BISON®

BY iWiM

WEIGHS FAST. BORN TO LAST.

www.iwim.it

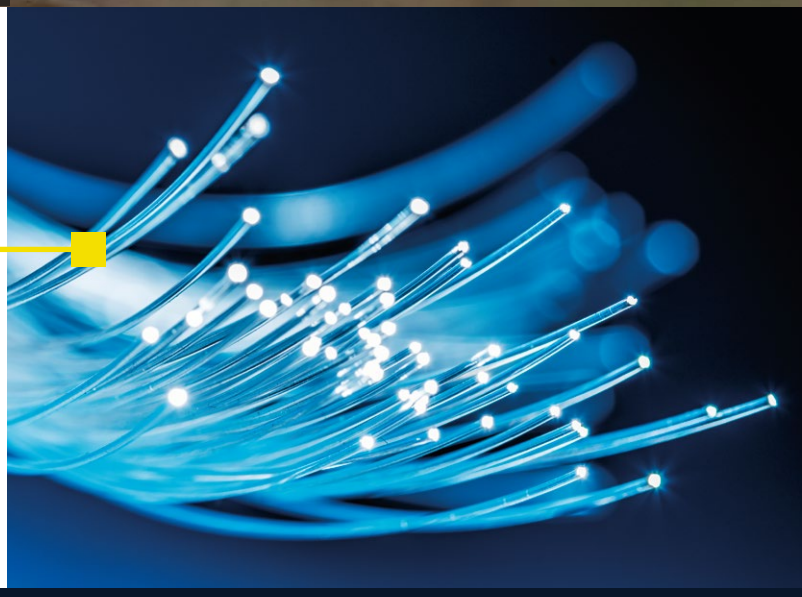
OIML R134 Certified

THE WEIGH IN MOTION SYSTEM FOR VEHICLES IN MOVEMENT

BISON®

WHAT IS BISON

The WIM system BISON is entirely produced by IWIM in Italy. It is composed of 2 plates in stainless steel equipped with **fiber optic sensors** conncted to a datalogger.



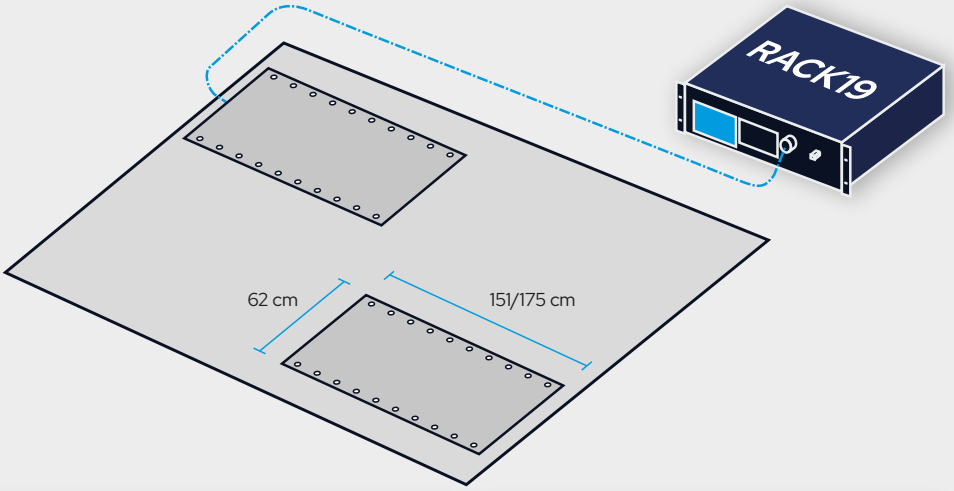
The bending plates are installed flush with the road surface and can be placed on urban and suburban roads, motorways / highways, bridges and toll gates.

The data acquisition unit (data logger) processes, and stores all information collected in a database. All the transit information is made available to the user through a web interface easily accessible from every device.

