

ER-DTG-E4 Strapdown Dynamically Tuned Gyroscope

Introduction

Strapdown Dynamically Tuned Gyroscope with advantages of high precision, long life time, wide dynamic range, and high reliability, now has been widely used in water surface and land strapdown system, fast true-north seeking instrument, helicopter light guidance platform, television antenna tracker, and so on. The gyroscope also can be used in spaceflight strapdown inertial system and the land, sea, aviation, spaceflight transporter strapdown and platform type attitude system.

Features

High precision;

Light weight;

Small volume;

High reliability.

Specifications

1	Random Drift (1σ)	$0.03^\circ/\text{h}$
2	Drift Stability (1σ)	$0.2^\circ/\text{h}$
3	g-independent	$\leq 12^\circ/\text{h}$
4	g-dependent	$\leq 3^\circ/\text{h}$
5	Frequency Response	$\geq 60\text{Hz}$
6	Power Supply (Three Phase)	500Hz 20V
7	Power Supply (Single Phase)	16KHz 7V
8	Synchronous Speed	10,000

9	Power for Start Up	5W
10	Operating Current	$\leq 3A$
11	Synchronizing Time	$\leq 20S$
12	Output Gradient	$21 \pm 2 \text{ mv/}^\circ$
13	Master torquer	$50 \pm 3 \Omega$
14	Vice control torquer	$2 \pm 0.5 \Omega$
15	Master torquer	$\geq 670^\circ/h/mA$
16	Vice control torquer	$\geq 10^\circ/h/mA$
17	Max. Tracking Speed	$\geq 60^\circ/s$
18	Output Non-linearity	$\leq 0.1\%$
19	Lifetime	≥ 5000
20	Operating Temperature	$-30 \sim +65^\circ C$
21	Shock Overload (8ms)	$\geq 50g$
22	Dimension	$\Phi 50 \times 76mm$
23	Mounting flanges	$52 \times 52mm$
24	Weight	$\leq 630g$