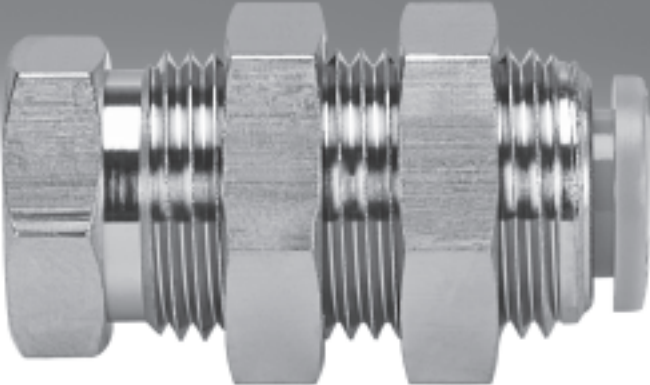


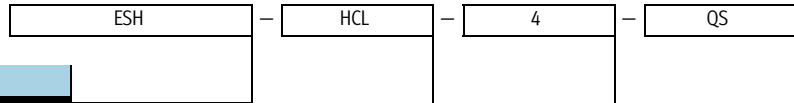
Suction cup holders ESH



Suction cup holders ESH

Type codes

FESTO




Type	
ESH	Suction cup holder

Suction cup holder	
HA	Without height compensator, vacuum port on top
HB	Without height compensator, vacuum port on side
HC	With height compensator, vacuum port on top
HCL	With long height compensator, vacuum port on top
HD	With height compensator, vacuum port on side
HDL	With long height compensator, vacuum port on side
HE	Without height compensator, vacuum port on top, with threaded connection for direct screw-in
HF	With height compensator, vacuum port on top, with threaded connection for direct screw-in

Holder size for suction cup ESS → ESS	
1	Holder size 1 for suction cup connection Ø 3 mm
2	Holder size 2 for suction cup connection Ø 4 mm
3	Holder size 3 for suction cup connection M4x0.7
4	Holder size 4 for suction cup connection M6x1
5	Holder size 5 for suction cup connection M10x1.5
6	Holder size 6 for suction cup connection M20x2


Vacuum port	
QS	Push-in connector QS
PK	Barbed fitting connector
G	Threaded connection

-  - Note
Possible combinations can be found in the ordering data.




Suction cup holders ESH




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 ¹ / ₈	1.862	M20x1	M10x1.5	21	84
		G ¹ / ₄	7.234	M24x2		M20x2	50




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 ¹ / ₈	1.921	M8x1.25	M10x1.5	91
		G ¹ / ₄	7.250			M16x2

Suction cup holders ESH

Technical data

FESTO




General technical data										
ESH-HC-... with height compensation										
	Holder size	Vacuum connection	Volume [cm ³]	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										
QS 	1	QS4	0.385	M12x1	∅ 3 mm	3	0	0.1	14	17
		PK-3	0.117	M8x0.75					3.5	8
	2	QS6	0.551	M12x1	∅ 4 mm	3	0	0.1	14	18
		PK-4	0.192	M8x0.75					3.5	8
PK 	3	QS6	1.041	M14x1	M4x0.7	6	2	5	21	34
		PK-4	0.789							32
	4	QS6	1.153	M14x1	M6x1	6	5	10	21	33
		PK-4	0.911							31
G 	5	G ¹ / ₈	3.327	M22x1	M10x1.5	10	8	18	50	112
	6	G ¹ / ₄	11.537	M30x2	M20x2	20	12	22		472




General technical data										
ESH-HCL-... with height compensation, long										
	Holder size	Vacuum connection	Volume [cm ³]	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										
QS 	1	QS4	0.489	M12x1	∅ 3 mm	10	0	0.1	14	20
		PK-3	0.360							19
	2	QS6	0.519	M12x1	∅ 4 mm	10	0	0.1	14	20
		PK-4	0.398							19
PK 	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
G 	5	G ¹ / ₈	6.060	M22x1	M10x1.5	30	10	16	50	169
	6	G ¹ / ₄	16.325	M30x2	M20x2	40	15	32		560