ADDED VALUES

- High durabilty and reduces maintenance
- Reusable: you do not have to change it after road repaving works
- Full assistance guaranteed: we are at your side at every stage of the project
- Reliable even in adverse climatic conditions
- Data logger can be installed even at long distance (up to 10 km) without the measurement being affected
- OIML R134 certified
- Flexibility:open system, easy data integration and sharing
- Free training included and full assistance
- Calibration only every 2 years

TECHNICAL FEATURES



COST 323B+(7)	
Accuracy class	5/7%
Maximum weight per axle	20 t
Speed range	5-130 km/h
Transit directions	Both

OIML R134 CERTIFICATION	
Accuracy class	10%
Maximum weight per axle	20 t
Speed range	5-90 km/h
Transit directions	Both

BENDING PLATE	
Technology	Optical fibre sensor
Dimensions WxHxD	151x175x62x5 cm
Power supply	not required
Digging	From 7 up to 24 cm
Material	Stainless steel

DATA LOGGER	
Connection to bending plates	Fibre optic cable
User interface (web)	Pc, tablet, smartphone
Power supply	110-230 VAC
Optional	Printer
Optional	Drucker

DATA COLLECTED

BISON in addition to the weight, is able to supply the following data without additional devices:

- Gross vehicle weight
- Transit spees vehicle
- Counting and classification
- Number of axles
- Single wheel weight
- Axle spacing
- Axle width
- Vehicle length
- Twinned wheels
- Alert transit out of one bending plate

LICENSE PLATE	ACCELERATION	AXLE NUM	DIRECTION	SPEED
AB837FW	-1.0 m/s²	5	USCITA	26 km/h

WIDTH (m)	LENGTH (m)	CLASS	WEIGHT	ÜOVERLOAD
1.94	12.1	(5) autotreno	52.400 kg	19.5%

SOFTWARE

The software is designed directly from iWIM, it has simple and intuitive and is able to provide, immediately and clear all the necessary information of specific interest to the user.

The system is completely open, to make it easy for the customer to exchange information and integrate other ITS systems, such as ANPR cameras for license plate recognition.

BISON®

The BISON weigh in motion system on the new San Giorgio bridge in Genoa.

ROAD SAFETY & BRIDGES MONITORING

Protect and monitor our infrastructure, such as bridges or viaducts, requires a monitoring system state-of-the-art that ensures continuous control.

BISON is the modern and highly solution technology able to provide all the data on the load traffic induced, important information for preserve infrastructure investments and manage in safety even the oldest bridges.

Weigh in motion systems (WIM) are among the recommended sensors for a structural monitoring also from the Guidelines for safety assessment and monitoring of existing bridges, issued by the Superior Council of Public Works in Italy.

Identify and at the same time discourage transits in overload increases road safety, reduces accident and protects infrastructure from rapid wear.

