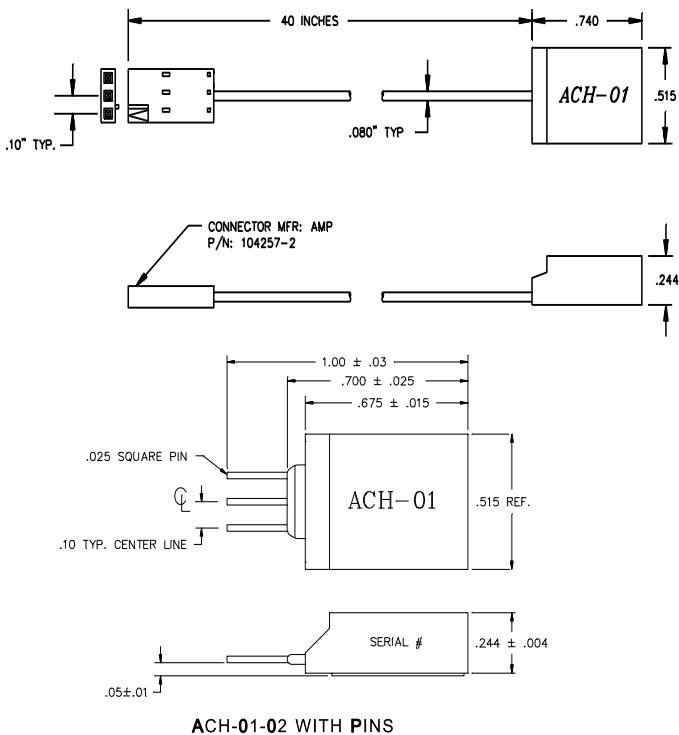


ACCELEROMETER ACH-01



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.

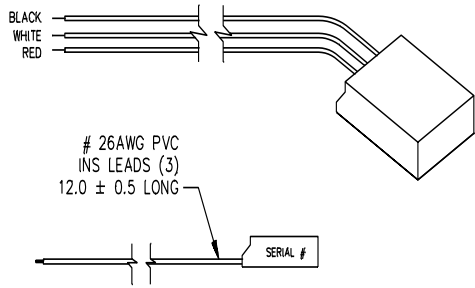
FEATURES

- 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

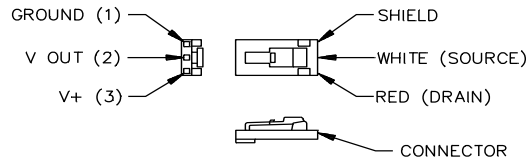
APPLICATIONS

- 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=25EC)	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					
10Hz		--	130	--	$\mu g/\sqrt{Hz}$
100Hz		--	20	--	
1kHz		--	6	--	
Dynamic Range	--	$\nabla 150$	--	--	g
Linearity	--	--	0.1	1.0	%
Transverse Sensitivity	M_t	--	2.0	5	%
Resonant Frequency	f_o	--	35	--	kHz
Phase Deviation ($\nabla 5E$ 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	EC
Storage Temperature	T_s	-40	--	85	EC
Maximum Shock Level	A_m	1000	--	--	g
Base Strain Sensitivity (3)	--	--	0.3	--	$g/\mu\epsilon$
Transient Temp Sensitivity (4)	--	--	0.35	--	g/EC

PHYSICAL CHARACTERISTICS

Weight (5) Cable	W	--	8	--	grams
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(1) $\nabla 3$ dB limit

(2) $\nabla 2$ 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

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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
1000 Lucas Way
Hampton, VA 23666
Sales and Customer Service
Tel: +1-800-745-8008 or
+1-757-766-1500
Fax: +1-757-766-4297
t&m@meas-spec.com

EUROPE

MEAS France SAS
a TE Connectivity Company
26 Rue des Dames
F78340 Les Clayes-sous-Bois
France
Sales and Customer Service
Tel: +33 (0) 1 79 33 00
Fax: +33(0)1 34 81 03 59
t&m@meas-spec.com

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
No. 26 Langshan Road
Shenzhen High-Tech Park (North)
Nanshan District, Shenzhen 518057
China
Sales and Customer Service
Tel: +86 755 3330 5088
Fax: +86 755 3330 5099
t&m@meas-spec.com

TE.com/sensorsolutions

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