Suction cup holders ESH

Technical data

FESTO


General technical data										
ESH-HD-... with height compensation										
	Holder size	Vacuum connection	Volume [cm ³]	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										
QS 	1	QS4	0.241	M8x0.75	∅ 3 mm	3	0	0.1	3.5	13
		PK-3	0.120							11
	2	QS6	0.417	M8x0.75	∅ 4 mm	3	0	0.1	3.5	15
		PK-4	0.183							12
PK 	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
G 	5	G ¹ / ₈	2.072	M22x1	M10x1.5	10	8	18	50	195
		G ¹ / ₄	13.171							M30x2


General technical data										
ESH-HDL-... with height compensation, long										
	Holder size	Vacuum connection	Volume [cm ³]	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										
QS 	1	QS4	0.272	M12x1	∅ 3 mm	10	0	0.1	14	29
		PK-3	0.150							28
	2	QS6	0.260	M12x1	∅ 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
G 	5	G ¹ / ₈	1.667	M22x1	M10x1.5	30	10	16	50	273
		G ¹ / ₄	16.968							M30x2

Suction cup holders ESH

Technical data

FESTO

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	∅ 3 mm	0.7	1
	2	M5x0.8	∅ 4 mm	1.9	3
	3	G ¹ / ₈	M4x0.7	9	11
	4	G ¹ / ₈	M6x1	9	11
	5	G ¹ / 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	∅ 3 mm	2.6	2	4	7	14
	2	M10x1	∅ 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

