

# SA6200UW Underwater Accelerometer

## Datasheet

The Metrix SA6200UW Underwater Accelerometer is designed for applications that are continuously or frequently exposed to very high levels of condensing humidity, such as cooling tower structures. It features a molded integral cable and an IP68 rating, suitable for continuous submersion.

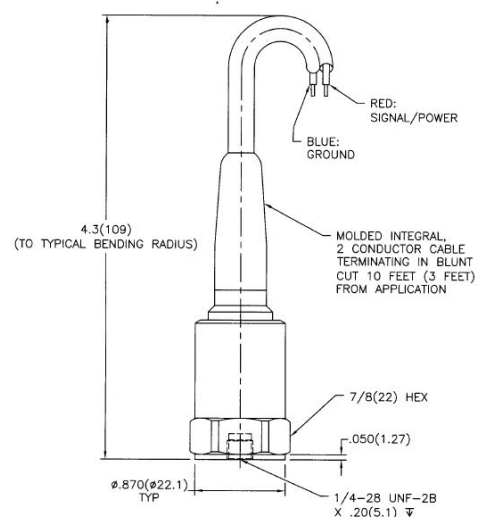
A built-in amplifier provides a 100mV/g low-impedance, constant-current output that is compatible with vibration monitoring systems, electronic switches, and 4-20mA signal conditioners.

The sensor consists of a temperature-stabilized piezo-electric core and an amplifier, packaged together in a stainless steel case that is electrically isolated from the sensing circuit. A choice of mounting studs is available. Consult the product datasheet for available hazardous area approvals.

For applications in which a general-purpose accelerometer will suffice, we recommend the Metrix SA6200A instead, due to its economical package and nearly identical electrical performance specifications.



## WEIGHT & DIMENSIONS



**Aprox. Weight:** 4 gm (3.3 oz)

**Units:** mm [inches]



## SPECIFICATIONS

Dynamics	
Sensitivity (±15%)	100 mV/g (10.2 mV/m/s <sup>2</sup> )
Frequency Response	0.33 to 10000 Hz (±3dB)
Resonant Frequency	18 kHz
Cross Axis Sensitivity	≤5%
Measurement Range	≤50 g
Broadband Resolution	1000 µg (9810 µm/sec <sup>2</sup> )
Mechanical	
Case Material	Stainless Steel
Hermetic Seal	Welded
Electrical Connector	Molded Integral Cable
Mounting Thread	1/4-28 Female
Sensing Element	Quartz
Weight	94 gm (3.3 oz)
Electrical	
Excitation Current	2 to 20 mA
Excitation Voltage	18 to 28 VDC
Output Bias	8 to 12 VDC
Settling Time	≤10 sec
Transient Protection	RFI & ESD
Environmental	
Shock Limit	5,000 pk
Temperature Range	-65 to +250°F (-54 to +121°C)
Enclosure Rating	IP68
Mounting Torque	2 to 5 ft-lb (2.7 to 6.8 N-m)

## ORDERING OPTIONS

SA6200UW-A-B-C	
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A	Hazardous Rating
0	None
5	CSA US/CA Class I Div 2, Grps A-D, T4 (non incensive) CSA US/CA Class I Div 1, Grps A-D, T4 (I.S. w/barrier) ATEX/IECEX Ex nA IIC T4 Gc (non incensive) ATEX/IECEX Ex ia IIC T4 Ga (I.S. w/barrier)
B	Mounting Stud
5	1/4 x 28 UNF & M6 x 1.0
C	Cable Length
005	5 meters
008	8 meters
010	10 meters
013	13 meters
015	15 meters
020	20 meters
025	25 meters
030	30 meters
035	35 meters
040	40 meters
045	45 meters
050	50 meters
055	55 meters
060	60 meters