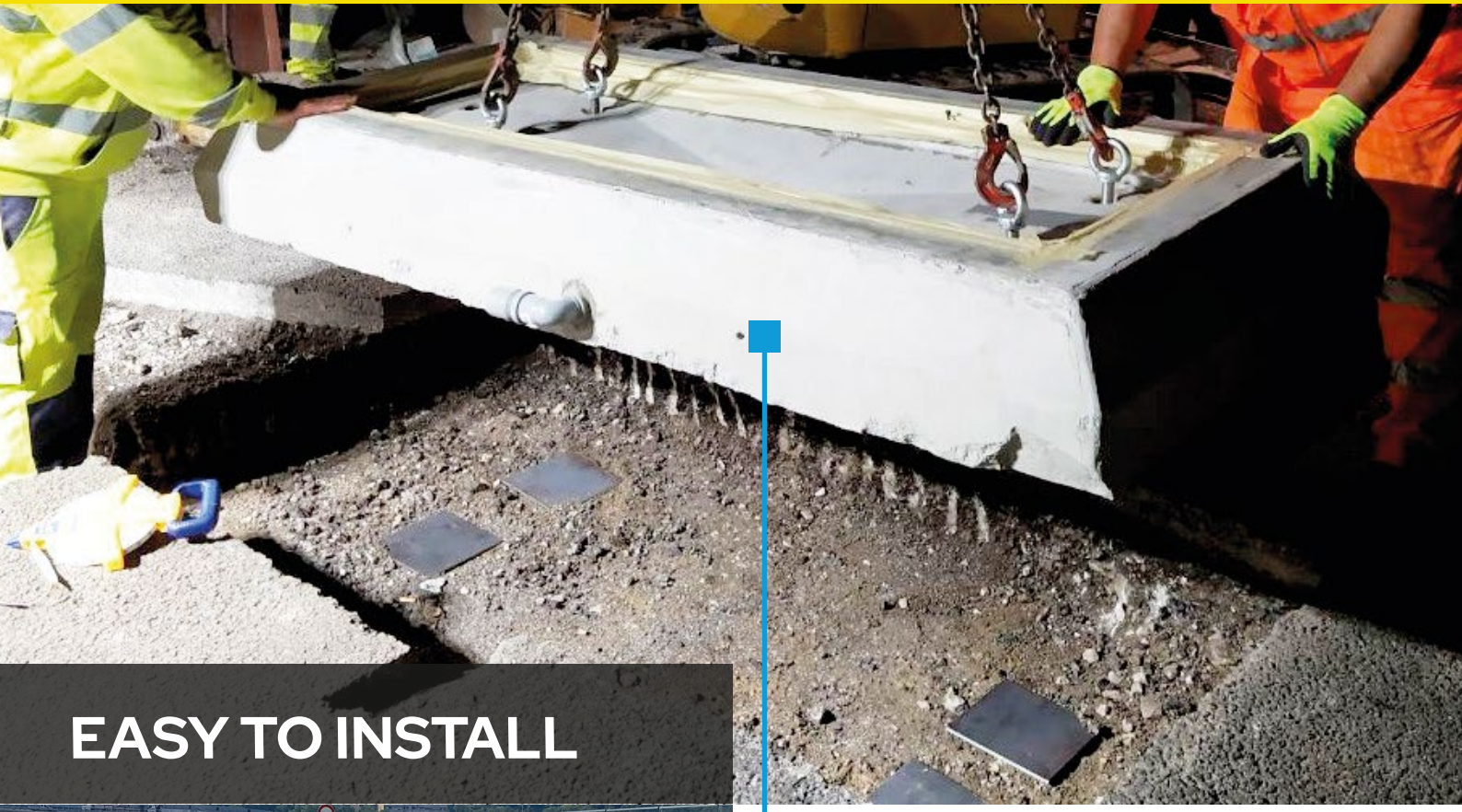
The weight is only one of the data collected by BISON, in fact we have others available important information such as number of axles, weight of each individual axis, the speed and more.

Detecting the type of vehicles and their weight allows you to know precisely the real composition of the traffic in transit and its temporal distribution, data useful for the purpose of optimal maintenance management of the road system

HIGH PERFORMANCE

The system consists of plates in **highly resistant** stainless steel even to the most aggressive environments and from fiber optic sensors, insensitive to variations in temperature and fields electromagnetic.

BISON guarantees great performance even in extreme weather conditions: snow, rain and low/high temperatures!



EASY TO INSTALL

The installation of the plates of the WIM system BISON can take place both on the concrete slab already present at the toll booths or areas equipped at the stop, or even on the lane where there is no foundation:

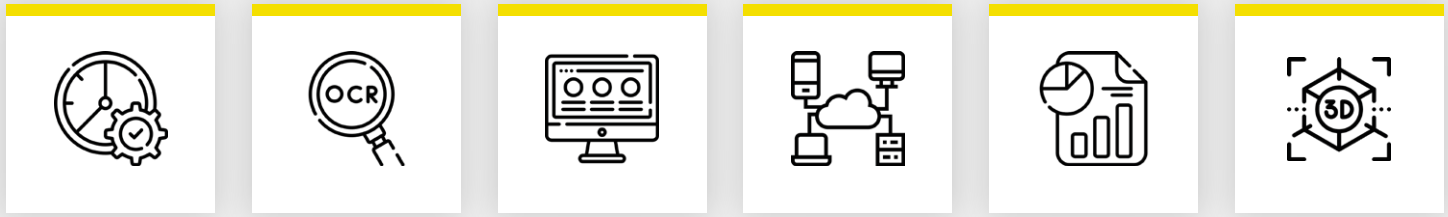
In this case a solution has been prepared with prefabricated reinforced concrete which reduces shutter speed.

