



WEBINAR

21 April 2021



#LAUMASKNOWHOW

**LAUMAS**<sup>®</sup>  
Innovation in Weighing



WEIGHT INDICATORS



1

# SUITABLE FOR ANY INDUSTRIAL PROCESS

2

3

## WEIGHING SYSTEMS

- Versatility
- Certifications
- IP protection



4

## APPLICATIONS

- Weight visualization
- Batching
- Weighbridge



5

## STRATEGY

Standard user interface

6

7

8



# WEIGHING SYSTEMS



Simple weighing



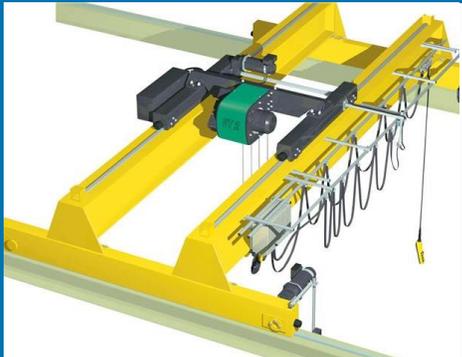
Filling systems



Discharging systems



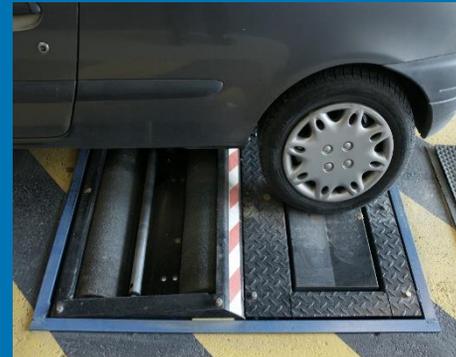
Testing equipment



Lifting systems



On board weighing



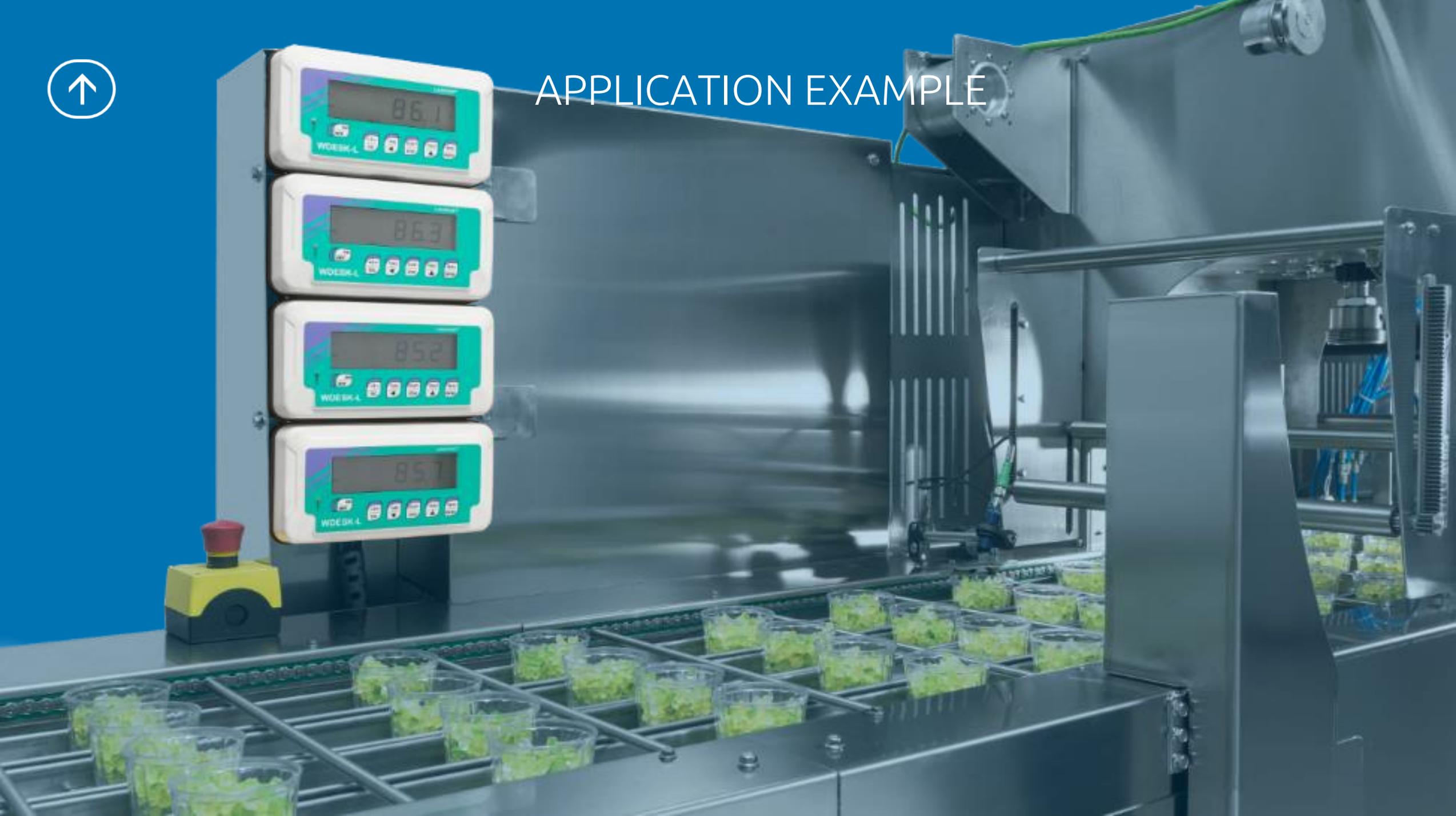
Vehicle weighing



Industrial scales



# APPLICATION EXAMPLE



1

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# CERTIFICATIONS

**LEGAL  
FOR TRADE**



**HAZARDOUS  
AREA**



**OTHERS**



**WORK IN  
PROGRESS**





# LEGAL FOR TRADE



European Union

**OIML-R76 NAWI**  
**OIML-R61 (MID)**



Russian  
Federation



Australian &  
New Zealand  
standards



U. S. + Canada  
standards

Example





# Example



INTERNAL USE



LEGAL FOR TRADE

W200 S/N E0079521

Max1	6	Min1	0.04	e1	0.002
Max2	15	Min2	0.1	e2	0.005

Unit, kg Sw 1 Ref.No 02

CE M 21 2275 LAUMAS III

```

-----
24/01/13      10:45:01
PRINTOUT NUMBER      23

CODE                    5
WEIGHED VALUE 1 15000 kg

ALIBI ID                    11
WEIGHED VALUE 2 18000 kg
-----
LOADED:                    3000 kg
24/01/13      10:15:20

TOTALS
WITHOUT LEGAL VALUE
-----
LOADED:                    30000 kg
WEIGHING                    3
FROM
24/01/13      09:00:20
-----
UNLOADED:                    22000 kg

