

DYNAMICALLY TUNED GYROSCOPE

BEIJING AUTOMATION CONTROL EQUIPMENT INSTITUTE



• DTG-10



• DTG-06

Overview of product

As the earliest dynamically tuned gyro manufacturer in China, we have developed dynamically tuned gyro since 1970. With many years of development, our comprehensive technology level relating to dynamically tuned gyro is in leading position in the industry. It has a complete machining, assembly, and test production line of dynamically tuned gyro with perfect design, process and manufacturing technology.

Technical characteristics

Compared to other electromechanical gyros, dynamically tuned gyro has advantages such as few parts, no liquid support, no interference of friction torque, simple design of motor spin bearing, small volume, light weight, and quick preheating.

Field of application

Navigation guidance & positioning system, drilling orientation, geodetic survey, stabilized platform, and seeker control.

DYNAMICALLY TUNED GYROSCOPE

BEIJING AUTOMATION CONTROL EQUIPMENT INSTITUTE

TYPE	DTG-10	DTG-05	DTG-06	DTG-07
Performance				
Settling time (s)	<3	<5	<6	<30
Prepare time (min)	<0.5	<0.5	<0.5	9~12
Turn on drift (deg/h)	0.3 to 3	0.1 to 1	0.05 to 0.5	0.003 to 0.02
G-insensitive drift @20°C (deg/h)	0±300	0±15	0±35	0±3
G-sensitive drift (deg/h/g)	0±25	0±15	0±15	0±1
Scale factor (deg/h/mA)	>1400	>1400	>1200	85±20
Scale factor non-linearity (%)	≤0.07	≤0.1	≤0.1	≤0.05
Scale factor repeatability (%)	≤0.07	≤0.1	≤0.1	≤0.05
Temperature factor (ppm/°C)	<100	<100	<1200	<500
Operating range				
Measurement range (deg/s)	≥300	≥300	≥300	1
Operating temperature (°C)	-40 to +125	-40 to +80	-40 to +80	-40 to +80
Storage temperature (°C)	-55 to +125	-55 to +100	-55 to +100	-55 to +100
Shock (g)	750	350	70~150	30
Electrical				
Motor mode	two phases hysteresis	three phases hysteresis	three phases hysteresis	two phases hysteresis
Power (V)	24/12	12	15/10	19/11
Frequency (Hz)	800	750	400~600	480
Magnetism power (V)	5	5	2.5	2.5
Magnetism frequency (kHz)	43.2	20	20	19.2
Physical				
Dimensions (mm)	19x19x22	31x31x38.5	φ38x45.4	φ54x46
Mounting hole (mm)	φ19	φ30/φ28	φ35	φ47
Weight (grams)	25	120	300	300

BACEI

www.bacei.cn