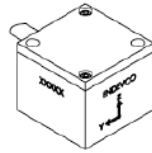
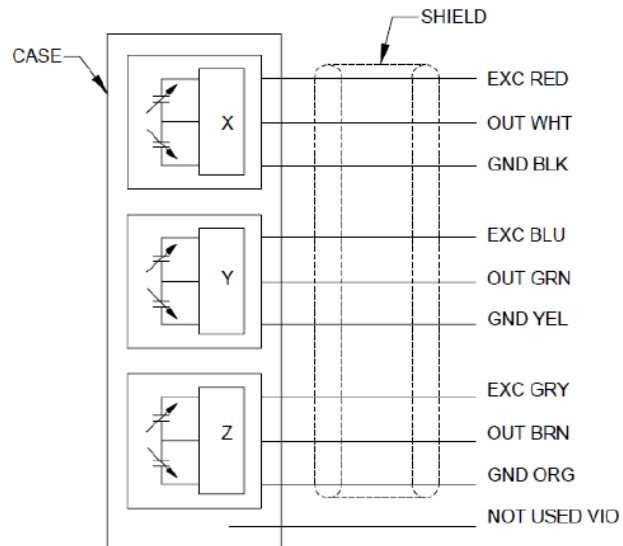
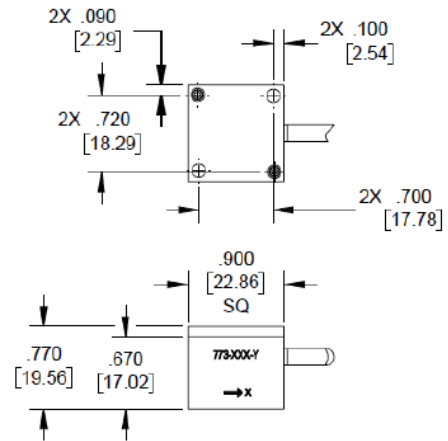


Triaxial low g DC accelerometer

Model 773



ISOMETRIC VIEW
FOR REFERENCE ONLY



SCHEMATIC

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

SOL

Key features

- 2, 10, 30, 50, 100 and 200 g ranges
- Each axis has separate power and ground
- Frequency response from DC up to 2,000 Hz
- Rugged housing and cable
- Operating temperature from -40° C to 100°C

Description

The ENDEVCO® Model 773 is a triaxial low g DC accelerometer that utilizes unique variable capacitance microsensors. This accelerometer is designed for measurement of relatively low level accelerations in automotive ride quality, motorsports and high speed rail applications where measurement of whole body motion immediately after the accelerometer is subjected to a shock motion and in the presence of severe vibrational inputs is required.

The 773 accelerometer is available with a choice of two power options. One option (U) allows for operation from 7V to 36V. The second option (R) allows for operation at a regulated excitation voltage of 5V. The accelerometer provides single-ended output with a 2.5V output bias voltage.

Triaxial low g DC accelerometer

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Specifications

All specifications assume +75°F (+24°C) unless otherwise stated. Calibration voltage for -R units is 5Vdc and for -U units is 15 Vdc.

Dynamic Characteristics	Units	-2	-10	-30	-50	-100	-200
Range	g	±2	±10	±30	±50	±100	±200
Sensitivity	mV/g	1000	200	66	40	20	10
		±50	±10	±4	±2	±1.0	±1.0
Frequency response (±5%, ref 100 Hz) typical	Hz	0-200	0-750	0-750	0-750	0-1000	0-1000
Frequency response (±1dB, ref 100 Hz) max	Hz	0-300	0-1500	0-2000	0-2000	0-2000	0-2000
Frequency response (±3dB, ref 100 Hz) typical	Hz	0-550	0-2500	0-2800	0-2800	0-5000	0-5000
Zero measurand output	mV	2500	2500	2500	2500	2500	2500
		±50	±50	±50	±50	±50	±50
Transverse sensitivity	%	3.0	3.0	3.0	3.0	3.0	3.0
Thermal zero shift (max)	%FSO [1]	±2.0	±2.0	±2.0	±2.0	±2.0	±2.0
-40°C to +100°C (-40°F to 212°F)							
Thermal sens shift (max)	%	±2.0	±2.0	±2.0	±2.0	±2.0	±2.0
-40°C to +100°C (-40°F to +212°F)							
Combined non-linearity (BFSL) and hysteresis	%FSO	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5
Natural frequency, typ	Hz	1300	2700	5500	5500	9800	9800
Threshold (resolution) [2]	equiv. g's.	.0002	.001	.003	.005	.01	.02

