

SSA-P4HS1A

IEPE large sensitivity of the acceleration sensor



PRODUCTS FEATURES

- Built-in special micro-miniature circuit
- Large sensitivity design, can be used for bridge, tower crane and other institutions testing
- All series use memory alloy fasteners, shear structure, stable and reliable, can withstand greater impact damage
- 1/4-28 four-prong connector output

1. Performance parameters for SSA-P4HS1A1:
Table 1. Characteristics for SSA-P4HS1A1

Parameters	Value	Units
Sensitivity	500	mV/g
Measurement Range	±10	g
Frequency response ±5%	0.5~5000	Hz
Frequency response ±10%	0.3~6000	Hz
Magnitude linearity	≤1	%
Lateral Sensitivity	≤5	%
Installation of resonant frequency	≥32	kHz
Time constants	≥2	s
Resolution	0.00002	grms
Hitting the Limits ¹	5000	gpK
Maximum vibration ²	3000	grms
Sensitivity temperature coefficient	0.15	%/°C
Operating temperature	-40~80	°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	PZT5 Piezoelectric Ceramic	
Housing Material	Titanium alloy	
Seal form	Laser welding IP68	
Output connector	1/4-28	
Mounting form	M5	
Quality	37	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-P4HS1A2:
Table 1. Characteristics for SSA-P4HS1A2

Parameters	Value	Units
Sensitivity	500	mV/g
Measurement Range	±10	g
Frequency response ±5%	0.5~8000	Hz
Frequency response ±10%	0.3~10000	Hz
Magnitude linearity	≤1	%
Lateral Sensitivity	≤5	%
Installation of resonant frequency	≥32	kHz
Time constants	≥2	s
Resolution	0.00002	grms
Hitting the Limits ¹	5000	gpK
Maximum vibration ²	3000	grms
Sensitivity temperature coefficient	0.15	%/°C
Operating temperature	-40~80	°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	PZT-5 Piezoelectric Ceramic	
Housing Material	Titanium alloy	
Seal form	Laser welding IP68	
Output connector	1/4-28	
Mounting form	M5	
Quality	37	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-P4HS1A3:
Table 1. Characteristics for SSA-P4HS1A3

Parameters	Value	Units
Sensitivity	1000	mV/g
Measurement Range	±5	g
Frequency response ±5%	0.5~5000	Hz
Frequency response ±10%	0.3~6000	Hz
Magnitude linearity	≤1	%
Lateral Sensitivity	≤5	%
Installation of resonant frequency	≥32	kHz
Time constants	≥2	s
Resolution	0.00001	grms
Hitting the Limits ¹	1000	gpK
Maximum vibration ²	400	grms
Sensitivity temperature coefficient	0.15	%/°C
Operating temperature	-40~80	°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	PZT-5 Piezoelectric Ceramic	
Housing Material	Titanium alloy	
Seal form	Laser welding IP68	
Output connector	1/4-28	
Mounting form	M5	
Quality	37	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-P4HS1A4:
Table 1. Characteristics for SSA-P4HS1A4

Parameters	Value	Units
Sensitivity	1000	mV/g
Measurement Range	±5	g
Frequency response ±5%	0.5~8000	Hz
Frequency response ±10%	0.3~10000	Hz
Magnitude linearity	≤1	%
Lateral Sensitivity	≤5	%
Installation of resonant frequency	≥32	kHz
Time constants	≥2	s
Resolution	0.00001	grms
Hitting the Limits ¹	1000	gpK
Maximum vibration ²	400	grms
Sensitivity temperature coefficient	0.15	%/°C
Operating temperature	-40~80	°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	PZT-5 Piezoelectric Ceramic	
Housing Material	Titanium alloy	
Seal form	Laser welding IP68	
Output connector	1/4-28	
Mounting form	M5	
Quality	37	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

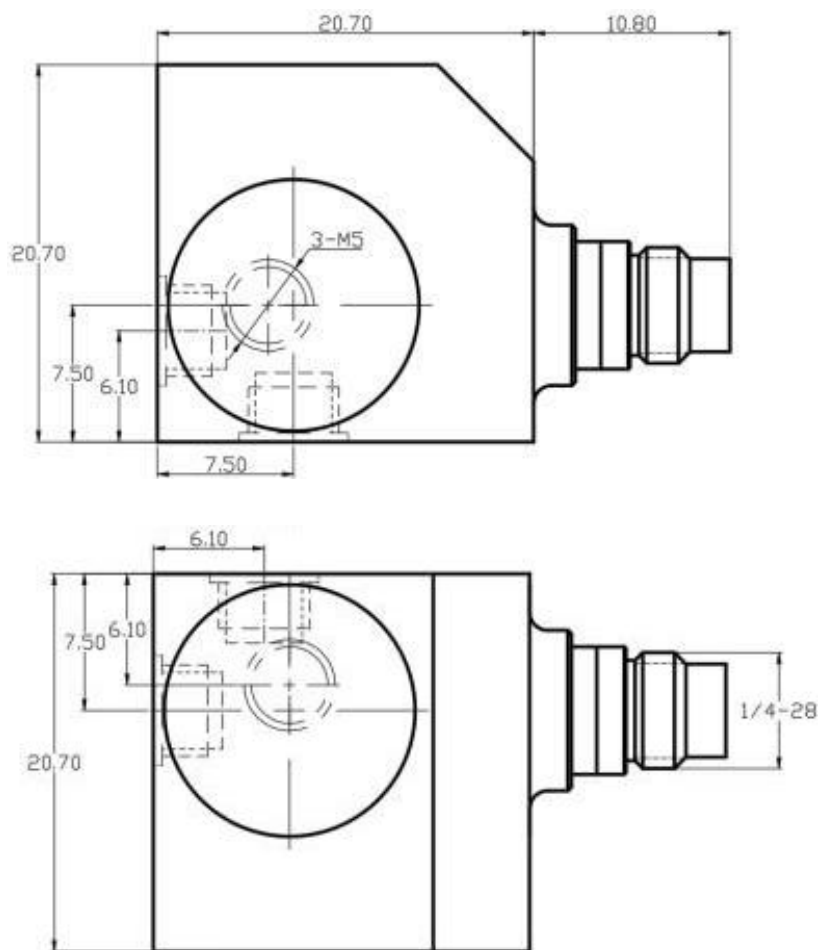
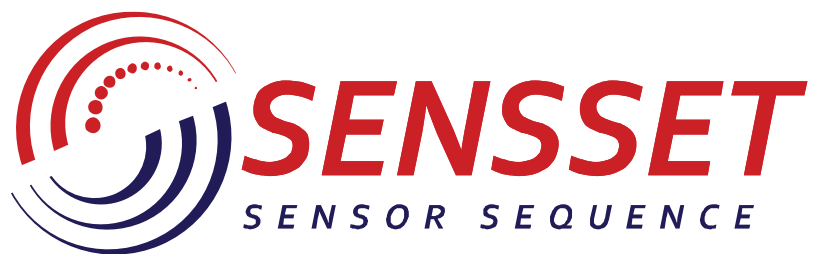


Figure 5.1. Mechanical dimensions for SSA-P4HS1A



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Development, production and supply of high-tech sensors