```



# HAZARDOUS AREA



European Union

Directive  
2014/34/EU - ATEX;  
zone 0-1-2 gas ;  
zone 20-21-22 dust



IECEx CoC  
Certificate

IEC 60079-0, 60079-11,  
60079-31, 60079-15;  
zone 0-1-2 gas;  
zone 20-21-22 dust



Eurasian  
Custom Union

TR CU 012

Example





Example

WDESK  
-L / -R / -G



"X" rear version



WINOX  
-L / -R / -G / -2G



"X" rear version



W200BOX



ADPEW200





# OTHERS



Eurasian  
Custom Union

Electromagnetic  
compatibility



U. S. + Canada  
Standards

Low voltage  
devices



3A Sanitary  
Certification

Food and Pharmaceutical  
environment



European Union



United Kingdom

Electromagnetic  
compatibility



# WORK IN PROGRESS

<b>UK CA</b>	<b>NAWI for 2016</b>
United Kingdom	

<b>N</b> <i>INMETRO</i>	<b>LEGAL FOR TRADE</b>
Brazil	

<b>FM</b> APPROVED
USA

<b>UK CA</b>	<b>EX</b>
United Kingdom	

<b>N</b> <i>INMETRO</i>	<b>EX</b>
Brazil	

# COMMON TECHNICAL FEATURES

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8x 350Ω



RS485  
Modbus RTU



RS232  
Modbus RTU

12/24  
VDC



5 RELAY  
OUTPUTS

3 RELAY  
INPUTS

24 BIT  
AD converter



# SOFTWARE COMMON FEATURES

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**OPERATIONAL  
SOFTWARE**



**INSTRUMENT  
MANAGER**





# OPERATIONAL SOFTWARE

Theoretical calibration

9 levels digital filter selection

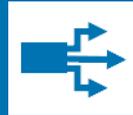
Auto-zero and zero-track feature

Testing mode: mV verification

Linearization up to 8 points



Multi-functional serial ports

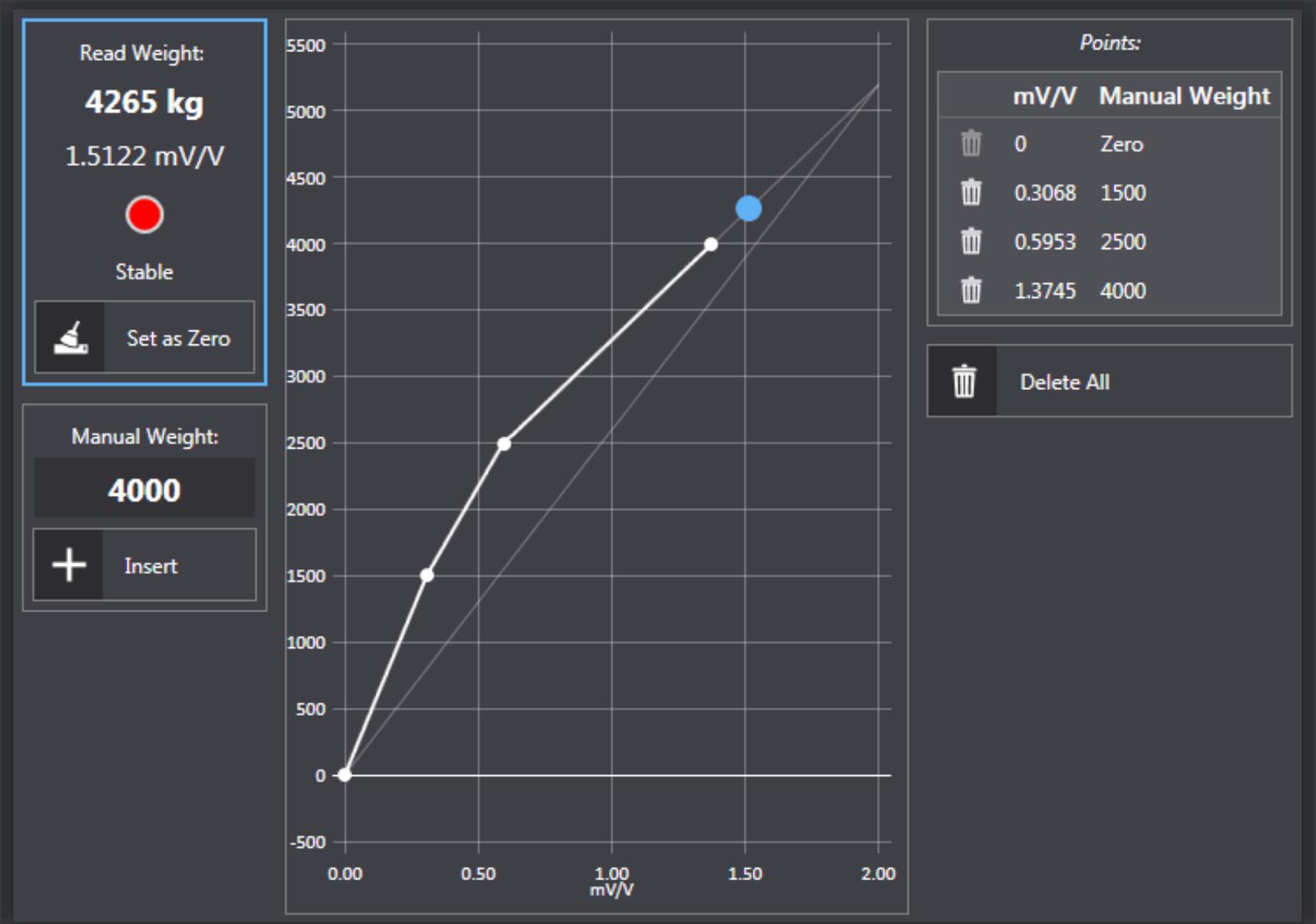


Connection to multichannel weight transmitters



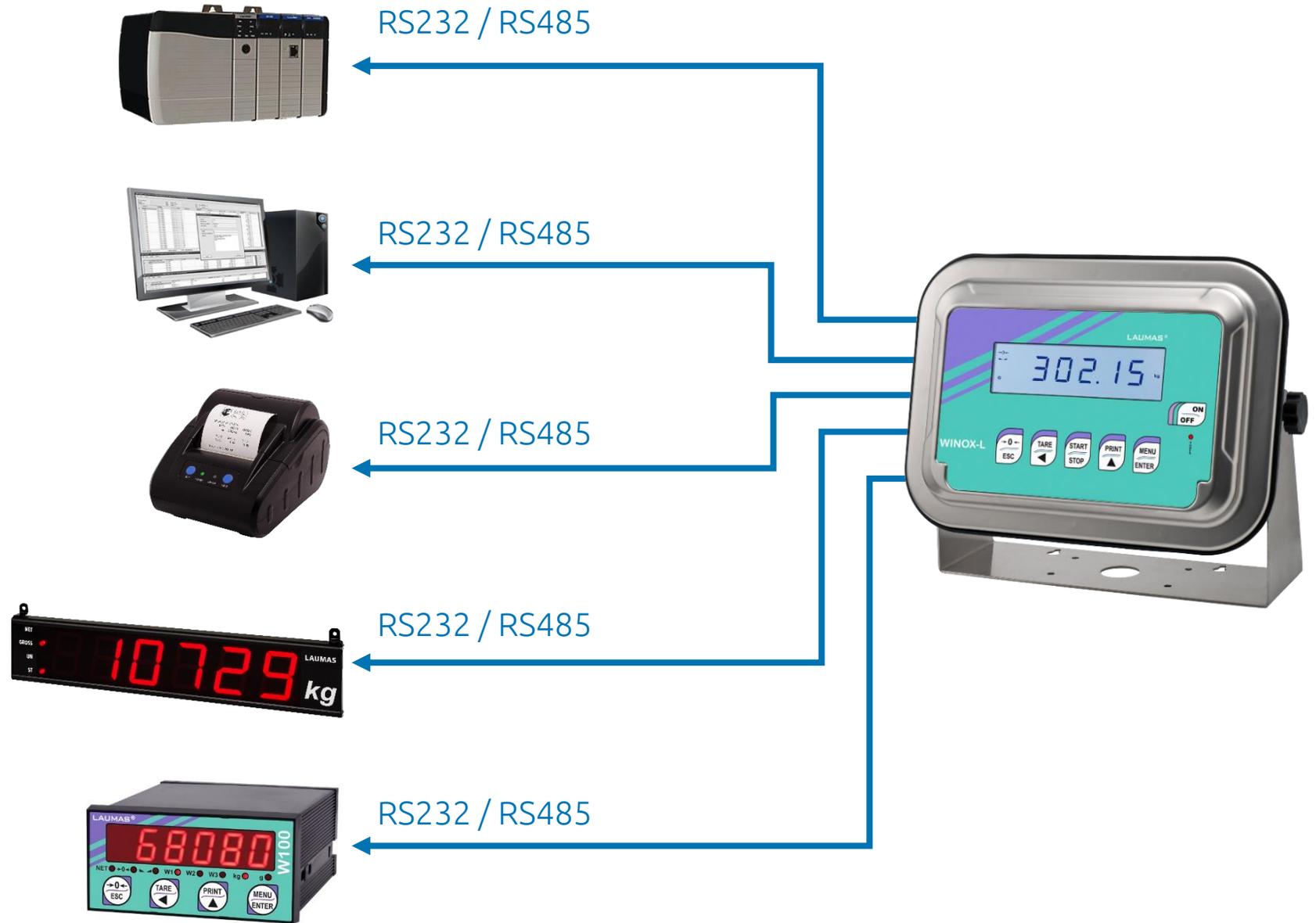
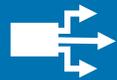


Linearization  
up to 8 points





# Multi-functional serial ports





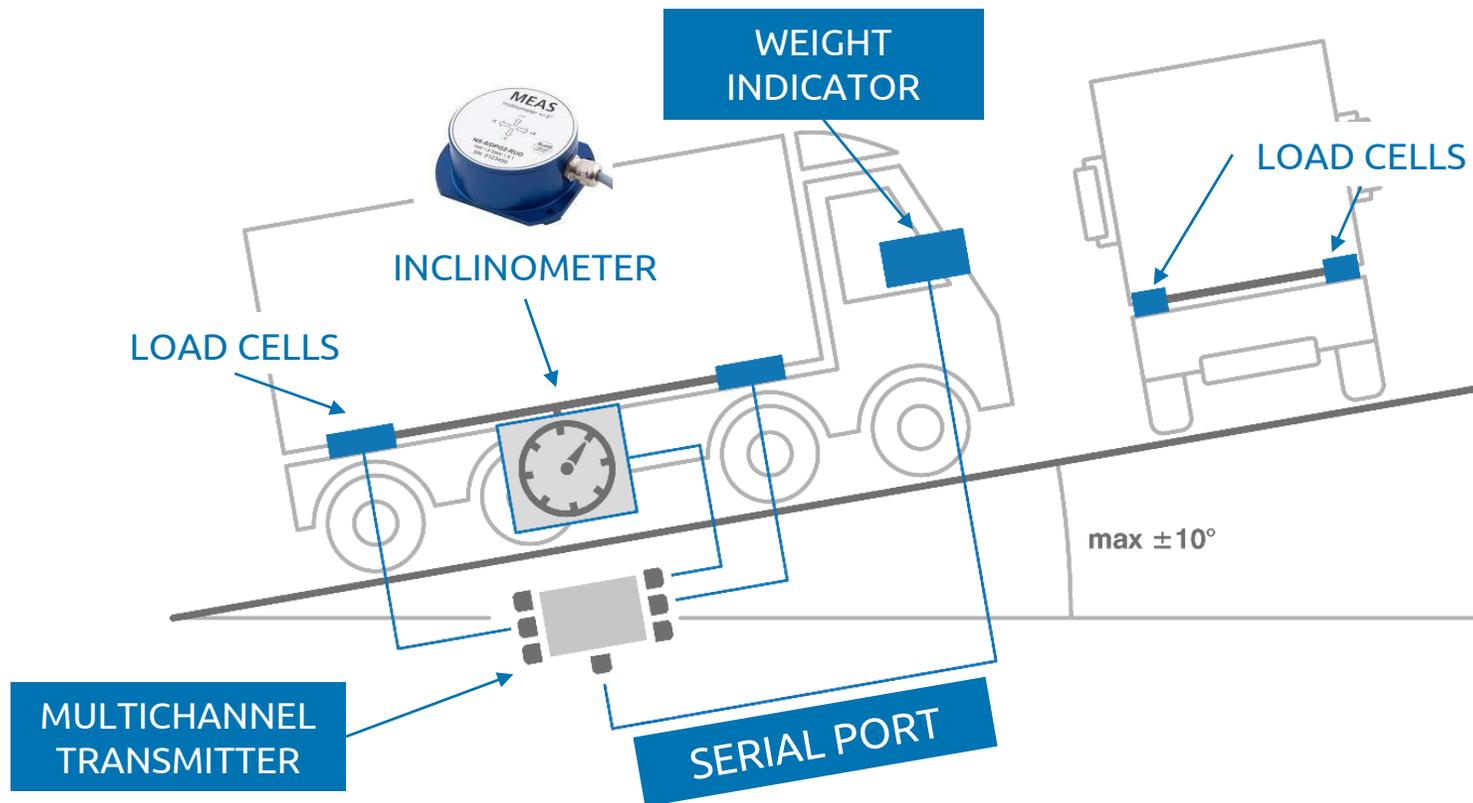
Connection to  
multichannel  
weight  
transmitters



