

## Slope Switch Programmable -85°...+85°, 2 axis (X/Y)

**Features:**

- 2 x Transistor Output Signal
- programmable
- compact and robust design
- Hysteresis- / Windows Mode
- M12-connector or cable
- Switching logic programmable

**Brief Description:**

The electronic slope switches and sensors are trendsetting control units for various industrial applications. Thanks to the robust design, stationary as well as mobile applications are possible.

The digital electronic in combination with the sensing element creates very precise measured values and enable a reliable monitoring of the adjusted switchpoints i.e. angles. The monitoring of an angle range (windows mode) is also possible

The programming can be done with the teach button inside the housing or by means of a personal computer.

The output signal can be programmed with several parameters:

- 2 switchpoints on the X/Y-axis
- hysteresis or windows mode
- switching logic NO/NC
- on-/ off-delay



**General Data:**

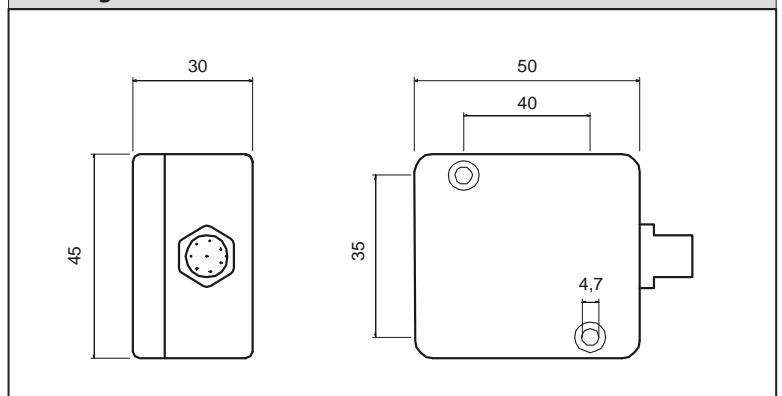
Supply Voltage	9...30 VDC
Degree of Protection	IP67

**Ordering Data:**

Range	Type	Part Number
-10° ... +10°	MNS-10-D2	506 02 010
-45° ... +45°	MNS-45-D2	506 02 045
-85° ... +85°	MNS-85-D2	506 02 085

\* weitere Varianten auf Anfrage

**Drawing:**



**Technical Data:**

<b>Electrical Data:</b>		<p><b>Plug:</b></p>																		
Supply Voltage +Ub	9-30 VDC (short circuit and reverse polarity save)																			
Current Consumption	< 30 mA																			
Switching Outputs	2 x PNP Transistor																			
Output Voltage	approx. +Ub-1,5 V																			
Max. Current Output	500 mA each																			
Plug	M12x1, 5-poles (cable on request)																			
<b>Mechanical Data:</b>																				
Material Body	Aluminium Diecast coated																			
Degree of Protection	IP 67 (with plug on)Design																			
Overall Size	approx. 50x45x30 mm																			
<b>Programming Parameter:</b>		<table border="1"> <thead> <tr> <th>Pin</th> <th>Plug M12x1</th> <th>cable color</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Ub+</td> <td>brown</td> </tr> <tr> <td>2</td> <td>OUT 2</td> <td>white</td> </tr> <tr> <td>3</td> <td>GND</td> <td>blue</td> </tr> <tr> <td>4</td> <td>OUT 1</td> <td>black</td> </tr> <tr> <td>5</td> <td>PROG</td> <td>grau</td> </tr> </tbody> </table>	Pin	Plug M12x1	cable color	1	Ub+	brown	2	OUT 2	white	3	GND	blue	4	OUT 1	black	5	PROG	grau
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1	Ub+		brown																	
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4	OUT 1	black																		
5	PROG	grau																		
Switchpoint	0-100%																			
Resetpoint	0-100%																			
Switching Window	0-100%																			
Switching Logic	NO / NC																			
Delay Time ON/OFF	0-10 sec. with Steps of 100 msec.																			
<b>Accuracy:</b>																				
Repeatability of Sensor	0,1° (typ.)																			
Temperature Behavior X-Axis; Y-Axis	0,01°/°C ; 0,1°/°C for 0...25°C...80°C (typ.)																			
Longterm Stability	approx. 0,01°/year (typ. acc. to HTB-Test)																			
<b>Environmental Conditions:</b>																				
Operating Temperature	-25 ... +80°C																			
EMC	EN 61000-4-2/3/4/5/6 EN55011 Gr.1, KLA																			
Schock	10.000 g																			
<b>Display (internal):</b>																				
LED green / yellow	Status / Programming / Out 1,2																			

**Accessories:**

<b>Cable:</b>		
cable 5m, PUR, 5-pole, 90°, shield	Order-No. 99000548	
cable 5m, PUR, 5-pole, straight, shield	99000549	
cable longer 30m only with shield		
<b>Programming *</b>		
Programming tool (PG-F08 + CD-ROM)	on request	
* the sensor has a teach-button and this tool is not obligatory		