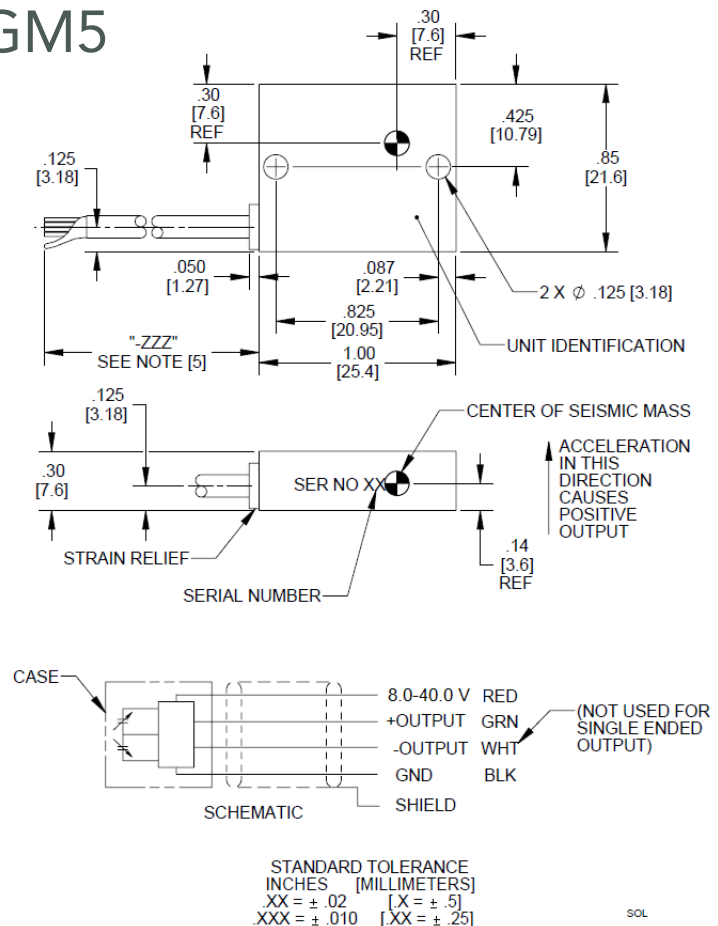


Variable capacitance accelerometer

Model 7290G and 7290GM5



M5 option



Key features

- 2, 5, 10, 30, 50, 100 and 200 g full scale ranges
- Motion, low frequency, tilt
- 10K g shock survivability
- Precision digital temperature compensation
- M5 option for water tight performance

Description

Model 7290G accelerometer family utilizes unique variable capacitance microsensors. The accelerometers are designed for measurement of relatively low level accelerations in aerospace and automotive environments. Typical applications require measurement of whole body motion immediately after the accelerometer is subjected to a shock motion, and in the presence of severe vibrational inputs. State-of-the-art digital temperature compensation electronics provide for precise compensation over a wide temperature range. The use of gas damping results in very small thermally induced changes in frequency response.

Gas damping and internal over-range stops enable the anisotropically-etched silicon microsensors to withstand high shock and acceleration loads. For outdoor use specify the M5 option, which has a PFA cable and a reinforced cable to case connection. The M5 is watertight for outdoor applications such as vehicle road testing and flight test. It was tested to IP67 during development, but is not intended for underwater use, which would void the product warranty.

The accelerometer is specified for operation over the wide excitation voltage range of 8V to 40V. Model 7290G can be configured for either a differential and single ended output. The differential output has a range of ±2 V and is DC coupled. The single ended output is 0.5 V to 4.5 V with 2.5 V of bias voltage.

U.S. Patents 4,574,327, 4,609,968 and 4,999,735

Calibration

Variable capacitance accelerometer Model 7290G and 7290GM5

Accessories

Product	Description	7290G	7290GM5
EHW265	Size 4, flat washers [2]	Included	Included
EH702	4-40 x 7/16 inch cap screws [2]	Included	Included
EHM464	Hex key wrench	Included	Included
7990	Triaxial mounting block	Optional	Optional
136	3-channel DC differential voltage amplifier	Optional	Optional

Options

Options	Description
M1	Made with leaded solder for colder storage temp, recommended for space applications
M5	With more robust cable and strain relief, IP67, recommended for outdoor installation

Notes

1. Full scale output (FSO) is nominally 4 volts.
2. Resolution = (2x residual noise; 0.5 to 100 Hz) / sensitivity
3. Model number definition:

7290G - XXX - Y - ZZZ

— Cable length in inches (i.e. 7290G-XXX-Y-120 has a length of 120 inches).
For lengths ≤10 ft specify 1 ft increments (12", 24"...120", etc)
For lengths ≥10 ft specify 5 ft increments (180", 240", etc)

— Output options
D = Differential output
S = Single ended output

— Denotes range in g's
-2
-5
-10
-30
-50
-100
-200

— Basic model number

Ordering information

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.