


## ● Characteristics

4 - ANGLE - OVERTURN -

	Measuring range:	±45° (each axis)
	Output:	0...10 V or (0)4...20 mA (each axis)
	Voltage supply:	12 VDC / 24 VDC
	Adjustment:	via 5 programming keys
	Resolution:	<0,1°
	Indication:	LC-display
	Option:	limiting value switch (2 each axis), interface
	Wear of sensor:	operates absolutely without
	Sensor:	integrated chip
	Degree of protection:	IP65
	Enclosure:	impact-resistant plastics, diecast aluminium

## ● Technical data

### Input

Measuring range:	X-axis: maximum ±45° Y-axis: maximum ±45°
Adjustment:	5-keys on main PCB and/or optional interface and/or display unit

### Output

Analogue:	each axis 1 output 2 x 0...10 V or 2 x 0...20 mA (load 500 Ω) or 2 x 4...20 mA (load 500 Ω) Note: Kind of signal is factory-set
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### Limiting value switch (optionally)

Relays:	4 limit value switches (each axis 2 pcs) each with 1 changeover contact, fail safe function
Resistive load:	switching current DC: 30 V 2 A / 110 V 0,3 A
Resistive load:	switching current AC: 125 VA
Inductive load:	switching current AC: 25 VA
Protection:	RT III

### Interface

Choice:	RS232 / RS485 / CAN-Bus / Profibus
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### Indication

Display:	microprocessor based multifunton indicator
Function:	4 keys for programming
Indication:	current values / minimum/maximum values / switch points / diagnostic values

## ● Applications

The slope sensor is mounted on the object which has to be measured. This is given eg on outriggers of cranes, ships, ramps of ferries and all installations, where by using the sensor the risc of overturn should be recognized. Due to the digital signal processing the adjustment of the slope sensor is done with some key depression strokes in a high accuracy. Optional components like interface and limiting value swtich makes possible a wide range of use.



## ● *Technical data (continued)*

### **Vibration protection (optionally)**

Electronics: completely potted

### **Accuracy**

Resolution: <math><0,1^\circ</math>  
Linearity:  $\pm 0,2\%$  of end scale value  
Temperature coeff.:  $\pm 0,05\%$  of end scale value  
Measuring rate: 10 measurements per second

### **Power supply**

Voltage: 24 VDC,  $\pm 20\%$  / 12 VDC,  $\pm 20\%$   
Power consumption: with options approx. 5 W  
Residual ripple: 200 mV

### **Ambient conditions**

Operating temperature:  $-40\dots+75^\circ\text{C}$   
Storing temperature:  $-40\dots+85^\circ\text{C}$

