\frac{1}{4}$	7.250	M16x2	M20x2	271

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General technical data										
ESH-HC-... with height compensation										
	Holder size	Vacuum connection	Volume [cm³]	Mounting thread	Suction cup connection	Height com- pensation [mm]	Spring force		Max. tighten- ing torque [Nm]	Weight [g]
							min. [N]	max. [N]		
Male thread, 2 nuts, vacuum connection on top										
	1	QS4	0.385	M12x1	Ø 3 mm	3	0	0.1	14	17
		PK-3	0.117	M8x0.75					3.5	8
	2	QS6	0.551	M12x1	Ø 4 mm	3	0	0.1	14	18
		PK-4	0.192	M8x0.75					3.5	8
	3	QS6	1.041	M14x1	M4x0.7	6	2	5	21	34
		PK-4	0.789	M14x1					32	32
	4	QS6	1.153	M14x1	M6x1	6	5	10	21	33
		PK-4	0.911	M14x1					31	31
	5	G1/8	3.327	M22x1	M10x1.5	10	8	18	50	112
		6	G1/4	11.537						M30x2

General technical data										
ESH-HCL-... with height compensation, long										
	Holder size	Vacuum connection	Volume [cm³]	Mounting thread	Suction cup connection	Height compensation [mm]	Spring force		Max. tightening torque [Nm]	Weight [g]
							min. [N]	max. [N]		
Male thread, 2 nuts, vacuum connection on top										
	1	QS4	0.489	M12x1	Ø 3 mm	10	0	0.1	14	20
		PK-3	0.360							19
	2	QS6	0.519	M12x1	Ø 4 mm	10	0	0.1	14	20
		PK-4	0.398							19
	3	QS6	1.616	M14x1	M4x0.7	20	1	3	21	48
		PK-4	1.383							46
	4	QS6	1.780	M14x1	M6x1	20	1	9	21	47
		PK-4	1.535							45
	5	G½	6.060	M22x1	M10x1.5	30	10	16	50	169
		G¾	16.325							M30x2

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General technical data										
ESH-HD-... with height compensation										
	Holder size	Vacuum connection	Volume [cm³]	Mounting thread	Suction cup connection	Height compensation [mm]	Spring force		Max. tightening torque [Nm]	Weight [g]
							min. [N]	max. [N]		
Male thread, 2 nuts, vacuum connection on side										
	1	QS4	0.241	M8x0.75	Ø 3 mm	3	0	0.1	3.5	13
		PK-3	0.120							11
	2	QS6	0.417	M8x0.75	Ø 4 mm	3	0	0.1	3.5	15
		PK-4	0.183							12
	3	QS6	0.573	M14x1	M4x0.7	6	2	5	21	46
		PK-4	0.343							44
	4	QS6	0.678	M14x1	M6x1	6	5	10	21	45
		PK-4	0.449							43
	5	G ¹ / ₈	2.072	M22x1	M10x1.5	10	8	18	50	195
	6	G ¹ / ₄	13.171	M30x2	M20x2	20	12	22		472

General technical data										
ESH-HDL-... with height compensation, long										
	Holder size	Vacuum connection	Volume [cm³]	Mounting thread	Suction cup connection	Height compensation [mm]	Spring force		Max. tightening torque [Nm]	Weight [g]
							min. [N]	max. [N]		
Male thread, 2 nuts, vacuum connection on side										
	1	QS4	0.272	M12x1	Ø 3 mm	10	0	0.1	14	29
		PK-3	0.150							28
	2	QS6	0.260	M12x1	Ø 4 mm	10	0	0.1	14	33
		PK-4	0.138							32
PK 	3	QS6	0.474	M14x1	M4x0.7	20	1	3	21	65
		PK-4	0.252							63
	4	QS6	0.370	M14x1	M6x1	20	1	9	21	65
		PK-4	0.448							63
	5	G ¹ / ₈	1.667	M22x1	M10x1.5	30	10	16	50	273
	6	G ¹ / ₄	16.968	M30x2	M20x2	40	15	32		560
G 										