Electrical

Excitation voltage		5 Vdc
For option "R" supply voltage		7 to 36 Vdc
For option "U" supply voltage		
Current drain		8mA max each axis, 24 mA max total
Output impedance		100 ohms max
Load		10K ohms resistance minimum
		50 pF capacitance maximum
Residual noise		50 µVrms typ, 100 uVrms max; 0.5 to 100 Hz
		500 µVrms typ, 1.0 mVrms max; 0.5Hz to 10 kHz
Input voltage protection		Reverse polarity protected (for "U" option only)
Insulation resistance		100 Meg Ohms minimum at 50 Vdc
Case to leads shorted together		
Shield to leads shorted together		

Physical

Weight (typical)	24 grams (without cable) plus cable at 20 grams/meter
Case material	Anodized aluminum alloy.
Cable type	Integral 10 conductor, # 28 AWG PVC insulated leads, Shielded with black PVC jacket.
Mounting/torque	Mounting 2x #4 or M3 Screws / 6 lb-in (0.7 N-m)

Environmental

Shock limit	10000g (0.15 mS haversine pulse)
Temperature	
Operating Range	-40°F to +212°F (-40°C to +100°C)
Storage Range	-40°F to +212°F (-40°C to +100°C)
Humidity	IP67

Calibration data

Sensitivity	Measured at 1g and 100 Hz for the -2 Measured at 10 g and 100Hz for the -10, -30, -50, -100 and -200
Frequency response	Measured at 1g, 20 to 1000 Hz for the -2 Measured at 10 g, 20 to 10000 Hz for the -10, -30, -50,-100 and -200
Zero measurand output	Measured at room temperature

Triaxial low g DC accelerometer

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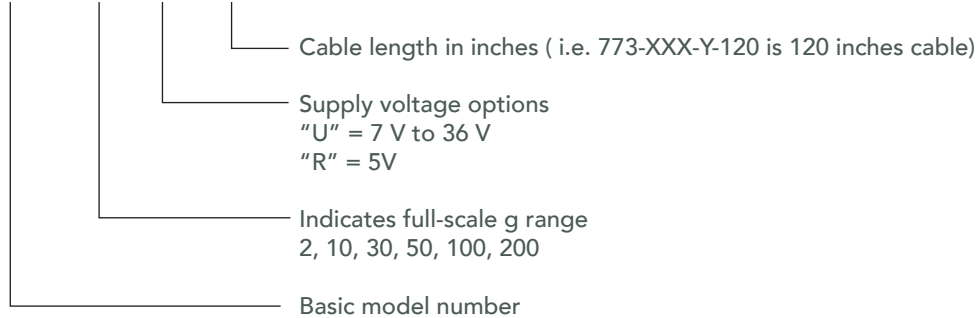
Accessories

Product	Description	773
EH864	4-40 Socket Head Cap Screw, 1" length, 2x	Included
EHW289	Washer, 2x	Included

Notes

1. Full scale output (FSO) is nominally 4 volts
2. Threshold = [2x Max residual noise, .5 to 100Hz] / sensitivity
3. Model number definition:

773 - XXX - Y - ZZZ



Ordering information

1. Maintain high levels of precision and accuracy using Meggitt's factory calibration services. Call Meggitt'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.