

# **SSA-P4SA3A**

**IEPE three axial center of the through-hole structure of the acceleration sensor**



### **PRODUCTS FEATURES**

- More integrated and compact built-in integrated circuits
- Titanium alloy housing, special three-axis through-hole design, isolated from ground
- All series use memory alloy fasteners, shear structure, stable and reliable
- Screw through-hole installation, convenient, fast, 360 ° arbitrary fixed
- 1/4-28 four-core integrated connector output, convenient and quick

# SSA-P4SA3A2

IEPE three axial center of the through-hole structure of the acceleration sensor

## 1. Performance parameters for SSA-P4SA3A2:

Table 1. Characteristics for SSA-P4SA3A2

Parameters	Value	Units
Sensitivity	10	mV/g
Measurement Range	±500	g
Frequency response ±5%	1~3000/ Z: 1~5000	Hz
Frequency response ±10%	0.5~4000/ Z: 0.5~6000	Hz
Magnitude linearity	≤1	%
Lateral Sensitivity	≤5	%
Installation of resonant frequency	≥20	kHz
Time constants	≤1	s
Resolution	0.001	grms
Base strain	0.001	g/ε
Hitting the Limits <sup>1</sup>	5000	gpK
Maximum vibration <sup>2</sup>	2000	grms
Sensitivity temperature coefficient	0.2	%/°C
Operating temperature	-50~120	°C
Constant voltage supply	20~30	VDC
Constant current supply	2~20	mA
Full-scale voltage	±5	V
Maximum over-range output	±6	V
DC bias	8~12	V
Output Impedance	≤100	Ω
Sensitive components	PZ27 Piezoelectric Ceramics	
Housing Material	Titanium alloy	
Seal form	Laser welding IP68	
Output connector	1/4-28 Four cores	
Mounting form	M5 through-hole	
Quality	14	g
Recommended mounting torque	3.0	N*m

Note: 1,2: refers to the sensor in the non-energized state, the mechanical structure is not damaged, and not the working state.

**2. Performance parameters for SSA-P4SA3A3:**
*Table 2. Characteristics for SSA-P4SA3A3*

Parameters	Value	Units
Sensitivity	20	mV/g
Measurement Range	±250	g
Frequency response ±5%	1~3000/ Z: 1~5000	Hz
Frequency response ±10%	0.5~4000/ Z: 0.5~6000	Hz
Magnitude linearity	≤1	%
Lateral Sensitivity	≤5	%
Installation of resonant frequency	≥20	kHz
Time constants	≤1	s
Resolution	0.0005	grms
Base strain	0.001	g/ε
Hitting the Limits <sup>1</sup>	3000	gpK
Maximum vibration <sup>2</sup>	1200	grms
Sensitivity temperature coefficient	0.2	%/°C
Operating temperature	-50~120	°C
Constant voltage supply	20~30	VDC
Constant current supply	2~20	mA
Full-scale voltage	±5	V
Maximum over-range output	±6	V
DC bias	8~12	V
Output Impedance	≤100	Ω
Sensitive components	PZ27 Piezoelectric Ceramics	
Housing Material	Titanium alloy	
Seal form	Laser welding IP68	
Output connector	1/4-28 Four cores	
Mounting form	M5 through-hole	
Quality	14	g
Recommended mounting torque	3.0	N*m

Note: 1,2: refers to the sensor in the non-energized state, the mechanical structure is not damaged, and not the working state.

