Suction cup holders ESH

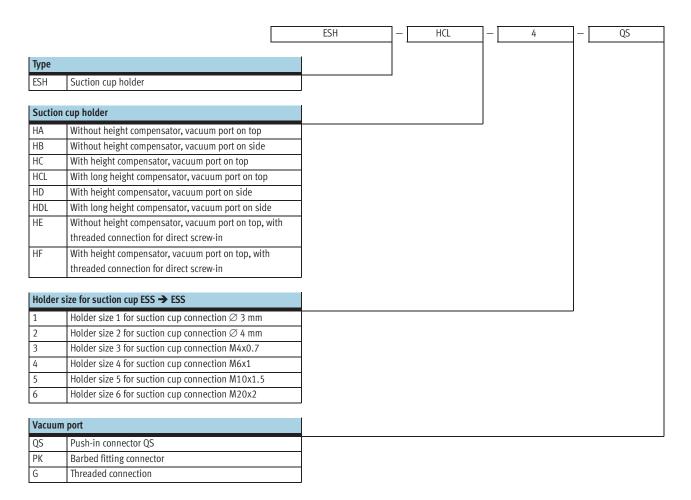
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Suction cup holders ESH

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Type code





Possible combinations can be found in the ordering data.

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• With or without height compensation

Temperature range -10 ... +60

- 6 holder sizes
- 8 holder types
- 3 tubing connectors



Gen	eral technical d	lata						
ESH-	HA without h	neight compensation						
		Holder size	Vacuum connection	Volume [cm ³]	Mounting thread	Suction cup connection	Max. tightening torque [Nm]	Weight [g]
Male	e thread, 2 nuts	, vacuum connectio	n on top					
QS	(5)	1	QS4	0.239	M6x0.75	Ø 3 mm	3	6
			PK-3	0.090	M5x0.5		2	3
	100	2	QS4	0.501	M10x1	Ø 4 mm	7	12
	w		PK-4	0.169	M8x0.75	7	3.5	7
	-	3	QS6	0.520	M12x1	M4x0.7	14	20
PK	9		PK-4	0.274	M8x0.75		3.5	10
	-	4	QS6	0.719	M14x1	M6x1	21	30
	(68)		PK-4	0.668	M12x1		14	23
	7	5	G ¹ / ₈	1.862	M20x1	M10x1.5	21	84
G		6	G1/4	7.234	M24x2	M20x2	50	200

Gene	ral technical d	lata					
ESH-F	IB without h	neight compensatio	n				
		Holder size	Vacuum connection	Volume [cm ³]	Mounting thread Female thread	Suction cup connection	Weight [g]
Fema	le thread, vacı	uum connection on	side				
QS	(%)	1	QS4	0.228	M3x0.5	Ø 3 mm	5
	14		PK-3	0.108			4
- 6	0.00	2	QS6	0.418	M4x0.75	Ø4 mm	13
4	0-4		PK-4	0.188			11
PK	(%)	3	QS6	0.539	M6x1	M4x0.7	29
	106		PK-4	0.313			27
	-	4	QS6	0.646	M6x1	M6x1	27
*	A		PK-4	0.416			25
		5	G1/8	1.921	M8x1.25	M10x1.5	91
G	-	6	G ¹ / ₄	7.250	M16x2	M20x2	271



ESTI-TIC WI	ith height compe	nsation								
	Holder size	Vacuum connection	Volume	Mounting thread	Suction cup connection	Height compensati on	Spring force		Max. tightening torque	Weight
			[cm ³]			[mm]	min. [N]	max. [N]	[Nm]	[g]
Male thread,	, 2 nuts, vacuum	connection on	top							
QS 1	QS4	0.385	M12x1	Ø 3 mm	3	0	0.1	14	17	
JE.		PK-3	0.117	M8x0.75					3.5	8
	2	QS6	0.551	M12x1	Ø 4 mm	3	0	0.1	14	18
900		PK-4	0.192	M8x0.75					3.5	8
107	3	QS6	1.041	M14x1	M4x0.7	6	2	5	21	34
PK		PK-4	0.789							32
為	4	QS6	1.153	M14x1	M6x1	6	5	10	21	33
3		PK-4	0.911							31
摄	5	G1/8	3.327	M22x1	M10x1.5	10	8	18	50	112
G O	6	G ¹ / ₄	11.537	M30x2	M20x2	20	12	22		472