Suction cup holders ESH

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General technical data					
ESH-HE-... without height compensation					
	Holder size	Vacuum connection Male thread	Suction cup connection	Max. tightening torque [Nm]	Weight [g]
With threaded connection for direct attachment					
	1	M3x0.5	Ø 3 mm	0.7	1
	2	M5x0.8	Ø 4 mm	1.9	3
	3	G1/8	M4x0.7	9	11
	4	G1/8	M6x1	9	11
	5	G1/4	M10x1.5	14	24

General technical data								
ESH-HF-... with height compensation								
	Holder size	Vacuum connection Male thread	Suction cup connection	Height compensator [mm]	Spring force		Max. tightening torque [Nm]	Weight [g]
					min. [N]	max. [N]		
With threaded connection for direct attachment								
	1	M10x1	Ø 3 mm	2.6	2	4	7	14
	2	M10x1	Ø 4 mm	2.6	2	4	7	14
	3	M14x1	M4x0.7	6	6	12	21	54
	4	M14x1	M6x1	6	6	12	21	52

Suction cup holders ESH



Technical data

Materials								
	ESH-...- HA-...	HB-...	HC-...	HCL-...	HD-...	HDL-...	HE-...	HF-...
Threaded plug	Steel							
QS connection	Steel, polyacetate, nitrile rubber						–	
Note on materials	RoHS-compliant							

Ambient conditions		ESH-...-...
Operating medium		Atmospheric air based on ISO 8573-1:2010 [7:-:-]
Ambient temperature	[°C]	–10 ... +60
Corrosion resistance class	CRC ¹⁾	1

- 1) Corrosion resistance class 1 according to Festo standard 940 070
Components requiring low corrosion resistance. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.

Suction cup holders ESH

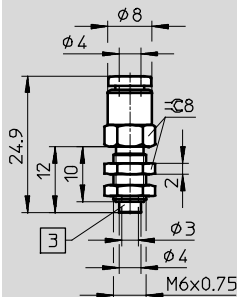
Technical data

FESTO

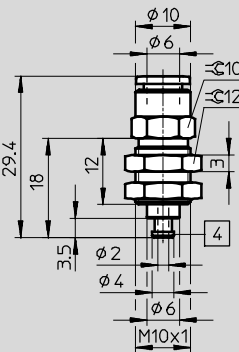
Dimensions – ESH-HA

Push-in connector QS

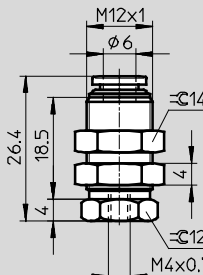
Holder size 1



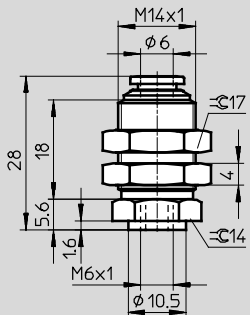
Holder size 2



Holder size 3

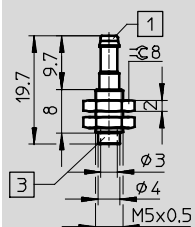


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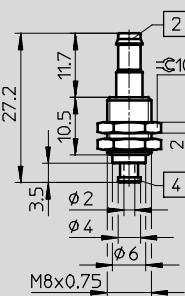


Barbed fitting connector PK

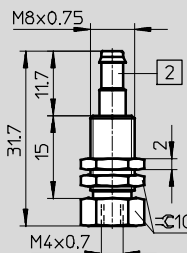
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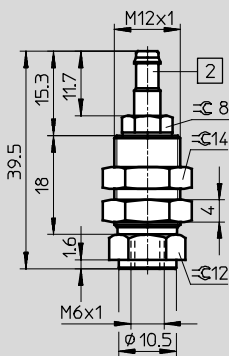
Holder size 2



Holder size 3



Holder size 4

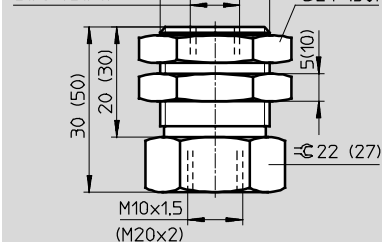


Threaded connection G

Holder size 5/Holder size 6*

M20x1 (M24x2)

