



Undisclosed tolerances - 0.5 IT14

OUTLINE DRAWING

DIGITAL OUTPUT

Asynchronous RS232 port, 8 bit data, 1 stop bit, no parity control.
Transmission rate (default) - 38 kBod (repetition rate ~ 0.3 kHz).
Instantaneous bandwidth 100 Hz

Sensor output voltage = 2.5 RATE / 2²³ V,

RATE is a binary complementary 24-bit word (see Table 1).

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).

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

MOUNTING AND CONNECTING

- Do not deform housing and output pins
- Fragile components inside - no shocks, no drop
- Treat as electrostatic sensitive unit
- Power must be off during connecting
- Soldering to contacts by low-temperature solder
- Do not shield top cover from air flow to avoid overheating

MAIN PARAMETERS

◆ Rate range	230 deg/s
Scale Factor (SF)	6 mV/deg/s
Frequency range	0...0.1 kHz
Angle random walk	0.05 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)	6 g (RMS), 20Hz... 500Hz
Shocks (endurance)	40 g, 1 ms
Acceleration (operating)	5 g
Acceleration (endurance)	20 g, 5 s

RELIABILITY

MTBF	20000 hours (20°C, predicted)
Lifetime (predicted)	15 years

- ◆ Rate range (measurement) - grade 4.0 (linearity error - 4%)
- ◆◆ Rate range (indication) - 300 deg/s (min) (linearity error - 15%)

Выходной разъем PLS2-5

Contact	Name	Description
1	RS232 TXD	Digital output RS232
2	+ 5 V	Power input +5V ± 0.25V, 300mA max, ripple 10mV max within 0-1MHz
3	Service	Do not use
4	Service	Do not use
5	GND	Power return line, ground, electrically connected to the sensor's cover

- Ω - sensing axis, 90°± 1° to the reference plane
- Dissipation - 1.5 W
- Weight - 50 gram (approx.)
- Volume - 0.07 litre
- Housing material - plastic
- Cover material - aluminum alloy
- Cooling to air via metal cover
- Tolerances - ± 0.5 IT14