ESH-HCL	. with height comp	ensation, long								
	Holder size	Vacuum connection	Volume	Mounting thread	Suction cup connection	Height compensati	Spring force		Max. tightening torque	Weight
			[cm ³]			[mm]	min. [N]	max. [N]	[Nm]	[g]
Male threa	d, 2 nuts, vacuur	n connection on	top							
QS 🧖	1	QS4	0.489	M12x1	Ø 3 mm	10	0	0.1	14	20
摄		PK-3	0.360							19
1	2	QS6	0.519	M12x1	Ø 4 mm	10	0	0.1	14	20
		PK-4	0.398							19
9	3	QS6	1.616	M14x1	M4x0.7	20	1	3	21	48
K		PK-4	1.383							46
- 434	4	QS6	1.780	M14x1	M6x1	20	1	9	21	47
疆		PK-4	1.535							45
200	5	G1/8	6.060	M22x1	M10x1.5	30	10	16	50	169
00000	6	G ¹ / ₄	16.325	M30x2	M20x2	40	15	32		560



	Holder size	1/0 0111100	Volume	Mauntina	Custian	Haiolat	Carina force		Max.	Maialat
	Holder Size	Vacuum	volume	Mounting	Suction cup	Height	Spring force			Weight
		connection		thread	connection	compensati			tightening	
			. 21			on		torque		
			[cm ³]				min.	max.	[Nm]	
						[mm]	[N]	[N]		[g]
lale threa	d, 2 nuts, vacuum	connection on	side							
QS 🔏	1	QS4	0.241	M8x0.75	Ø 3 mm	3	0	0.1	3.5	13
75		PK-3	0.120							11
1	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
K 🥮	b l	PK-4	0.343							44
32	4	QS6	0.678	M14x1	M6x1	6	5	10	21	45
- 24	i	PK-4	0.449							43
المصن	5	G1/8	2.072	M22x1	M10x1.5	10	8	18	50	195
_	6	G1/4	13.171	M30x2	M20x2	20	12	22		472

General techn	ical data									
ESH-HDL wit	th height comp	ensation, long								
	Holder size	Vacuum connection	Volume	Mounting thread	Suction cup connection	Height compensati	Spring force		Max. tightening torque	Weight
			[cm ³]			[mm]	min. [N]	max. [N]	[Nm]	[g]
Male thread, 2	nuts, vacuum	connection on	side							
QS .	1	QS4 PK-3	0.272 0.150	M12x1	Ø 3 mm	10	0	0.1	14	29 28
Ï	2	QS6 PK-4	0.260 0.138	M12x1	Ø 4 mm	10	0	0.1	14	33 32
PK	3	QS6 PK-4	0.474 0.252	M14x1	M4x0.7	20	1	3	21	65 63
15	4	QS6 PK-4	0.370 0.448	M14x1	M6x1	20	1	9	21	65 63
ᅫ	5	G1/8	1.667	M22x1	M10x1.5	30	10	16	50	273
G	6	G1/4	16.968	M30x2	M20x2	40	15	32		560



General technica	l data				
ESH-HE withou	t height compensation				
	Holder size	Vacuum connection	Suction cup connection	Max. tightening torque	Weight
		Male thread			
				[Nm]	[g]
With threaded co	nnection for direct attachment				
.00.	1	M3x0.5	Ø 3 mm	0.7	1
0.00	2	M5x0.8	Ø 4 mm	1.9	3
1.00	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 hei	ght compensation							
	Holder size	Vacuum	Suction cup	Height	Spring force		Max. tightening	Weight
		connection	connection	compensator			torque	
		Male thread			min.	max.		
				[mm]	[N]	[N]	[Nm]	[g]
With threaded cor	nection for direct a	ittachment						
ción .	1	M10x1	Ø 3 mm	2.6	2	4	7	14
310	2	M10x1	Ø 4 mm	2.6	2	4	7	14
0	3	M14x1	M4x0.7	6	6	12	21	54
127	4	M14x1	M6x1	6	6	12	21	52