G1/8 (G1/4)



1 Barbed fitting for 3 mm plastic tubing

2 Barbed fitting for 4 mm plastic tubing

3 Hole for vacuum generator

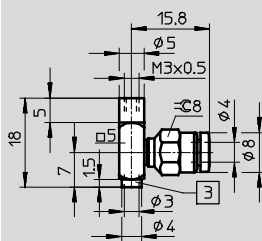
4 Barbed fitting for vacuum generator

* Dimensions in brackets

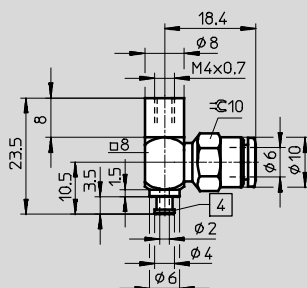
Technical data

Push-in connector QS

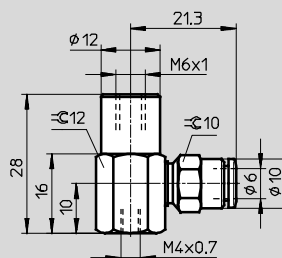
Holder size 1



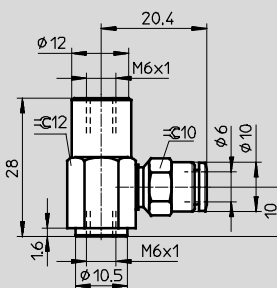
Holder size 2



Holder size 3

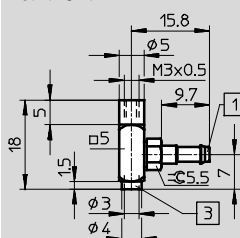


Holder size 4

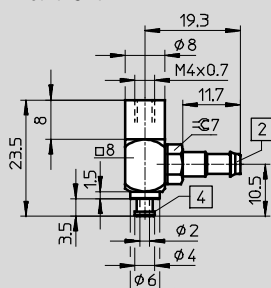


Barbed fitting connector PK

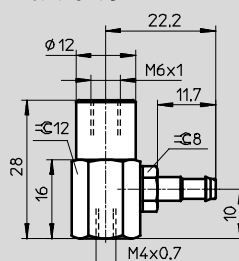
Holder size 1



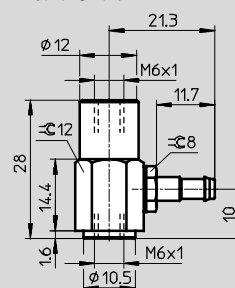
Holder size 2



Holder size 3

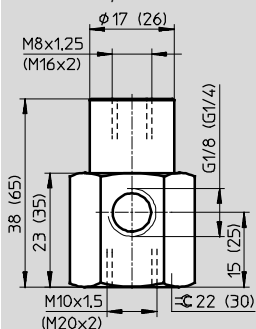


Holder size 4



Threaded connection G

Holder size 5/Holder size 6*



- 1 Barbed fitting for 3 mm plastic tubing
- 2 Barbed fitting for 4 mm plastic tubing
- 3 Hole for vacuum generator
- 4 Barbed fitting for vacuum generator

