

FSD-TMR1005

Rotational Speed Sensor



DESCRIPTION

FSD-TMR1005 is a fast frequency response, low power consumption, moisture and water proof rotational speed sensor, incorporating high sensitivity tunneling magnetoresistive (TMR) sensor, signal processing circuit and stainless-steel housing. It is an ideal solution for industrial turbine meter and lobed impeller flow meter applications which requires low power consumption, fast frequency response and harsh operating environment.

FSD-TMR1005 rotational speed sensor measures the flow rate by detecting rotational velocity of turbine rotor in turbine meter or impeller in lobed impeller flow meter. It provides rotational velocity measurement and external magnetic field interference detection functions. FSD-TMR1005 outputs TTL digital square wave signal with the frequency proportional to the rotation speed. It also outputs alarm signal when detecting external magnetic field interference,

FEATURES AND BENEFITS

- Low power consumption ($I_{CC} \le 50 \mu A @ 5.0 \text{ Vdc}$)
- High frequency response (10 kHz)
- Stable TTL output (50% duty cycle)
- External magnetic field interference detection
- Harsh environment resistance
- Robust design, long life span
- Easy to install
- High accuracy, good stability

Page 1 of 4 Nov-19

FSD-TMR1005

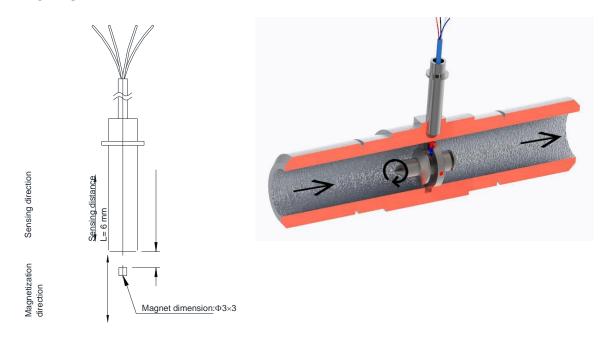
Rotational Speed Sensor



SPECIFICATIONS

Parameters	Value
Supply voltage	2.7 Vdc ~ 5 Vdc
Current consumption	≤50 μA
Operating magnetic field	OP~10 Gs, RP~ -5 Gs
Response frequency	0 Hz ~10 kHz
Output interface	TTL
Duty cycle	50% ± 20%
External magnetic field	High – No Interference
interference signal	Low – Interference detected
Operating temperature	-40 ~ 100 °C
Housing Dimensions	Customizable

APPLICATION EXAMPLE



PIN CONFIGURATION

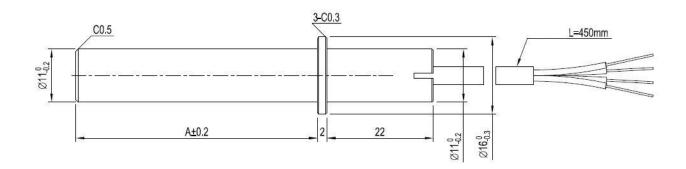
Red	Vdc+
Black	Vdc-
Blue	TTL signal
White	magnetic interference
	signal

Page 2 of 4 Nov-19

Rotational Speed Sensor



DIMENSIONS (mm)



ITEM	MODEL	Α
1	FSD_TMR1005_DN50	63
2	FSD_TMR1005_DN80	50
3	FSD_TMR1005_DN100	61
4	FSD_TMR1005_DN150	94
5	FSD_TMR1005_DN200	113



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Page 3 of 4 Nov-19

FSD-TMR1005

Rotational Speed Sensor

MultiDimension Technology Co., Ltd.

No.7 Guangdong Road, Zhangjiagang Free Trade Zone

Jiangsu, 215634, China

www.dowaytech.com/en

info@dowaytech.com





Page 4 of 4 Nov-19