

ACC 1820-SxLx 系列

单轴加速度计

产品规格书

ACC 1820-SxLx Series

Uniaxial Accelerometer

Product Specification

产品规格书-中文.....	1
Product introduction-EN.....	4

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产品简介

单轴加速度计 ACC 1820-SxLx



ACC 1820-SxL1



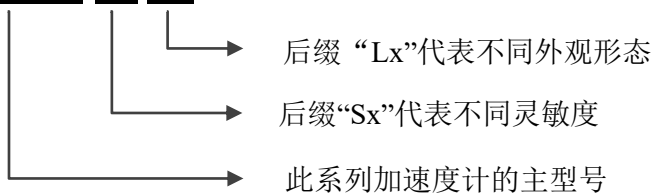
ACC 1820-SxL2

ACC 1820-SxLx系列加速度计是压电式加速度传感器，它内部自带了电荷放大器，采用压电陶瓷材料制造的敏感元件使其具有良好的性能，能够长期使用中保持足够的稳定性。

使用同轴电缆给此系列的传感器提供 2-10mA的恒流电源，同时输出信号也由这个同轴电缆输出，国际上通称为IEPE方式。

型号说明

ACC 1820-Sx Lx



例如：型号名称为“ACC 1820-S5L1”的加速度计对应的规格是ACC 1820系列的加速度计，灵敏度为100mV/g，外观形态为L1（侧端出线，内螺纹M5固定）的加速度计。

功能特点

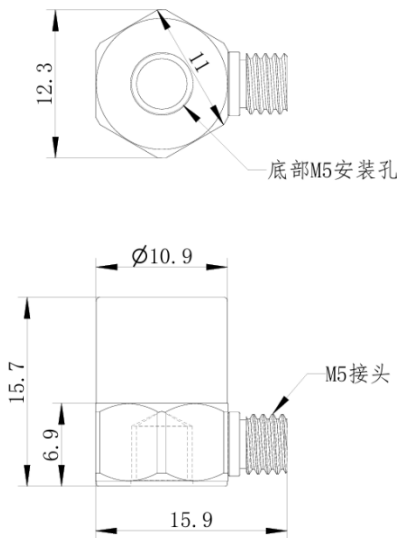
- IEPE供电型单轴加速度计，整体采用钛合金材质，重量轻，体积小
- 整体采用剪切结构设计，高带宽，高稳定性
- 应用于通用型振动测量、汽车NVH测试、电机类产品下线检测、模态试验等场景

规格参数

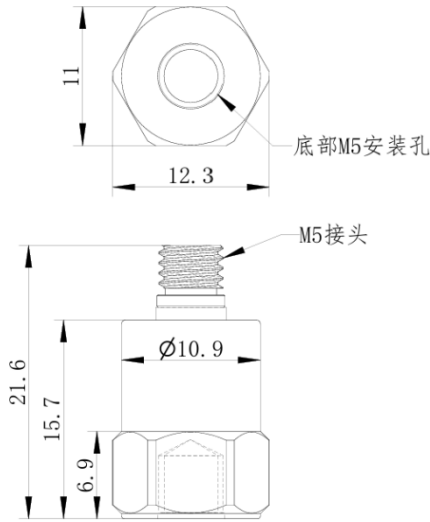
ACC 1820-SxLx 系列			
灵敏度等级		S3	S5
灵敏度		10mV/g (±10%)	100mV/g (±10%)
测量范围		±500g	±50g
频率范围		2Hz-8kHz (±5%) 0.5Hz-10kHz (±10%)	2Hz-8kHz (±5%) 0.5Hz-10kHz (±10%)
横向灵敏度		≤5%	≤5%
宽带分辨率		0.0001grms	0.0001grms
安装谐振频率		>40kHz	>40kHz
冲击抵抗		3000g	2000g
工作电压范围		+18~+28V	+18~+28V
工作电流范围		2mA~10mA (典型4mA)	2mA~10mA (典型4mA)
工作温度范围		-40°C ~ 120°C	-40°C ~ 120°C
宽带噪声		4000μg	550μg
频谱噪声	10Hz	300 (μg/√Hz)	63 (μg/√Hz)
	100Hz	75 (μg/√Hz)	20 (μg/√Hz)
	1000Hz	35 (μg/√Hz)	6.3 (μg/√Hz)
基座应变		0.002g/με	0.002g/με
磁灵敏度		1.5g/T	1.5g/T
敏感元件		压电陶瓷	
壳体材料		钛合金	
结构形式		剪切型	
重量		≤5.5g	
输出接口		M5	
输出接口位置		可选L1 (侧端出线) 或L2 (顶端出线)	
安装接口		底部M5内螺纹连接	
附件		M5连接螺栓	

