



# Inclination sensor INY160DH-F199-B30-V15

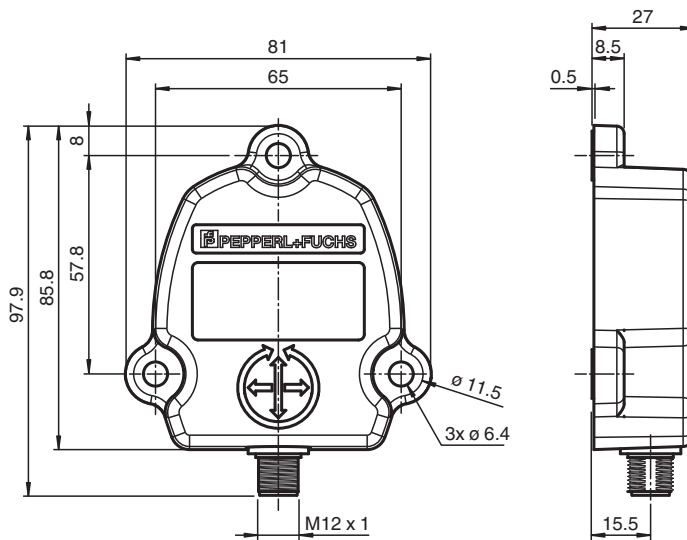
- Sturdy housing
- High accuracy of  $\leq \pm 0,15^\circ$
- Communication via MODBUS RTU
- 2-axis with  $\pm 80^\circ$  measuring range



## Function

This inclination sensor has a MODBUS RTU interface. With its sturdy housing and its high accuracy, it is ideally suited for applications in the fields of solar, wind or mobile equipment.

## Dimensions



## Technical Data

### General specifications

Type	Inclination sensor, 2-axis
Time delay before availability	320 ms
Measurement range	$\pm 80^\circ$

Release date: 2020-06-03 Date of issue: 2020-06-03 Filename: 324837\_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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## Technical Data

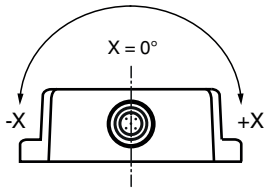
Absolute accuracy		$\leq \pm 0.15^\circ$ for measuring range $\leq \pm 60^\circ$ $\leq \pm 0.4^\circ$ for measuring range $\geq \pm 60^\circ$
Response delay		$\leq 25$ ms
Resolution		$\leq 0.01^\circ$
Temperature influence		$\leq 0.004^\circ/\text{K}$
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		900 a at 40 °C
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Electrical specifications</b>		
Operating voltage	U <sub>B</sub>	4.5 ... 30 V DC
No-load supply current	I <sub>0</sub>	$\leq 100$ mA at 5 V DC $\leq 25$ mA at 24 V DC
<b>Interface</b>		
Interface type		MODBUS RTU
Transfer rate		2.4 ... 115200 kBit/s , programmable in 7 steps , factory setting 19,2 kBit/s
Data format		even parity, 1 start bit, 1 stop bit, 8 data bits
Node ID		1 ... 247 , programmable , factory setting 127 decimal
Output driver		line driver RS485
<b>Compliance with standards and directives</b>		
Standard conformity		
Noise immunity		EN 61000-6-2
Emitted interference		EN 61000-6-4
Shock and impact resistance		DIN EN 60068-2-27, 100 g, 6 ms
Vibration resistance		DIN EN 60068-2-6, 20 g, 10 ... 2000 Hz
<b>Ambient conditions</b>		
Ambient temperature		-40 ... 85 °C (-40 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
Connection type		5-pin, M12 x 1 connector , A-coded
Housing material		aluminum, corrosion-resistant
Degree of protection		IP68 / IP69
Mass		approx. 200 g

## Accessories

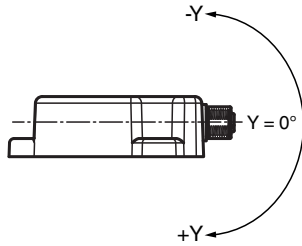
	<b>V15S-T-CAN/DN-V15</b>	Y-Splitter, M12 socket on M12 connector/socket
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**Mounting**

**X-Orientation**



**Y-Orientation**



**Connection**

**Electrical connection**

Signal	5-pin, M12 x 1 connector
n. c.	1
+Vs	2
GND	3
RS485 A +	4
RS485 B -	5
Pinout	

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