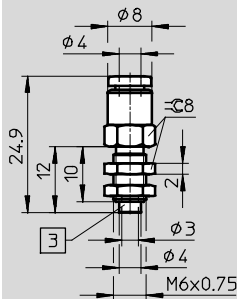
Technical data

FESTO

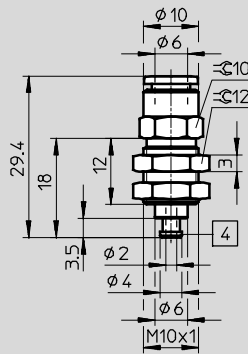
Dimensions – ESH-HA

Push-in connector QS

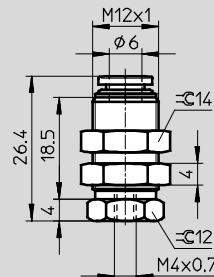
Holder size 1



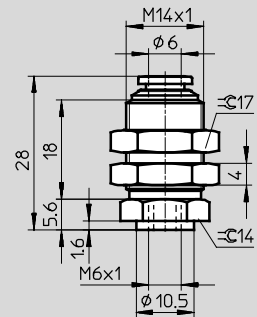
Holder size 2



Holder size 3

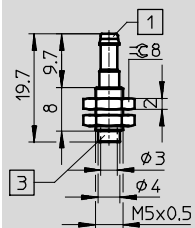


Holder size 4

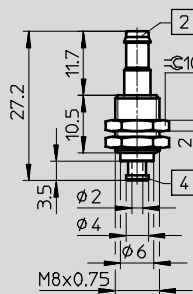


Barbed fitting connector PK

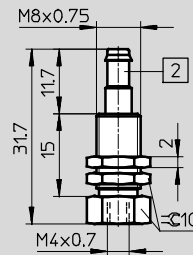
Holder size 1



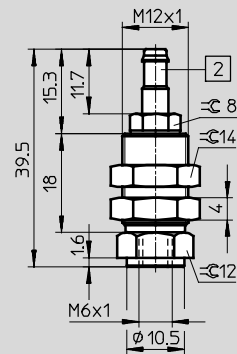
Holder size 2



Holder size 3



Holder size 4

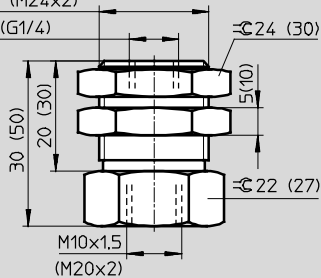


Threaded connection G

Holder size 5/Holder size 6*

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

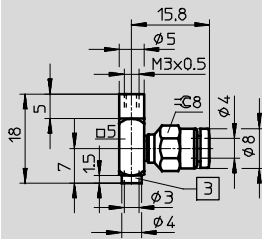
Suction cup holders ESH

Technical data

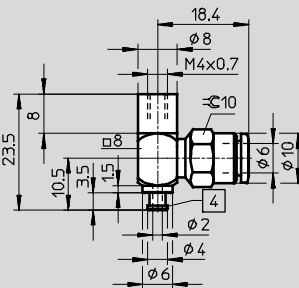
Dimensions – ESH-HB

Push-in connector QS

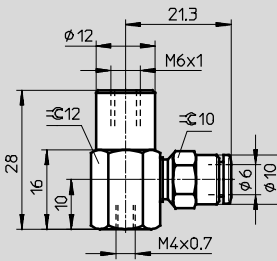
Holder size 1



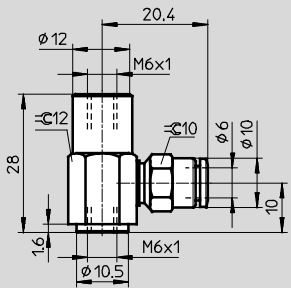
Holder size 2



Holder size 3

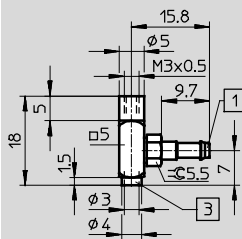


