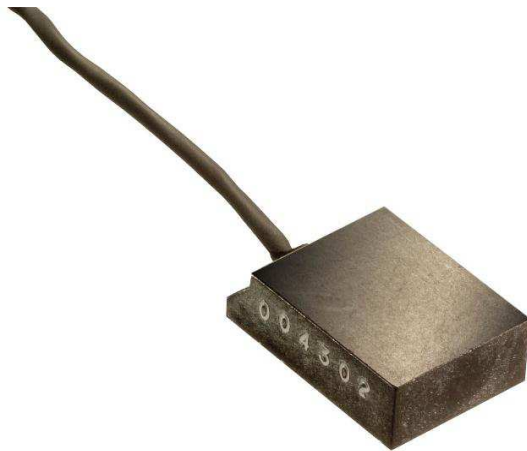
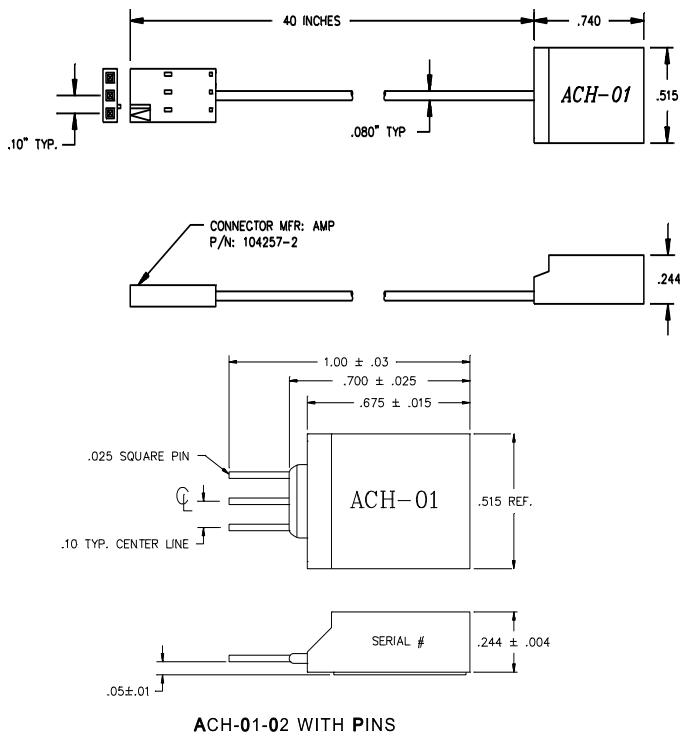


ACCELEROMETER ACH-01



dimensions



SPECIFICATIONS

- ✦ Piezoelectric Accelerometer
- ✦ Wide Bandwidth; AC Coupled
- ✦ Ultra Low Power
- ✦ High G Ranges

The **ACH-01** is an inexpensive, general purpose accelerometer with outstanding performance characteristics. The use of piezoelectric polymer film in the ACH-01 provides many cost/performance advantages that allow it to be used in a wide range of applications where the use of traditional accelerometer technology is impractical. It is specifically designed for high volume applications which require the permanent installation of an accelerometer.

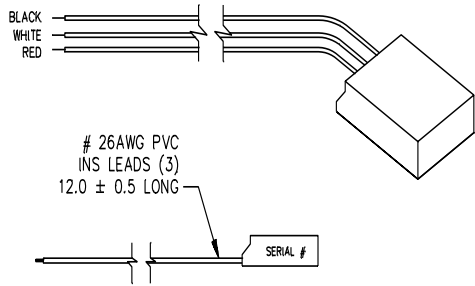
FEATURES

- ✦ Wide Frequency Response
- ✦ Excellent Phase Response
- ✦ Small Temperature Dependence
- ✦ Wide Supply Voltage Range
- ✦ Excellent Linearity
- ✦ Very High Resonant Frequency
- ✦ Wide Dynamic Range
- ✦ Low Transverse Sensitivity
- ✦ Wide Temperature Range
- ✦ Low Impedance Output
- ✦ Ultra Low Power

