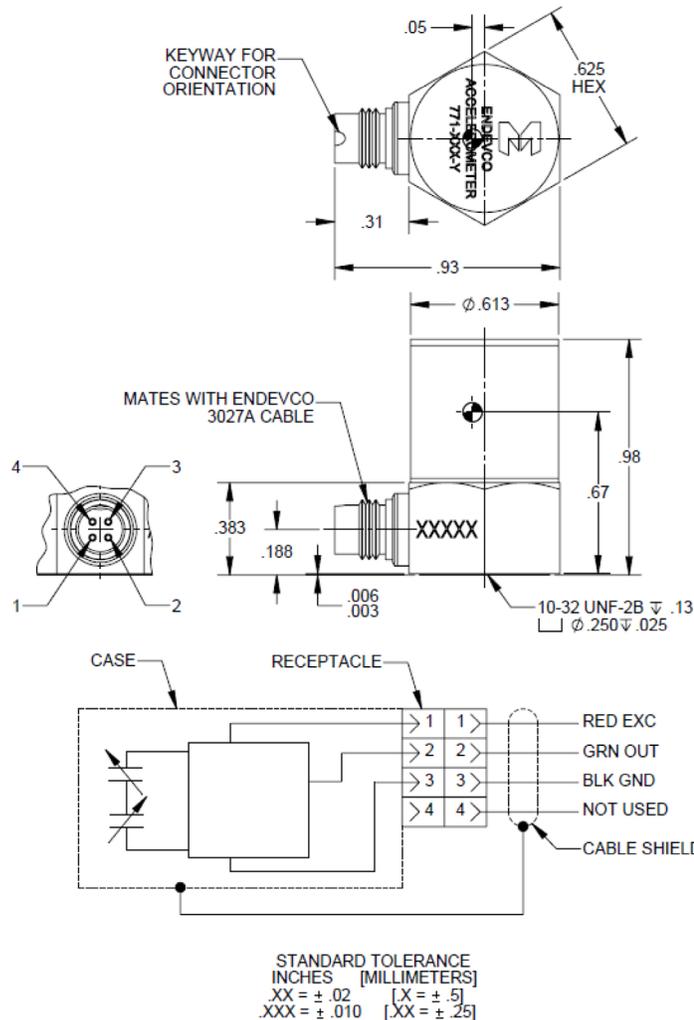


Hermetic low g DC accelerometer Model 771



Key features

- 2, 10, 30, 50, 100 and 200 g ranges
- Hermetically sealed 0.625 hex base package
- Frequency response from DC up to 1,500Hz
- Operating temperature from -55° to 125°C
- 3027A-XXX cable sold separately

The ENDEVCO® Model 771 is a hermetic, low g DC accelerometer that utilizes unique variable capacitance microsensors. This accelerometer is designed for measurement of relatively low level accelerations in aerospace and defense 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 771 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.

Hermetic low g DC accelerometer

Model 771

Specifications

All specifications assume +75°F (+24°C), +5 Vdc excitation (for 771-XXX-R) or +15Vdc excitation (for 771-XXX-U) unless otherwise stated.

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	Hz						
(±5% max, ref 100 Hz)		0-200	0-900	0-900	0-900	0-1500	0-1500
(±10% typical, ref 100 Hz)		0-350	0-1600	0-2200	0-2200	0-3800	0-3800
(±3dB typical, ref 100 Hz)		0-650	0-2500	0-3000	0-3000	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
-55°C to +125°C (-67°F to 257°F)							
Thermal sens shift (max)	%	±2.0	±2.0	±2.0	±2.0	±2.0	±2.0
-55°C to +125°C (-67°F to +257°F)							
Combined non-linearity (BFSL) and hysteresis							
(Maximum)	%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	8 mA max
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)	29 grams
Case material	Stainless steel (304L CRES)
Electrical connection	Endevco cable model 3027A (optional)
Mounting/torque	Hole for 10-32 UNF x 1/8 inch mounting stud/18 lbf-in (2Nm)

Environmental

Shock limit	10000g (0.15 mS haversine pulse)
Temperature (Operating Range)	-67°F to +257°F (-55°C to +125°C)
Temperature (Storage)	-40°F to +212°F (-40°C to +100°C)
Humidity	Unit is hermetically sealed.

Calibration data

Sensitivity	Measured at 1g and 100 Hz for the -2
	Measured at 10g 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

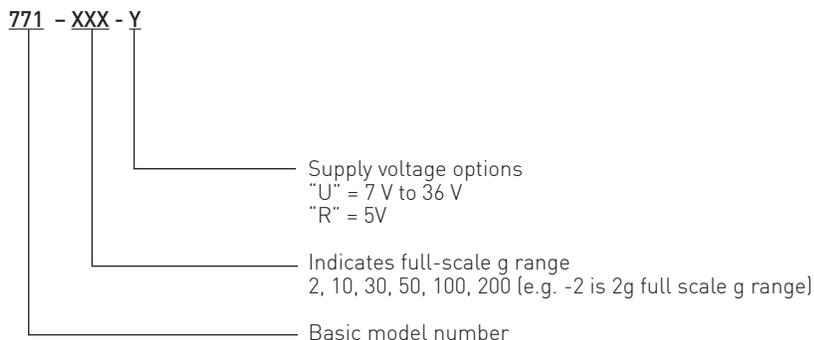
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Accessories

Product	Description	771
2981-12	Mounting Stud, 10-32, hex socket head	Included
3027A-XXX	Mating Cable Assembly (XXX identifies cable length in inches)	Optional
2981-3	Mounting Stud, 10-32 to 10-32, slotted head	Optional
2981-4	Mounting Stud, 10-32 to M5, slotted head	Optional

Notes

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



Contact

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