**3305A1 超小型加速度传感器**

|  |  |
| --- | --- |
| 灵敏度（±10%） | ±10 mV/g |
| 量程 | ±500 g |
| 重量 | 3.7 grams |
| 冲击 | 5000 g |
| 频响（±10%） | 0.3 - 5000 Hz |
| 温度 | -51 – 93 ℃ |
| 安装方式 | 黏贴 |
| 应用 | 机械手臂与全身振动测量，模态与结构分析，噪音、振动和不平顺性检测，通用振动测量 |

概述

IEPE是指一种自带电量放大器或电压放大器的加速度传感器。IEPE是压电集成电路的缩写。因为由加速度传感器产生的电量是很小的，因此传感器产生的电信号很容易受到噪声干扰，需要用灵敏的电子器件对其进行放大和信号调理。IEPE中集成了灵敏的电子器件使其尽量靠近传感器以保证更好的抗噪声性并更容易封装。

美国Dytran的3305A1是一款超小型加速度传感器/振动传感器，自带电量放大器，集成陶瓷应变片和超低噪的电子元器件。

The **Dytran 3305A1** is a lightweight miniature IEPE accelerometer offered with a sensitivity of 10 mV/g. The accelerometer incorporates a ceramic shear sensing element and ultra low noise JFET electronics, with materials housed in a highly durable 0.32-inch (8.1-millimeter) tall laser welded titanium housing weighing just 3.7 grams. The model **3305A1** features an adhesive mount and industry standard 10-32 radial connector.

特性

1. 10 mV/g sensitivity
2. 500g range
3. 0.3 to 5,000 Hz (±10%)
4. 10-32 radial connector
5. Adhesive mount
6. 3.7 grams
7. Titanium
8. Hermetic
9. Low noise JFET electronics
10. Miniature cubic design
11. IEPE

应用

1. Hand-arm and whole-body vibration measurements

机械手臂与全身振动测量

1. Modal and structural analysis

模态与结构分析

1. Noise, Vibration and Harshness (NVH)

噪音、振动和不平顺性检测

1. General purpose vibration measurements

通用型振动测量

参数

Weight 0.13 oz 3.7 grams

Size W x H x L .40 x .32 x .70 Inches 10 x 8.1x 17.8 mm

Connector Type 10-32 Coaxial 10-32 Coaxial

Material : Base, Cap and Connector Titanium Titanium

Sensitivity, ±5% [1] 10 mV/g 1.02 mV/m/s2

Range F.S for ± 5 Volts Output ±500 G's ±4905 m/s2

Frequency Response, ±5% 0.3 to 5000 Hz 0.3 to 5000 Hz

Resonant Frequency > 35 kHz > 35 kHz

Equivalent Electrical Noise Floor 0.001 Grms 0.010 m/s2 rms

Linearity [2] ± 1% % F.S. ± 1% % F.S.

Phase Response (±5°) 5 to 3000 Hz 5 to 3000 Hz

Maximum Transverse sensitivity 5 % 5 %

Strain Sensitivity 0.04 g/μσ 0.39 m/s2/μσ

ENVIRONMENTAL

Maximum Vibration ±600 Gpeak ±5886 m/s2 peak

Maximum Shock ±5000 Gpeak ±49050 m/s2 peak

Temperature Range -60 to+200 °F -51 to+93 °C

Seal, Hermetic Glass-to-metal/Welded Glass-to-metal/Welded

ELECTRICAL

Supply Current Range [3] 2 to 20 mA 2 to 20 mA

Compliance Voltage Range + 18 to +30 Volts +18 to +30 Volts

Output Impedence,Typ 100 Ω 100 Ω

Bias Voltage +11 to +13 VDC +11 to +13 VDC

Discharge Time Constant 1.5 to 2.5 Sec 1.5 to 2.5 Sec

配件

1. 4110C current source power unit, model 6273 petro mounting wax
2. 电缆线：6010A, 6011A, 6012A, 6016A, 6018A, 6022A, 6026A, 6032A, 6033A, 6049A, 6050A, 6051A, 6053A, 6054A, 6066A, 6069A, 6093A, 6099A, 6400A, 6401A, 6412A, 6429A, 6924A, 6930A, 6991A

相关型号

**3305A1 超小型**

**3305A2 超小型**

**3305A3 超小型**

尺寸

