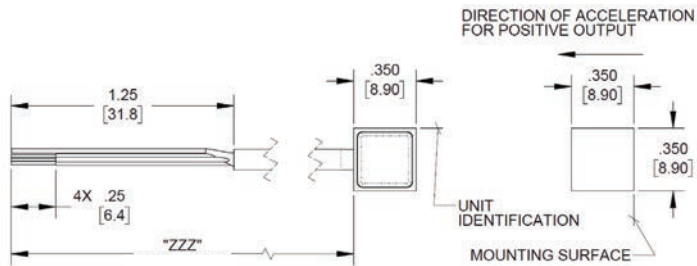
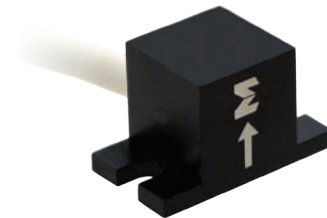
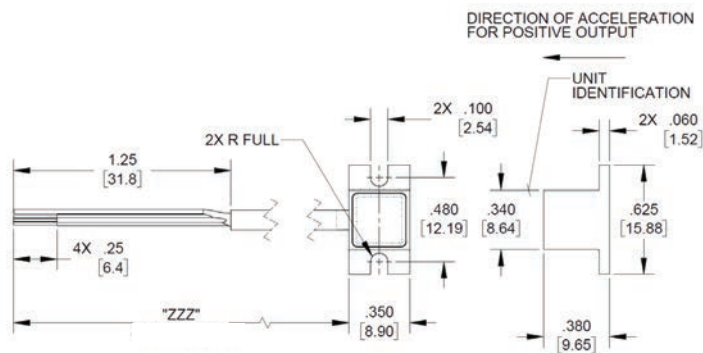


# Piezoresistive accelerometer

## Model 701AH - 701FH



701AH



701FH

### Key features

- High sensitivity, 0.3mV/g
- Multi-mode gas damping
- Flat frequency response
- Rugged housing and cable with 28 AWG conductors
- Survives up to 10,000 g's shock

### Description

The Endevco® Model 701AH and 701FH are very low mass accelerometers weighing less than 2 grams. These accelerometers are designed for crash testing and similar applications that require minimal mass loading and broad frequency response.

The Model 701AH and 701FH use a unique micro-machined, piezoresistive sensor with gas damping. This monolithic sensor incorporates the latest MEMS technology for ruggedness, stability and reliability. The accelerometer has a four active arm, full bridge circuit. Full-scale output is 600 mV nominal with 10 Vdc excitation. With a frequency response extending down to dc (steady state acceleration), this accelerometer is ideal for measuring long duration transient shocks.

The Model 701AH is designed for adhesive mounting for ultimate flexibility when mounting. The Model 701FH is designed for screw mounting with the provided screws.

U.S. Patent 6,988,412 applies.

## Piezoresistive accelerometer | Model 701AH - 701FH

All specifications are referenced at +75°F (+24°C) and 10 Vdc, unless otherwise noted. Calibration data, traceable to National Institute of Standards and Technology (NIST), is supplied.

Specifications		
Dynamic characteristics	Units	-1K
Range	g	± 1,000
Sensitivity (at 100Hz and 10g)		
Minimum/Nominal/Maximum	mV/V/g	.015 / .030 / .060
Frequency response (Referenced to 100 Hz)		
± 5% maximum	Hz	0 to 4,000
Non-linearity	%	±1
Zero measurand output (max)	mV	±50
Transverse sensitivity	%	3
Thermal zero shift (typ)		
0° to 50°C	%FSO/°C	0.02
32° to 122°F	%FSO/°F	0.01
Thermal sensitivity shift (typ)		
0° to 50°C	%/°C	0.2
32° to 122°F	%/°F	0.1
Electrical characteristics		
Excitation	Vdc	2.0, 5.0, 10.0
Resistance		
Input	ohms	6,500 ± 2,000
Output	ohms	6,500 ± 2,000
Insulation resistance	Mohms	100 min at 50 Vdc
Physical characteristics		
Case material		Anodized aluminum with stycast fill, black
Electrical connections		Integral 4 conductor, # 28 AWG, Teflon insulated leads shielded with white polyurethane jacket
Mounting		
701AH		Adhesive
701FH		#2-56 socket head cap screws
		3.5 in-lbf (0.40 N.m) recommended/4.0 in-lbf (0.45 N.m)
Weight		
701AH		0.05 oz (1.4 gm); cable 0.2 oz/ft (19 gm/m), typical
701FH		0.06 oz (1.7 gm); cable 0.2 oz/ft (19 gm/m), typical
Environmental characteristics		
Acceleration limits		
Shock (half-sine pulse duration)		10,000 g, 80 µsec or longer
Temperature		
Operating		- 40°C to + 100°C (-40°F to + 212°F)
Storage		Room temperature
Humidity		IP67
Calibration data		
Frequency response		10 g, 20 to 4,000, ref 100 Hz
Sensitivity		10 g, 100 Hz at 2, 5 and 10 V
ZMO		At 2, 5 and 10 V
Input and output resistance		

