measurement SPECIALTIES

ACH-01 Accelerometers

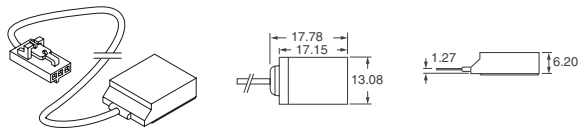
The ACH-01 Accelerometer is a robust, general purpose, linear single axis accelerometer featuring buffered electronic output.

Specifications:

• Sensitivity: 10mV/g **• Lower Frequency Limit (-3dB):** 2Hz **• Upper Frequency Limit (+3dB):** 20kHz **• Dynamic Range:** ±150g **• Linearity:** 0.1% **• Resonant Frequency:** 35kHz **• Operating Temperature:** -40°C ~ 85°C **• Maximum Shock Level:** 1000g

ACH-01-03 with Shielded Cable

Dimensions in mm



Description	Digi-Key Part No.	Price Each 1	10	100	Measurement Part No.
ACH-01-03 Sensor Accelerometer with 40" Single Coax Cable and Female Connector	MSP1001-ND	45.00	40.00	35.50	1-1001220-0
ACH-01-04 Sensor Accelerometer with Wires	MSP1002-ND	37.50	33.75	30.00	1-1001497-0

Amplifier Box

For use with ACH-01-03 and ACH-01-04

Characteristics: • Gain: 10X **• Power Supply:** 9V Battery **• Supply Current:** 4.0mA **• Input Interface:** FET for ACH-01 **• Output Impedance:** 100Ω **• Output Connector:** BNC

Description	Digi-Key Part No.	Price Each 1	10	100	Measurement Part No.
IB-ACH-01 — Amplifier Box	MSP1003-ND	250.00	225.00	202.50	0-1003058-0

Basic Design Kit

This kit demonstrates the use of MSI piezo film sensors as microphones, speakers, switches and acoustic pickups. All components and film samples in the kit can be used for experimentation.

Kit Includes: • Seven sensor elements **•** One piezo cable **•** One PCB for ACH-04-08 **•** Application/instruction specifications **•** Technical manual

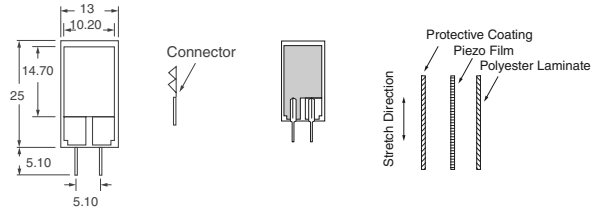
Description	Digi-Key Part No.	Price Each	Measurement Part No.
Basic Design Kit	MSP1010-ND	200.00	0-1004308-0

LDT Vibration Sensors

Typically, a 0.005" (125µm) polyester layer is laminated to a 28µm piezo film element. When used in a "bending" mode, laminated film elements develop much higher voltage output when flexed than non-laminated elements. The piezo film is off the neutral axis in the laminate, and is strained more when flexed.

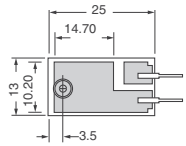
LDT0-028K High Sensitivity

Dimensions in mm

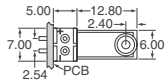


LDTM

Also available with a mass (M) which provides higher output (mv/g) for higher sensitivity applications.



MiniSense



Description	Cap (nF)	Digi-Key Part No.	Price Each 1	10	100	Measurement Part No.
LDT0-028K, with Solder Tabs	.500	MSP1006-ND	2.40	2.00	1.80	1002794-0
LDTM-028K, with Mass and Solder Tabs	.420	MSP1007-ND	2.85	2.38	2.14	0-1005447-1
MiniSense 100 (Horizontal)	—	MSP6914-ND	4.00	3.38	2.75	1005939-1
MiniSense 100 (Vertical)	—	MSP6915-ND	4.00	3.38	2.75	1005940-1

VTI TECHNOLOGIES

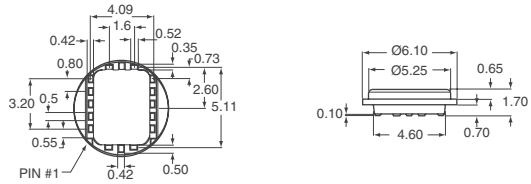
Pressure Sensors

The SCP1000 performs almost complete data processing on-chip. The communication between the SCP1000 and its host micro-controller (µC) is based on a serial interface, an interrupt line and specialized pins used to trigger special functions. Two different serial interfaces are available: SPI and TWI (TWI is very similar to I²C bus). The appropriate communication interface is pre-programmed in the factory.

The SCP1000 pressure demonstrator is designed to give a quick access and understanding on the performance and capabilities of the SCP1000 pressure component. The demo kit supports SCP1000-D01 and SCP1000-D11 sensors.

SCP1000 Demo Kit Includes: SCP1000-D01 sensor soldered on chip carrier PCB, USB interface card inside the demo box, USB cable, CD-ROM with documentation, drivers and GUI software running on PC

Dimensions in mm



Description	Supply Voltage	Average Supply Current (µA)	Measuring Range (kPa)	Temperature Range	Package	Digi-Key Part No.	Cut Tape Price Each 1	10	25	Digi-Key Part No.	Tape and Reel Qty.	Pricing	VTI Part No.
Absolute Pressure Sensor	2.4 ~ 3.3V	25	30 ~ 120	-20°C ~ 70°C	SPI Interface	551-1046-1-ND	29.73	28.32	26.97	551-1046-2-ND	100	2446.20	SCP1000-D01
Absolute Pressure Sensor	2.4 ~ 3.3V	25	30 ~ 120	-20°C ~ 70°C	I²C Interface	551-1043-1-ND	29.73	28.32	26.97	551-1043-2-ND	100	2446.20	SCP1000-D11
SCP1000-D01 on PCB	2.4 ~ 3.3V	25	30 ~ 120	-20°C ~ 70°C	SPI Interface	551-1042-ND†	57.08	56.06	55.04	—	—	—	SCP1000 PCB1
SCP1000-D11 on PCB	2.4 ~ 3.3V	25	30 ~ 120	-20°C ~ 70°C	I²C Interface	551-1044-ND†	57.08	56.06	55.04	—	—	—	SCP1000 PCB3
Sealing Gasket for SCP1000 Series Sensors						551-1049-ND	.40	.23	.19	—	—	—	SCP1000 GA/1K
Demo Kit for SCP1000						551-1045-ND	407.70	—	—	—	—	—	SCP1000-D01 DEMO

† Bulk

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