# Senther

# 310A-5

## General purpose accelerometer



## Features

- Rugged design
- High sensitivity
- Hermetic seal
- Case isolated
- ESD protection
- Reverse wiring protection
- EMI / RFI shielded





### Dynamic

Sensitivity, ±10%, 25°C.................................................. 1000 mV/g
Acceleration range ........................................................ 5 g peak
Amplitude nonlinearity.................................................... 1%
Frequency response:
± 5%............................................................................. 4 - 7,000 Hz
±1 dB........................................................................... 2 - 8,000 Hz
± 3 dB.......................................................................... 1.2 - 13,000 Hz
Resonance frequency.................................................... 24 kHz
Transverse sensitivity, max........................................... 5% of axial
Temperature response:
–50°C........................................................................... –5%
+120°C.......................................................................... +5%

### Electrical

Power requirement: voltage source ................................ 18 - 30 VDC
                          current regulating diode .................... 2 - 10 mA
Electrical noise, Broadband Spectral(g):
2.5 Hz to 25 kHz........................................................... 100 µg
10 Hz............................................................................ 4 µg/√Hz
100 Hz.......................................................................... 2 µg/√Hz
1000 Hz........................................................................ 1 µg/√Hz
Output impedance, max................................................. 100 Ω
Bias output voltage........................................................ 12 VDC
Grounding...................................................................... case isolated,
                                                                              Internally shielded

### Environmental

Temperature range......................................................... –50 to 120°C
Vibration limit................................................................ 100 g peak
Shock limit.................................................................... 2,000 g peak
Electromagnetic sensitivity, equiv g, max ........................ 70 µg/gauss
Sealing ......................................................................... Hermetic
Base strain sensitivity, max............................................ 0.0002 g/µstrain

### Physical

Sensing element design.................................................. PZT ceramic/shear
Weight........................................................................... 100 grams
Case material................................................................ 304L stainless steel
Mounting........................................................................ 1/4 - 28 UNF
Output connector............................................................ 2 pin, MIL-C-5015
Mating connector............................................................ R6 type
Recommended cabling.................................................... J10 / J9T2A

### Accessories

1/4-28 to 1/4-28 mounting stud (or customers specified)
Calibration certificate
Note: Frequency response limits spectral and noise values are typical

### Ordering Information

310A-5

└─ Range in g
└─ Output type
└─ Model