

TSR4000

Automated rail weighing indicator

The Railweight TSR4000 digital weight indicator has been specifically designed for dynamic rail weighing. It is ideal for use with conventional load cell weighbridges or with in-track weighbridge transducers, offering superior accuracy and performance.



TECHNICAL SPECIFICATION



Weighing Characteristics

Modes:	Automatic Semi Automatic Manual
Control:	Local Remote
Direction:	Uni-directional Bi-directional
Speed:	0 to 110km/h (depending on application and desired accuracy class)
Train consist size:	999 vehicles maximum
Accuracy Classes : (OIML R106)	0.2, 0.5, 1 & 2 Wagon 0.2, 0.5, 1 & 2 Train
Alarms:	Overspeed (programmed to suit application) Overcapacity (programmed to suit application)
Units:	Tons (T) Tonne (t) Kilogram (kg) Pounds (lb)

Physical Characteristics

Desk Mounted Unit	Width 520 mm
Dimensions:	Depth 500 mm Height 180 mm
Net Dimensions:	Width 484 mm Depth 460 mm Height 180 mm
Weight:	Gross 10.5 kg
Enclosure Types:	Desk Rack
Mountings:	Slide Runners

Weighing Functions

Direction of travel:	Automatically selected, displayed and protocol messages / data reporting
Speed of weighing:	Individual wagons, Max and Min train speed
Wagon sequential number:	Displayed and data reporting
Wagon weight:	Displayed and protocol messages and data reporting
Total train weight:	Data reporting
Wheel weight:	Protocol messages and data reporting
Axle weight:	Protocol messages and data reporting
Bogie weight:	Protocol messages / data reporting
Overspeed indicator:	Displayed and data reporting
Overload indicator:	Protocol messages and data reporting
Imbalance indicator:	Side to side - protocol messages and data reporting End to end - protocol messages and data reporting

Diagnostics

Modes:	Automatic at programmable intervals On demand
Functions:	Memory check Analog power supplies Transducer voltage Analog span check Transducer shunt calibration Zero drift Wheel sensors
Printouts:	Diagnostic configuration 90 day event diary 90 day diagnostic check diary Wheel sensor& Transducer Operations Report Wheel sensor Trace

Environmental

Operating Temperature:	- 10°C to + 40°C
Storage Temperature:	0°C to + 80°C
Humidity Operating:	10 to 90%
Humidity Storage:	10 to 90%
IP Rating:	20

Connectivity

No of Serial Ports:	2
Serial Port Type:	RS232 or RS422 - Jumper Selectable

Computer Interface

Interface type:	RS232C or RS422
Data protocols:	Enquiry (standard) Asis (optional) Eureka (optional)
Protocol messages:	Transducer weight Wheel weight Vehicle weight Train weight Status Train start Train end

The TSR4000 is part of the industry leading range of products and services offered world-wide by Railweight.

Calibration

Mode:	By front panel keyboard
Functions:	Transducer/weighbridge static calibration Dynamic calibration IN-direction Dynamic calibration OUT-direction

Temperature Sensing

No of channels:	2
Type of sensing:	Linear voltage
Sensing Sensitivity:	10 mV/°C
Sensing Range:	-50°C to +100°C

Wheel Sensor

Types:	Mechanical treadle Inductive proximity Photo electric
Excitation supply:	15 volts, 0.2 amperes

Power Requirements

Voltage:	115 or 230 +10% Vac
Frequency:	50 - 60 Hz
Power:	40 VA

KEY FEATURES



A simple user interface with a liquid crystal display and a 25-key membrane keypad



16 independent weight processing channels



Weighing speeds from 0 – 110 km/h



Simple to maintain and service



Highly configurable



Extensive diagnostics



OIML R106 certified

For more information or to request a demo, please contact Railweight at:

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