


## ● Characteristics

0300 - FORCE MEASUREMENT - FORCE -

	<ul style="list-style-type: none"> <li>- For force measurement in existing installations without mechanical redesign.</li> <li>- Ranges: 0...100 kg up to 0...2000 t</li> <li>- Output: Strain gauge full bridge</li> <li style="padding-left: 20px;">Options: 2x strain gauge full bridges for redundancy / 0...10 V / 0(4)...20 mA</li> <li>- Material: stainless steel Armco 17-4 PH</li> <li>- Accuracy: ±0,1% of terminal value</li> <li>- Working temp.: max. -20...+70 °C</li> <li>- Protection class: IP65 (standard) / IP66...IP68 (options)</li> <li>- Connection: cable, plugs</li> </ul>
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## ● Technical Data

### Input

Measurement ranges: 0...100 kg up to 0...2000 t  
 Input resistance: approx. 375 Ω (standard version)

### Output

Output signal: 2 mV/V (standard version)  
 Output resistance: approx. 350 Ω (standard version)

### Accuracy

Gross error: ±0,1 % of terminal value

### Supply

Supply voltage: max. 28 VDC  
 Insulation resistance: > 3000 MΩ at 10 VDC

### Environmental Conditions

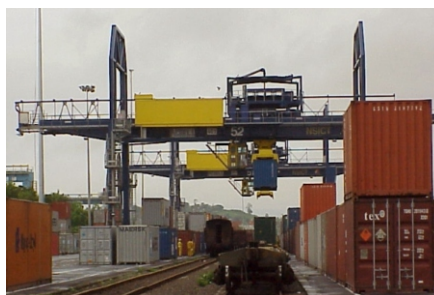
Working temperature: normal operation: -10...+40 °C  
 maximal: -20...+70 °C

### Mechanics

Dimensions: customized, see page 3  
 Material: stainless steel Armco 17-4 PH  
 Safe overload: 150% of nominal load  
 Breaking load: 300% of nominal load  
 Protection class: IP65 (standard version)  
 IP66...IP68 (options)  
 Cable outlet: Radial / Axial  
 Electrical connection: cable, plugs (customized, see page S. 3)

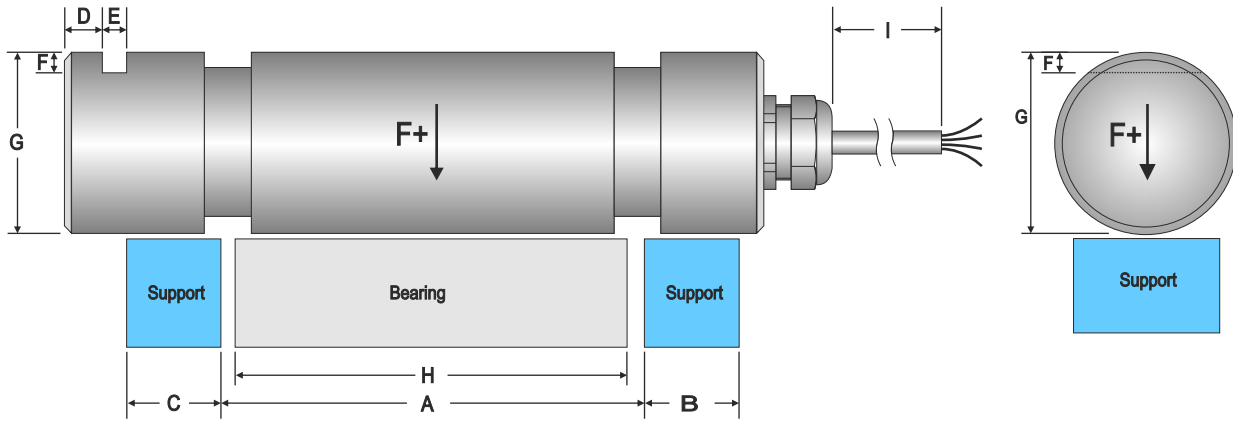
## ● Applications

Suitable for use in all areas of industrial application which require force measurement, e.g. theater engineering, crane systems, port loading terminals, airport engineering or vehicle and plant construction.