* Dimensions in brackets

Suction cup holders ESH

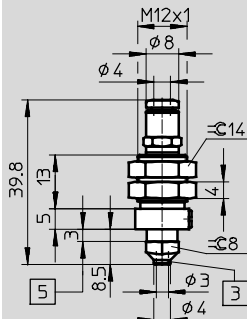
Technical data

FESTO

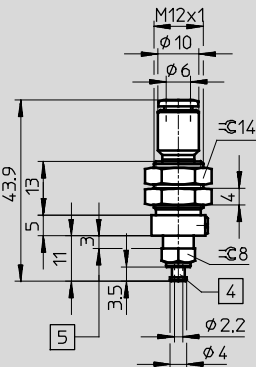
Dimensions – ESH-HC

Push-in connector QS

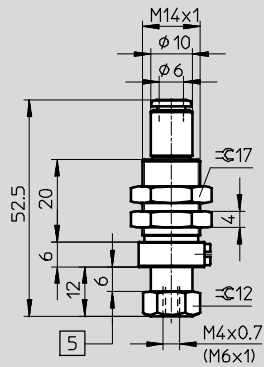
Holder size 1



Holder size 2

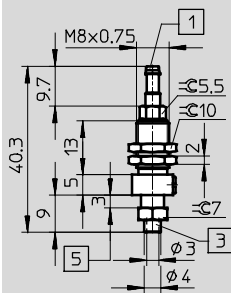


Holder size 3/Holder size 4*

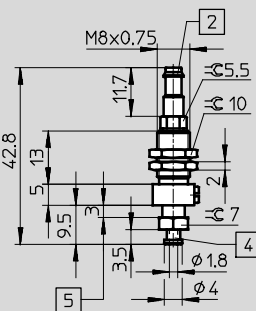


Barbed fitting connector PK

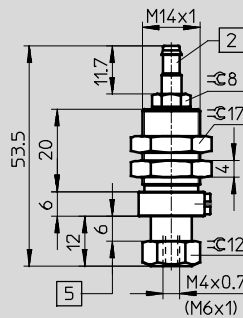
Holder size 1



Holder size 2

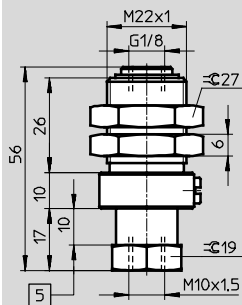


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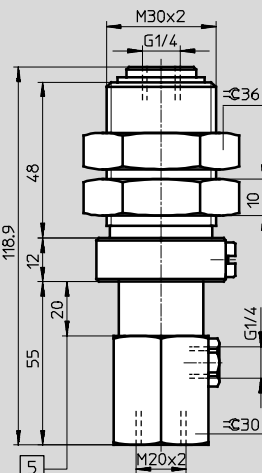


Threaded connection G

Holder size 5



Holder size 6



1 Barbed fitting for 3 mm plastic tubing

2 Barbed fitting for 4 mm plastic tubing

3 Hole for vacuum generator
4 Barbed fitting for vacuum generator

5 Stroke

* Dimensions in brackets

Suction cup holders ESH

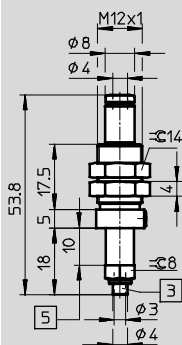
Technical data

FESTO

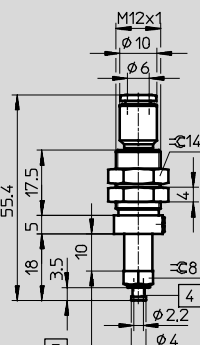
Dimensions – ESH-HCL

Push-in connector QS

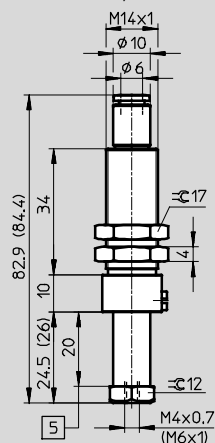
Holder size 1



Holder size 2

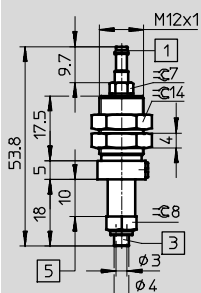


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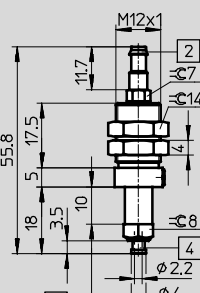


