

**NM2-IP2-2L-OLED****■ Dual axis tilt measuring system with OLED display per measuring axis**

- Measuring range  $\pm 3^\circ$  up to  $\pm 45^\circ$  per axis
- Accuracy  $\pm 0,1^\circ$  (up to  $\pm 10^\circ$ ),  $\pm 0,2^\circ$  (up to  $\pm 30^\circ$ ),  $\pm 0,25^\circ$  (up to  $\pm 45^\circ$ )
- Analogue output 4 ... 20 mA (2-wire-technology)
- Front panel OLED display per axis
- Supply voltage 18 ... 28 VDC



Illustration similar, mounting plate not included

**■ Description**

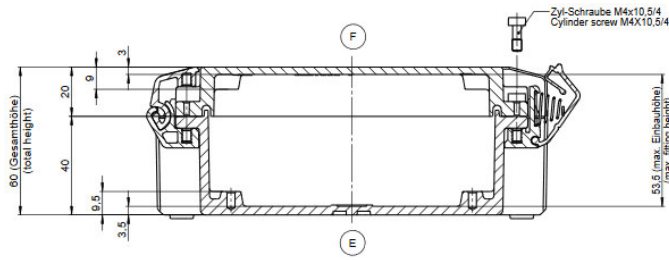
The dual axis industrial tilt measuring system NM2-IP2-2L-OLED is the combination of two non-contact inclination sensors, sensor adapted electronics and two OLED displays. The measuring system is designed for precise tilt measurement in X- and Y-axis and intended for ground assembly. Available tilt measuring ranges are  $\pm 3^\circ$  to  $\pm 45^\circ$ . The two analogue output signals of 4 ... 20mA in 2-wire-technology are standard signals and therefore a further analysis is easily feasible. The display of the current measured value, bar graph, trend display, the peak value (MIN, MAX) and the setting of limit values takes place via an OLED display for each measuring axis in the front panel housing.

The tilt measuring system is built into a robust EMC-safe die-cast aluminium enclosure (IP66), which is well suited for applications in rough and industrial environments. Furthermore, the built-in electronics are protected against humidity and vibrations. The two OLED displays are designed for installation in a front panel.

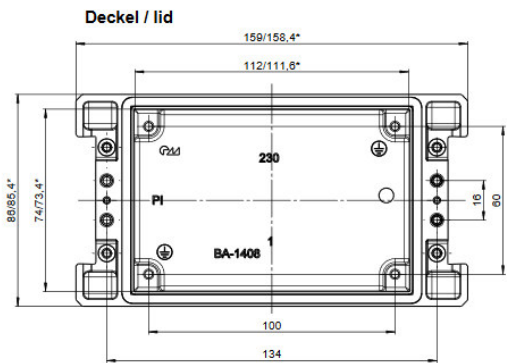
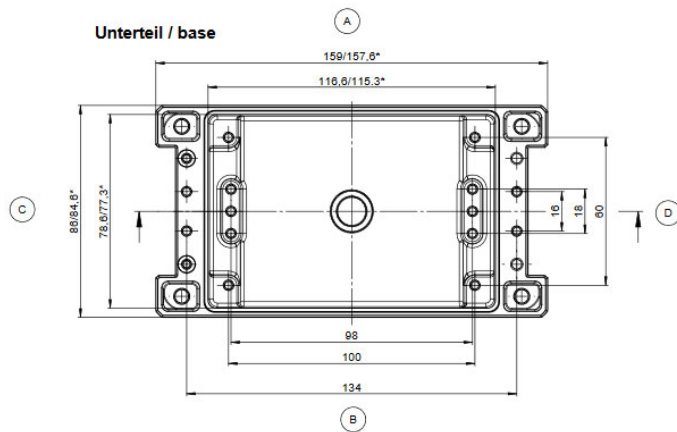
**■ Specifications**

Number of measuring axis:	2	
Supply voltage:	18 ... 28 VDC	
Power consumption:	ca. 2 W	
Analogue output / burden:	4 ... 20 mA (2-wire-technology), max burden depending on supply voltage	
Frequency range (-3 dB):	0,5 Hz	
Preferred measuring range:	$\pm 3^\circ, \pm 5^\circ, \pm 10^\circ, \pm 15^\circ, \pm 20^\circ, \pm 30^\circ, \pm 45^\circ$ other measuring ranges for both axis as well as different measuring ranges for each axis (f.e. X: $\pm 30^\circ$ Y: $\pm 3^\circ$ ) on request possible	
Accuracy at 23°C:	Up to $\pm 10^\circ$ : $\pm 0,1^\circ$ Up to $\pm 30^\circ$ : $\pm 0,2^\circ$ Up to $\pm 45^\circ$ : $\pm 0,25^\circ$	
Electrical connection:	3 m cable 2 x 2 x 0,25 mm <sup>2</sup> Optional: cable length according to customer requirements	
Cross-sensitivity:	< 1,5% at 30°	
Enclosure:	EMC-safe aluminium die-cast enclosure	
Protection class:	IP66 (Measuring system)	IP20 (OLED display, IP54 – front with sealing)
Dimensions (W x H x D):	Ca. 160 x 65 x 86 mm (Measuring system without EMC cable gland)	Ca. 96 x 48 x 53 mm (OLED display without connection terminals)
Weight:	Ca. 1450 g	
Temperature, storage:	-20 ... +60 °C	
Temperature, operating:	-20 ... +60 °C (Measuring system)	0 ... +40 °C (OLED display)

## ■ Dimensions of enclosure



\* = Maß durch Formkonizität nach unten verringert  
Freimaß-Toleranz nach GTA13/5 DIN 1688  
\* = Measure by draught down ward reduced  
General tolerance acc. GTA13/5 DIN 1688



## ■ Terminal wiring

The scope of delivery includes a 3m connecting cable between the measuring electronics and the two OLED displays. The system is connected via the EMC cable gland to an internal connector. The maximum connection cross-section is 2.5 mm<sup>2</sup>. When connecting electrically to the tension spring terminals via the EMC cable gland, the EMC installation instructions must be observed.

Terminal	Description	Description
1	Supply voltage	X-axis
2	Signal / Current loop	X-axis
3	Supply voltage	Y-axis
4	Signal / Current loop	Y-axis

## ■ Ordering information

<b>NM2-IP2-2L-420-OLED...</b>	Dual axis tilt measuring system with OLED display per measuring axis
<b>...-Bxx</b>	Measuring range (see note below)

**Note:** When placing an order, please fill in placeholder „xx“ with the wanted tilt measuring range.

**Example:** Measuring range  $\pm 45^\circ \rightarrow$  NM2-IP2-2L-420-OLED-B45

## ■ Customized Requirements

Technical modifications according to customer requirements are available on request. Moreover, we deliver customized special solutions for a lot of measuring tasks in the section pressure, force, position and tilt measuring using our measuring transducers. Do not hesitate to contact us.

We reserve the right to do technical changes without prior notice.

Version 02.2020

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