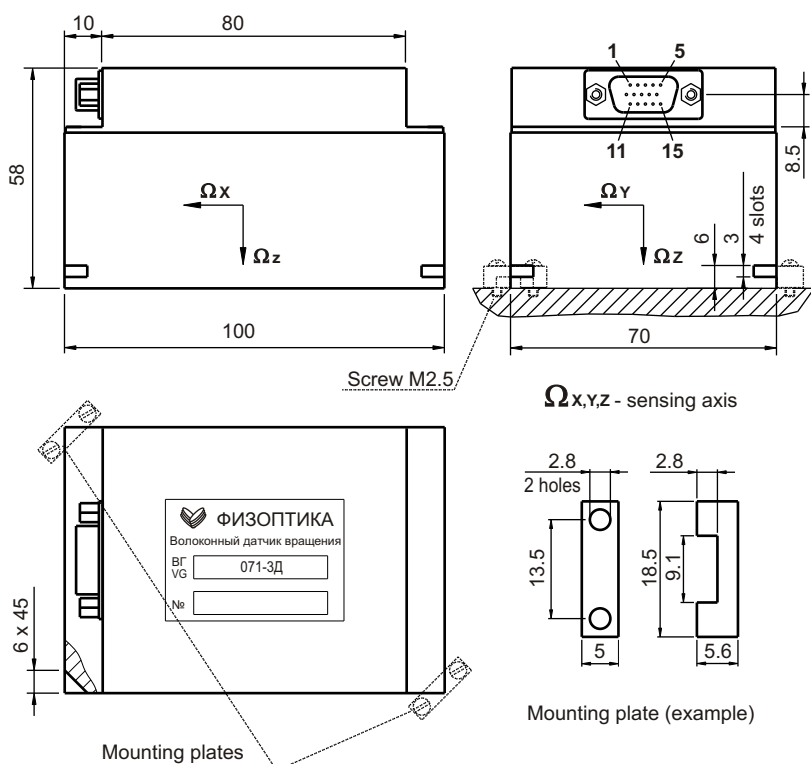


Output connector DHS-15M

Contact	Name	Description
3	+ 5 V	Power input +5V ± 0.25V, 900 mA max
4	GND	Power return line, ground, electrically connected to the sensor's cover
11	RS232 TXD	Digital output RS232
12	D_GND	Digital ground, connected to "GND"



OUTLINE / INSTALLATION DRAWING

MOUNTING AND CONNECTING

- ◆ Do not deform housing and output connector
- ◆ Fragile components inside - no shocks, no drop
- ◆ Treat as electrostatic sensitive unit
- ◆ Mounting surface must be grounded
- ◆ Power must be off during connecting

DIGITAL OUTPUT

- ◆ Asynchronous RS232 port, 8 bit data, 1 stop bit, no parity control.
- ◆ Transmission rate - 115 kBod (repetition rate ~ 0.6 kHz).
- ◆ Sensor output voltage = 2.5 RATE / 2²³ V, RATE is a binary complementary 24-bit word (see Table 1).
- ◆ Additional data (Xdata) - temperature (output of AD TMP36), supply voltage. These data (16 bits each) are transmitted in series of 32 sendings according to the status of COUNTER (see Table 2).

MAIN PARAMETERS

- ◆ Rate range 350 deg/s
- Scale Factor (SF) 4 mV/deg/s
- Angle random walk 0.07 deg /√h
- Bias stability 20 deg / h (RMS)
- SF variation (steady state) 0.1 % (RMS)
- Readiness time 1 s

ENVIRONMENT

- Temperature operating -30°C ... +70°C
- endurance -55°C ... +85°C
- Vibration (operating) 2 g (RMS), 20Hz... 500Hz
- Vibration (endurance) 2 g (RMS), 20Hz... 500Hz
- Shocks (endurance) 40 g, 1 ms
- Acceleration (operating) 5 g
- Acceleration (endurance) 20 g, 5 s

- ◆ Rate range (measurement) - grade 4.0 (linearity error - 4%)
- Rate range (indication) -400 deg/s (min) (linearity error - 15%)

Table 1. Digital data format and data block content

SOD (1 byte)	DD hex (start of Data)
Data Block (12 bytes)	<p>00 hex</p> <p>RATELX lowest byte (L) RATEMX middle byte (M) RATEHX highest byte (H)</p> <p>RATELY lowest byte (L) RATEMY middle byte (M) RATEHY highest byte (H)</p> <p>RATELZ lowest byte (L) RATEMZ middle byte (M) RATEHZ highest byte (H)</p> <p>COUNTER status Xdata</p>
LCC (2 bytes)	2 bytes of sum of Data Block
Total - 15 bytes	

Table 2. X data content

Counter	Byte	Xdata
00	H	Temperature (C)
01	L	HL 250 / 2 ¹⁵ - 50
02	H	Supply voltage (V)
03	L	HL 2.5 / 2 ¹⁵ / 0.25
04 - 1F		Reserved

1. Ω_{x,y,z} - sensing axes, 90°± 1.5 °
2. Dissipation - 4.5 W
3. Weight - 500 gram (approx.)
4. Volume - 0.4 litre
5. Housing material - aluminum alloy
6. Tolerances - ± 0.5 IT14