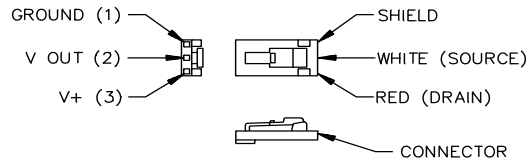
APPLICATIONS

- ✦ Machine Health Monitoring
- ✦ Model Analysis
- ✦ Automotive Sensors
- ✦ Appliances
- ✦ Feedback Control Systems

ACCELEROMETER ACH-01



ACH-01-04 WITH WIRES



CONNECTOR DETAIL

PERFORMANCE SPECIFICATIONS

PERFORMANCE (T=25°C)	Symbol	Min	Typ	Max	Units
Sensitivity	M_o	7	9	11	mV/g
Lower Frequency Limit (1)	f_l	--	2	5	Hz
Upper Frequency Limit(1)	f_u	10	20	--	kHz
Equivalent Noise Floor					$f/g/\sqrt{Hz}$
10Hz		--	130	--	
100Hz		--	20	--	
1kHz		--	6	--	
Dynamic Range	--	≥ 150	--	--	g
Linearity	--	--	0.1	1.0	%
Transverse Sensitivity	M_t	--	2.0	5	%
Resonant Frequency	f_o	--	35	--	kHz
Phase Deviation ($\geq 5^\circ$ Limit)(6)	θ	10	--	10	kHz
Drain Voltage (6)	V+	3	--	40	Volts
Supply Current (6)	I_{dss}	30	--	90	μA
Output Impedance (6)	--	--	20	--	k Ω
ENVIRONMENTAL CHARACTERISTICS					
Operating Temperature (2)	T_o	-40	--	85	°C
Storage Temperature	T_s	-40	--	85	°C
Maximum Shock Level	A_m	1000	--	--	g
Base Strain Sensitivity (3)	--	--	0.3	--	g/ $\mu\epsilon$
Transient Temp Sensitivity (4)	--	--	0.35	--	g/°C
PHYSICAL CHARACTERISTICS					
Weight (5) Cable	W	--	8	--	grams

(1) ≥ 3 dB limit
 (2) ≥ 2 dB from nominal M_o at 1kHz
 (3) @ 250 $\mu\epsilon$ in base plane
 (4) @ 3Hz LLF
 (5) Includes 40" cable and connector
 (6) Typical Value

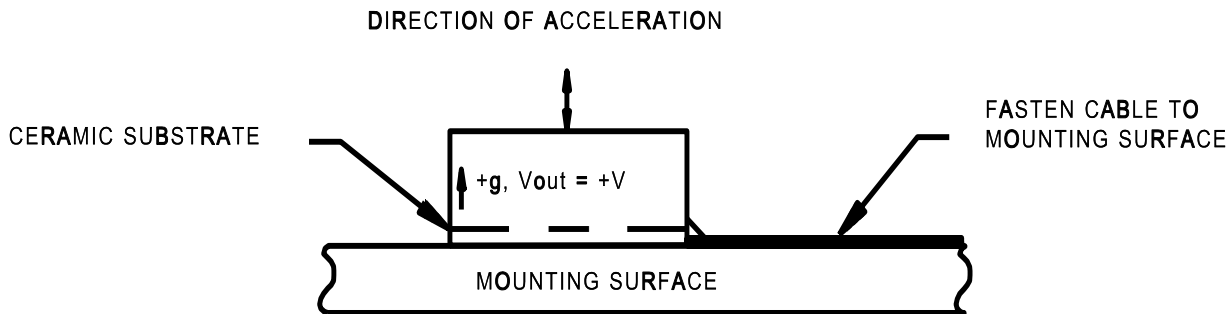
ACCELEROMETER ACH-01

Mounting methods play a critical role in determining the overall performance of any accelerometer. The ACH-01 is no exception. An improperly mounted accelerometer can give erroneous results. We recommend using an Adhesive Mounting Method.

The surface should be flat. The area where the ACH-01 is to be mounted should be thoroughly cleaned to remove any dirt or oil present on the surface. Use a quick setting, viscous methyl cyanoacrylate adhesive such as Loctite's Black Max[™] or any epoxy such as Devcon's 5-Minute epoxy. Apply the adhesive sparingly to one surface following the manufacturer's directions. Apply pressure and allow the adhesive to set. Soft adhesives, such as double-sided tape or pressure sensitive adhesives, should not be used since they can adversely affect the ACH-01's performance. Cable should be adhered to the surface.