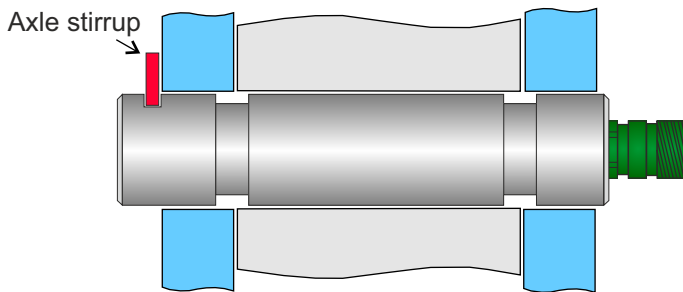
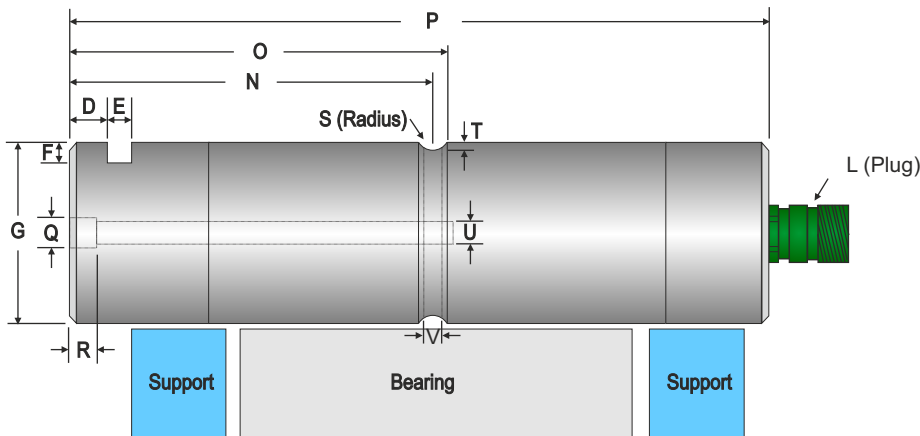




● **Dimensions (in mm)**



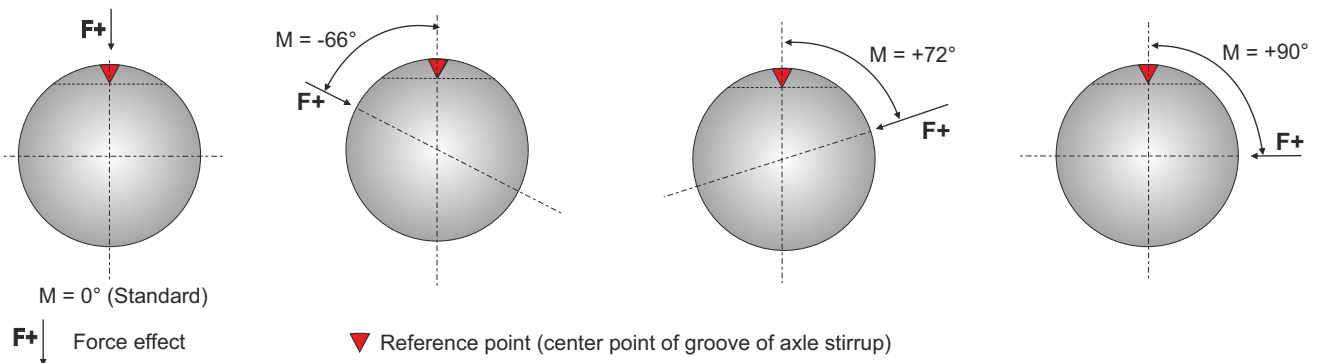
**Load Measuring Pin with Lubrication Duct**



LASTMB load measuring pins are manufactured customizable, every dimension is possible. Electrical connection is realized either with a plug or with a cable connection.

**M = Angle of force effect (standard = 0°)**

The standard version of the LASTMB load measuring pin assumes the force will be applied vertical to the reference point (center point of groove of axle stirrup). If local conditions make this impossible, please specify an angle of deviation.



● **Order Code**

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<b>Measurement range:</b>	customized (please specify) <sup>1</sup>	0																		
<b>Outputs:</b>	Strain gauge full bridge	0																		
	2x strain gauge full bridges	1																		
	0...10 V	2																		
	0(4)...20 mA	3																		
<b>Lubrication duct:</b>	No	0																		
	Yes (please specify dimensions) <sup>1</sup>	1																		
<b>Ex-protection:</b>	No	0																		
	II 1G Ex ia IIC T6	1																		
<b>Electr. connection:</b>	cable (please specify length) <sup>1,2</sup>	0																		
	plug (please specify type and cable length) <sup>1,2</sup>	1																		
<b>Cable outlet:</b>	Axial	0																		
	Radial	1																		
<b>Casing dimensions:</b>	please specify <sup>1</sup>	0																		
<b>Force effect:</b>	F+ (please specify) <sup>1</sup>	0																		
<b>Angle of force:</b>	M (please specify) <sup>1</sup>	0																		
<b>Protection class:</b>	IP65	0																		
	IP66	1																		
	IP67	2																		
	IP68	3																		

1) For ordering, please specify the following technical data:: (For reference, see drawings on page 3)

- Measurement range: Please specify a range from 0...100 kg up to 0...2000 t.
- Lubrication duct: If a lubrication duct is required, please specify the dimensions N, O, P, Q, R, S, T, U and V
- Plug: If no cable connection is desired, please specify a plug type L.
- Cable length: Please specify the desired cable length l!<sup>2</sup>
- Casing dimensions: Please specify the dimensions A, B, C, D, E, F, G and H.
- Force effect: Please specify the desired force effect F+ and angle of force M.

**Note:** Missing specifications can cause delays when ordering. Please ensure your order information is complete when ordering! Please specify all length dimensions in mm. (Cable lengths can be specified in m, too.)

2) Devices with Ex-protection have their maximum cable length reduced to 30 m. Usage of six-cored cables further reduces maximum cable length to 15 m.