INCLINOMETER FUNCTION



# INCLINOMETER FUNCTION





## INSTRUMENT MANAGER

- Upload/unload calibrations and settings
- Setting profiles per customers



[LAUMAS.COM](http://LAUMAS.COM)



FREE  
SOFTWARE



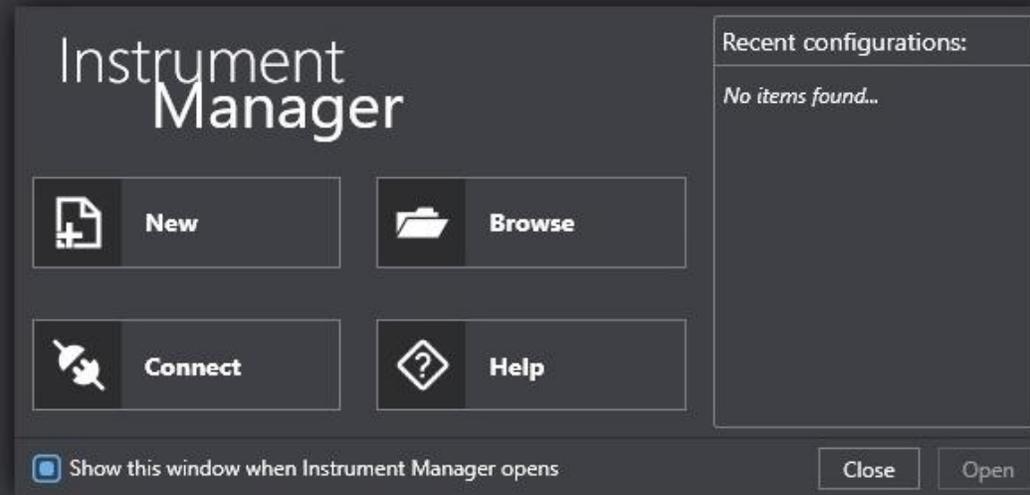
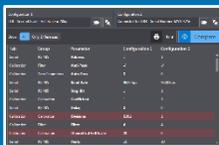
DOWNLOAD  
UPGRADE



TECHNICAL  
WEBINAR

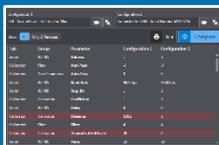
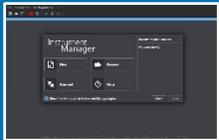


# INSTRUMENT MANAGER





# INSTRUMENT MANAGER



File Connection Configurations ?

TLB 1.14.00 • Program: Base • Legal for Trade: Not Legal

**Calibration**

Real Calibration  
Analog  
Serial  
Input / Output

Residual Full Scale  
10000 kg

Theoretical Full Scale  
0 kg

Sensitivity  
2 mV

Divisions  
1

Maximum Weight  
0 kg

Unit of Measurement  
Kilograms

Coefficient  
1

Manual Zero Value  
0 kg

**Filter**

Filter  
4

Anti-Peak

**Zero Parameters**

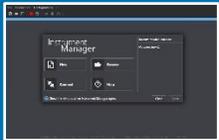
Auto Zero

Zero Tracking

LAUMAS Elettronica S.r.l. Via I Maggio, 6 - 43022 Montechiarugolo (PR) - Italia - P.IVA IT01661140341 © 2018



# INSTRUMENT MANAGER



Configuration 1

TLB - Second Scale - Full Scale = 20kg



Configuration 2

Connected to TLB4 - Serial Number 625123256



Show

All

Only Differences



Print



Compare

Tab	Group	Parameter	Configuration 1	Configuration 2
Serial	RS 485	Address	1	1
Calibration	Filter	Anti-Peak	✓	✓
Calibration	Zero Parameters	Auto Zero	0	0
Serial	RS 485	Baud Rate	9600 bps	9600 bps
Serial	RS 485	Stop Bit	1	1
Calibration	Calibration	Coefficient	1	1
Serial	RS 485	Delay	0	0
Calibration	Calibration	Divisions	0.002	1
Calibration	Filter	Filter	4	4
Calibration	Calibration	Theoretical Full Scale	20	0
Serial	RS 485	Hertz	10	10

# MAIN FEATURES OVERVIEW

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**MOUNTING  
SOLUTIONS**



**EXPLOSION  
PROOF**



**FIELDBUSES**



STANDARD OR OPTIONAL FEATURES  
(see the Datasheet for each Weight Indicator model)



