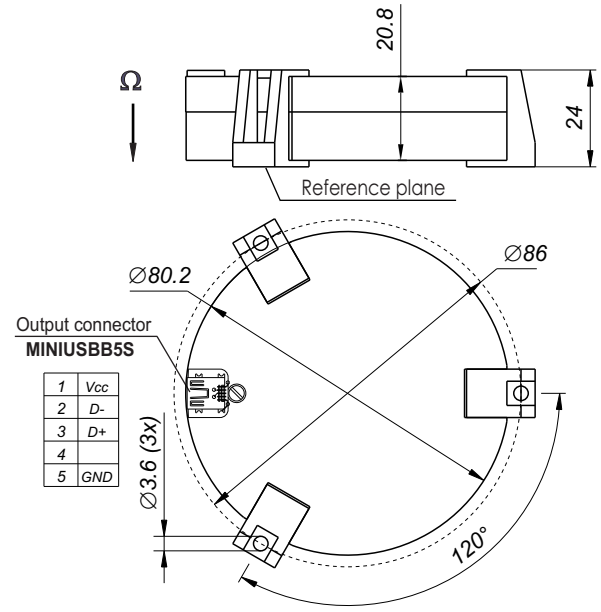
OUTLINE DRAWING



MAIN PARAMETERS (typical values)

♦	Rate range	120 deg/s
	Scale Factor (SF)	16 mV/deg/s
	Angle random walk	0.01 deg /√h (2.5 μV/√Hz)
	Bias stability, RMS	1 deg / h
	SF stability, RMS	0.03 %
	Readiness time	1 s

ENVIRONMENT

♦♦♦	Temperature operating	-30°C ... +70°C
♦♦♦♦	endurance	-55°C... +75°C
	Vibration (operating), RMS	2 g, 20Hz... 2000Hz
	Vibration (endurance), RMS	6 g, 20Hz... 2000Hz
	Shocks (endurance)	90 g, 1 ms
	Acceleration (operating)	5 g
	Acceleration (endurance)	20 g, 5 s

RELIABILITY

	MTBF	60000 hours (20°C, predicted)
♦♦	Lifetime (predicted)	15 years

♦ Precision class - ④
♦♦ Estimated for low humidity
♦♦♦ Operating temperature - temperature of built-in temperature sensor (see table 2)
♦♦♦♦ Endurance temperature - environment temperature. Sensor is turned off.

DIGITAL OUTPUT

1. Transmission rate (default) - 115 kBod (repetition rate ~ 1.2 kHz).

2. Sensor output voltage RATE is a binary complementary 24-bit word (see Table 1). **LSB = 0.298 μV**.

3. 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).

4. The drivers for USB-converter from FTDI company (www.ftdichip.com) should be preliminary installed for connection to computer.

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
7. Power must be off during connecting

Table 1. Digital data format and data block content

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

PHYSICAL PARAMETERS

1. Ω - sensing axis, 90°± 1° to the reference plane
2. Dissipation - 1.5 W
3. Weight - 80 gram (100 gram max)
4. Volume - 0.1 litre
5. Housing material - plastic
6. Tolerances per ISO 2768-m
7. Ingress protection class - IP67

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