

KISTLER

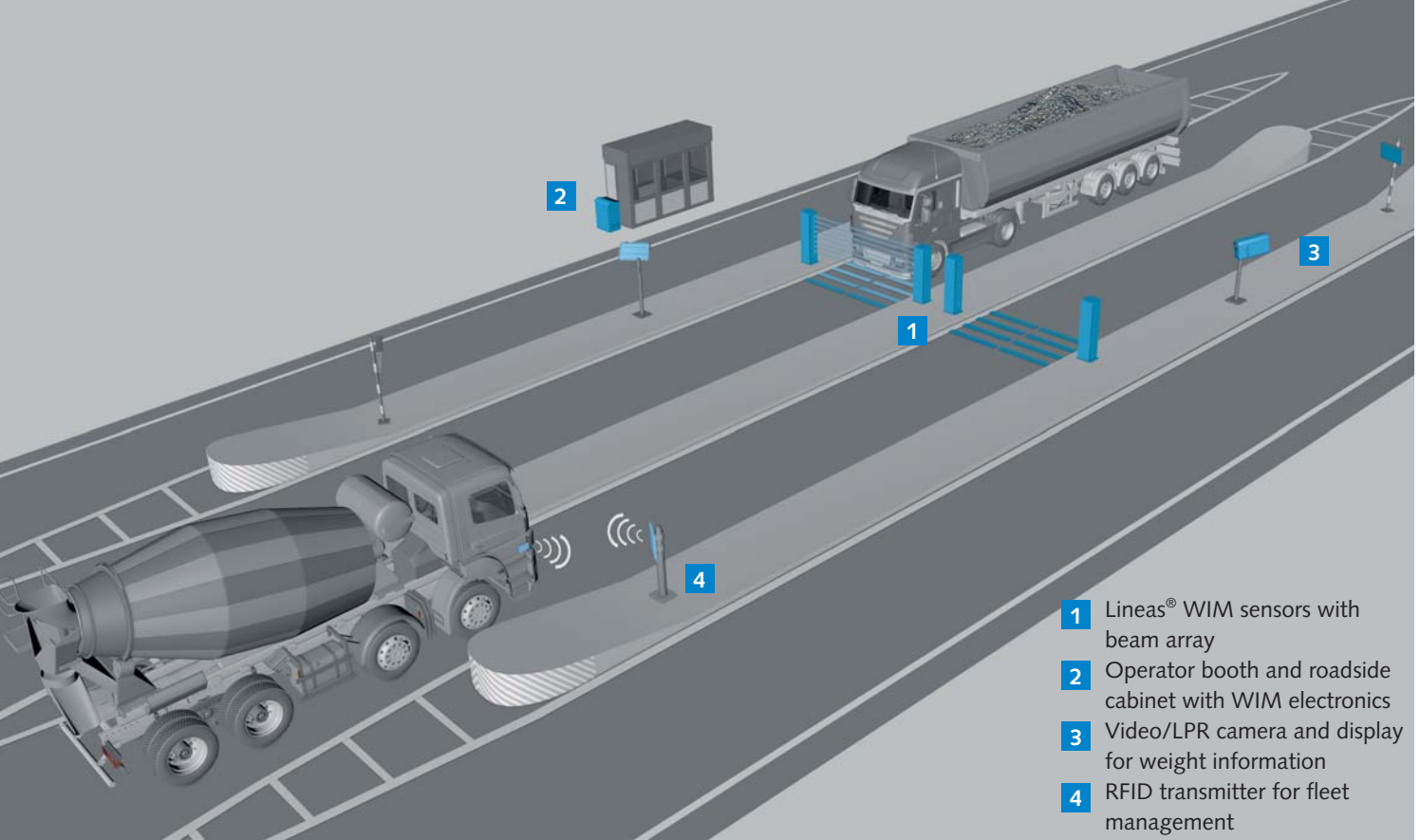
measure. analyze. innovate.

Weigh As You Go.