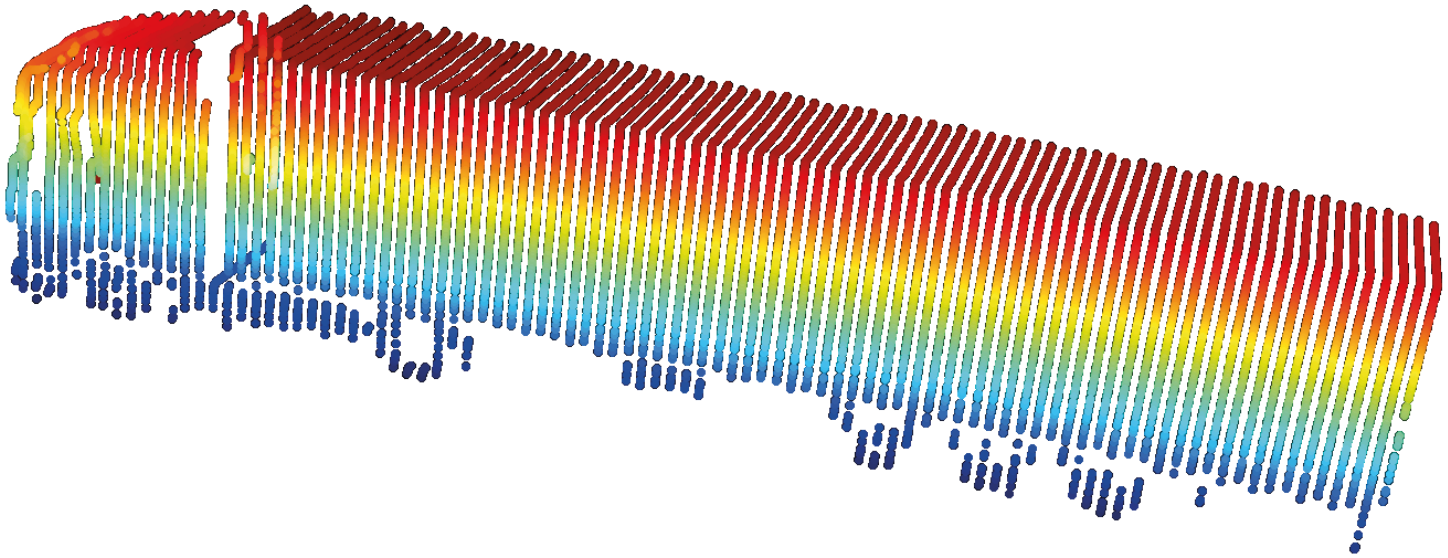
BiSON®

FLEXIBILITY: EASY DATA SHARING AND INTEGRATION

The BISON system offers real-time exchange functionality of transit data (including images and plate OCR) in order to be easily integrated with monitoring or statistical processing platforms, via Html protocol and Json format.

BISON weigh in motion system, can be easily integrated with other technologies, like ANPR cameras for license plate detection, or LIDAR, which through a laser scan provides a 3D model of the vehicles passing through the weighing system, as well as useful information for the classification of the various types of vehicles.





RESISTANT AND REUSABLE

The BISON weigh in motion system represents a long-lasting investment thanks to the high quality of the materials used.

AISI 316L steel is in fact also suitable for extremely aggressive environments. The system also, in case of work on the road pavement is **easily repositionable** in a different site.

These peculiar characteristics combined with the **reduced maintenance needs** make the system highly competitive BISON!

LAW ENFORCEMENT

Police authorities can find in the weigh in motion system BISON a valid ally to identify in real-time overloaded vehicles to **be intercepted and checked.**

* The system can be used for the purpose sanctions in the countries where the law allows it.

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ABOUT US

iWIM is a company with over 10 years of experience in the production of weigh in motion systems. It has developed, certified and approved the **first weigh in motion system in Italy**, which is BISON: a system born to last, with the aim of guaranteeing the monitoring, the protection of our roads and infrastructures. IWIM is the only manufacturer of weigh in motion systems in Italy.

The product obtained the important certification international OIML R134 through the Dutch laboratory NMi and subsequently formal recognition as measuring instrument from the Ministry of Economy. BISON among his important installations was also chosen for the new San Giorgio Bridge in Genoa.