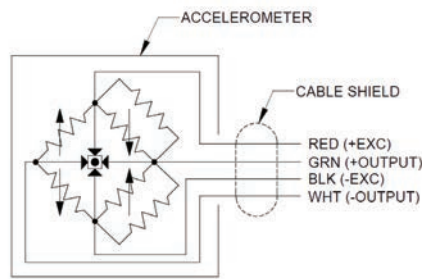
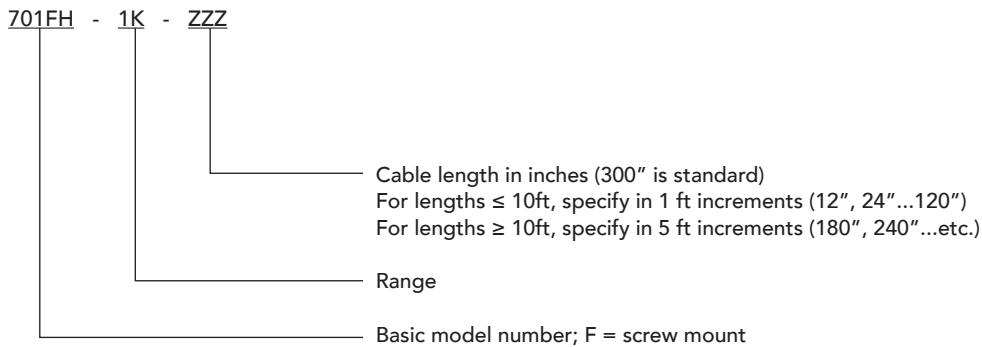
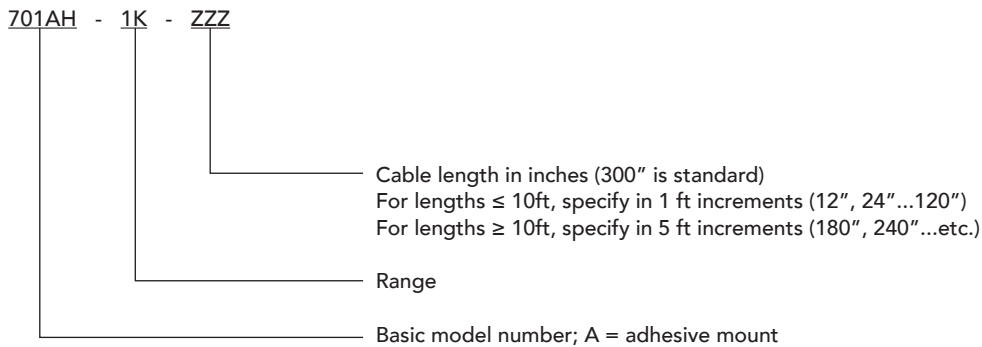
# Piezoresistive accelerometer | Model 701AH - 701FH

Accessories		
Product	Description	701AH-701FH
EH136	Screw, socket head, 2-56 x ¼ alloy steel blk oxide (x2)	Included with 701FH
EHM178	Allen wrench, 5/64, (x1)	Included with 701FH

## Notes

1. Maintain high levels of precision and accuracy using Endevco's factory calibration services. Call Endevco's inside sales force at 866-ENDEVCO for recommended intervals, pricing and turn-around time for these services as well as for quotations on our standard products.

2. Model number definitions:



SCHMATIC

STANDARD TOLERANCE  
 INCHES [MILLIMETERS]  
 .XX = ± .02 [X = ± .5]  
 .XXX = ± .010 [XX = ± .25]

[www.endevco.com](http://www.endevco.com) | Tel: +1 (866) ENDEVCO [+1 (866) 363-3826] | 10869 NC-903, Halifax, NC 27839 USA



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