CZ-044型三维过载传感器

CZ-044 Three-dimensional overload sensor

1.工作原理

CZ-044三维过载传感器是内装信号调节器的压阻式加速度传感器。压阻式加速度敏感元件设计为整体硅结构，由带多根梁的硅框架支撑一块经微细加工而成的硅质量块。当硅框架受加速度作用，由于惯性力硅块相对于框架运动时造成梁内的应力变化，从而使梁内的压敏电阻阻值发生变化，通过电桥转换为电压输出。

2.特点

传感器具有直流响应，零点输出稳定，横向灵敏度低，内置高阶低通滤波器，对不需要的高频加速度信号不响应等特点。

3.应用范围

应用于航天、航空等领域的遥测，还广泛应用于其它领域对过载、低频振动和冲击以及物体倾斜的测量。

1.working principle:

CZ-044 Three-dimensional overload sensor is piezoresistive type acceleration sensor with built-in signal regulator. Piezoresistive acceleration sensor element is designed with whole silicon structure, which is a piece of processed silicon block supporting by silicon framework with many beams. When silicon frame subjected to acceleration, stress variety make the value of piezoresistive change in the beam cased by inertia force silicon block relative to the inertial frame motion, Thus, the voltage conversion can be achieved by bridge.

2.characteristic:

Sensor has characteristics of dc response, zero output stability, low transverse sensitivity with the built-in high-order lowpass filter, there is no response to needless high frequency acceleration signal etc.

3.Application range：。

Applied to telemetering in the field of aerospace, aviation, etc, also widely used in other areas to measure vibration, impact of overload, low frequency and object tilt.