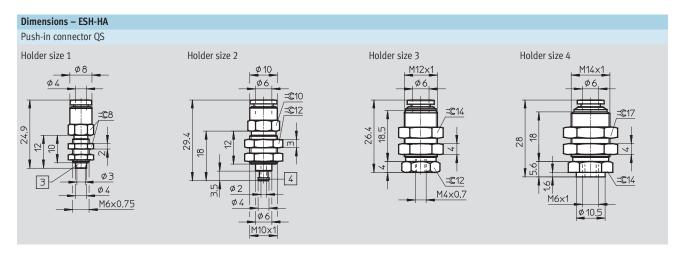


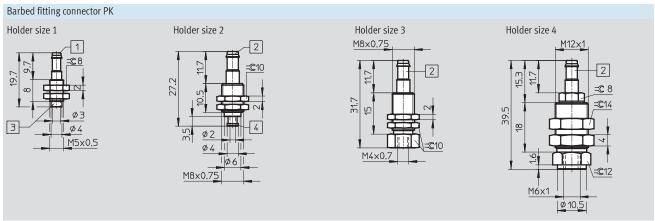
Materials								
	ESH							
	HA	HB	HC	HCL	HD	HDL	HE	HF
Threaded plug	Steel							
QS connection	Steel, polyacetate, nitrile rubber –							
Note on materials	RoHS-compliant							

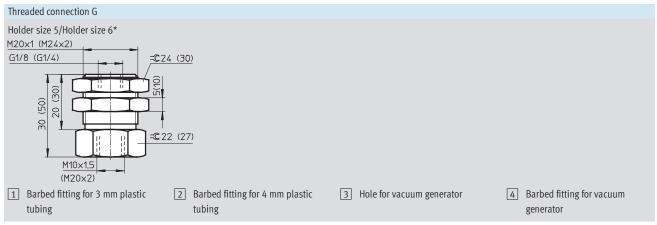
Ambient conditions		
		ESH
Operating medium		Atmospheric air based on ISO 8573-1:2010 [7:-:-]
Ambient temperature	[°C]	-10 +60
Corrosion resistance class	CRC ¹⁾	1

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.

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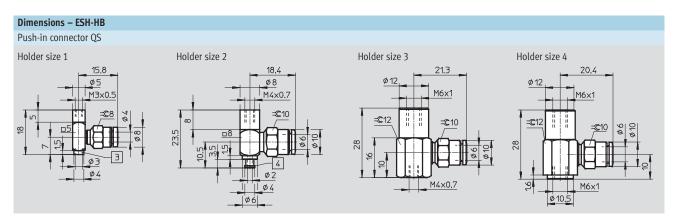


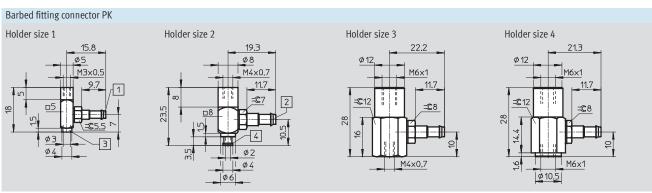


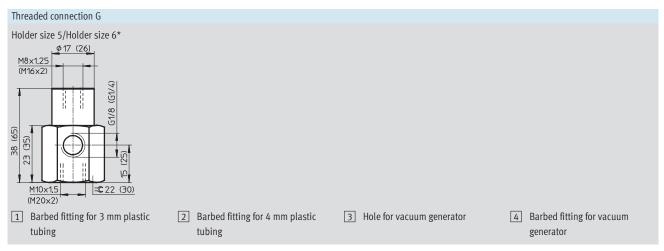


* Dimensions in brackets

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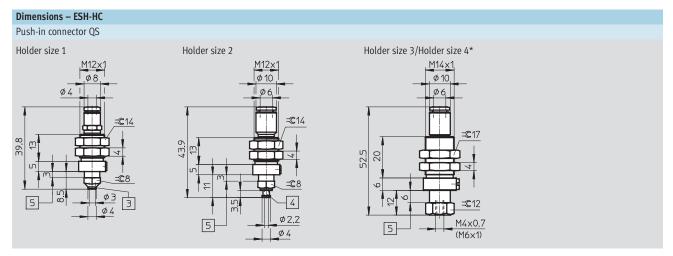