Ministero dello Sviluppo Economico

ITALIAN TYPE APPROVAL

It certifies the legalization of Bison as an automatic weighing system for moving road vehicles in Italy.

LATMB

LATVIAN TYPE APPROVAL

It certifies the legalization of Bison as an automatic weighing system for moving road vehicles in Latvia.

NMi

OIML Member State
The Netherlands

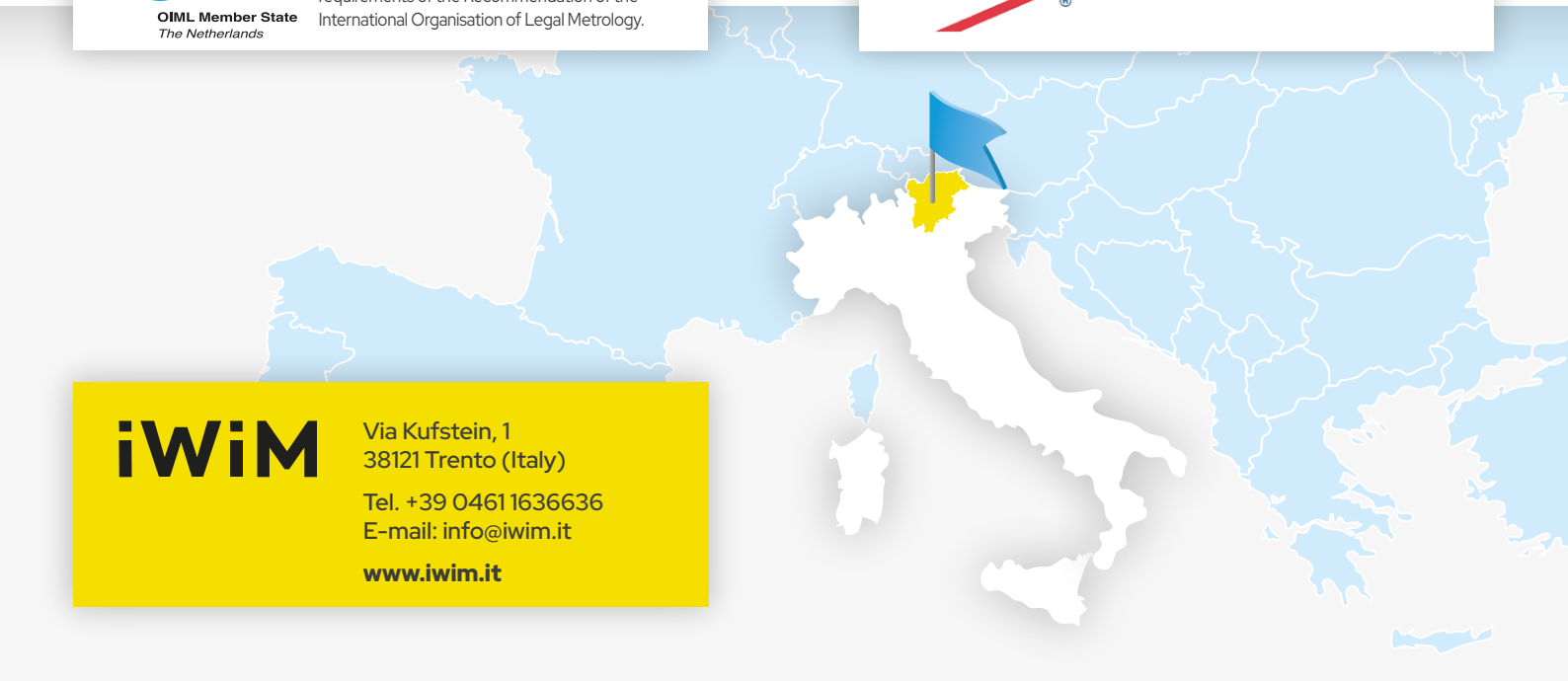
OIML R134 CERTIFICATE

The OIML certificate certifies compliance with the requirements of the Recommendation of the International Organisation of Legal Metrology.

QSCert®

ISO 9000 CERTIFICATION

Corporate Quality Management Systems Certificate.



iWiM

Via Kufstein, 1
38121 Trento (Italy)

Tel. +39 0461 1636636
E-mail: info@iwim.it

www.iwim.it