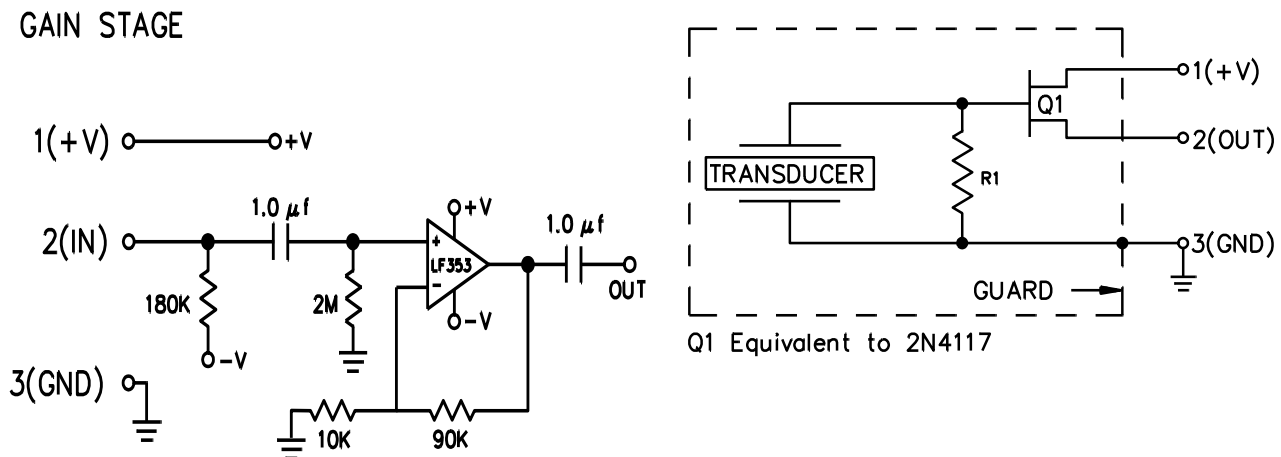
There is an interface amplifier available to simplify connection to the ACH-01, the IB-ACH-01. Please see the appropriate data sheet.

In an effort to keep the product cost low, the ACH-01 uses a ceramic substrate as the mounting base. Because of this, the ACH-01 is susceptible to base strain and temperature transient effects. A mechanically rigid and thermally non-conductive mounting surface is highly recommended to limit these effects. MEAS application engineers are available to recommend various mounting arrangements for your specific application.



ELECTRICAL INTERFACE CIRCUITS

The accelerometer ACH-01 accommodates various electrical interface circuits. A typical example is provided in the following figure. The ACH-01 equivalent electrical schematic is also shown.



ACCELEROMETER ACH-01

The information in this sheet has been carefully reviewed and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Furthermore, this information does not convey to the purchaser of such devices any license under the patent rights to the manufacturer. Measurement Specialties, Inc. reserves the right to make changes without further notice to any product herein. Measurement Specialties, Inc. makes no warranty, representation or guarantee regarding the suitability of its product for any particular purpose, nor does Measurement Specialties, Inc. assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Typical parameters can and do vary in different applications. All operating parameters must be validated for each customer application by customer's technical experts. Measurement Specialties, Inc. does not convey any license under its patent rights nor the rights of others.

ORDERING INFORMATION

Description	Interface	Model No.	Part No.
Accelerometer	Pins	ACH-01-02	0-1000985-0
	Shielded Cable	ACH-01-03	1-1001220-0
	Discrete Wires	ACH-01-04	1-1001497-0
Amplifier	Amplifier Box	IB-ACH-01	1003058

NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
Tel: +1-800-522-6752
Email: customercare.dtmtd@te.com

EUROPE

MEAS Deutschland GmbH
a TE Connectivity Company
Tel: +49-800-440-5100
Email: customercare.dtmtd@te.com

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
Tel: +86 0400-820-6015
Email: customercare.chdu@te.com

TE.com/sensorsolutions

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2015 TE Connectivity Ltd. family of companies All Rights Reserved.

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9