



Model number

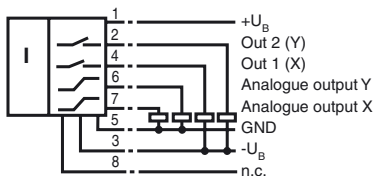
INY060D-F99-2I2E2-V17

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 |

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 ° |

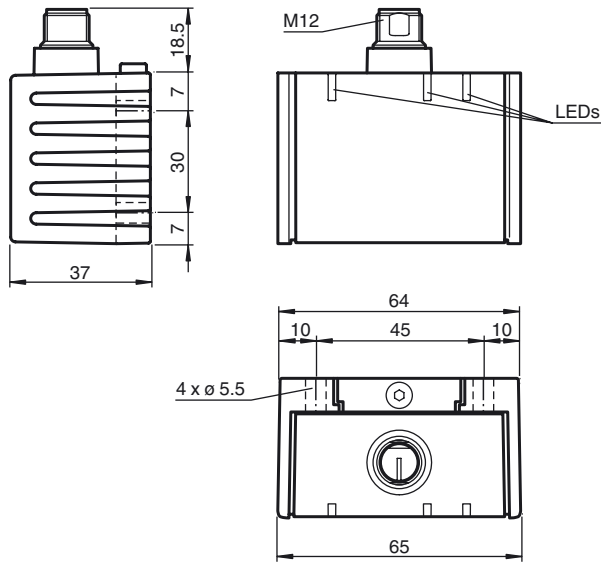
Compliance with standards and directives

| | |
|-----------------------------|---|
| 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 |
|--------------|--|

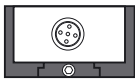
Dimensions



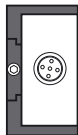
Sensor Orientation

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 sideways.

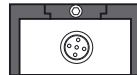
X Orientation



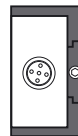
X = 0°



X = 90°

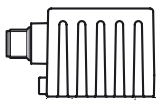
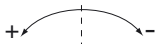


X = ±180°

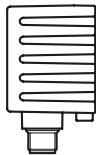


X = 270° (-90°)

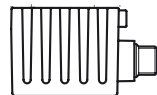
Y Orientation



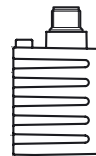
Y = 0°



Y = 90°



Y = ±180°



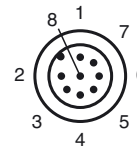
Y = 270° (-90°)

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

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.