

MULTIRAIL® LegalWeight



- Legal-for-trade dynamic weighing of rail vehicles with solid loads
- Dynamic system includes static reference scale (option)
- Installation without rail gaps and foundation

Application

MULTIRAIL is a dynamic weighing system designed for the weighing of rail vehicles with solid loads.

The precise MULTIRAIL measuring technology permits the weights of train wagons of almost any type to be acquired accurately and legal-for-trade (in accordance with OIML R106-1). For dynamic verification, the weighing system can be used as a static reference scale.

In addition, the MULTIRAIL system is prepared optimally suited for the monitoring of load distributions.

The measuring section is configured ideally on the basis of wagon type, weighing accuracy and velocity.

Equipment

Specially developed for MULTIRAIL, the concrete weighing sleeper is equipped with high-precision strain-gauge weighing sensors.

Designed to transmit all forces and moments, these weighing sensors measure the vertical force component with a high degree of accuracy.

The MULTIRAIL weighing system is integrated into the rail without any gaps. Installed with continuous rails, MULTIRAIL can operate legal-for-trade at weighing speeds up to 15 km/hr. When not weighing, MULTIRAIL can be passed over at the speed admitted for the relevant track section.

Weight values and associated data are acquired and processed with the use of weighing electronics and customized PC systems.

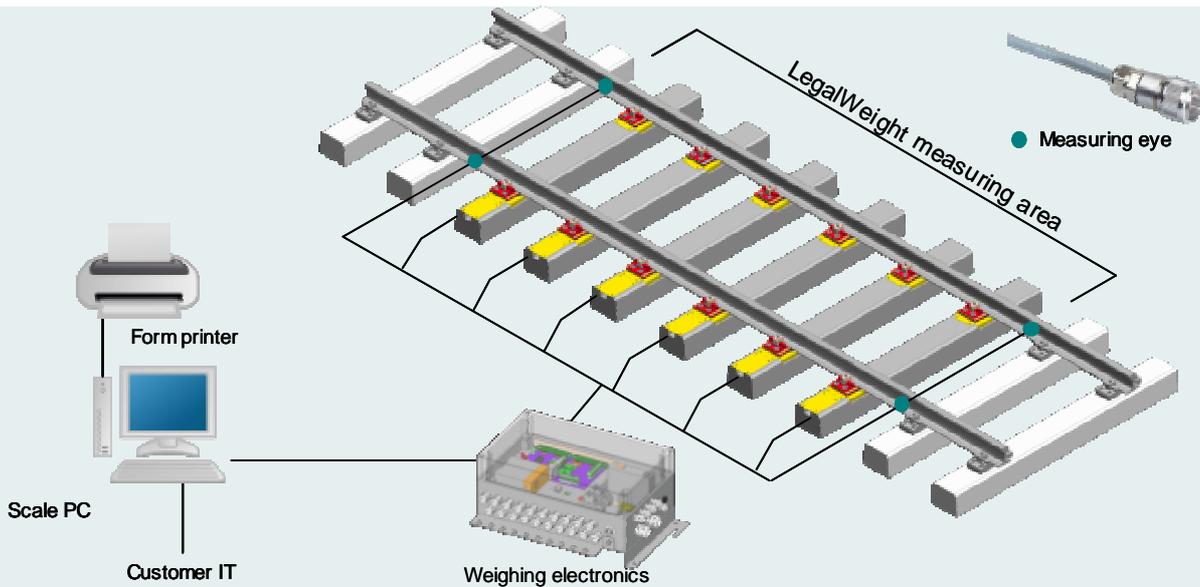
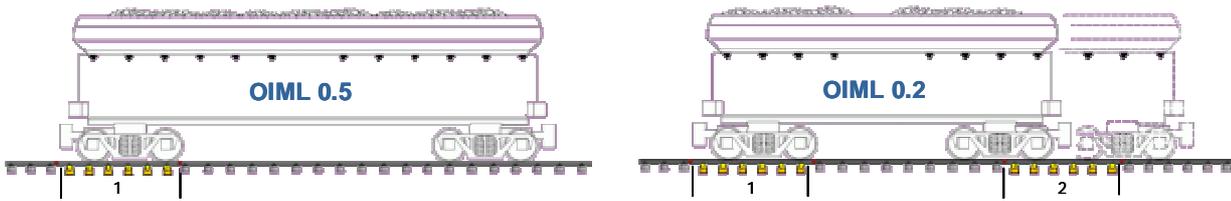
Function

MULTIRAIL offers the following basic functions:

- Acquisition and output of wagon weights (first, second, single, and tare weighing)
- Monitoring of wagon weights
- Legal-for-trade printout and storage of weigh data

Optionally, further functions are available:

- Wagon type identification
- Fully automatic weighing sequence
- Load distribution monitoring
- Integration into customer IT or ERP system
- Hand-held terminal for wagon data acquisition



Technical Data

Rail profile, track width and tie spacing	As used in existing track section
Weighing system length	Typ. approx. 4 m measuring area ^{*)} Typ. approx. 45 m weigh span ^{*)}
Weighing range	Typ. 100 t ... 150 t
Weighing mode	Dynamic
Weighing accuracy	Static: As reference scale Dynamic (legal-for-trade): In accordance with Verification Act, Verification Ordinance and OIML R106-1 Class 0.2 or 0.5
Weighing speed range	Up to 15 km/h
Transit speed	Unlimited (with continuous rails)
Operating temperature range	Scale mechanics: -40 °C ... +70 °C ^{**)} Scale electronics: -30 °C ... +50 °C
Approvals	EBA, DB, ÖBB, EC Type-examination Certificate
Track base stabilization	Ballast bonding technology ^{*)}

^{*)} depending on individual application

^{**)} The legal temperature range results from the respective national permissions.

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