574P

High temperature PE accelerometer

Description

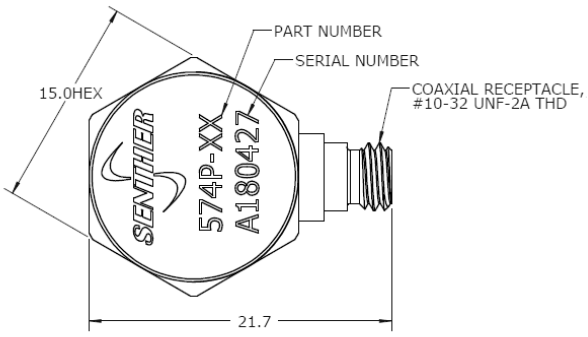
The model 574P is a high-level signal output piezoelectric accelerometer designed specifically for measuring high temperature vibration on structures and test purpose. The unit is hermetically sealed and ideal for use in extreme environments. This sensor is the industry standard for vibration/shock accelerometers. The model 574P features a 10-32 threaded mounting hole. The accelerometer is a self-generating device that requires no external power source for operation. Model 574P operating in annular shear mode. These specially designed crystals exhibit low base strain sensitivity, high resonance frequency, and excellent output stability over time. Signal ground is connected to the outer case of the unit. The accelerometer features a 10-32 side connector and requires a low-noise coaxial cable for error-free operation. Senther's model 11P-3 is a 10-32 to BNC breakout low noise cable for the sensor.

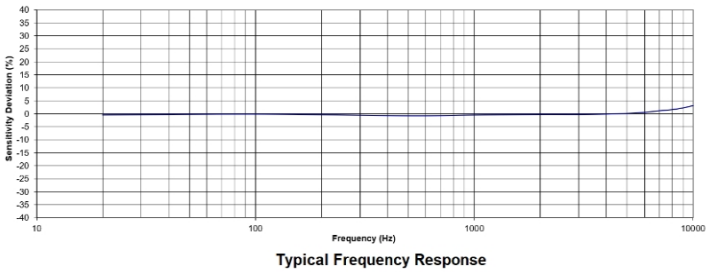
Features

- High sensitivity/resolution
- Side connector/cable
- Adhesive or stud mounting
- Hermetic seal
- Annular shear mode
- Wide frequency response

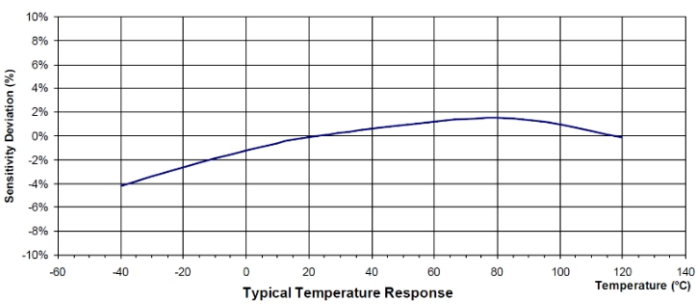
Application

- Engine research
- Shock testing
- Modal analysis
- Aircraft testing
- Auto exhaust system

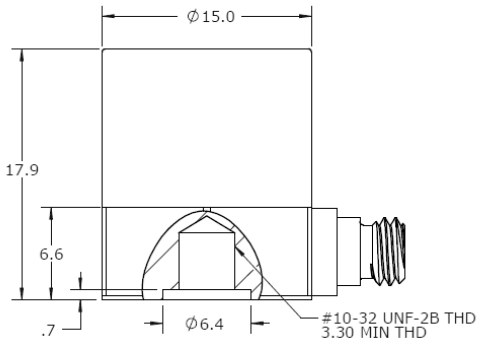




Typical Frequency Response



Typical Temperature Response



Specification

All values are typical at +24°C（+75°F）and 100Hz unless otherwise stated

DASH NO.	-50	-30	-20	-13	
SENSITIVITY, TYPICAL	50	30	20	13	pC/g
SENSITIVITY, MINIMUM	40	24	14.5	9.0	pC/g
FREQUENCY RESPONSE ±5%	1-4000	1-5000	1-6000	1-6500	Hz
FREQUENCY RESPONSE ±3dB	0.2-12000	.2-14000	0.2-15000	0.2-16000	Hz
RESONANT FREQUENCY	26	32	30	33	kHz
TRANSVERSE SENSITIVITY	<5	<5	<5	<5	%
TEMPERATURE RESPONSE, -70 to +260°C	±10	±10	±10	±10	%
LINEARITY	±1/1000g	±1/1000g	±1/1000g	±1/1000g	%FSO
DYNAMIC RANGE	±500	±800	±1250	±2000	g
SHOCK LIMIT	±5000	±5000	±5000	±5000	g

PARAMETERS	VALUE	UNITS
INTERNAL RESISTANCE (@100Vdc)	>10	GΩ
INTERNAL RESISTANCE @ +260ºC (+500ºF)	>10	MΩ
CAPACITANCE (NOMINAL)	1050	pF
GROUNDING	Case Grounded	
INSULATION RESISTANCE (@100Vdc)	>100	MΩ
OPERATING TEMPERATURE	-70 to +260	ºC
HUMIDITY	Hermetically Sealed	
MATERIAL (Casing)	Stainless Steel	
SENSING ELEMENT	Piezo Ceramic	
WEIGHT	19	Grams
MOUNTING TORGUE	18 (2.0)	lb-in(Nm)

Accessories

Calibration certificate included.

Part Number	Description	Availability
PM0231	Mounting stud 10-32 to 10-32 thread	One stud Included
PM0356	Mounting stud 10-32 to M5 thread	
MB0014	Magnet mounting adapter	Optional
PM0276	Adhesive mounting adapter	Optional
11P-3	3 meter low noise mating cable with 10-32(male) to BNC(male) connector	Optional
10P-3	3 meter low noise mating cable with 10-32(male) to 10-32(male) connector	Optional
IN-06	3 channels charge converter	Optional
IN-07	1 channel inline charge converter	Optional
IN-3062	8 channels data acquisition system	Optional

Measurement configuration

Sensor	Mating cable	Charge converter	BNC cable	Data acquisition	Computer
					

Ordering information

574	**P**	**-**	**13**	**-**	**A**
Model	Output signal	-	Typical sensitivity	-	Mounting stud
574	P=Charge output	-	13=13pC/g 20=20pC/g 30=30pC/g 50=50pC/g	-	A= 10-32 to 10-32 B= 10-32 to M5 C*=Special

SENTHER TECHNOLOGY Co., Ltd. • Skyworth innovation valley 5B-8F, Baoan, Shenzhen, 518108, China • Tel: 0755-85273639 • http://www.senther.com