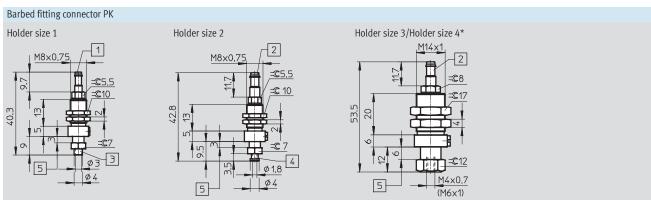


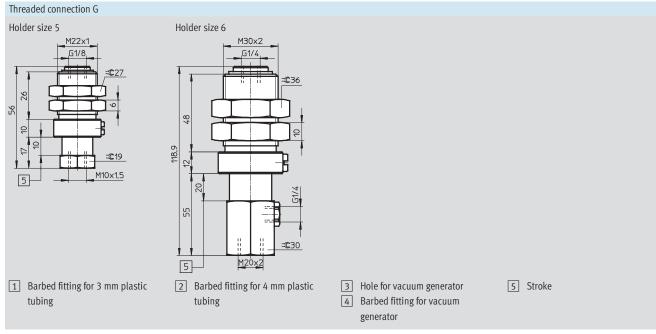


Dimensions in brackets

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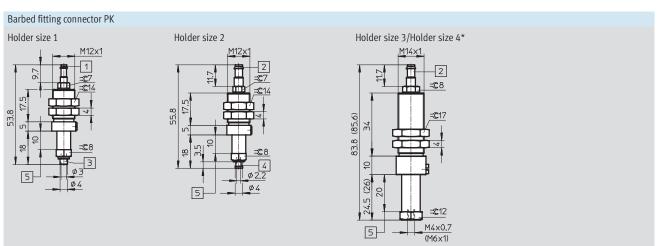


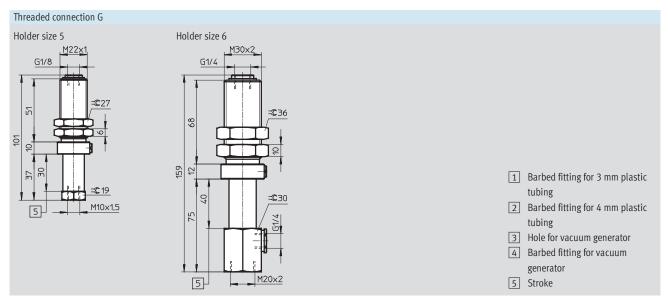
Dimensions in brackets

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11

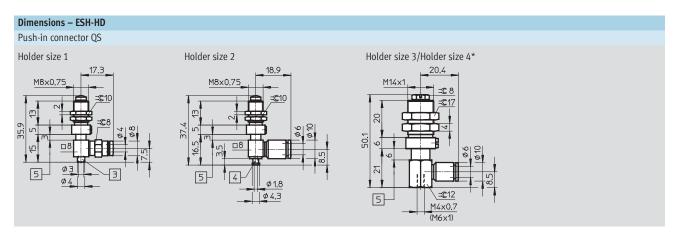
Dimensions - ESH-HCL Push-in connector QS Holder size 1 Holder size 2 Holder size 3/Holder size 4* M14×1 Ø 10 82.9 (84.4) 18 5

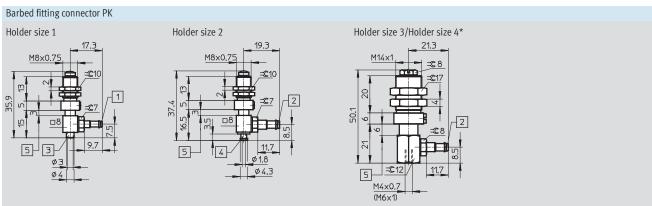


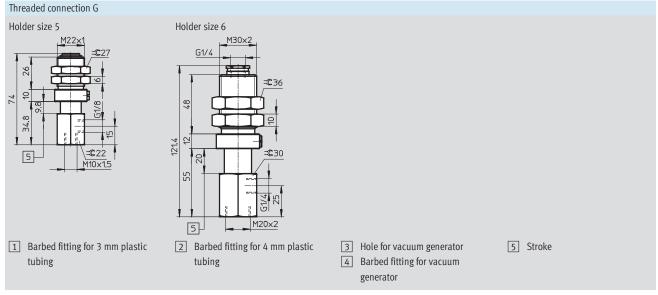


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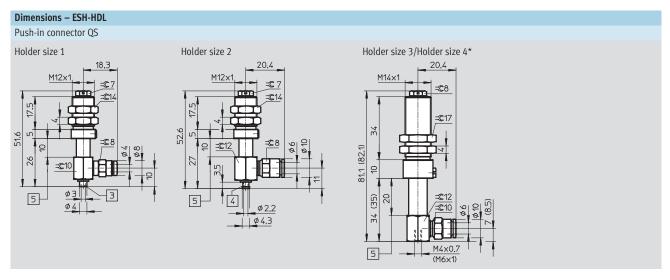