Now
OIML-certified!
(R134)

Industrial Truck Weighing

Weigh-In-Motion Measuring Technology
for Efficient Truck Weighing



- 1** Lineas® WIM sensors with beam array
- 2** Operator booth and roadside cabinet with WIM electronics
- 3** Video/LPR camera and display for weight information
- 4** RFID transmitter for fleet management

WIM station for efficient truck weighing

Efficient Truck Weighing with Maximum Accuracy.

Industrial trucks are usually weighed for two reasons: to invoice industrial goods by weight, or to check axle and gross vehicle weight so as to prevent overloading and avoid the risk of heavy fines. With Kistler's Weigh-In-Motion (WIM) equipment, trucks can be weighed without stopping. This saves time and money: the investment pays for itself in a matter of months or even weeks.

Cost-effective weighing of large numbers of trucks is needed at many facilities – gravel and concrete plants, mines and ports, to name but a few. With WIM-based industrial truck weighing, operators are free to increase the flow rate from a few dozen trucks to several hundred per hour.

Certified to Invoice Industrial Goods by Weight

Kistler's modular WIM system is OIML-certified, and it meets legal weighing requirements for low to medium speeds. The system delivers legally compliant trading data for invoicing goods by weight – but with no need for trucks to stop for weighing.

Benefits

- Highly efficient weighing process – no need for trucks to stop
- OIML R134-certified WIM system allows weight-based sales and charges
- Weighing data to support fleet management
- No vehicle length limit
- Bi-directional weighing
- Quick return on investment

Easy Installation, Long Service Lifetime

With conventional weighing systems, the truck has to stop on the weighbridge; installation is complex, and frequent maintenance is needed. Kistler's high-precision quartz crystal Lineas WIM sensors work at any speed, are easy to install and need no maintenance. Roads need only be closed for a few hours during installation, so disruptions to daily business are kept to the minimum.

Fast, Flexible System Integration

Kistler's WIM Data Logger interfaces with the Lineas WIM strip sensors and a pair of beam arrays to ensure totally reliable truck weighing. The entire system is quickly configured and calibrated with the help of an intuitive web interface.

User-Friendly Weighing Data Management

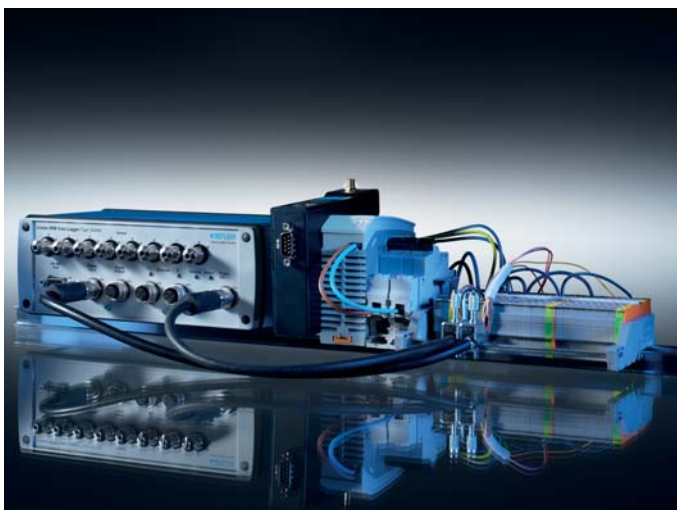
A display can be connected directly to the WIM Data Logger so the truck driver can see the actual weight. Weighing results can also be transmitted to the main system, which is operated in the back office. RFID transmitter or LPR cameras can be integrated to support truck fleet management.