Barbed fitting connector PK

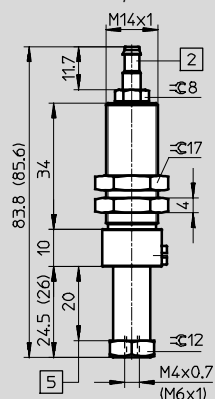
Holder size 1



Holder size 2

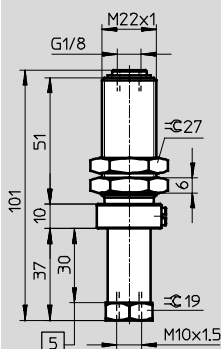


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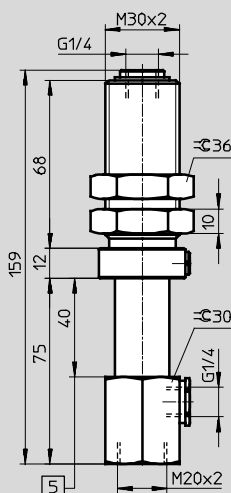


Threaded connection G

Holder size 5



Holder size 6



- 1 Barbed fitting for 3 mm plastic tubing
- 2 Barbed fitting for 4 mm plastic tubing
- 3 Hole for vacuum generator
- 4 Barbed fitting for vacuum generator
- 5 Stroke

* Dimensions in brackets

Suction cup holders ESH

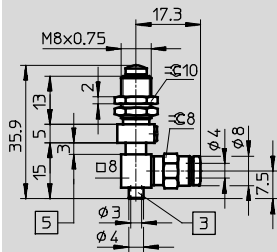
Technical data

FESTO

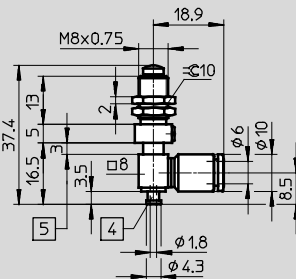
Dimensions – ESH-HD

Push-in connector QS

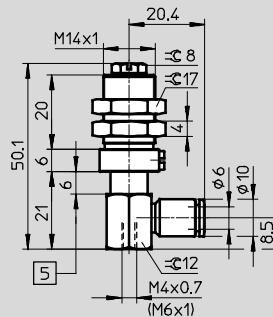
Holder size 1



Holder size 2

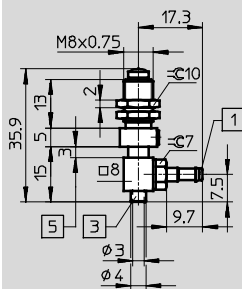


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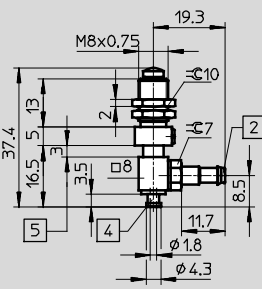


