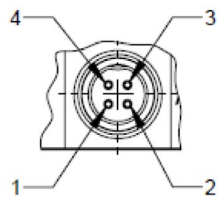
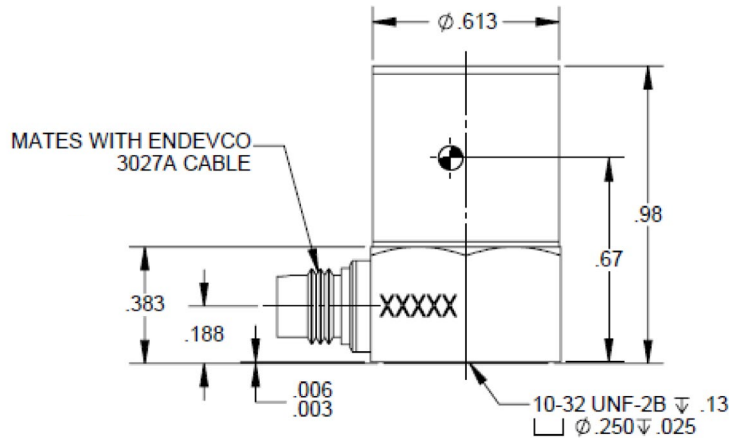


# Hermetic low g DC accelerometer

## Model 771



STANDARD TOLERANCE  
INCHES [MILLIMETERS]  
.XX =  $\pm$  .02 [X =  $\pm$  .5]  
.XXX =  $\pm$  .010 [XX =  $\pm$  .25]

### Key features

- 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

### Description

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

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

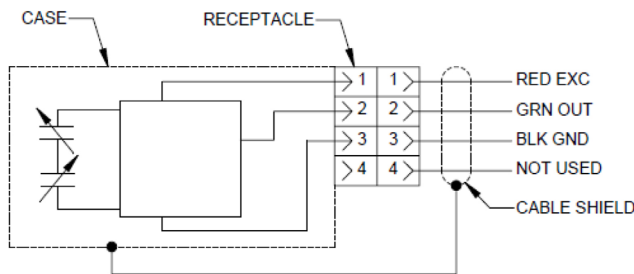
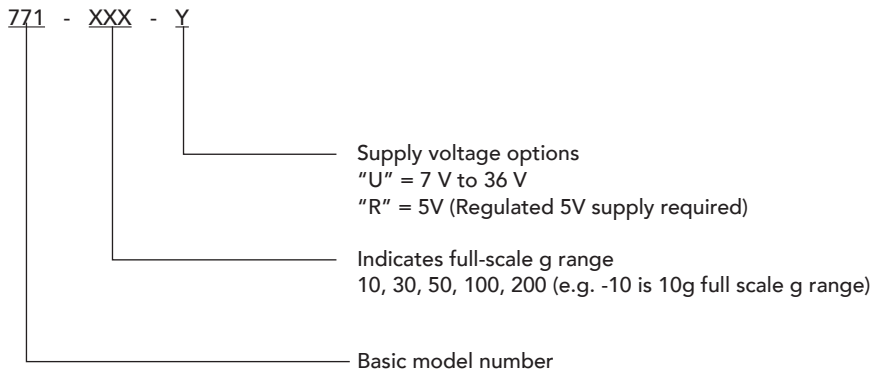
Specifications						
Dynamic characteristics	Units	-10	-30	-50	-100	-200
Range	g	±1	±30	±50	±100	±200
Sensitivity	mV/g	200	66	40	20	10
		±10	±4	±2	±1.0	±1.0
Frequency response	Hz					
(±5% max, ref 100 Hz)		0-900	0-900	0-900	0-1500	0-1500
(±10% typical, ref 100 Hz)		0-1600	0-2200	0-2200	0-3800	0-3800
(±3dB typical, ref 100 Hz)		0-2500	0-3000	0-3000	0-5000	0-5000
Zero measurand output	mV	2500	2500	2500	2500	2500
		±50	±50	±50	±50	±50
Transverse sensitivity	%	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
-55°C to +125°C (-67°F to 257°F)						
Thermal sense shift (max)	%	±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
Natural frequency, typ	Hz	2700	5500	5500	9800	9800
Threshold (resolution) [2]	equiv. g's.	.001	.003	.005	.01	.02
<b>Electrical characteristics</b>						
Excitation voltage		5 Vdc (Regulated 5V supply required; Maximum 7V without damage)				
For option "R" supply voltage		5 Vdc (Regulated 5V supply required; Maximum 7V without damage)				
For option "U" supply voltage		7 to 36 Vdc (Maximum 45V without damage)				
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						
<b>Physical characteristics</b>						
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)				
<b>Environmental characteristics</b>						
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.				
<b>Calibration data</b>						
Sensitivity		Measured at 10g and 100Hz				
Frequency response		Measured at 10 g, 20 to 10000 Hz				
Zero measurand output		Measured at room temperature				

# Hermetic low g DC accelerometer | Model 771

Accessories		
Options	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:



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