



Rail Crossing In Cars Subject to Change Without Notice

V.A.S.E. Pro Accelerometer Output

AMA JEWELL – CARS CROSSING RAIL TRACKS

Introduction

V.A.S.E. Pro use Jewell Instruments AMA accelerometers. The instruments are connected to a Data Acquisition Unit. Acceleration results of a subcompact car and a minivan over a rail crossing are shown. Each result will vary by vehicle type, road conditions, vehicle condition, placement of accelerometers, etc.

Typical Readout Spec V.A.S.E. Pro Accelerometer

- Continuous Readout
- Save in time stamped continuous files 15 seconds to multiple hours.
- Sample Frequency 300 Hz or other
- Three axis (x, y, z)
- Resolution 0.001g
- Linearity Sample Range -3g to +3g
- Bessel Filtering
- Calibration Curves –
 - Typically form $g = \sum (+/- a_i x^i)$ ($i=0$ to 4)

