



# TAMTRON

WEIGH TO KNOW

# SCALEX WILD

## HIGH SPEED RAILWAY SCALE

## WHEEL IMPACT LOAD DETECTOR

The Scalex WILD system represents a unique option in combining a commercially approved railway scale for weighing of rolling stock at operating speeds with wheel defect detection and real-time monitoring of uneven wagon loading. The weighing system enables the monitoring of wheel defects up to a speed of 250 km/h and is certified as a commercial dynamic railway scale up to a speed of 120 km/h. All these parameters allow a timely response to identified defects and uneven loading of wagons and thereby prevent serious accidents in cases, where wheel defects and uneven axle loads play a key role in the initiation of such situations.

### ADVANTAGES

- railway scale for weighing of rolling stock up to a speed of 250 km/h
- type approved railway scale for commercial weighing of rolling stock up to 120 km/h
- monitoring system for dynamic detection of defective wheels and uneven loading of wagons over the entire speed range
- information on the weight of the train set, wagons, bogies, axles and wheels
- fully autonomous and independent system in real time

## SCALEX WILD SPECIFICATION

### The detection of wheel defects contributes to improving safety and extending the service life

The functionality of accurately measuring the weight of individual wheels, axles, bogies, wagons and the entire train sets and detailed detection of defect wheels is designed to maximize the benefits of defect detection and wheel weighing for the safety of passenger, personnel and cargo transport, as well as significantly contribute to the extension of service life rolling stock and transport routes. The SCALEX WILD system evaluates and automatically sends three levels of alarms to the user according to the severity of the detected wheel defect and also generates alarms when overloading of wagons or incorrect loading of wagons is detected. The level of alarms is user adjustable. When measuring a train set, the system autonomously recognizes and monitors all passing wagons, including locomotives without type restrictions.

## HIGHLY ACCURATE WEIGHING RESULTS

The principle of the Scalex WILD rail weighing system is based on a very accurate measurement of the vertical forces acting during the movement of a rolling stock between its wheels and the rail. The measurement takes place on a six-meter-long section fitted with load sensors enabling the measurement of the wheel at two revolutions. This system architecture ensures high measurement accuracy and reliability, which is supported by a dynamic weighing window and a high data acquisition frequency. This ensures high detection accuracy even for small and medium-sized wheel defects, along with a detailed records of the dynamic forces course for each wheel of the train set.

## TECHNICAL SPECIFICATION

- **WEIGHBRIDGE:** 6m long weighing element.
- **WEIGHING CAPACITY:** 40 t / axle.
- **DIVISION:** e = d = 100 kg.
- **WEIGHING RANGE:** 1 t - 40 t for a single axle.
- **MAX. WEIGHING SPEED:** 120 km/h.
- **MIN. WEIGHING SPEED:** 1 km/h.
- **CROSSING SPEED:** unlimited.
- **WAGON TYPES:** all standard wagons.
- **WEIGHING ACCURACY:** according to OIML R106 based on track condition and local operational conditions.
- **TYPE APPROVAL:** EC-Type Examination Approval number TCM 128/18 - 5592.
- **RAIL TYPE:** all standard railway rails such as S49, R60, R65, etc.
- **OPERATING TEMPERATURE:** -30°C to +70°C.
- **SUPPLY VOLTAGE:** 110-240 VAC / 50 - 60 Hz.
- **INTERFACE:** LAN.
- **COMPUTER NETWORK:** LAN, WLAN.
- **PROTECTION RATING:** Outdoor equipment IP67, Indoor equipment IP45.



## WEIGHING INFORMATION MANAGEMENT

The Tamtron Scalex WILD system can be integrated into the customer's information system or used through a web interface via Tamtron's cloud service. Both methods ensure a seamless transfer of information in real time.

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Tamtron is an advanced product manufacturer and weighing information management service provider in the weighing industry that is committed to high-quality and responsible service. The company's success is based on the ability to produce some of the most innovative and competitive weighing solutions in the industry. The weighing solutions provided by Tamtron make customers' everyday operations easier and more efficient not only in the construction and mining industry, but in industries such as manufacturing, harbours, forestry and timber, transport and logistics as well as recycling and waste management. The company's ISO 9001:2015 quality certified know-how ensures high-quality deliveries.

The internationally operating company has a turnover of EUR 55 million, and the group employs 300 professionals. The company's main office is in Finland, and it has subsidiaries in Czech Republic, Denmark, Germany, Norway, Poland, Slovakia and Sweden. In addition to strong domestic trade, Tamtron exports its products globally to more than 60 countries. Tamtron is a reliable partner for demanding weighing solutions with more than 50 years of experience.