Barbed fitting connector PK

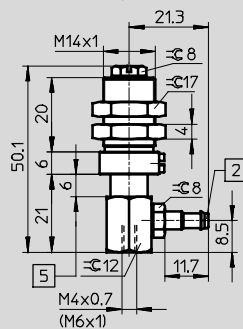
Holder size 1



Holder size 2

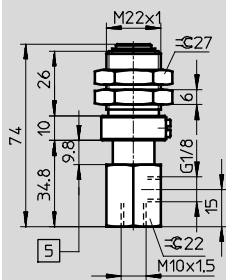


Holder size 3/Holder size 4*

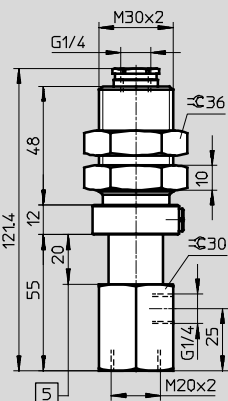


Threaded connection G

Holder size 5



Holder size 6



1 Barbed fitting for 3 mm plastic tubing

2 Barbed fitting for 4 mm plastic tubing

3 Hole for vacuum generator
4 Barbed fitting for vacuum generator

5 Stroke

* Dimensions in brackets

Suction cup holders ESH

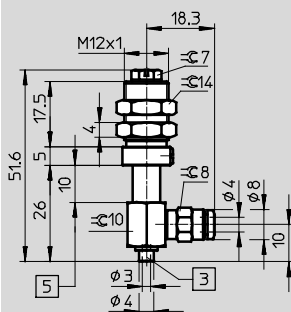
Technical data

FESTO

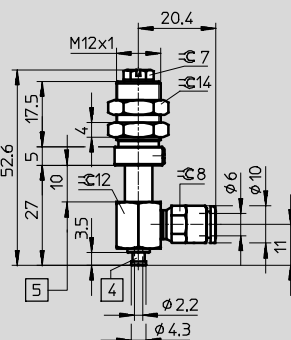
Dimensions – ESH-HDL

Push-in connector QS

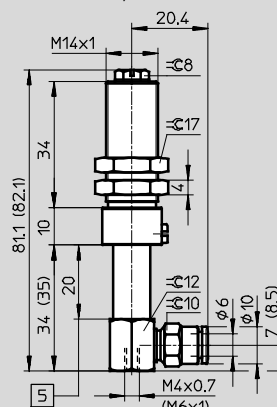
Holder size 1



Holder size 2

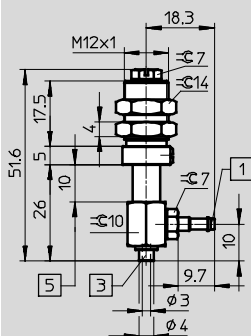


Holder size 3/Holder size 4*

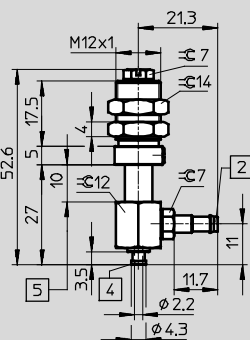


Barbed fitting connector PK

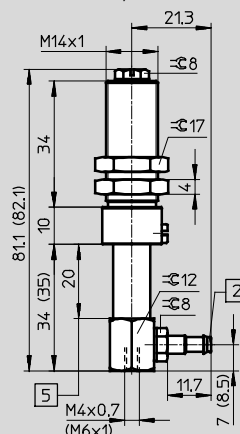
Holder size 1



Holder size 2

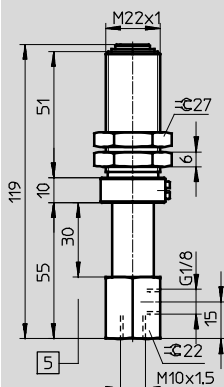


Holder size 3/Holder size 4*

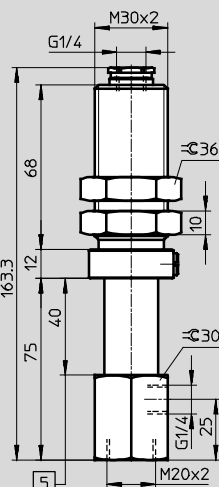


Threaded connection G

Holder size 5



Holder size 6



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- 5 Stroke

* Dimensions in brackets

Suction cup holders ESH

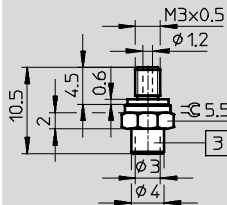
Technical data

FESTO

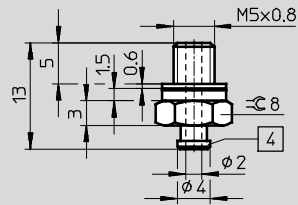
Dimensions – ESH-HE

G and M thread

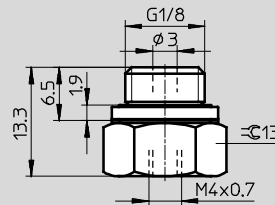
Holder size 1



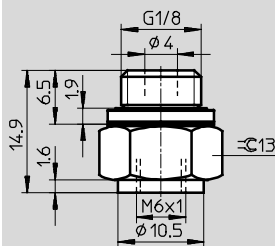
Holder size 2



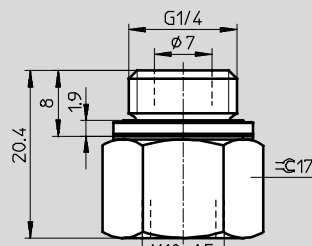
Holder size 3



Holder size 4



Holder size 5



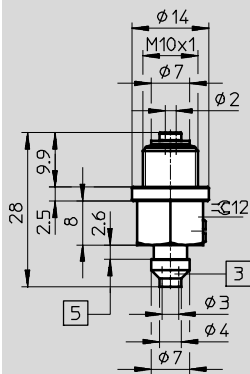
3 Hole for vacuum generator

4 Barbed fitting for vacuum generator

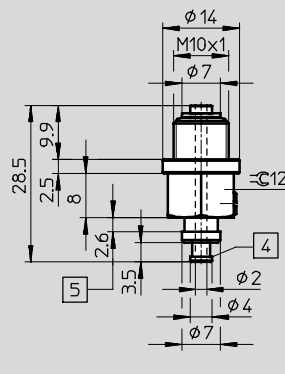
Dimensions – ESH-HF

M thread

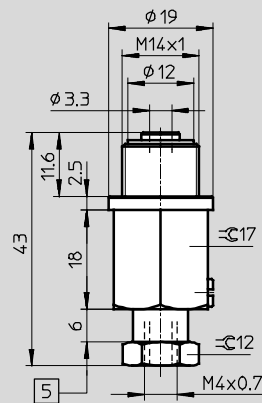
Holder size 1



