Model number

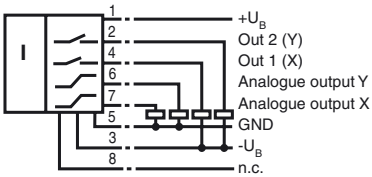
INY060D-F99-2I2E2-V17

Features

- **Analog output 4 mA ... 20 mA**
- **Fixed evaluation limits**
- **High shock resistance**
- **Increased noise immunity 100 V/m**
- **Measuring range -30° ... +30°**

Electrical connection

Standard symbol/Connection:



Technical Data

General specifications	
Type	Inclination sensor, 2-axis
Measurement range	-30 ... 30 °
Absolute accuracy	≤ ± 0.2 °
Response delay	≤ 25 ms
Resolution	≤ 0.02 °
Repeat accuracy	≤ ± 0.04 °
Temperature influence	≤ 0.004 °/K
Functional safety related parameters	
$MTTF_d$	304 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %
Indicators/operating means	
Operation indicator	LED, green
Switching state	2 yellow LEDs: Switching status (each output)
Electrical specifications	
Operating voltage U_B	10 ... 30 V DC
No-load supply current I_0	≤ 25 mA
Time delay before availability t_v	≤ 200 ms
Switching output	
Output type	2 switch outputs PNP, NO , reverse polarity protected , short-circuit protected
Operating current I_L	≤ 100 mA
Voltage drop	≤ 3 V
Analog output	
Output type	2 current outputs 4 ... 20 mA (one output for each axis)
Load resistor	0 ... 200 Ω at U_B = 10 ... 18 V 0 ... 500 Ω at U_B = 18 ... 30 V
Ambient conditions	
Ambient temperature	-40 ... 85 °C (-40 ... 185 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications	
Connection type	8-pin, M12 x 1 connector
Housing material	PA
Degree of protection	IP68 / IP69K
Mass	240 g
Factory settings	
Analog output (X)	-30 ° ... 30 °
Analog output (Y)	-30 ° ... 30 °
Switching output (X)	-30 ° ... 30 °
Switching output (Y)	-30 ° ... 30 °
Compliance with standards and directives	
Standard conformity	
Shock and impact resistance	100 *g* according to DIN EN 60068-2-27
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007
Approvals and certificates	
CSA approval	cCSAus Listed, General Purpose, Class 2 Power Source

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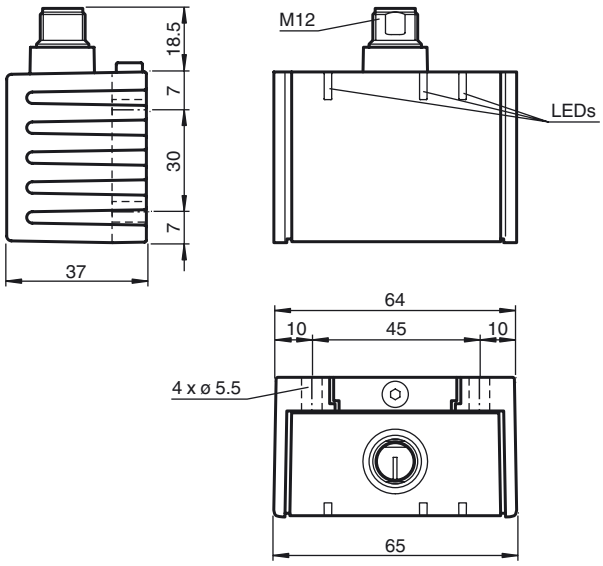
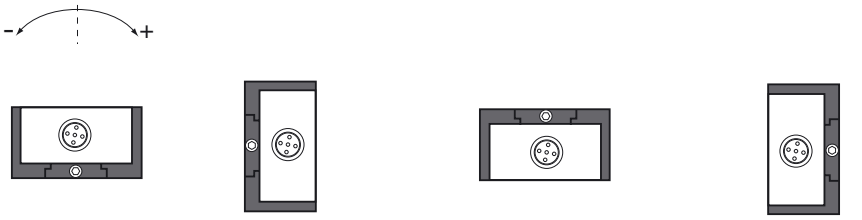
Dimensions



Sensor Orientation

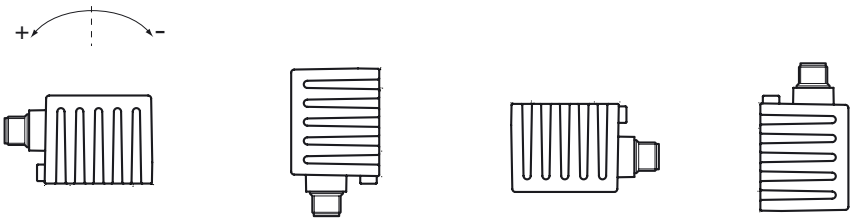
In the default setting the zero position of the sensor is reached, when the sensor is mounted on a horizontal plane and electrical connection faces sidewards.

X Orientation



X = 0° X = 90° X = ±180° X = 270° (-90°)

Y Orientation

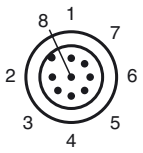


Y = 0° Y = 90° Y = ±180° Y = 270° (-90°)

Mounting of the sensor

Sensors from the -F99 series consist of a sensor module and accompanying cast aluminum housing. Select a horizontal flat surface with minimum dimensions of 70 mm x 50 mm to mount the sensor.
Mount the sensor as follows:

Pinout



Wire colors

1	WH	(white)
2	BN	(brown)
3	GN	(green)
4	YE	(yellow)
5	GY	(gray)
6	PK	(pink)
7	BU	(blue)
8	RD	(red)

Accessories

V17-G-2M-PUR
Female cordset, M12, 8-pin, shielded, PUR cable

V17-G-5M-PUR
Female cordset, M12, 8-pin, shielded, PUR cable

V17-G-10M-PUR
Female cordset, M12, 8-pin, shielded, PUR cable

V17-G-10M-PVC-ABG
Female cordset, M12, 8-pin, shielded, PVC cable

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1. Loosen the central screw under the sensor connection.
2. Slide back the clamping element until you are able to remove the sensor module from the housing.
3. Remove the sensor module from the housing
4. Position the housing at the required mounting location and secure using four countersunk screws. Make sure that the heads of the screws do not protrude.
5. Place the sensor module in the housing.
6. Slide the clamping element flush into the housing. Check that the sensor element is seated correctly.
7. Finally tighten the central screw.

The sensor is now mounted correctly.

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