



Technical APPLICATION Guide

Audible Alarm Environmental Tests

For the SC/SNP/SBM/LSC/VSB/MSR/MSO series, the following environmental tests are used during the validation and verification design phases:

Test Name	Description of Test
Surge Voltage	15% over maximum rated voltage applied for one minute.
Reverse Voltage	Maximum reverse polarity equal to rated voltage for one minute.
Intermittent RT Life	A duty cycle of 1 min on, 5 mins or less off, for a minimum of 10,000 times at room temperature at maximum rated voltage.
Hot Life*	250 hours continuous operation at maximum rated operating temperature and maximum rated voltage.
Cold Life*	250 hours continuous operation at maximum rated operating temperature and minimum rated voltage.
Hot Storage*	250 hours at maximum rated hot storage temperature (no voltage applied)
Cold Storage*	250 hours at maximum rated cold storage temperature (no voltage applied).
Humidity	95% relative humidity @ 40C for 100 hours (no voltage applied).
Vibration	2 hours each in each of the 3 mutually perpendicular planes (6 hours total). Harmonic motion amplitude of 0.03 in with a uniform varying frequency between 10 and 55 Hz. No voltage applied.
Salt Spray	96 hours in an atomized 5% salt spray solution at 35C (no voltage applied). Test not applicable to SBM, SNP, & VSB series models.
Terminal Strength	5 lbs applied axially for a period of 5 minutes.

*For the SC Rugged/Military series, Life and Storage test times are extended to 500 hours.

For all other Mallory alarm series, the following environmental tests are used:

Test Name	Description of Test
Cold Life	100 hours at maximum rated cold storage temperature
Hot Life	100 hours at maximum rated hot storage temperature
RT Life	1000 hours at maximum rated voltage at room temperature
Humidity	100 hours at 95% relative humidity @ 40C
Drop Test	A natural drop from 75cm down to the ground
Vibration	2kHz per min; 2mm amplitude applied in X, Y, & Z directions for 30 mins each.