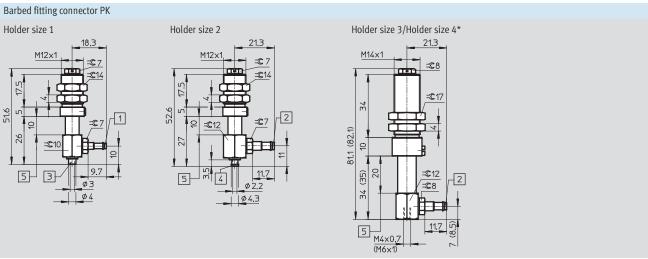


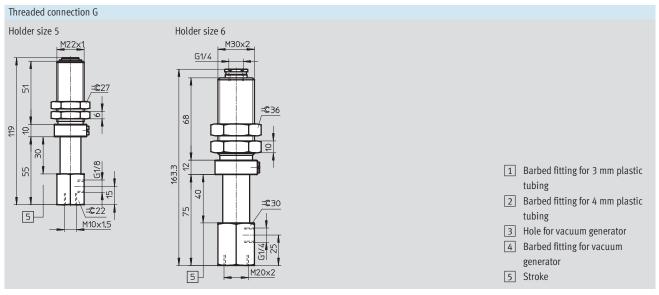


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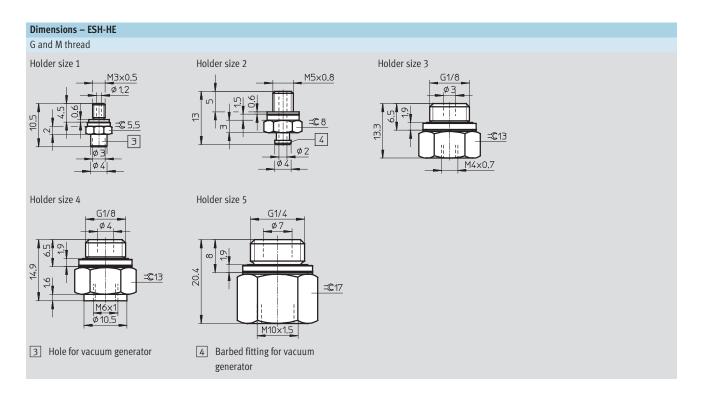


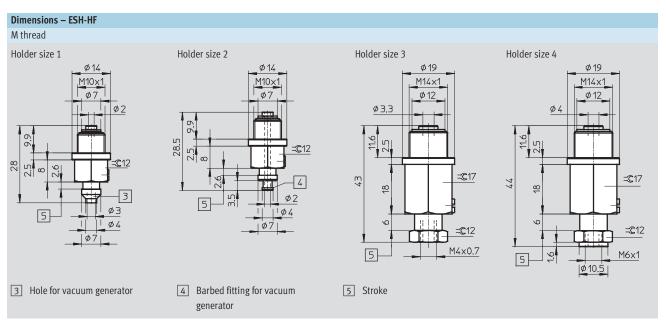




* Dimensions in brackets

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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 r	nuts, vacuum connecti	on 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, va	cuum 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 nu	uts, vacuum connecti	on 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



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 r	nuts, vacuum connect	on 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 r	nuts, vacuum connect	ion 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 n	uts, vacuum connecti	on 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	G½8	-	-	189251 ESH-HDL-5-G
6	G1/4	-	-	189252 ESH-HDL-6-G



Ordering data			
ESH-HE			
Holder size	Connection	Part No.	Туре
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-G½
4	G1/8	189256	ESH-HE-4-G ¹ / ₈
5	G1/4	189257	ESH-HE-5-G ¹ / ₄

Ordering data					
ESH-HF					
Holder size	Connection	Part No.	Туре		
Threaded connectio	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		

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A Complete Suite of Automation Services

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components Complete custom engineered solutions



Custom Control Cabinets Comprehensive engineering support and on-site services



Complete Systems Shipment, stocking and storage services

The Broadest Range of Automation Components

With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



Electromechanical Electromechanical actuators, motors, controllers & drives



Pneumatics Pneumatic linear and rotary actuators, valves, and air supply



PLCs and I/O Devices PLC's, operator interfaces, sensors and I/O devices

Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 12,000 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

Quality Assurance, ISO 9001 and ISO 14001 Certifications

Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.



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