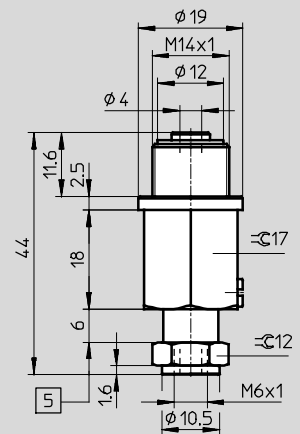
Holder size 2



Holder size 3



Holder size 4



3 Hole for vacuum generator

4 Barbed fitting for vacuum generator

5 Stroke

Suction cup holders ESH

Technical data

FESTO

Ordering data							
ESH-HA							
Holder size	Connection	Push-in connector		Barbed fitting connector		Threaded connection	
		Part No.	Type	Part No.	Type	Part No.	Type
Male thread, 2 nuts, vacuum connection on top							
1	QS4	189193	ESH-HA-1-QS	–		–	
	PK-3	–		189194	ESH-HA-1-PK	–	
2	QS4	189195	ESH-HA-2-QS	–		–	
	PK-4	–		189196	ESH-HA-2-PK	–	
3	QS6	189197	ESH-HA-3-QS	–		–	
	PK-4	–		189198	ESH-HA-3-PK	–	
4	QS6	189199	ESH-HA-4-QS	–		–	
	PK-4	–		189200	ESH-HA-4-PK	–	
5	G1/8	–		–		189201	ESH-HA-5-G
6	G1/4	–		–		189202	ESH-HA-6-G

Ordering data						
ESH-HB						
Holder size	Connection	Push-in connector		Barbed fitting connector		Threaded connection
		Part No.	Type	Part No.	Type	Part No. Type
Female thread, vacuum connection on side						
1	QS4	189203	ESH-HB-1-QS	–		–
	PK-3	–		189204	ESH-HB-1-PK	–
2	QS6	189205	ESH-HB-2-QS	–		–
	PK-4	–		189206	ESH-HB-2-PK	–
3	QS6	189207	ESH-HB-3-QS	–		–
	PK-4	–		189208	ESH-HB-3-PK	–
4	QS6	189209	ESH-HB-4-QS	–		–
	PK-4	–		189210	ESH-HB-4-PK	–
5	G1/8	–		–		189211 ESH-HB-5-G
6	G1/4	–		–		189212 ESH-HB-6-G

Ordering data							
ESH-HC							
Holder size	Connection	Push-in connector		Barbed fitting connector		Threaded connection	
		Part No.	Type	Part No.	Type	Part No.	Type
Male thread, 2 nuts, vacuum connection on top, height compensator							
1	QS4	189213	ESH-HC-1-QS	–	–	–	–
	PK-3	–	–	189214	ESH-HC-1-PK	–	–
2	QS6	189215	ESH-HC-2-QS	–	–	–	–
	PK-4	–	–	189216	ESH-HC-2-PK	–	–
3	QS6	189217	ESH-HC-3-QS	–	–	–	–
	PK-4	–	–	189218	ESH-HC-3-PK	–	–
4	QS6	189219	ESH-HC-4-QS	–	–	–	–
	PK-4	–	–	189220	ESH-HC-4-PK	–	–
5	G1/8	–	–	–	–	189221	ESH-HC-5-G
6	G1/4	–	–	–	–	189222	ESH-HC-6-G

