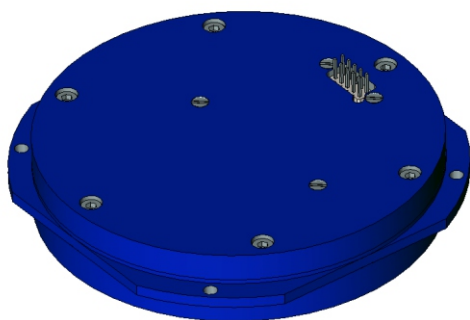
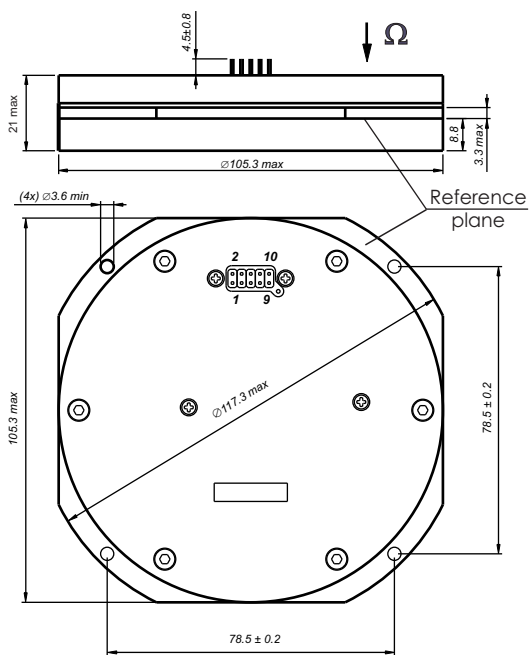


OUTLINE DRAWING



MAIN PARAMETERS (typical values)

- ◆ Rate range 100 deg/s
- ◆ Scale Factor (SF) 16 mV/deg/s
- ◆ Angle random walk 0.01 deg /√h
- ◆ Bias stability, RMS 1 deg / h
- ◆ SF stability, RMS 0.1 %
- ◆ Readiness time 1 s

ENVIRONMENT

- ◆ Temperature operating -40°C ... +70°C
- ◆ Temperature endurance -55°C... +85°C
- ◆ Vibration (operating), RMS 6 g, 20Hz... 2000Hz
- ◆ Vibration (endurance), RMS 18 g, 20Hz... 2000Hz
- ◆ Shocks (endurance) 350 g, 1 ms

RELIABILITY

- ◆ MTBF 90000 hours (20°C, predicted)
- ◆ Lifetime (predicted) 15 years
- ◆ Precision class - ④
- ◆ Estimated for low humidity

DIGITAL OUTPUT

1. Asynchronous RS232 port, 8 bit data, 1 stop bit, no parity control.
2. Transmission rate (default) - 115 kBod (repetition rate ~ 1.2 kHz).
Option: - 38 kBod (repetition rate ~ 0.3 kHz).
3. Sensor output voltage = 2.5 RATE / 2²³ V, RATE is a binary complementary 24-bit word (see Table 1).
4. Additional data (Xdata) - temperature (taken from AD TMP36 sensor), supply voltage, consumption current. These data (16 bits each) are transmitted in series of 16 sendings according to the status of COUNTER (see Table 2).

DESCRIPTION OF OUTPUT CONNECTOR PLD-10

Contact	Name	Comments
1	+ 5 V	Power input +5V ± 0.25V, 300mA max, ripple 10mV max within 0-1MHz
2 - 6	—	Not used
7	KEY	Shortened pin
8	GND	Power return line, ground, "floating" contact to housing
9	RS232 TXD	Digital output RS232
10	D_GND	Digital ground, connected to "GND"

RECOMMENDATIONS AND PRECAUTIONS

1. Do not deform housing
2. Fragile components inside - no shocks, no drop
3. Treat as electrostatic sensitive unit
4. Is designed to be mounted inside water protected equipment
5. Increased humidity shortens essentially lifetime
6. Mounting surface must be grounded
7. Power must be off during connecting
8. Soldering to contacts - by low-temperature solder

PHYSICAL PARAMETERS

1. Ω - sensing axis, 90° ± 0.5° to the reference plane
2. Dissipation - 1.5 W
3. Weight - 330 gram (400 gram max)
4. Volume - 0.2 litre
5. Housing material - aluminum alloy
6. Housing protection - powder coating
7. Tolerances per ISO 2768-m
8. Ingress protection class - IP67

Table 1. Digital data format and data block content

SOD (1 byte)	Start of Data DD hex
Data Block (5 bytes)	1 st byte RATE lowest byte (L)
	2 nd byte RATE highest byte (H)
	3 rd byte RATE middle byte (M)
	4 th byte COUNTER status
	5 th byte some of Xdata
LCC (2 bytes)	Lower 2 bytes of sum of Data Block
Total - 8 bytes	

Table 2. X data content

Counter	Byte	Xdata
00	H	Temperature (C)
01	L	HL250 / 2 ¹⁵ - 50
02	H	Supply voltage (V)
03	L	HL2.5 / 2 ¹⁵ / 0.25
04	H	Consumption current (A)
05	L	HL2.5 / 2 ¹⁵ / 10
06...0F		Reserved