# MOUNTING SOLUTIONS



FRONT PANEL

DESK

WALL&COLUMN





# MOUNTING SOLUTIONS

FRONT PANEL

DESK

WALL&COLUMN





# MOUNTING SOLUTIONS

FRONT PANEL

DESK

WALL&COLUMN





# EXPLOSION PROOF





# FIELD BUSES

**Modbus-RTU**

**Modbus TCP/IP**

**DeviceNet™**

**EtherNet/IP™**

**PIV CERTIFIED**  
PROFIBUS • PROFINET

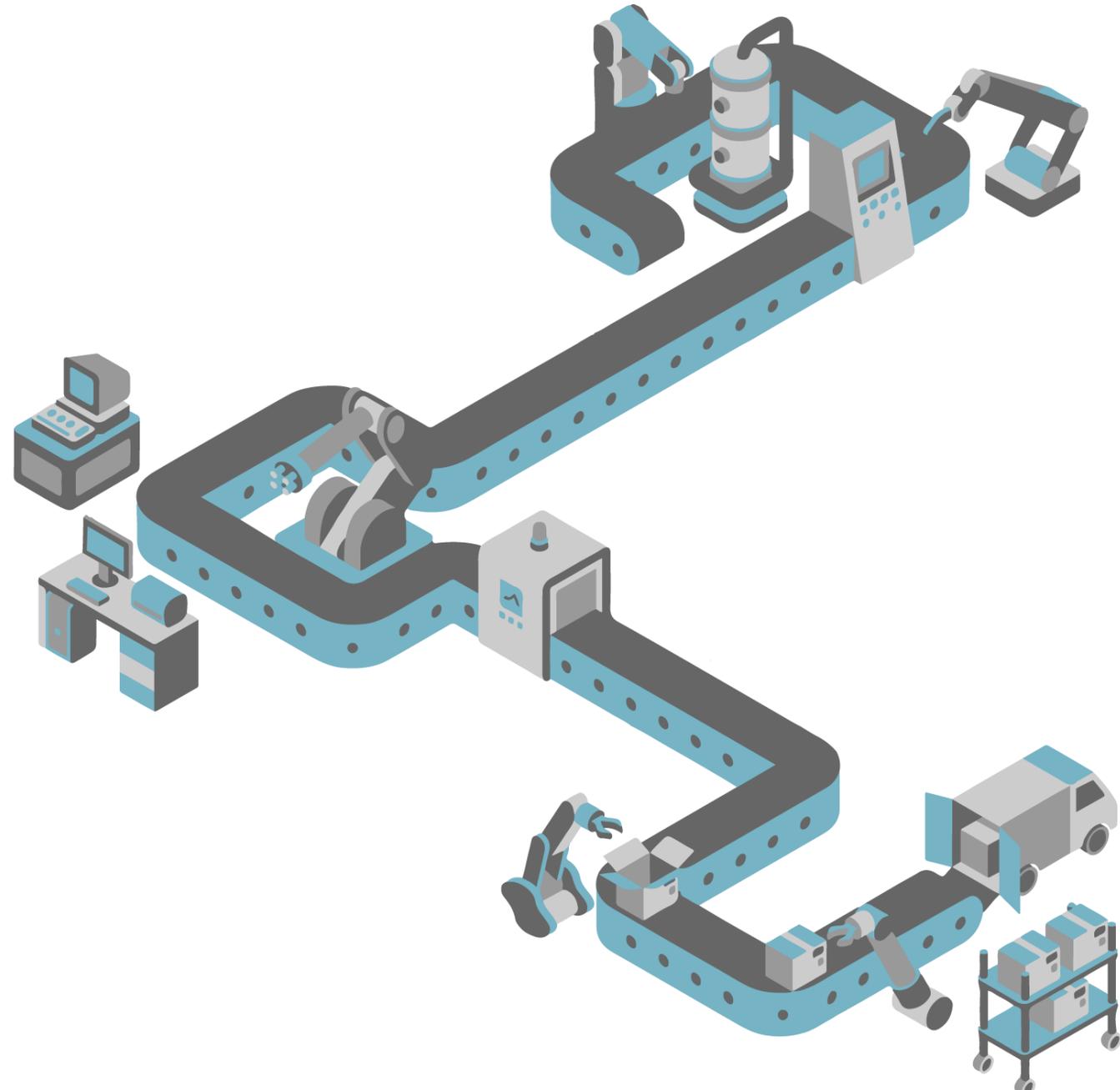
**PROFI BUS**

**CANopen®**

**ETHERNET TCP/IP**

**WiFi**

**ANALOG OUTPUT**



# W SERIES SOFTWARE

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**BASE**



**BATCHING**

MONOPRODUCT  
MULTIPRODUCTS



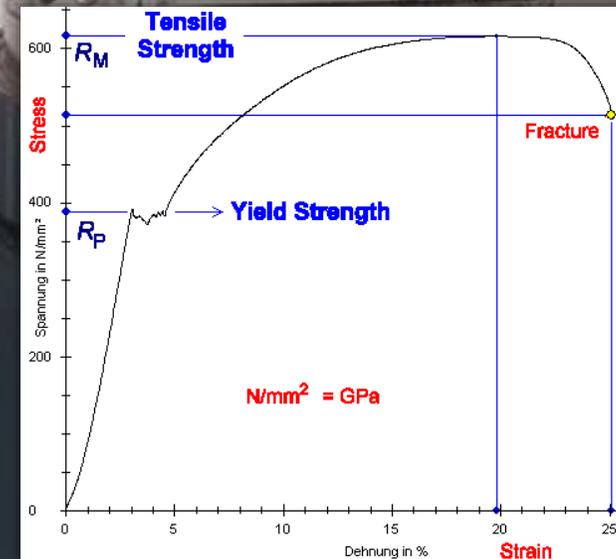
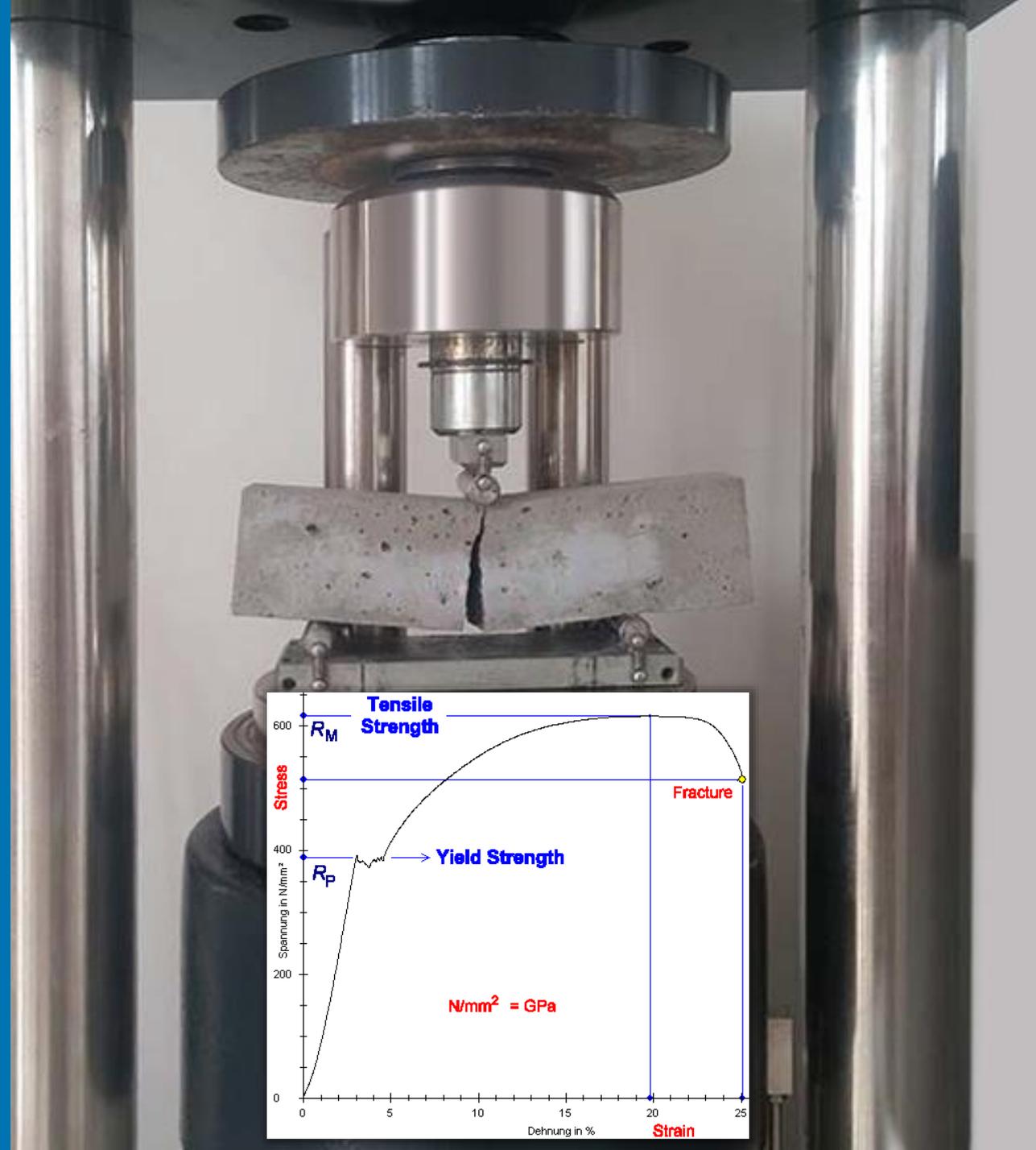
**MULTI  
SOFTWARE**





## BASE

- Multi-functional **relay outputs** :
  - setpoints
  - stable weight
- **E/EC** (12 groups – 5 setpoints)
- **Coefficient**
- **Peak tracking** (material break point)
- **Semi-automatic** and **pre-set tare**





# BATCHING COMMON FEATURES

- **99** settable formulas
- **E/EC** (first 12 formulas)
- **2-speed batching**: coarse - fine
- **Fall** and **tolerance** value management for each formula
- **Batching resume** after a blackout (automatic or manual mode)
- Many different **alarms** to detect any malfunctioning

**LOAD**  
**3/6/14**  
**UNLOAD**

SPECIFIC FEATURES





## LOAD - 3/6/14 PRODUCTS

- End of cycle contact
- Automatic tare management

## UNLOAD

- End of cycle contact
- Semi automatic tare
- Automatic reload of the silo/tank/hopper
- Setting minimum and maximum values





# MULTI-SOFTWARE

- All softwares included and selectable
- Suitable for stocking



