

## DYN-G-6000 SERIES

Dynalabs MEMS based gyroscopes are designed by micro-mechanical silicon structures.



Gyroscopes are insensitive to external impacts and vibrations. For harsh environmental conditions Dynalabs gyroscopes are preferred. 6000 Series Uniaxial Gyroscopes feature a lightweight, reliable aluminum housing and they have an integrated cable with configurable length. They offer angular velocity ranges of  $\pm 75$ ,  $\pm 150$ ,  $\pm 300$  and  $\pm 900^\circ/\text{s}$ , ensuring versatile performance. Additionally, their IP68 protection class allows them to operate reliably in challenging environments.



### Features

- Proven and robust silicon MEMS gyro
- Analog voltage output
- High shock and vibration rejection
- Class-leading bias and noise over temperature
- Low noise – high resolution



### Applications

- Automotive in-car navigation
- GPS vehicle and personal navigation aiding
- Vehicle yaw, pitch and roll rate sensing
- Antenna stabilization
- Motion control

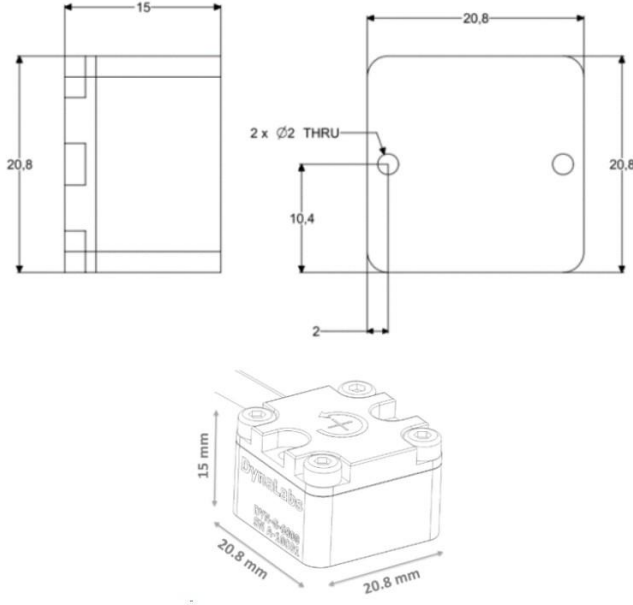
|                              |                                        | DYN-G-6075 | DYN-G-6150 | DYN-G-6300 | DYN-G-6900 |
|------------------------------|----------------------------------------|------------|------------|------------|------------|
| Frequency range              | ( $^\circ/\text{s}$ )                  | $\pm 75$   | $\pm 150$  | $\pm 300$  | $\pm 900$  |
| Non-linearity (full scale)   | (Hz)                                   | 0-150      | 0-150      | 0-150      | 0-150      |
| Noise (in band)              | (%)                                    | 0.06       | 0.06       | 0.06       | 0.06       |
| Scale factor (nominal)       | ( $^\circ/\text{s}/\sqrt{\text{Hz}}$ ) | 0.0075     | 0.0075     | 0.0075     | 0.0075     |
| Scale factor var. over temp. | ( $\text{V}/^\circ/\text{s}$ )         | 0.012      | 0.006      | 0.003      | 0.001      |
| Bias variation with temp.    | (%)                                    | 0.5        | 0.5        | 0.5        | 0.5        |
| Scale factor var. over temp. | ( $^\circ/\text{s}$ )                  | $\pm 1$    | $\pm 2$    | $\pm 3$    | $\pm 4$    |
| Shock survivability          | (g)                                    | 10,000     | 10,000     | 10,000     | 10,000     |



# DynaLabs

## UNIAXIAL GYROSCOPES

### DYN-G-6000 SERIES



#### OPTIONS:

- Custom Cable Length (5m standard cable)
- Custom Housing Material
- Custom Connector

#### CABLE CODE/PIN CONFIGURATION:

- Red : V+ Supply voltage 6V to 35V
- Black : Ground Power GND
- RX : Yellow : Gyro Signal Single-ended analog output voltage signal

Cable: 4x #28 AWG Conductors PFA Insulated, Braided Shield, TPE Jacket

| Protection Level | Operating Voltage | Operating Temperature | Weight (without cable)          | Housing Material  |
|------------------|-------------------|-----------------------|---------------------------------|-------------------|
| IP 68            | 6V - 35V          | -40 °C to +100 °C     | 12 g (aluminum)<br>25 g (steel) | Aluminum or Steel |



DYNALABS MUHENDISLIK LTD STI

Ostim OSB Mah. 100 Yıl Bulvarı Ostim  
No:55B/11 Yenimahalle 06374 Ankara  
TURKEY

Phone: +90 312 386 21 89

Mail: [dynalabs@dynalabs.com.tr](mailto:dynalabs@dynalabs.com.tr)

Web: [www.dynalabs.com.tr](http://www.dynalabs.com.tr)