

**Labom**

**Diaphragm seal**  
**screw-in thread HYGIENIC, gasket-free**  
**Type series DE2130**



**Application area**

- Food industry
- Pharmaceutical industry
- Biotechnology

**Features**

- Flush-mounted separating diaphragm of stainless steel, laser welded
- Hygienic sealing (no elastomer)
- Fast and easy mounting
- The measuring system can be positioned as required by means of the rotary screwed plug
- Minimum mounting torque error / no torsion
- System fillings for different applications
- Measuring device connection:
  - directly welded
  - with capillary

**Options**

- Certificates
  - Material certificate acc. to EN 10204-3.1
- Electropolishing (wetted parts)
- Hygienic design with advanced surface quality
- Special materials upon request

**Application**

Suitable for mounting to pressure measuring devices. The rotary connection allows the measuring system to be positioned on site, even when welding sleeves have already been mounted. The diaphragm seal for screw-in thread HYGIENIC, no gasket, is used mainly for dead-zone free pressure measurement.

## Technical data

### Constructional design

Basic body:	Volume reduced diaphragm base Material: stainless steel mat.-no. 1.4404/1.4435 (316L)
Diaphragm:	Flat diaphragm
Material wetted parts:	Diaphragm: Stainless steel mat.-no. 1.4435 (316L) Further materials upon request  Basic body: Stainless steel mat.-no. 1.4404/1.4435 (316L)

### Process connection

Design:	G 1 A adjustable, metal-to-metal joint. Due to the rotary screw-in design no torsional forces are produced that could damage the sealing surface.
Tightening torque/Nominal pressure:	20 Nm, max. nominal pressure 10 bar 50 Nm, max. nominal pressure 50 bar

### Mounting torque error

At a tightening torque of 20 Nm: 1 mbar

### Measuring device connection

See order details.

Material stainless steel mat.-no. 1.4301 (304)

### System filling

See order details; further upon request.

Further details about pressure transmission fluids see general technical information TA\_038.

### Hygienic design

The surface roughness of the wetted parts made of stainless steel are executed according to EHEDG Doc.8 and ASME BPE SF3.

In case of choosing the additional feature HY, we guarantee the following surface roughness values:

Diaphragm foil:	$Ra \leq 0.38 \mu\text{m}$
Laser welds:	$Ra \leq 0.76 \mu\text{m}$
Turned parts:	$Ra \leq 0.76 \mu\text{m}$

Further versions of hygienic design upon request.

### Temperature error

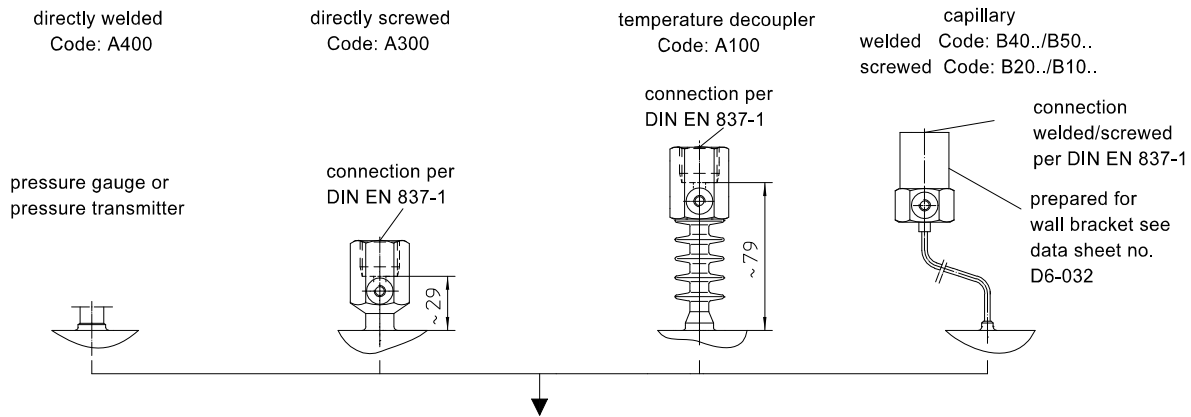
In order to optimise the system we provide a detailed error calculation upon request.

