

## Compensating components

**FESTO**



## Data sheet

### Length compensator VAL

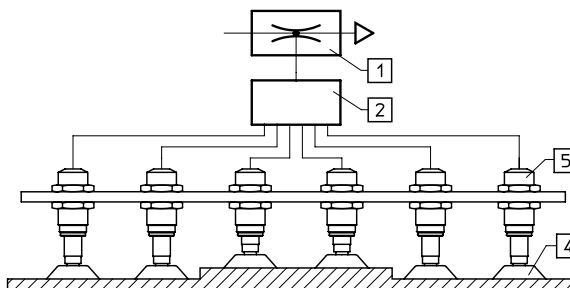
Accessory for suction cups VAS/VASB

→ Internet: vas



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

- [1] Vacuum generator
- [2] Distributor
- [4] Suction cup
- [5] Length compensator



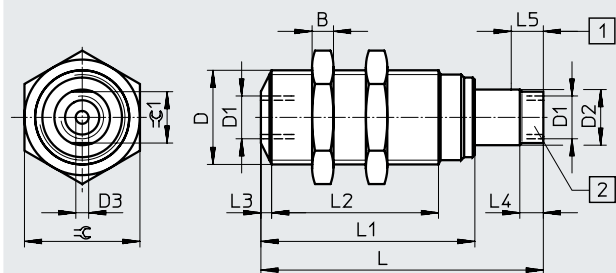
General technical data			
Vacuum port	M5	G1/8	G1/4
Suction cup mounting	M5	G1/8	G1/4
Design	Vacuum port on top		
Mounting position	Any		
Height compensator for suction cup holder [mm]	5	10	20

Operating and environmental conditions		
Operating pressure [bar]	-0.95 ... +8	
Operating medium	Atmospheric air based on ISO 8573-1:2010 [7:-:-]	
Ambient temperature [°C]	-10 ... +60	

Materials	
Housing, stem	Aluminium
Sleeve, bearing	POM
Hex nut	Galvanised steel
Seals	NBR
Note on materials	Free of copper and PTFE

## Data sheet

## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

- [1] Spring deflection for length compensator  
 [2] Port for suction gripper

## Ordering data

Vacuum port	B	D	D1	D2 ∅	D3 ∅	L	L1	L2	L3	L4	L5	≈C	≈C 1	Part no.	Type
M5	5	M16x1	M5	8	2	46	35	25.5	2	4.5	5	19	7	<b>151209</b>	<b>VAL-M5-5</b>
G1/8	6	M22x1.5	G1/8	13	3	66	50	39	2.5	5.5	10	27	12	<b>151210</b>	<b>VAL-1/8-10</b>
G1/4	8	M26x1.5	G1/4	17	4	100	73	60	2.5	6.5	20	32	16	<b>151211</b>	<b>VAL-1/4-20</b>

## Data sheet

### Angle compensator ESMA

Accessory for suction gripper ESG,  
mounting between suction cup  
complete holder and suction cup

→ Internet: esg



#### General technical data

Pneumatic connection	M4	M6	M10
Suction cup mounting	M4	M6	M10
Allocation of suction cup holders	Size 3	Size 4	Size 5
Design	Ball joint		
Angle compensator +/- [°]	15		
Mounting position	Any		
Type of mounting	With male thread		

#### Operating and environmental conditions

Operating pressure [bar]	-0.95 ... +4
Ambient temperature [°C]	0 ... +60
Corrosion resistance class CRC <sup>1)</sup>	1

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

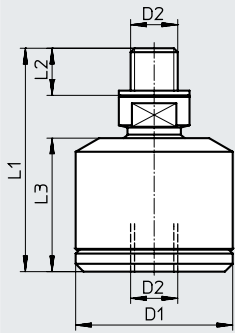
Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind coverings, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

#### Materials

Housing	Aluminium, nickel-plated brass
Seals	NBR
Note on materials	RoHS-compliant

#### Dimensions

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#### Ordering data

Allocation of suction cup holders	D1 ∅	D2	L1	L2	Weight [g]	Part no.	Type
Size 3	15	M4	23	4	9	191205	ESWA-3
Size 4	20	M6	28.5	6	19	191206	ESWA-4
Size 5	28	M10	40.5	10	57	191207	ESWA-5