尺寸与结构

单位: mm



L1形态外形尺寸



L2形态外形尺寸

建议搭配线缆订购信息

PN	型号	说明
730008-030	102C030	M5接头 转 BNC接头, 外径1.9mm蓝色PFA材质低噪声线缆, 噪音水平(pk-pk) ≤5mv, 耐高温250℃, 长度3.0m
730008-060	102C060	M5接头 转 BNC接头, 外径1.9mm蓝色PFA材质低噪声线缆, 噪音水平(pk-pk) ≤5mv, 耐高温250℃, 长度6.0m
730008-090	102C090	M5接头 转 BNC接头, 外径1.9mm蓝色PFA材质低噪声线缆, 噪音水平(pk-pk) ≤5mv, 耐高温250℃, 长度9.0m
730008-000	102C	M5接头 转 BNC接头, 外径1.9mm蓝色PFA材质低噪声线缆, 噪音水平(pk-pk) ≤5mv, 耐高温250℃, 可定制长度

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Product introduction

Uniaxial Accelerometer

ACC 1820-SxLx



ACC 1820-SxL1



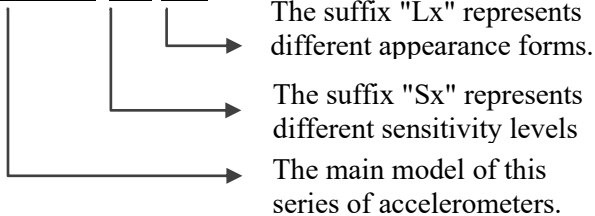
ACC 1820-SxL2

The ACC 1820-SxLx series accelerometers are piezoelectric acceleration sensors that integrate an internal charge amplifier. Their sensing elements, fabricated from piezoelectric ceramic materials, deliver robust performance and maintain sufficient stability over long-term operation.

Powered via coaxial cable with a constant current supply of 2-10 mA, these sensors output signals through the same cable—a configuration internationally recognized as the IEPE (Integrated Electronics Piezo-Electric) standard.

Model description

ACC 1820-Sx Lx



For example, the accelerometer with the model name "ACC 1820-S5L1" corresponds to the specifications of an ACC 1820 series accelerometer, featuring a sensitivity of 100mV/g and an appearance form of L1 (cable exit from the side, with an internal thread M5 for fixation).

Features

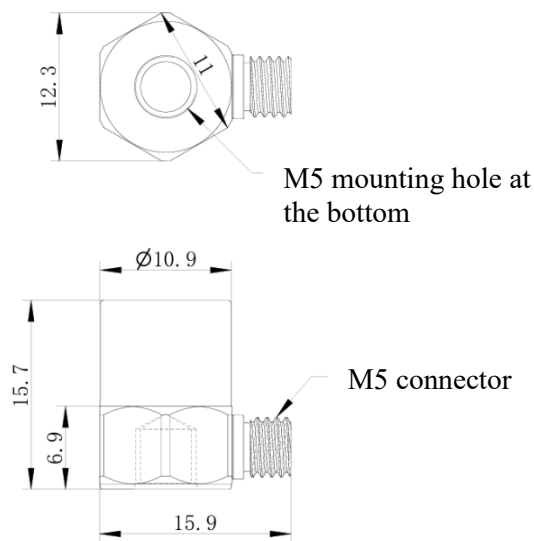
- IEPE-powered single-axis accelerometer, featuring a lightweight and compact design made entirely of titanium alloy
- Utilizes a shear-type structural design throughout, offering high bandwidth and high stability
- Suitable for applications in general vibration measurement, automotive NVH testing, end-of-line testing for motor products, modal testing, and other similar scenarios

