

SM1-0101 SENSOR MOTE OVERVIEW

Easy-to-install condition monitoring for hazardous environments in a compact package.

Combined with our powerful, cloud-based, Waites reliability portal, this high-frequency, high-g, 3-axis wireless vibration sensor that is intrinsically safe and C1D1/IECEx certified will keep your equipment running properly and alert you long before unexpected failures occur. The compact size of the SM1-0101 allows it to fit into practically any space, enabling your operation to monitor machines in even the tightest locations. Integrated with our deep machine learning routines, the high-frequency **ImpactVue™** feature captures mechanical failures months before they become catastrophic. With hundreds of thousands of sensors installed and monitored, customers with Waites systems realize hundreds of millions of dollars per year in documented lost production savings and increased production capacity.

POWER

Battery: (1) 3V approved Tenergy 17335 Industrial Lithium*

Expected battery life: 5.5 years*

*Batteries must be purchased from Waites. Expected battery life is based on standard environmental conditions and reading intervals.

WIRELESS RADIO

802.15.4 wireless 2.4 GHz ISM band with 2,100 ft LOS range

TEMPERATURE SENSOR

Range: -40 to 185 °F (-40 to 85°C) w/ ± 1 °F (± 0.5 °C) accuracy

ENVIRONMENTAL

Ex ia IIB T4 Ga / Class I, II, III Division 1, Groups C-G T4, T 165C

Operating Temperature: -40 to 185 °F (-40 to 85 °C)

IP-67

Conforms to UL STDS 60079-0, 60079-11, 913 & 61010-1

Certified to CSA STDS C22.2#60079-0, 60079-11 & 61010-1-12

ACCELEROMETER

SM1: Tri-axis, high dynamic range

X axis: +/- 50g, Fmax 11.2kHz

Y axis: +/- 16g, Fmax 2.7kHz

Z axis: +/- 16g, Fmax 2.7kHz

50,000 lines of resolution (16,500 simultaneous X/Y/Z)

PHYSICAL DIMENSIONS

2.5 in x 1.25 in $\varnothing$ (6.35 cm x 3.2 cm $\varnothing$), 0.25-28 mounting hole

0.15 lbs (68 g) without battery / 0.20 lbs (90 g) with battery



FREQUENCY RESPONSE