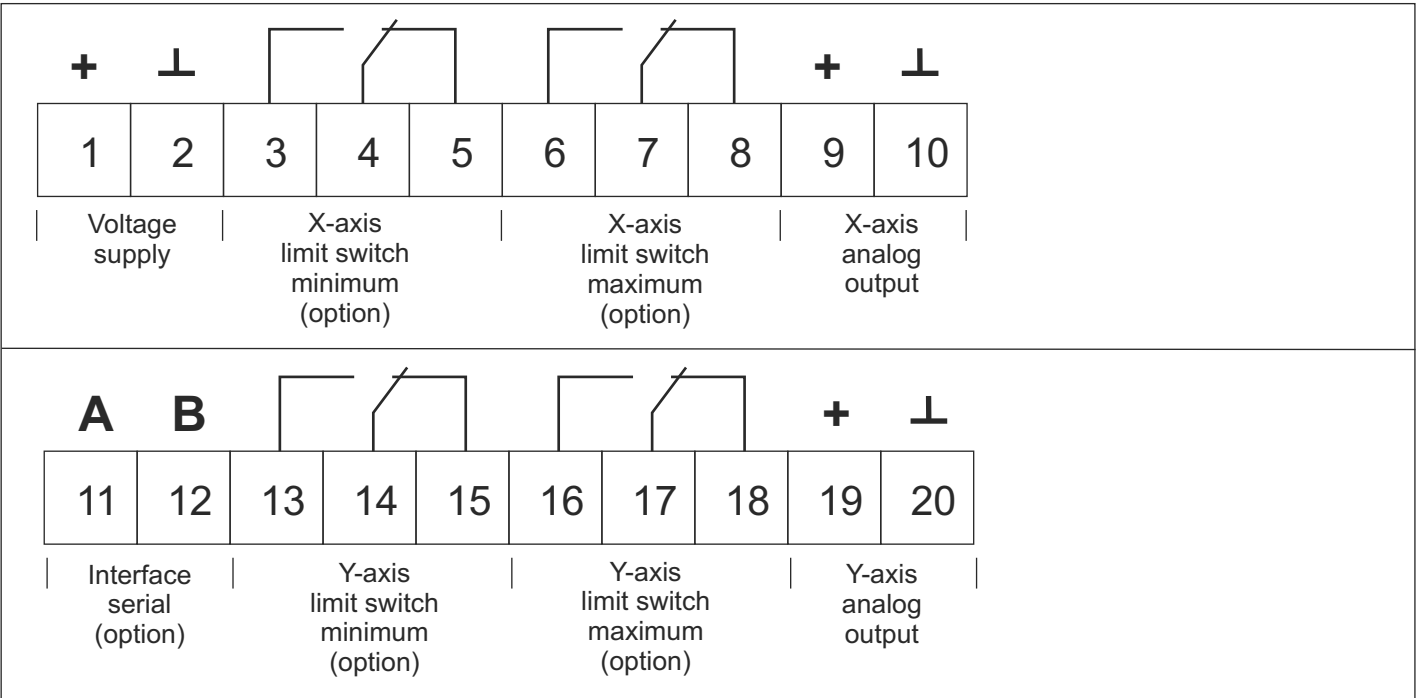
### **Mechanics**

Enclosure aluminium: Type: aluCase AC 092 with clip-on design covers  
Dimensions: 160 x 90 x 60 mm  
Material: die-cast aluminium  
Mounting: covered screw channels  
Colour: RAL 9006 (aluminium white)  
Weight: approx. 1,1 kg (with options)  
Cable entry: 4 screwed cable glands M20x1,5  
Saltwater-proof: with special plating

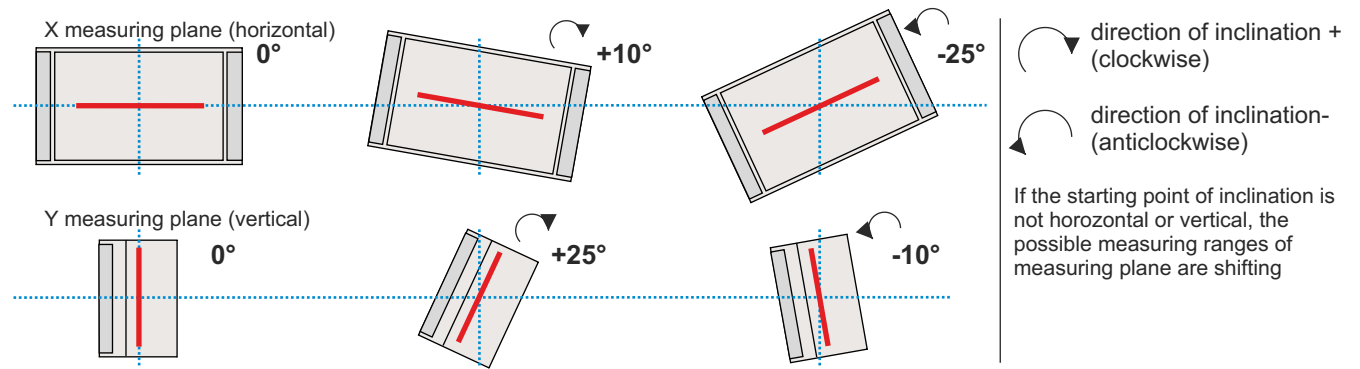
Enclosure plastics: Type: U-CASE 2  
Dimensions: 160 x 90 (100) x 60 mm  
Material: ASA 757G Luran S  
Mounting: 4 mounting holes  
Colour: black  
Weight: approx. 0,7 kg (with options)  
Cable entry: 4 screwed cable glands M20x1,5  
Protective insulation: according VDE100

Degree of protection: IP 65  
Connection: multipole pin and socket connector, lockable, up to 2,5 mm<sup>2</sup> (CPFT2/R-10)