OIML-Certified Accuracy

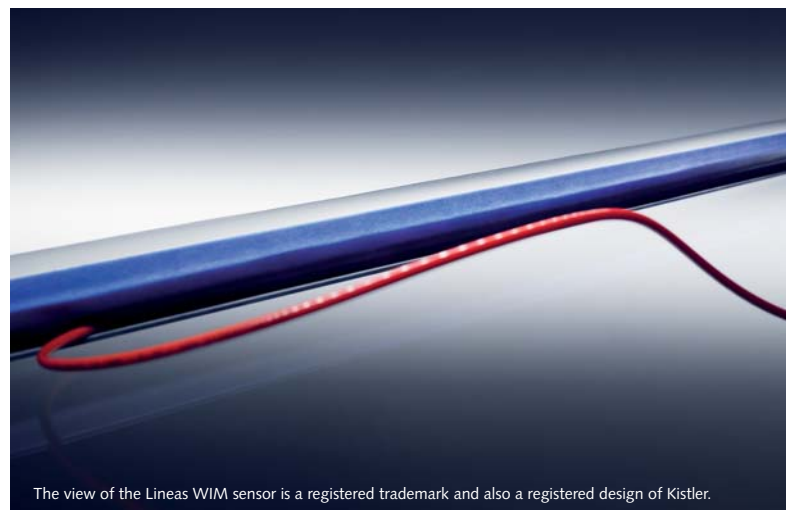
Kistler's OIML-certified WIM system delivers precise measurements of axle loads and vehicle weights for legally compliant weighing, from 3 to 65 km/h in accuracy classes F5 and F10.

Key Features at a Glance

- Unique quartz measuring technology for utmost precision
- Quickly installed – minimum disruption
- Maintenance-free – even in continuous long-term operation
- OIML R134-certified for legally compliant weighing applications
- Sealed and fully embedded sensors cannot be blocked by dust or stones



Pre-wired system components and an intuitive web interface make it simple to set up Kistler's WIM system



The view of the Lineas WIM sensor is a registered trademark and also a registered design of Kistler.

The maintenance-free Lineas® WIM sensor: based on unique quartz crystal technology



Kistler's WIM system measures any truck weight and length

Weighty Matters.

Fast weighing of trucks is a critical requirement in many situations. Kistler's OIML-certified WIM system covers an almost unlimited weight range – and thanks to customized configuration, it can meet every operator's requirements for speed, accuracy and cost. The system can be operated in one or two directions and for various road widths.

Every industrial truck weighing application has its own specific features. Even so, weighing operations at concrete plants, mines and ports also have many elements in common.

Modular Portfolio for Individual Applications

All these applications involve two key requirements: measurements must be precise, and congestion at the weighing station must be avoided so that large numbers of trucks can be weighed cost-effectively. Kistler's WIM system features a modular sensor setup that can be configured to meet each user's accuracy requirements. There is an individual solution for every application, but the result is always the same: greater efficiency.

How Does Kistler WIM Work at Concrete Plants?

In this case, trucks pass through the WIM station twice: once when entering the site and again on leaving the plant. The calculated difference between the two measurements is the amount of concrete loaded or unloaded inside the facility. Typically, Kistler's WIM system is also used to detect overloaded trucks (axle load and gross vehicle weight) before they head to public roads, or to calculate the total amount of concrete transported by each truck per day or per construction site.



... in France

... at Mining Facilities?

The company that provides transport from the mine to the dumping location is usually a subcontractor of the mine operator. By weighing all trucks before entering and after leaving the dumping site, operators can make sure their subcontractors are only paid for the quantities that are actually transported.



... in Indonesia

... or at Ports and Terminals?

WIM enhances operational efficiency and increases throughput at ports. Whenever a truck enters a freight port, it must pass through the WIM system. The Kistler WIM Data Logger calculates the truck's actual weight and forwards it to the ship operator. Based on this information, the operator loads the ship in compliance with the maximum allowable cargo, and ensures the correct balance.



... in Albania

Advanced WIM System for Industrial Truck Weighing.

Kistler's WIM equipment for advanced industrial weighing is based on a multiple sensor setup. This system delivers maximum weighing accuracy to maximize revenue.

Kistler's advanced WIM system is OIML-certified (R134) in accuracy class F5 for legally compliant weighing from 3 to 35 km/h. The system consists of eight Lineas WIM sensors installed in the road, and a pair of beam arrays installed beside the road for accurate vehicle separation. The WIM Data Logger in the roadside cabinet collects sensor data and transmits OIML-certified vehicle data to the main system, which then calculates and manages the weighing information. Kistler's maintenance-free WIM equipment is easily integrated into any industrial weighing application.

