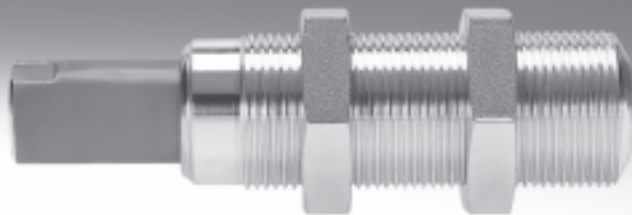


## Accessories for vacuum technology


**FESTO**




# Accessories for vacuum technology

Technical data

## Height compensator VAL

-  - Temperature range  
-10 ... +60 °C





-  - Note  
For suction cup VAS/VASB  
→ Internet: vas

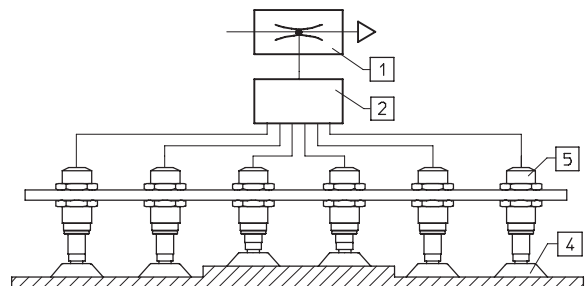


General technical data			
Size	5	10	20
Design	Vacuum port on top		
Operating medium	Atmospheric air		
Mounting position	Any		
Type of mounting	Mounting on the male thread or via the female air connection thread of the housing		
Vacuum port	M5	G1/8	G1/4
Operating pressure [bar]	-0.95 ... 8		

Ambient conditions			
Size	5	10	20
Housing	Aluminium		
Seals	Nitrile rubber		
Note on material	Free of copper, PTFE and silicone		
Ambient temperature [°C]	-10 ... +60		

Gentle handling of the workpieces by compensating for any excess stroke of the handling device or tolerance differences in the workpiece thickness.

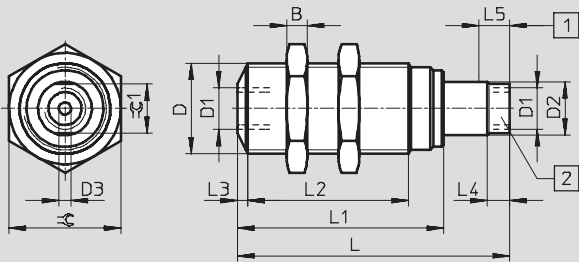
-  Vacuum generator
-  Distributor
-  Suction cup
-  Height compensator



# Accessories for vacuum technology

Technical data

## Dimensions



1 Spring travel for height compensator

2 Suction cup connector

Type	B	D	D1	D2 ∅	D3 ∅	L	L1	L2	L3	L4	L5	⌀	⌀ 1
VAL-M5-5	5	M16x1	M5	8	2	46	35	25.5	2	4.5	5	19	7
VAL-1/8-10	6	M22x1.5	G1/8	13	3	66	50	39	2.5	5.5	10	27	12
VAL-1/4-20	8	M26x1.5	G1/4	17	4	100	73	60	2.5	6.5	20	32	16

## Ordering data

Height compensator [mm]	Vacuum port	Part No.	Type
5	M5	151 209	VAL-M5-5 <sup>1)</sup>
10	G1/8	151 210	VAL-1/8-10 <sup>1)</sup>
20	G1/4	151 211	VAL-1/4-20 <sup>1)</sup>

1) Free of copper, PTFE and silicone

# Accessories for vacuum technology

Technical data

## Angle compensator ESWA

Temperature range  
0 ... +60 °C

Note

For suction gripper ESG, between  
suction cup and suction cup holder  
→ Internet: esg

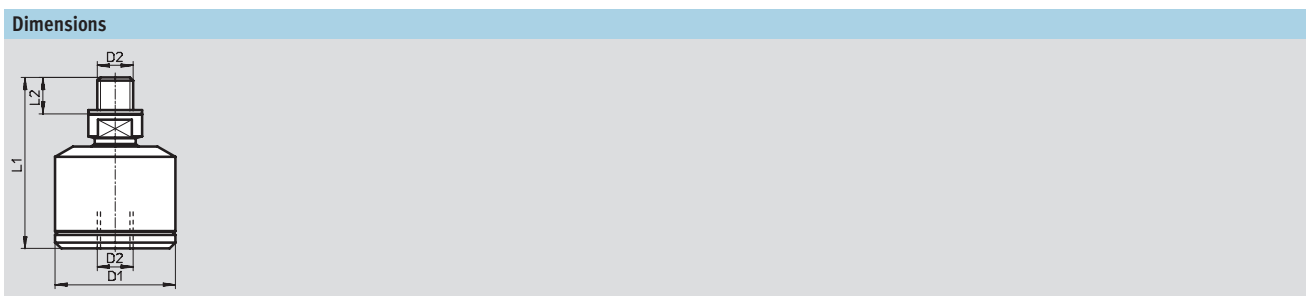


General technical data			
Holder size	3	4	5
Design	Ball joint with ± 15° swivel angle		
Operating medium	Atmospheric air		
Mounting position	Any		
Type of mounting	With threaded connection		

Ambient conditions			
Holder size	3	4	5
Housing	Aluminium		
Seals	Nitrile rubber		
Ambient temperature [°C]	0 ... +60		
Corrosion resistance CRC <sup>1)</sup>	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.

Weights [g]			
Holder size	3	4	5
ESWA- ...	9	19	57



Type	D1 Ø	D2	L1	L2
ESWA-3	15	M4x0.7	23	4
ESWA-4	20	M6x1	28.5	6
ESWA-5	28	M10x1.5	40.5	10

Ordering data		
Holder size	Part No.	Type
3	191 205	ESWA-3
4	191 206	ESWA-4
5	191 207	ESWA-5