### Weight

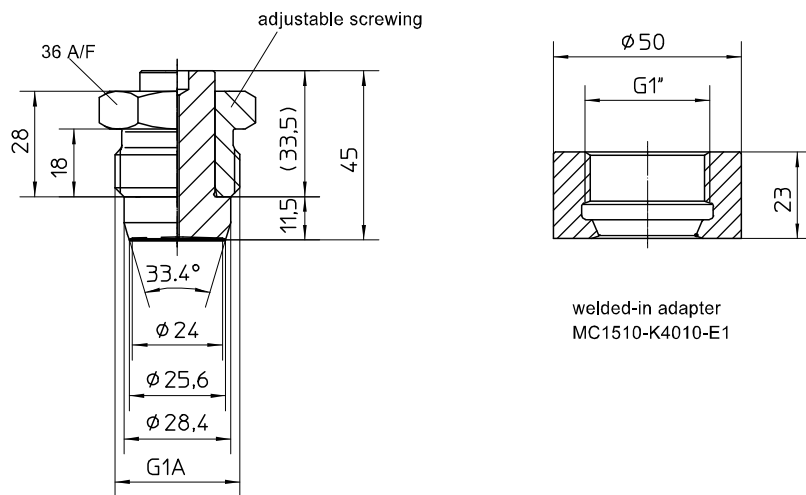
Diaphragm seal and screwed plug approx. 0.3 kg

**Further information about diaphragm seals see general technical information TA\_031.**

## Measuring device connection



## Dimensions



## Order details

### Diaphragm seal screw-in thread HYGIENIC, gasket-free Type series DE2130

#### Order details diaphragm seal DE2130

<b>DE2130</b>	design	screw-in thread HYGIENIC, gasket-free		
		standard		
<b>HY</b>	surface roughness	Hygienic version as per EHEDG Doc.8 and ASME BPE SF3		
<b>D13</b>	process connection	G1 A adjustable, metal-to-metal joint		
<b>E1</b>	material sealing surface	stainless steel mat.-no. 1.4404/1.4435 (316L)		
<b>E9</b>		variant		
<b>G7</b>	diaphragm seal material	stainless steel mat.-no. 1.4435 (316L)		
<b>G9</b>		variant		
<b>A400</b>	measuring device connection	directly welded		
<b>B40..</b>		with capillary, welded		
<b>B50..</b>		with capillary and stainless steel protective tube, welded		
<b>11</b>		capillary length	1 m	
<b>12</b>			1.6 m	
<b>13</b>			2.5 m	
<b>14</b>			4 m	
<b>21</b>			5 m	
<b>15</b>			6 m	
<b>23</b>			7 m	
<b>16</b>			8 m	
<b>17</b>	10 m			
<b>9</b>	others			
	system filling <sup>1</sup>	<u>pressure transmission fluid</u>	<u>temperature range</u> <sup>2</sup>	
<b>L22</b>		synthetic oil, free of silicone FD1, standard	-10...140 °C	
<b>L23</b>		synthetic oil, free of silicone FD1, pls. specify max. temperature	-40...230 °C	
<b>L15</b>		glycerine/water FGW	-30...110 °C	

#### Additional features ( to be indicated in case of need, only)

<b>W1020</b>	material certificate per EN 10204-3.1, wetted parts
<b>W4035</b>	electropolishing of wetted parts

#### Accessories

<b>MC1510-K4010-E1</b>	welded socket, Ø 50 mm, G 1", HYGIENIC, gasket-free, material stainless steel mat.-no. 1.4404 (316L)
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Order code (example): **DE2130 - D13 - E1 - G7 - A400 - L22 - ...**

<sup>1</sup> for more detailed information about pressure transmission fluids see TA\_038. Please state temperature range to allow an accurate calculation of the system.

<sup>2</sup> max. media temperature for pressures > 0 bar rel.