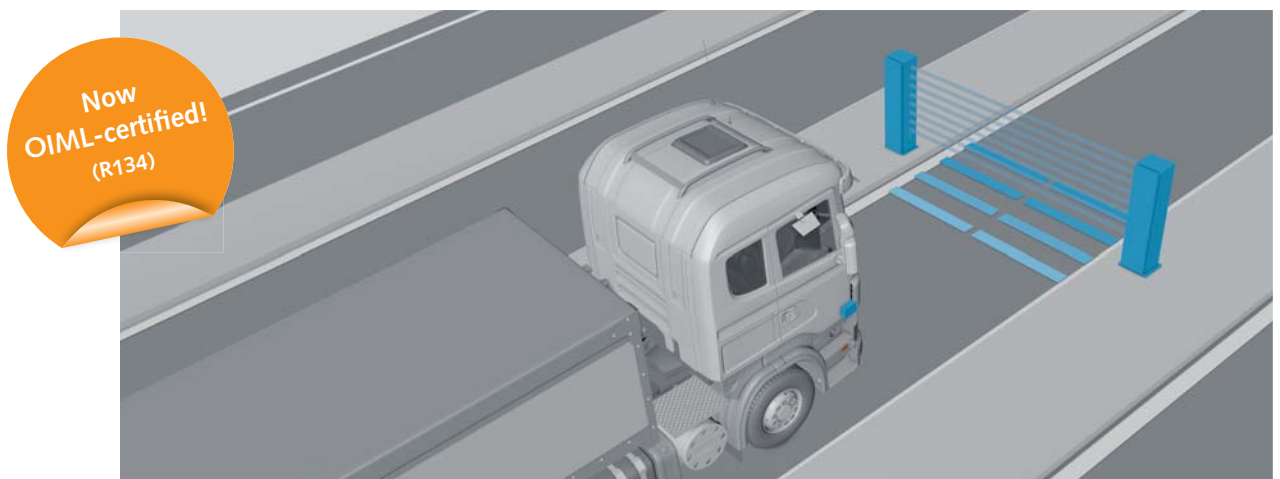
System Performance *

Accuracy class (OIML R-134)	Class F5
Gross vehicle weight	±5 %
Axle load (rigid vehicle)	±8 %
Confidence level	100 % (MPE)
Axle distances	±3 cm
Vehicle length	±25 cm

