rMetrix®

Ride Performance Assessment System

What is included with rMetrix?

- Intuitive Control Software
- High Sensitivity GPS Receiver
- Tri-Axial Acceleration and Orientation Sensors
- Mounting Accessories
- Rugged Case
- rMetrix Annual Maintenance Plan
- Software Upgrades
- Technical Support
- Access to the rMetrix Cloud

INTELLIGENT SAFETY SYSTEM for RAIL TRACK and VEHICLE

Quickly identify and prioritize safety and maintenance issues on your track and vehicles with rMetrix. Incorporating cutting edge sensors with an easy-to-use control software interface, rMetrix is effective in assessing ride quality, ride comfort and safety in real-time without the need for a dedicated test car or permanently affixed sensor. rMetrix works with your portable computer so that you can perform an inspection at any time and on any vehicle.

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SYSTEM SPECIFICATIONS

GPS Receiver

rMetrix works with any Windows compatible (USB/Bluetooth) GPS Receiver that outputs NMEA messages.

Update Rate	1 Hz

USB Tri-Axial Sensor

Update Rate – Acceleration Lateral · Vertical · Longitudinal	400/2000Hz
Update Rate – Orientation Yaw · Pitch · Roll	400Hz
USB Cable Length	2.9m
Dimensions	57 x 42 x 24 mm
Weight	55 g
Temperature Range	-40 to 85°C
Full Range Acc	20g
Bandwidth Acc	375 Hz
Vibration and Shock	2000g for 0.5ms

IP67 Rugged Case

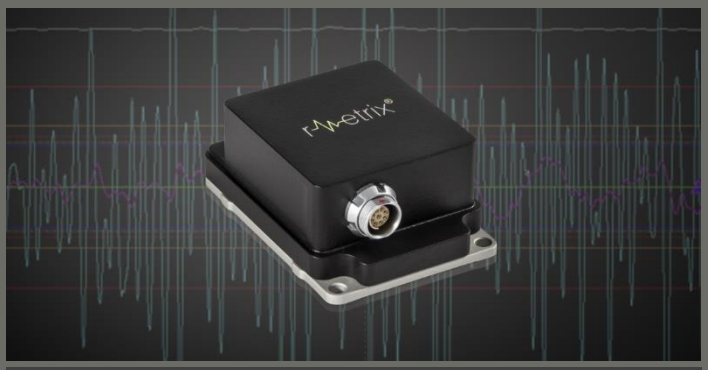
Water Resistant	Yes
Dust Proof	Yes
Dimensions	25.1 x 14.2 x 6.7 cm
Weight	500 g
Temperature Range	-23 to 93°C

Computer System Requirements

Operating System	Microsoft Windows 10
Processor	Intel i5 Equivalent+
Memory	8GB RAM+
Hard Drive	5GB for Installation Additional space required for inspection and GIS data
Connectivity	2 USB 2.0 Ports/Bluetooth Network Connection
Resolution	1920x1080+

System Options

Active USB Extender Cable	11.8m
Sensor Magnetic Mount	90lb holding power
Sensor External Use Kit	Available
Locomotive Power Inverter	Available
Wireless Accelerometers	Available



Real-time Acceleration and Orientation Data
Real-time Exception Generation and Reporting
US and International Ride Quality Standards
Vehicle Qualification and Suspension Testing
Sensor Data Accessible in Secure rMetrix Cloud

Real-time GIS Engine (GPS · Custom Location System)
Manual Exception and Notes (Location or Time)
Multiple Exception Levels (Alarms · Alerts · Trending)
Import and Correlate Track Geometry Defects
Email Exception Data with Map Location

Multiple Sensor Support
Raw Sensor Data Analysis
Time and Frequency Domain Reports
ISO 2631 Ride Comfort and Health, Sperling Ride Index
Custom Reporting and Metadata