Suction cup holders ESH

Technical data

FESTO

Ordering data							
ESH-HCL							
Holder size	Connection	Push-in connector		Barbed fitting connector		Threaded connection	
		Part No.	Type	Part No.	Type	Part No.	Type
Male thread, 2 nuts, vacuum connection on top, height compensator, long							
1	QS4	189223	ESH-HCL-1-QS	–		–	
	PK-3	–	–	189224 ESH-HCL-1-PK		–	
2	QS6	189225	ESH-HCL-2-QS	–		–	
	PK-4	–	–	189226 ESH-HCL-2-PK		–	
3	QS6	189227	ESH-HCL-3-QS	–		–	
	PK-4	–	–	189228 ESH-HCL-3-PK		–	
4	QS6	189229	ESH-HCL-4-QS	–		–	
	PK-4	–	–	189230 ESH-HCL-4-PK		–	
5	G1⁄8	–	–	–		189231	ESH-HCL-5-G
6	G1⁄4	–	–	–		189232	ESH-HCL-6-G

Ordering data							
ESH-HD							
Holder size	Connection	Push-in connector		Barbed fitting connector		Threaded connection	
		Part No.	Type	Part No.	Type	Part No.	Type
Male thread, 2 nuts, vacuum connection on side, height compensator							
1	QS4	189233	ESH-HD-1-QS	–		–	
	PK-3	–		189234	ESH-HD-1-PK	–	
2	QS6	189235	ESH-HD-2-QS	–		–	
	PK-4	–		189236	ESH-HD-2-PK	–	
3	QS6	189237	ESH-HD-3-QS	–		–	
	PK-4	–		189238	ESH-HD-3-PK	–	
4	QS6	189239	ESH-HD-4-QS	–		–	
	PK-4	–		189240	ESH-HD-4-PK	–	
5	G1⁄8	–		–		189241	ESH-HD-5-G
6	G1⁄4	–		–		189242	ESH-HD-6-G

Ordering data							
ESH-HDL							
Holder size	Connection	Push-in connector		Barbed fitting connector		Threaded connection	
		Part No.	Type	Part No.	Type	Part No.	Type
Male thread, 2 nuts, vacuum connection on side, height compensator, long							
1	QS4	189243	ESH-HDL-1-QS	–		–	
	PK-3	–		189244	ESH-HDL-1-PK	–	
2	QS6	189245	ESH-HDL-2-QS	–		–	
	PK-4	–		189246	ESH-HDL-2-PK	–	
3	QS6	189247	ESH-HDL-3-QS	–		–	
	PK-4	–		189248	ESH-HDL-3-PK	–	
4	QS6	189249	ESH-HDL-4-QS	–		–	
	PK-4	–		189250	ESH-HDL-4-PK	–	
5	G1/8	–		–		189251	ESH-HDL-5-G
6	G1/4	–		–		189252	ESH-HDL-6-G

Suction cup holders ESH

Technical data

FESTO

Ordering data			
ESH-HE			
Holder size	Connection	Part No.	Type
Threaded connection for direct attachment			
1	M3	189253	ESH-HE-1-M3
2	M5	189254	ESH-HE-2-M5
3	G1/8	189255	ESH-HE-3-G1/8
4	G1/8	189256	ESH-HE-4-G1/8
5	G1/4	189257	ESH-HE-5-G1/4

Ordering data			
ESH-HF			
Holder size	Connection	Part No.	Type
Threaded connection for direct attachment, height compensator			
1	M10	189260	ESH-HF-1-M10x1
2	M10	189261	ESH-HF-2-M10x1
3	M14	189262	ESH-HF-3-M14x1
4	M14	189263	ESH-HF-4-M14x1