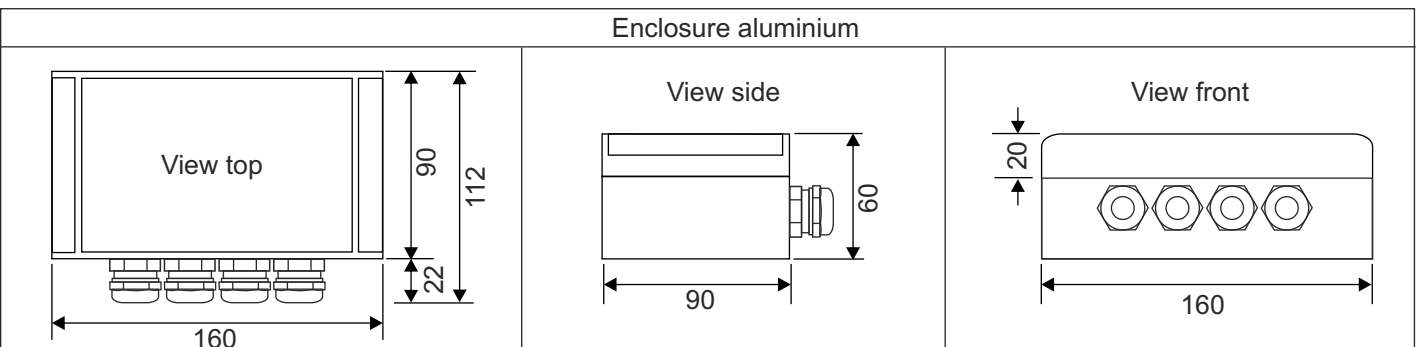
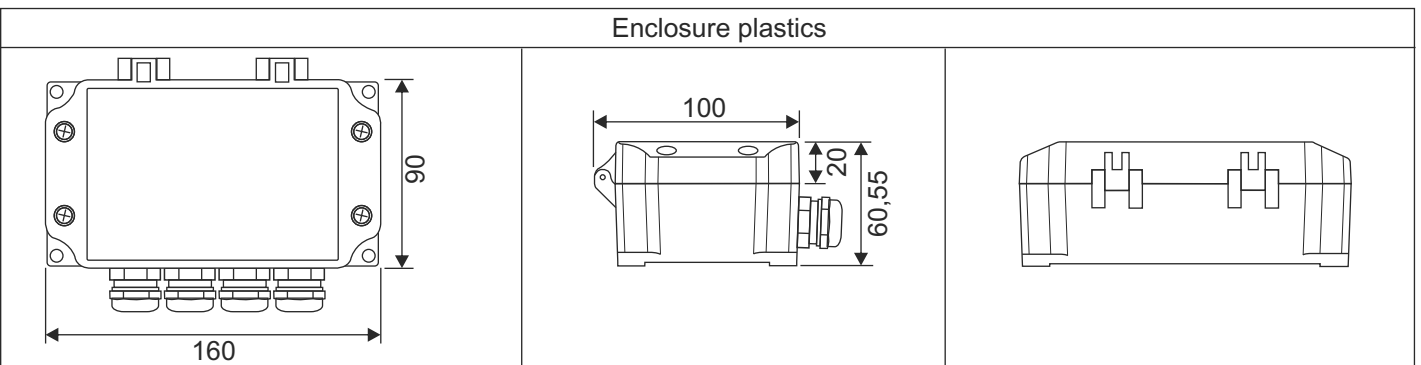
**● Connection**



**● Angle of inclination**



**● Dimensions (in mm)**



● **Order code**

**D W X X X X X X - X X X**

<b>Analog output:</b>	0...10 V	0																			
	4...20 mA	1																			
	0...20 mA	2																			
	without	3																			
	0,5...4,5 V	4																			
<b>Supply:</b>	12 VDC		0																		
	24 VDC		1																		
<b>Interface:</b>	without																			0	
	RS232																				1
	RS485																				2
	CANopen																				3
	Profibus																				4
<b>Limit value contacts:</b>	without																				0
	with 2 relays (each axis)																				1
<b>Display:</b>	with																				1
<b>Vibration protection:</b>	without potting																				0
	with potting																				1
<b>Configuration:</b>	factory-set <sup>1)</sup>																				0
	customized (to specify) <sup>2)</sup>																				1
<b>Enclosure:</b>	aluminium																				X
	plastics																				2
	plastics with EMC coating																				3
<b>Other:</b>	special model																				0

1) Analog output: as selected above / limit switch: minimum 0% (-45°), maximum 100% (+45°) / measuring range: each axis +/-45°

2) Analog output, limit switch, measuring range: all values within each range