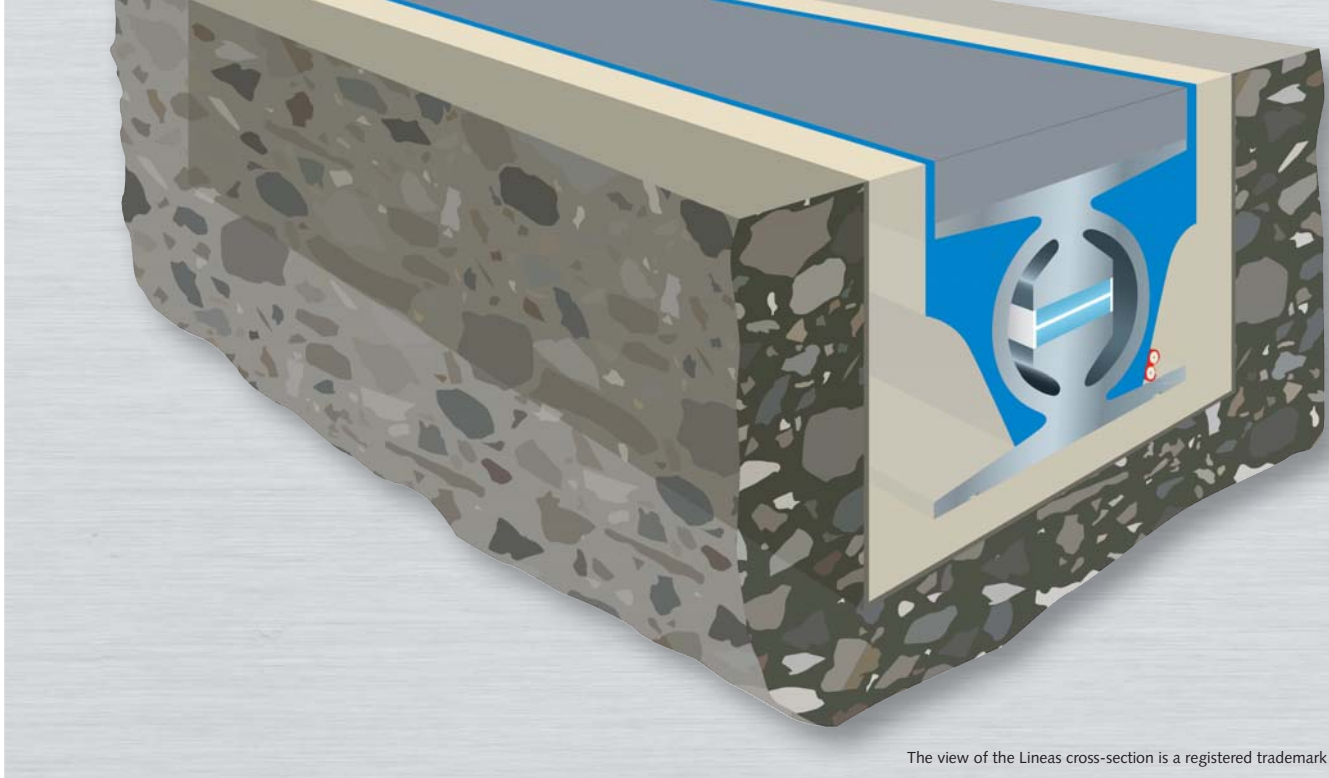
* Performance may be negatively affected by site conditions and driving behavior

Operating Range

	Measuring Range	Certified Range
Speeds	3 ... 80 km/h	3 ... 35 km/h
Axle loads	0 ... 50 tons	2 ... 15 tons
Gross vehicle weight	unlimited	8 ... 50 tons
Temperature	-20 ... 65 °C	-20 ... 65 °C



Multiple sensor layout for advanced industrial weighing



The view of the Lineas cross-section is a registered trademark of Kistler.

Cross-section of a Lineas® WIM sensor: modular length means that Kistler's WIM sensors can be flexibly combined to cover any road width

Kistler's WIM package for advanced industrial weighing contains all the key equipment you need to set up your WIM system. It includes the road equipment, such as the WIM sensors, grouting compound and beam array, as well as the roadside equipment, such as the Kistler WIM Data Logger with beam array interface and power supply unit, all pre-wired on a DIN rail, for immediate operation.

For easy ordering, use the key on the right to find the equipment that matches your individual requirements.

Please visit our website www.kistler.com/industrial-wim for more information on our offering, and to contact our WIM experts in your area.

Ordering Key

Kistler WIM Package

Type 9835AT 0008CS-2

Width of First Traffic Lane

3.00 m	1
3.25 m	2
3.50 m	3
3.75 m	4
4.00 m	5

Vehicle Separation

Beam array (1 pair), power input 110 V	2
Beam array (1 pair), power input 230 V	3

Please note: For other system configurations, please contact your Kistler Sales Center.

Included in Kistler WIM Package

WIM Data Logger Type 5204AC08 with web-based user interface

8 Lineas WIM sensors Type 9195GC with 16 m cable
(sensor length according to width of traffic lane)

10 grouting compound Type 1000A1

Infrared beam array Type 9835AZ300 (emitter, receiver, case and heating)

System accessories Type 55140424,
(power switch, power supply and cables, all prewired on a DIN rail)

Power transformer for beam array heating Type 55140425 (for 110 V)
or Type 55140426 (for 230 V)

Not Provided by Kistler

Electronic cabinet

Display, camera, RFID

Integration into main system

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