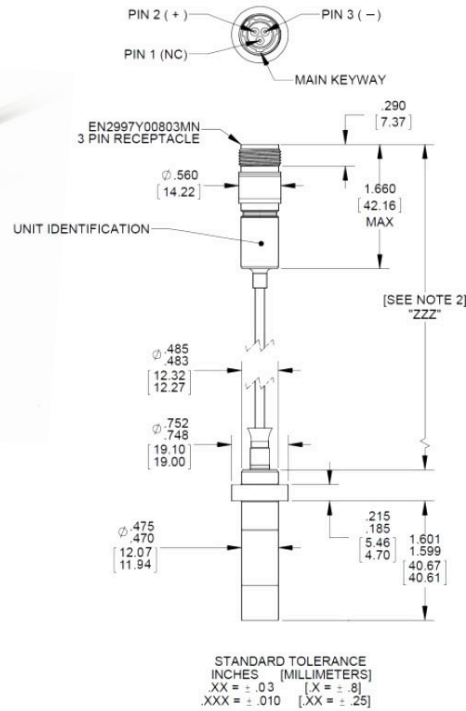
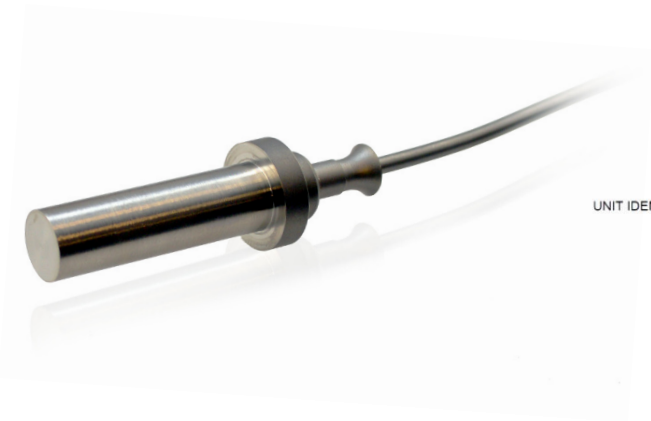


Endevco®

Piezoelectric dynamic pressure sensor

Model 522M37A



Key features

- +986°F (+530°C) operation; +1040°F (+560°C) intermittent operation
- Small dynamic pressure measurements even under high static pressure
- Balanced differential output
- Hermetically sealed
- Integral hardline cable
- All Inconel and stainless steel construction

Endevco model 522M37A is a high quality piezoelectric pressure sensor designed to measure small dynamic pressure fluctuations, even in the presence of high static pressure. The sensor can also operate at very high temperatures; up to +938°F continuously and up to +1040°F intermittently.

Model 522M37A features an all welded, Inconel and stainless steel construction with a metal-sheathed, mineral-insulated integral hardline cable. Output is via an integral three-pin (one pin not used) receptacle. The output signal is a balanced, differential signal. A differential input charge amplifier is appropriate for use with this sensor.

Common applications include: gas turbine combustion monitoring, high pressure steam and propulsion system testing.

Recommended compatible cables are the 6917M169-ZZZ, 6917M170-ZZZ and 6917M171-ZZZ (ZZZ designates cable length in inches) which are low noise, twisted pair cable assemblies terminating to pigtail, BNC and PC06A-8-2P connector respectively.

Meggitt Sensing Systems

Our measurement product competencies:

Piezoelectric accelerometers | Piezoresistive accelerometers | Isotron accelerometers | Variable capacitance accelerometers | Pressure transducers | Acoustic sensors | Electronic instruments | Calibration systems | Shakers | Modal hammers | Cable assemblies

MEGGITT
smart engineering for
extreme environments

Endevco®

Piezoelectric dynamic pressure sensor

Model 522M37A

Specifications

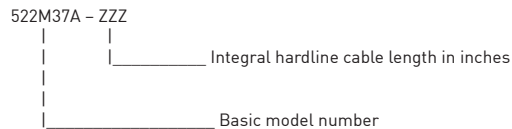
The following performance specifications conform to ISA-RP-37.2 and are typical values, referenced at +75°F (+24°C), 4 mA, and 100 Hz, unless otherwise noted. Calibration data, traceable to National Institute of Standards and Technology (NIST), is supplied.

Dynamic characteristics	Units	522M37A
Measurement range	psi	± 500
Sensitivity	pC/psi	17 ± 20%
Resonance frequency, minimum	kHz	20
Sensitivity deviation over temperature -67°F to +986°F [-55°C to +530°C]	%	± 10 typical
Vibration sensitivity	pC/g	0.05 typical
Electrical characteristics		
Output signal type		Balanced differential
Resistance		
Room temperature, +75°F (+24°C)		
Internal (between pins 2 and 3)	Ω	1 G minimum
Insulation (between pins 2 or 3 and case)	Ω	100 M minimum
Maximum temperature, +986°F (+530°C)		
Internal	Ω	50 k minimum
Insulation	Ω	10 k minimum
Capacitance (between pins 2 and 3)	pF	165 + 65 pF/ft
Environmental characteristics		
Temperature range, operating		
Transducer and hardline cable		
Continuous	°F (°C)	-67 to +986 [-55 to +530]
Maximum intermittent exposure [1]	°F (°C)	+1040 [+560]
Receptacle [2]	°F (°C)	-67 to +500 [-55 to +260]
Humidity		Hermetically sealed
Maximum static pressure	psi	2500
Minimum bend radius of hardline cable	inch	0.3
Physical characteristics		
Dimensions		See outline drawing
Weight	grams (oz)	18 (0.64) + 13 (0.46)/ft typical
Material		
Transducer		Inconel alloy
Hardline cable and receptacle		Stainless steel
Calibration data supplied		
Sensitivity	pC/psi	
Internal resistance	Ω	
Insulation resistance	Ω	
Capacitance	pF	

Notes

- Intermittent temperature exposure is defined as 5 minutes over a 30 minute period.
- For short cable lengths, provision must be made to ensure receptacle is not exposed to temperatures greater than +500°F (+260°C). Minimum cable length is 12 inches. Cable length "ZZZ" is in inches and is determined by model dash number, i.e. 522M37A-120 has a cable length of 120 inches.
- Maintain high levels of precision and accuracy using Meggitt's factory calibration services. Call Meggitt's inside sales force at 800-982-6732 for recommended intervals, pricing and turn-around time for these services as well as for quotations on our standard products.

Model number definition



Contact

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Continued product improvement necessitates that Meggitt reserve the right to modify these specifications without notice. Meggitt maintains a program of constant surveillance over all products to ensure a high level of reliability. This program includes attention to reliability factors during product design, the support of stringent Quality Control requirements, and compulsory corrective action procedures. These measures, together with conservative specifications have made the name Endevco synonymous with reliability. 101514

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