Holder size 4

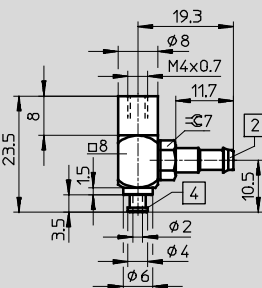


Barbed fitting connector PK

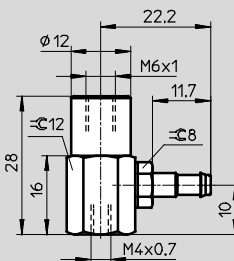
Holder size 1



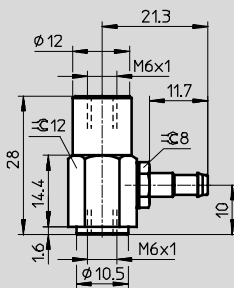
Holder size 2



Holder size 3

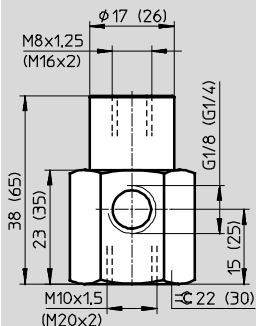


Holder size 4



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 tubing

4 Barbed fitting for vacuum generator

* Dimensions in brackets

Suction cup holders ESH

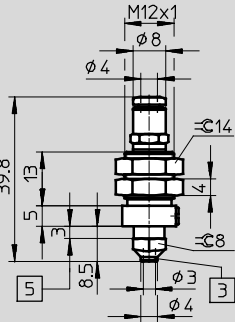
Technical data

FESTO

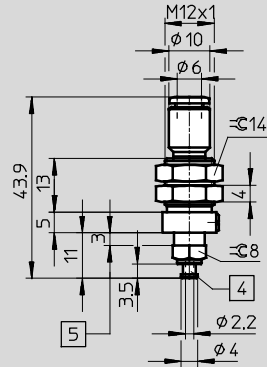
Dimensions – ESH-HC

Push-in connector QS

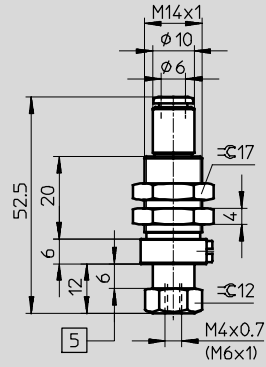
Holder size 1



Holder size 2

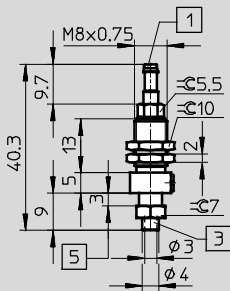


Holder size 3/Holder size 4*

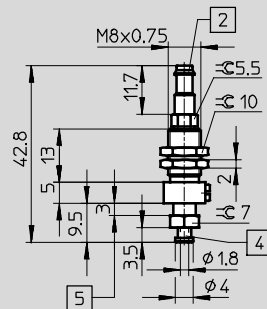


Barbed fitting connector PK

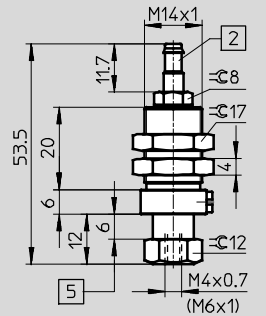
Holder size 1



Holder size 2

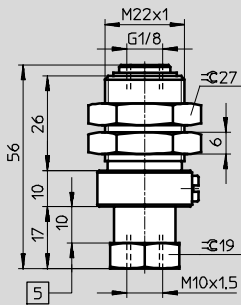


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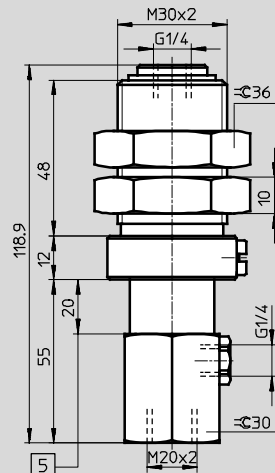