# DATA RECORDING

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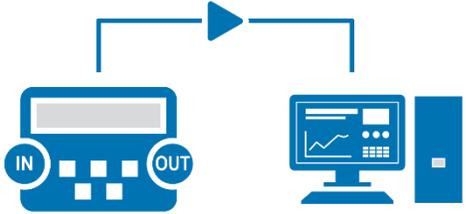
5

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- WEIGHED VALUES
- BATCHING
- STRESS TEST VALUES



The diagram shows a scale with 'IN' and 'OUT' buttons connected via a line with an arrow to a computer monitor displaying a graph, representing data recording.

REGISTRATION METHODS 



**OPZWDATIPC**  
SERIAL PORT



**OPZWUSB**  
USB PORT



**PROG-DB**

Data storage  
PC- software



INCLUDED





## OPZWDATIPC

- RS232
- RS485



## OPZWUSB

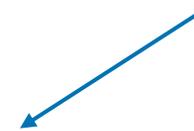
- USB key
- Stress test mode

### BASE software

- Weight, date and time
- ID number
- Coefficient (unit of measure)
- Peak

### BATCHING software

- Complete batching details including date and time



- Alibi memory
- Data printing



## REGISTRATION METHODS

- **Print button**
- **Close an input**
- **Built-in timer:** recording a weight curve
- **Setpoint:** when the weight exceeds a certain threshold or returns below the threshold
- **Stable weight** value
- **Automatic** for Batching software



## PROG-DB

Data storage  
PC- software



FREE  
SOFTWARE

- Recognition of new instruments
- Customization of a specific instrument with name and notes
- Display of single instrument data
- Research of data on all the instruments
- Filters
- Export to CSV data files and printing of the collected data
- G/2G Weight Indicators: product and batch name recording





# PROG-DB

Data storage  
PC- software



FREE  
SOFTWARE

Prog DB - rev: 1.0.6 - by LAUMAS Elettronica srl - [Batching Cycle Detail Search]

