

Rail Stress and Temperature Sensors

Features

- Patented rugged design
- Measures temperature and stress at rail core
- Easy to install
- Reduces maintenance and inspection costs
- Proven in-track performance



Modern rail infrastructure is subject to more intensive operations than ever before, placing greater demands on track components. In addition the increased demands for track operating time means that inspection and maintenance windows are reduced.

Increasingly rail engineers are looking to the use of intelligent monitoring systems to enable them to predict problems and hence respond prior to component failure.

The track environment is extremely harsh and the track/sensor interface proves to be the most critical in any monitoring system.

The ERICO® brand of RTL range rail sensors are designed to be mounted directly into the rail web. The interference fit between rail and sensor body allows for fast and accurate measurement, while helping to ensure that the sensor remains in place under all track conditions.

The sensors measure rail temperature and rail stress and can be integrated into monitoring systems for measurement of:

- Stress Free Temperature (Rail Neutral Temperature)
- Axle loads and train weighing
- Wheel impact/flat detection

Rail Stress and Temperature Sensors

Installation

- The sensors are totally contained within stainless steel housings and are potted and hermetically sealed to withstand the harshest of environments.
- The sensors are easily installed requiring no bonding, welding or bolting.
- 8 mm hole is drilled and reamed at the rail neutral axis using highly accurate tools.
- The sensors are secured in the hole such that there is an interference fit of 15 to 20 microns after insertion.



Output

- Nominal 2.5V output and the signal is superimposed at mVs per tonne.

Part Number	Description	Measuring
222556	Stress sensor	Rail stress – shear or tensile
222557	Temperature sensor	Rail temperature
222558	Stress and temperature sensor	Both temperature and stress in one sensor

WARNING
 ERICO products shall be installed and used only as indicated in ERICO's product instruction sheets and training materials. Instruction sheets are available at www.erico.com and from your ERICO customer service representative. Improper installation, misuse, misapplication or other failure to completely follow ERICO's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death.

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