Threaded connection G

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

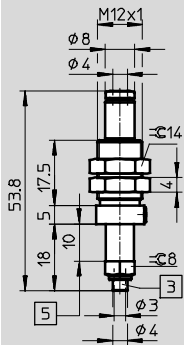
Suction cup holders ESH

Technical data

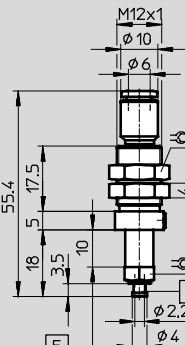
Dimensions – ESH-HCL

Push-in connector QS

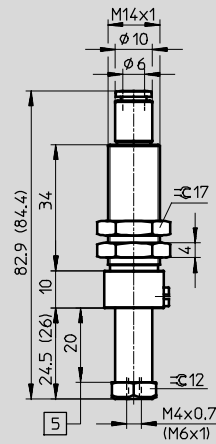
Holder size 1



Holder size 2

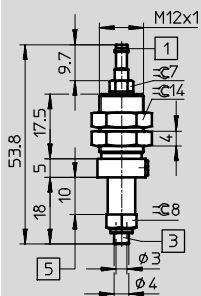


Holder size 3/Holder size 4*

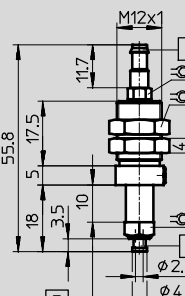


Barbed fitting connector PK

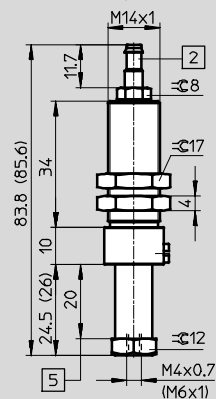
Holder size 1



Holder size 2

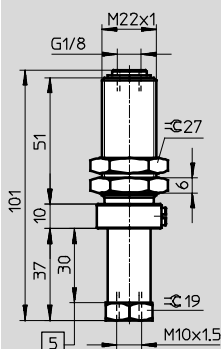


Holder size 3/Holder size 4*

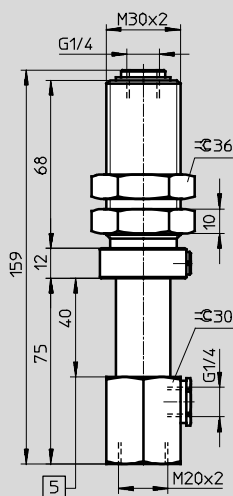


Threaded connection G

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
- 5 Stroke

* Dimensions in brackets

Suction cup holders ESH

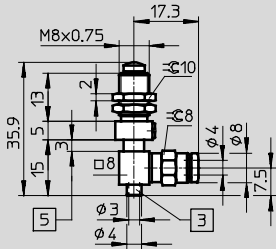
Technical data

FESTO

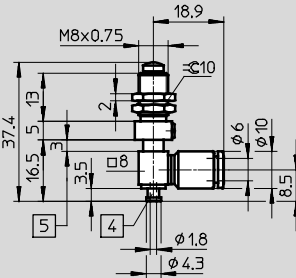
Dimensions – ESH-HD

Push-in connector QS

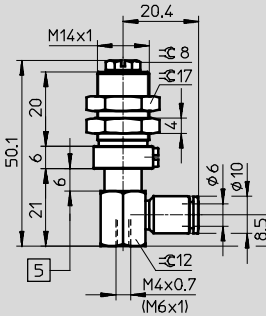
Holder size 1



Holder size 2

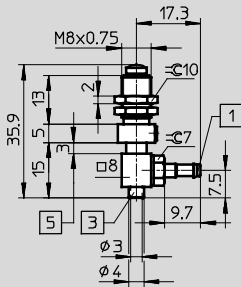


Holder size 3/Holder size 4*

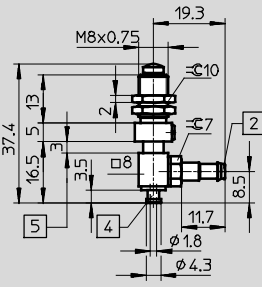


Barbed fitting connector PK

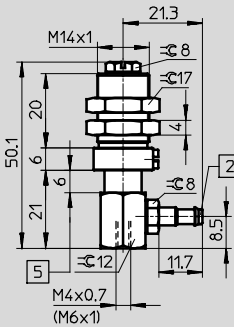
Holder size 1



Holder size 2

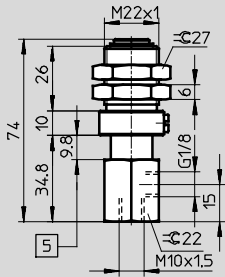


Holder size 3/Holder size 4*

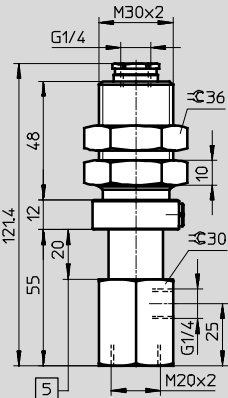


Threaded connection G

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

5 Stroke

* Dimensions in brackets