Specifications parameters

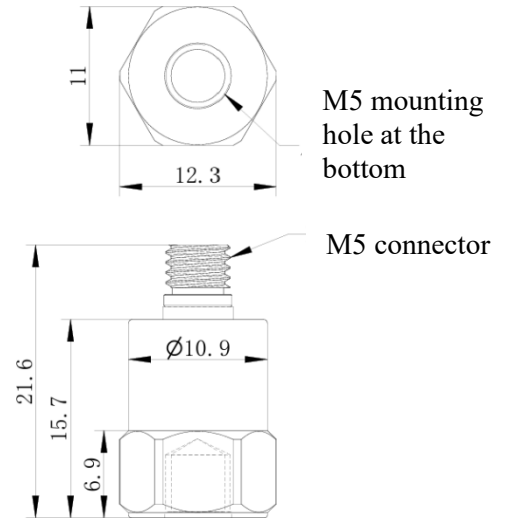
ACC 1820-SxLx serial			
Sensitivity class		S3	S5
Sensitivity		10mV/g (±10%)	100mV/g (±10%)
Measurement range		±500g	±50g
Frequency range		2Hz - 8kHz (±5%) 0.5Hz - 10kHz (±10%)	2Hz - 8kHz (±5%) 0.5Hz - 10kHz (±10%)
Transverse sensitivity		≤5%	≤5%
Broadband resolution		0.0001grms	0.0001grms
Mounted resonant frequency		>40kHz	>40kHz
Shock survival		3000g	2000g
Operating voltage range		+18~+28V	+18~+28V
Operating current range		2mA~10mA (typical 4mA)	2mA~10mA (typical 4mA)
Operating temperature range		-40°C~120°C	-40°C~120°C
Broadband noise		4000μg	550μg
Spectral noise	10Hz	300 (μg/√Hz)	63 (μg/√Hz)
	100Hz	75 (μg/√Hz)	20 (μg/√Hz)
	1000Hz	35 (μg/√Hz)	6.3 (μg/√Hz)
Base strain		0.002g/με	0.002g/με
Magnetic sensitivity		1.5g/T	1.5g/T
Sensing element		Piezoelectric ceramic	
Housing material		Titanium alloy	
Construction type		Shear-type	
Weight		≤5.5g	
Output interface		M5	
Output interface location		Optional L1 (side-terminal wiring) or L2 (top-terminal wiring)	
Mounting interface		Bottom M5 internal thread connection	
Accessories		M5 connecting bolt	

Dimensions and Structure

Unit: mm



L1 Physical dimensions and shape



L2 Physical dimensions and shape

Recommended cable specifications to match the dimensions

PN	Model	Description
730008-030	102C030	M5 Plug to BNC Plug,cable jacket diameter 1.9mm,blue PFA low noise cable,high temperature resistance 250°C, length 3.0m
730008-060	102C060	M5 Plug to BNC Plug,cable jacket diameter 1.9mm,blue PFA low noise cable,high temperature resistance 250°C, length 6.0m
730008-090	102C090	M5 Plug to BNC Plug,cable jacket diameter 1.9mm,blue PFA low noise cable,high temperature resistance 250°C, length 9.0m
730008-000	102C	M5 Plug to BNC Plug,cable jacket diameter 1.9mm,blue PFA low noise cable,high temperature resistance 250°C, Customizable length.

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