File Data

INSTRUMENT: ALL    PRODUCT: ALL    SEARCH  
SCALE: ALL    DATE FROM: ALL  
FORMULA: ALL    DATE TO: ALL    CLEAR

MODEL	SERIAL NUMBER	DATE and TIME	FORMULA	CURRENT CYCLE	DETAIL	DETAIL TYPE	REAL WEIGHT	THEORETICAL WEIGHT	MEASURE UNIT
W200	203110605	02-07-2012 16.13.10		1	1 / 20 TARE	AUTOTARE	0,0000	0,0000	KG
W200	203110605	02-07-2012 16.13.10		1	1 / 20 PRODUCT: 1	NET	520,0000	500,0000	KG
W200	203110605	02-07-2012 16.13.10		1	1 / 20 PRODUCT: 2	NET	220,0000	200,0000	KG
W200	203110605	02-07-2012 16.13.23		1	2 / 20 TARE	AUTOTARE	0,0000	0,0000	KG
W200	203110605	02-07-2012 16.13.23		1	2 / 20 PRODUCT: 1	NET	520,0000	500,0000	KG
W200	203110605	02-07-2012 16.13.23		1	2 / 20 PRODUCT: 2	NET	230,0000	200,0000	KG
W200	203110605	02-07-2012 16.13.36		1	3 / 20 TARE	AUTOTARE	0,0000	0,0000	KG
W200	203110605	02-07-2012 16.13.36		1	3 / 20 PRODUCT: 1	NET	521,0000	500,0000	KG
W200	203110605	02-07-2012 16.13.36		1	3 / 20 PRODUCT: 2	NET	218,0000	200,0000	KG
W200	203110605	02-07-2012 16.13.49		1	4 / 20 TARE	AUTOTARE	0,0000	0,0000	KG
W200	203110605	02-07-2012 16.13.49		1	4 / 20 PRODUCT: 1	NET	519,0000	500,0000	KG
W200	203110605	02-07-2012 16.13.49		1	4 / 20 PRODUCT: 2	NET	220,0000	200,0000	KG
W200	203110605	02-07-2012 16.14.02		1	5 / 20 TARE	AUTOTARE	0,0000	0,0000	KG
W200	203110605	02-07-2012 16.14.02		1	5 / 20 PRODUCT: 1	NET	520,0000	500,0000	KG
W200	203110605	02-07-2012 16.14.02		1	5 / 20 PRODUCT: 2	NET	230,0000	200,0000	KG
W200	203110605	02-07-2012 16.14.15		1	6 / 20 TARE	AUTOTARE	0,0000	0,0000	KG
W200	203110605	02-07-2012 16.14.15		1	6 / 20 PRODUCT: 1	NET	519,0000	500,0000	KG
W200	203110605	02-07-2012 16.14.15		1	6 / 20 PRODUCT: 2	NET	230,0000	200,0000	KG
W200	203110605	02-07-2012 16.14.28		1	7 / 20 TARE	AUTOTARE	0,0000	0,0000	KG
W200	203110605	02-07-2012 16.14.28		1	7 / 20 PRODUCT: 1	NET	519,0000	500,0000	KG
W200	203110605	02-07-2012 16.14.28		1	7 / 20 PRODUCT: 2	NET	220,0000	200,0000	KG
W200	203110605	02-07-2012 16.14.41		1	8 / 20 TARE	AUTOTARE	0,0000	0,0000	KG
W200	203110605	02-07-2012 16.14.41		1	8 / 20 PRODUCT: 1	NET	519,0000	500,0000	KG
W200	203110605	02-07-2012 16.14.41		1	8 / 20 PRODUCT: 2	NET	220,0000	200,0000	KG

TOT REAL: 14914,0000    TOT TEORICAL: 14000,0000

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# OVERVIEW





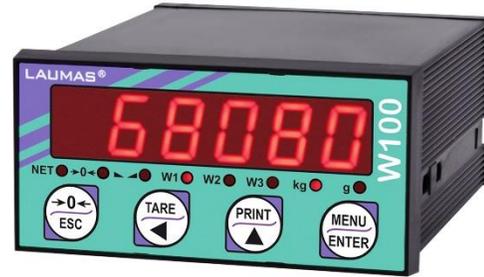
# WLIGHT

THE SIMPLEST ONE



- Ideal for simple scales
- 1xRS232
- Scale linearization up to 5 points
- No relay outputs nor logic inputs
- Installation: desk, wall, column





## W100

THE MOST POPULAR

- BASE software
- Front panel mounting → IP65 gasket
- Analog output





## W200



- BASE and BATCHING software
- Front panel mounting → IP65 gasket
- Analog output and fieldbus
- OPZWDATIPC – OPZWUSB





## W200BOX

- BASE and BATCHING software
- Wall mounting
- Analog output and fieldbus
- EX zone 2-22 approved
- OPZWDATIPC





# WDOS



- Red LED + Backlit LCD graphic display
- BASE and BATCHING software
- Language selection
- Front panel mounting → IP65 gasket
- Analog output and fieldbus
- OPZWDATIPC – OPZWUSB
- Product and plant name
- Simultaneous Net & Gross display
- Synoptic information for batching system





## ADPEW200



- ADPE box approved for EX zone 1-21
- Integrated Zener barriers
- BASE and BATCHING software
- Analog output and fieldbus
- OPZWDATIPC







