

**NSZ2-M2-IP****Dual axis tilt switching system with 2 switching contacts per axis and switching delay**

- Measuring range  $\pm 3^\circ$  up to  $\pm 10^\circ$
- Switching accuracy max. 0,5% of measuring range
- Supply voltage 18 ... 30 VDC
- Output: 2 potential-free switching contacts per axis (max. 30VDC/0,5A)

**Description**

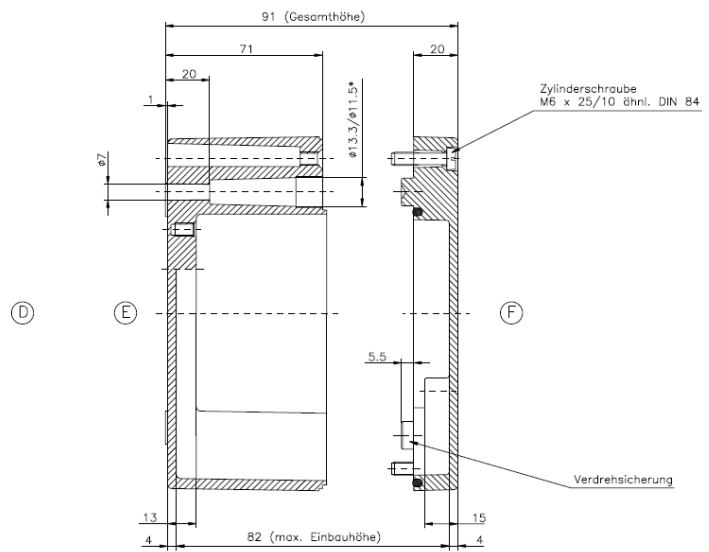
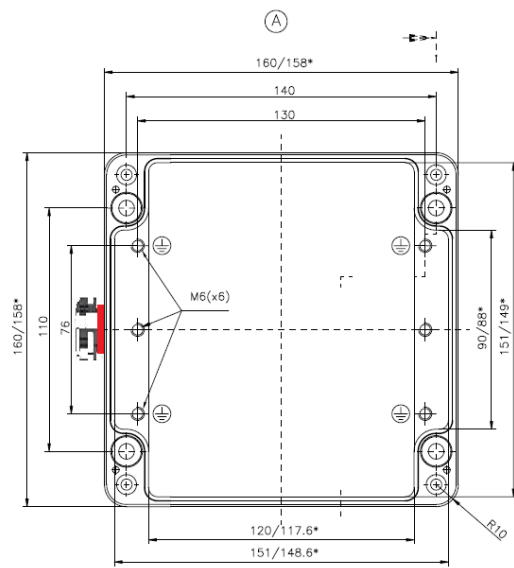
The dual axis industrial tilt switching system NSZ2-M2-IP is the combination of two non-contact inclination sensors and sensor adapted electronics. The measuring system is designed for precise tilt monitoring in X- and Y-axis and intended for ground assembly. Available tilt measuring & monitoring ranges are  $\pm 3^\circ$  to  $\pm 10^\circ$ . By using the build-in potentiometers, which can be seen after removing the case cover, the switching setpoints can be adjusted as needed over the whole measuring range for both axis. The relays have potential-free switching contacts (max. 30 VDC / 0.5 A). The switching delay of the relay is 1 sec at the standard version. Other switching delays possible on request.

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.

**Specifications**

Number of measuring axis:	2
Supply voltage:	18 ... 30 VDC, electronics protected against voltage reversal
Power consumption:	ca. 5 W
Test signal:	2,5 ... 5,5 V, not short-circuit proof
Frequency range (-3dB):	0,25 Hz
Preferred measuring range:	$\pm 3^\circ$ , $\pm 5^\circ$ , $\pm 10^\circ$ , other measuring ranges on request
Cross-sensitivity:	< 4% up to $\pm 30^\circ$
Number of relay switching contacts / switching delay:	4 (2 per axis) / 1 sec
Max. power rating of relay:	30 VDC / 0,5 A
Switching accuracy at 23 °C:	max. 0,5% of measuring range
Electrical connection:	M16 x 1,5 EMC cable glands on internal spring-cage terminal blocks
Enclosure:	EMC-safe aluminium die-cast enclosure
Protection class:	IP66
Dimensions (W x H x D):	160 x 91 x 160 mm (without EMC cable glands)
Weight:	2.000 g
Temperature, storage:	-20 ... +60 °C
Temperature, operating:	-20 ... +60 °C

## ■ Dimensions of enclosure



Aluminium-Standardgehäuse

## ■ Terminal Wiring

Electrical connections are made via the EMC cable glands to the internal spring-cage terminal blocks. The maximal connection cross section is 2,5 mm<sup>2</sup>. Although this system is designed with a high degree of immunity to electromagnetic interferences (EMI), proper installation and wiring methods must be followed to ensure compatibility in each application.

Terminal	Description
1	Supply voltage
2	Ground supply voltage
3	Set point 1 N/O contact +Y-axis
4	Set point 1 COM +Y-axis
5	Set point 1 N/C contact +Y-axis
6	Set point 2 N/O contact -Y-axis
7	Set point 2 COM -Y-axis
8	Set point 2 N/C contact -Y-axis
9	Ground test signal

Terminal	Description
10	Test signal Y-axis
11	Set point 3 N/O contact +X-axis
12	Set point 3 COM +X-axis
13	Set point 3 N/C contact +X-axis
14	Set point 4 N/O contact -X-axis
15	Set point 4 COM -X-axis
16	Set point 4 N/C contact -X-axis
17	Ground test signal
18	Test signal X-axis

## ■ Ordering information

<b>NSZ2-M2-IP-24E-...</b>	Dual axis tilt switching system with 2 switching contacts per axis and switching delay
<b>...-xx-...</b>	Measuring range (see note below)
<b>...-4G</b>	4 (2 per axis) adjustable switching setpoints with potential-free switching contacts (max. 30VDC / 0,5A)

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

**Example:** Measuring range  $\pm 10^\circ$  → NSZ2-M2-IP-24E-B10-4G

## ■ 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.

**Germany | Switzerland | Austria**  
ALTHEN GmbH Mess- & Sensortechnik  
Dieselstr. 2  
65779 Kelkheim, Deutschland  
Tel: + 49 (0)6195 - 70060  
sales@althen.de

**Netherlands | Belgium | Luxembourg**  
ALTHERIS bv Sensors & Controls  
Vlietweg 17a  
2266 KA Leidschendam, The Netherlands  
Tel: +31 (0)70 392 4421  
sales@altheris.nl

**France**  
ALTHERIS Sensors & Controls  
26, avenue de la Méditerranée  
34110 Frontignan, France  
Tél : 0033 (0)4 67 78 61 66  
dbi@altheris.fr

**USA | Canada**  
ALTHERIS Inc Sensors & Controls  
2375 Woodacre Drive  
Oceanside CA 92056, USA  
Tel: +1 858-633-3572  
sales@altheris.com

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**Other Countries**  
For our international sales partners please contact us by email at sales@althen.de  
www.althen.de