Suction cup holders ESH

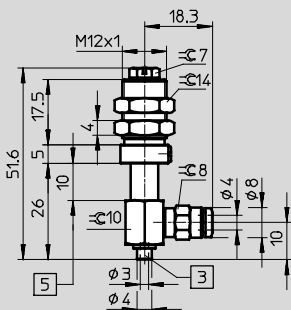
Technical data



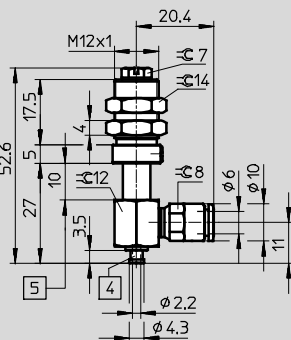
Dimensions – ESH-HDL

Push-in connector QS

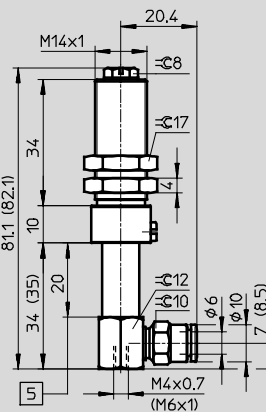
Holder size 1



Holder size 2

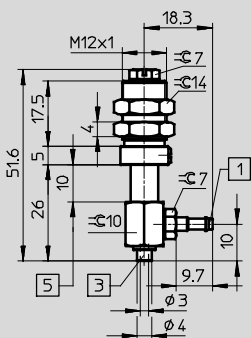


Holder size 3/Holder size 4*

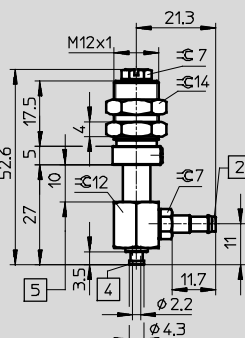


Barbed fitting connector PK

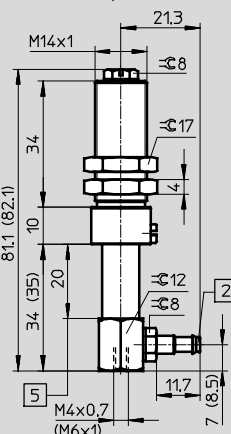
Holder size 1



Holder size 2

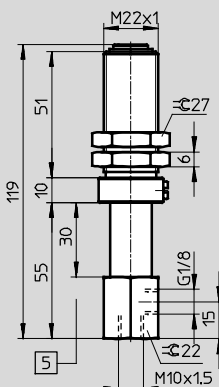


Holder size 3/Holder size 4*

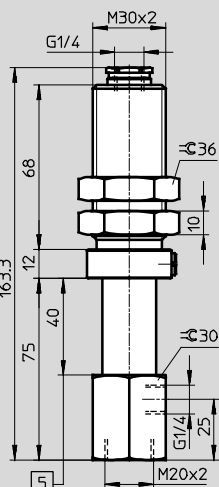


Threaded connection G

Holder size 5



Holder size 6



- 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

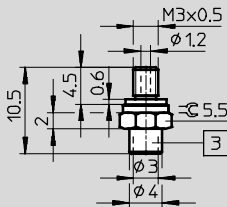
Technical data

FESTO

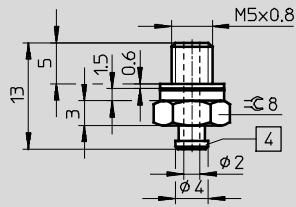
Dimensions – ESH-HE

G and M thread

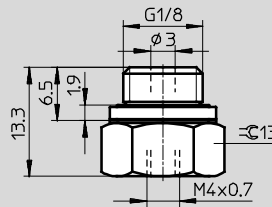
Holder size 1



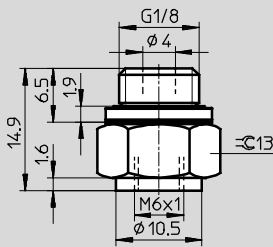
Holder size 2



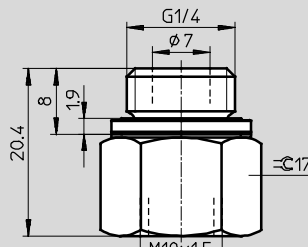
Holder size 3



Holder size 4



Holder size 5



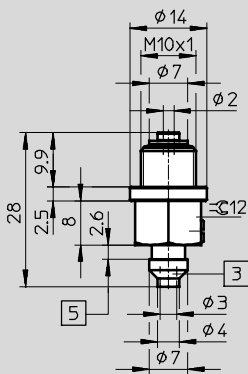
3 Hole for vacuum generator

4 Barbed fitting for vacuum generator

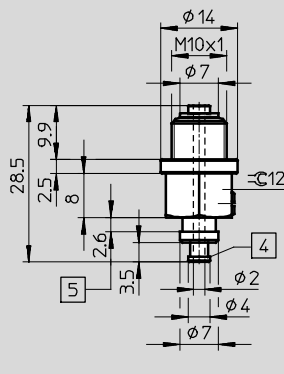
Dimensions – ESH-HF

M thread

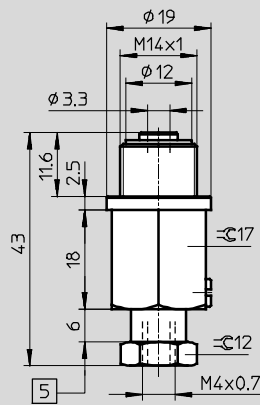
Holder size 1



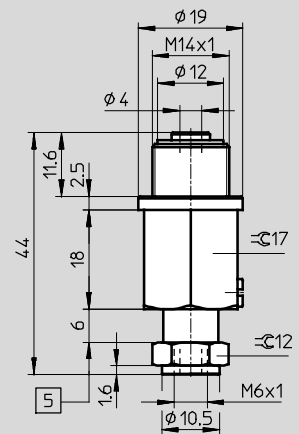
Holder size 2



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

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