**3. Performance parameters for SSA-P4SA3A5:**
*Table 3. Characteristics for SSA-P4SA3A5*

Parameters	Value	Units
Sensitivity	50	mV/g
Measurement Range	±100	g
Frequency response ±5%	1~3000/ Z: 1~5000	Hz
Frequency response ±10%	0.5~4000/ Z: 0.5~6000	Hz
Magnitude linearity	≤1	%
Lateral Sensitivity	≤5	%
Installation of resonant frequency	≥20	kHz
Time constants	≤1	s
Resolution	0.0002	grms
Base strain	0.001	g/ε
Hitting the Limits <sup>1</sup>	2000	gpK
Maximum vibration <sup>2</sup>	2000	grms
Sensitivity temperature coefficient	0.2	%/°C
Operating temperature	-50~120	°C
Constant voltage supply	20~30	VDC
Constant current supply	2~20	mA
Full-scale voltage	±5	V
Maximum over-range output	±6	V
DC bias	8~12	V
Output Impedance	≤100	Ω
Sensitive components	PZ27 Piezoelectric Ceramics	
Housing Material	Titanium alloy	
Seal form	Laser welding IP68	
Output connector	1/4-28 Four cores	
Mounting form	M5 through-hole	
Quality	15	g
Recommended mounting torque	3.0	N*m

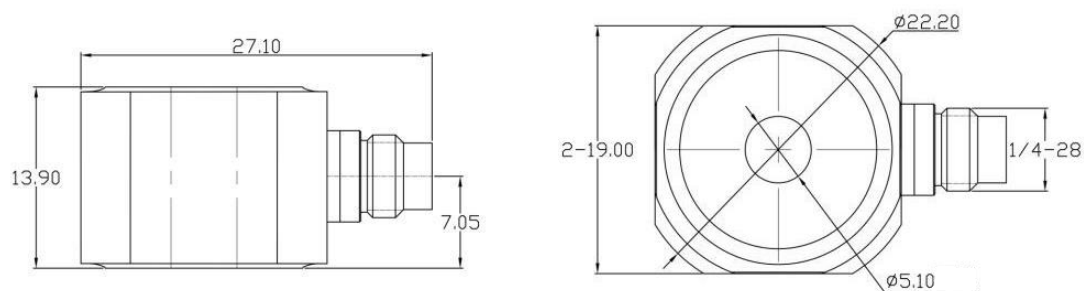
Note: 1,2: refers to the sensor in the non-energized state, the mechanical structure is not damaged, and not the working state.

**4. Performance parameters for SSA-P4SA3A6:**
*Table 4. Characteristics for SSA-P4SA3A6*

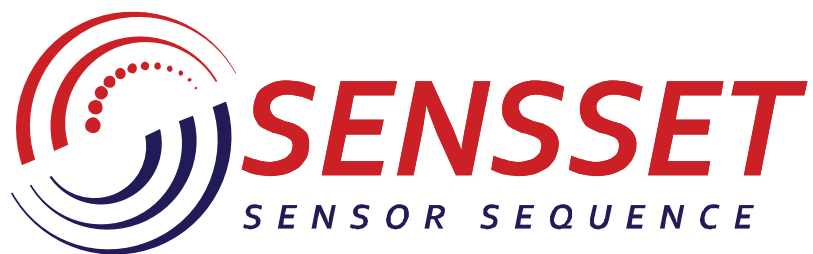
Parameters	Value	Units
Sensitivity	100	mV/g
Measurement Range	±50	g
Frequency response ±5%	1~3000/ Z: 1~5000	Hz
Frequency response ±10%	0.5~4000/ Z: 0.5~6000	Hz
Magnitude linearity	≤1	%
Lateral Sensitivity	≤5	%
Installation of resonant frequency	≥20	kHz
Time constants	≤1	s
Resolution	0.0001	grms
Base strain	0.001	g/ε
Hitting the Limits <sup>1</sup>	1000	gpK
Maximum vibration <sup>2</sup>	400	grms
Sensitivity temperature coefficient	0.2	%/°C
Operating temperature	-50~120	°C
Constant voltage supply	20~30	VDC
Constant current supply	2~20	mA
Full-scale voltage	±5	V
Maximum over-range output	±6	V
DC bias	8~12	V
Output Impedance	≤100	Ω
Sensitive components	PZ27 Piezoelectric Ceramics	
Housing Material	Titanium alloy	
Seal form	Laser welding IP68	
Output connector	1/4-28 Four cores	
Mounting form	M5 through-hole	
Quality	18	g
Recommended mounting torque	3.0	N*m

Note: 1,2: refers to the sensor in the non-energized state, the mechanical structure is not damaged, and not the working state.

**5. Mechanical dimensions**



**Figure 5.1.** Mechanical dimensions for SSA-P4SA3A



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