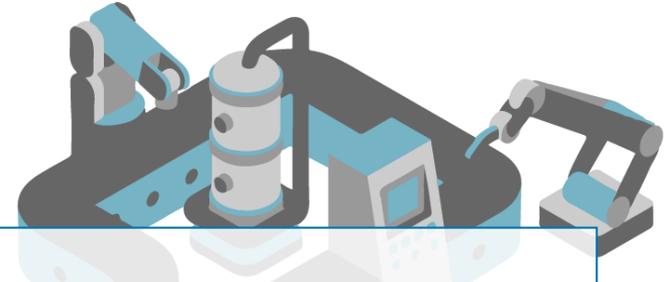
WLIGHT  
W100  
W200  
ADPE

Compare

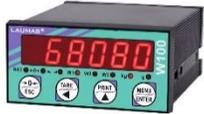
WDESK  
WINOX  
WTAB



# FIELD BUSES




**Modbus-RTU**



**Modbus-RTU** ANALOG OUTPUT






**Modbus-RTU** **Modbus TCP/IP** **CANopen**

**DeviceNet** **EtherNet/IP** **ETHERNET TCP/IP**

**PI CERTIFIED** **PROFIBUS** ANALOG OUTPUT





WDESK  
WINOX  
WTAB

MAIN  
DIFFERENCE



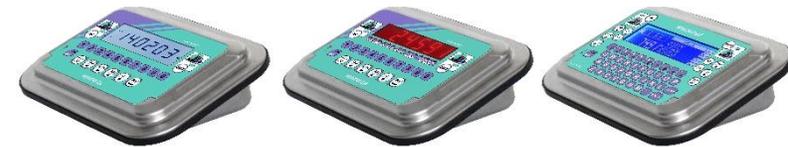
BASE+BATCHING



BASE+BATCHING  
+DATABASE  
+STOCKS  
+PREPACKAGES



WEIGHBRIDGE



BASE



BASE+DATABASE  
+PREPACKAGES



-L

-R

-G

-2G

-BL

-BR

-BGE



-L / -R / -G / -2G

**COMMON  
FEATURES**



**ADVANCED  
FEATURES**



Same W200 indicator's functions



-L / -R / -G / -2G

# COMMON FEATURES

INSTALLATION

REAR PANEL

WiFi

CERTIFICATIONS

FIELD BUSES

DESK



WALL



COLUMN



FRONT PANEL





-L / -R / -G / -2G

COMMON  
FEATURES

INSTALLATION

REAR PANEL

WiFi

CERTIFICATIONS

FIELD BUSES

P version



Q version



D version



X version





-L / -R / -G / -2G

## COMMON FEATURES

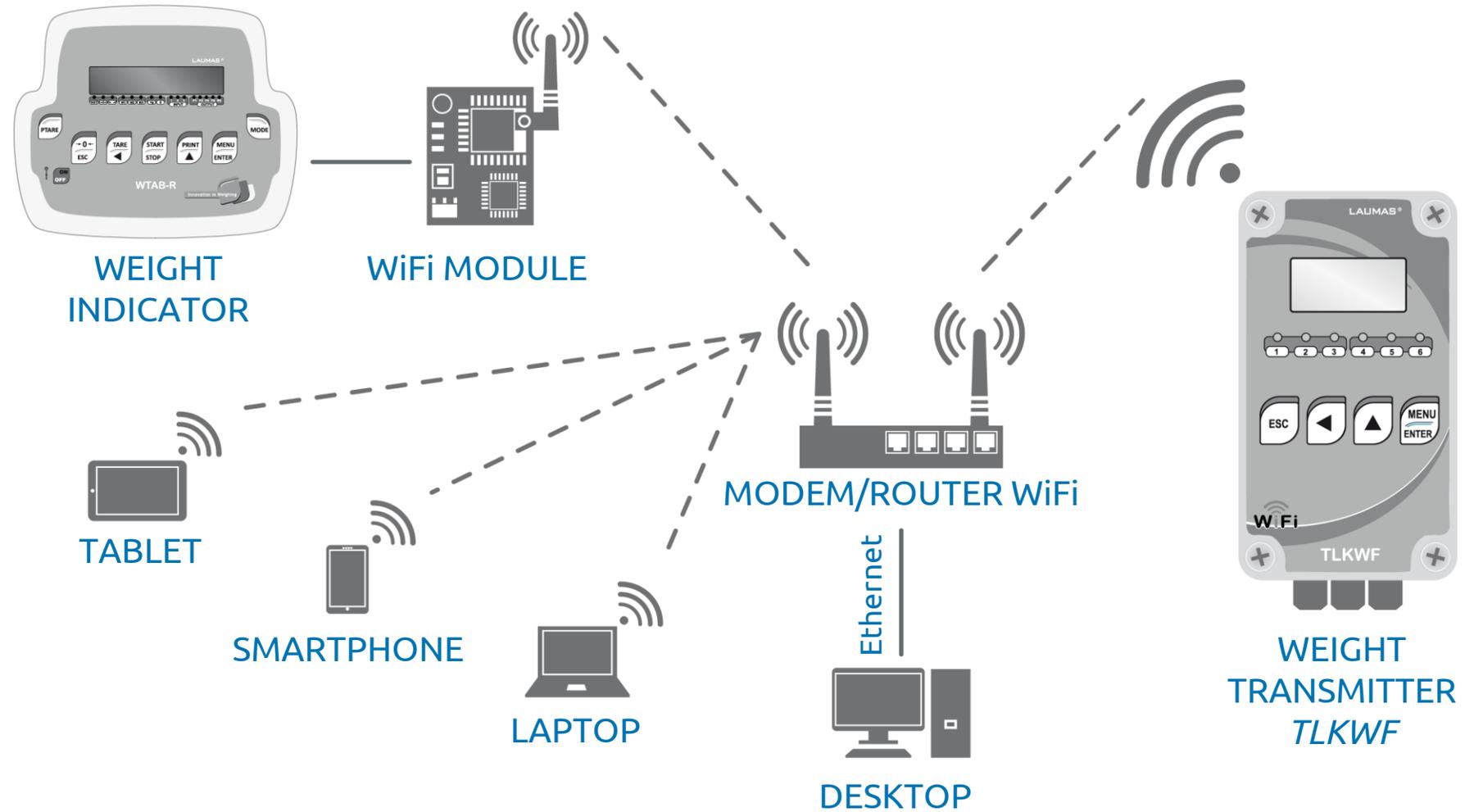
INSTALLATION

REAR PANEL

WiFi

CERTIFICATIONS

FIELDBUSES





-L / -R / -G / -2G

COMMON  
FEATURES

INSTALLATION

REAR PANEL

WiFi

CERTIFICATIONS

FIELD BUSES

SERIES



	OIML R76	UL US	EAC	NMI TRADE APPROVED	G	Ex	IECEx	EAC Ex	A3
Small device (96.128)	✓	✓	✓	✓	✓	✓	-	-	-
Medium device (302.15)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Large device (1342.12)	✓	✓	✓	✓	✓	-	-	-	-



-L / -R / -G / -2G

## COMMON FEATURES

INSTALLATION

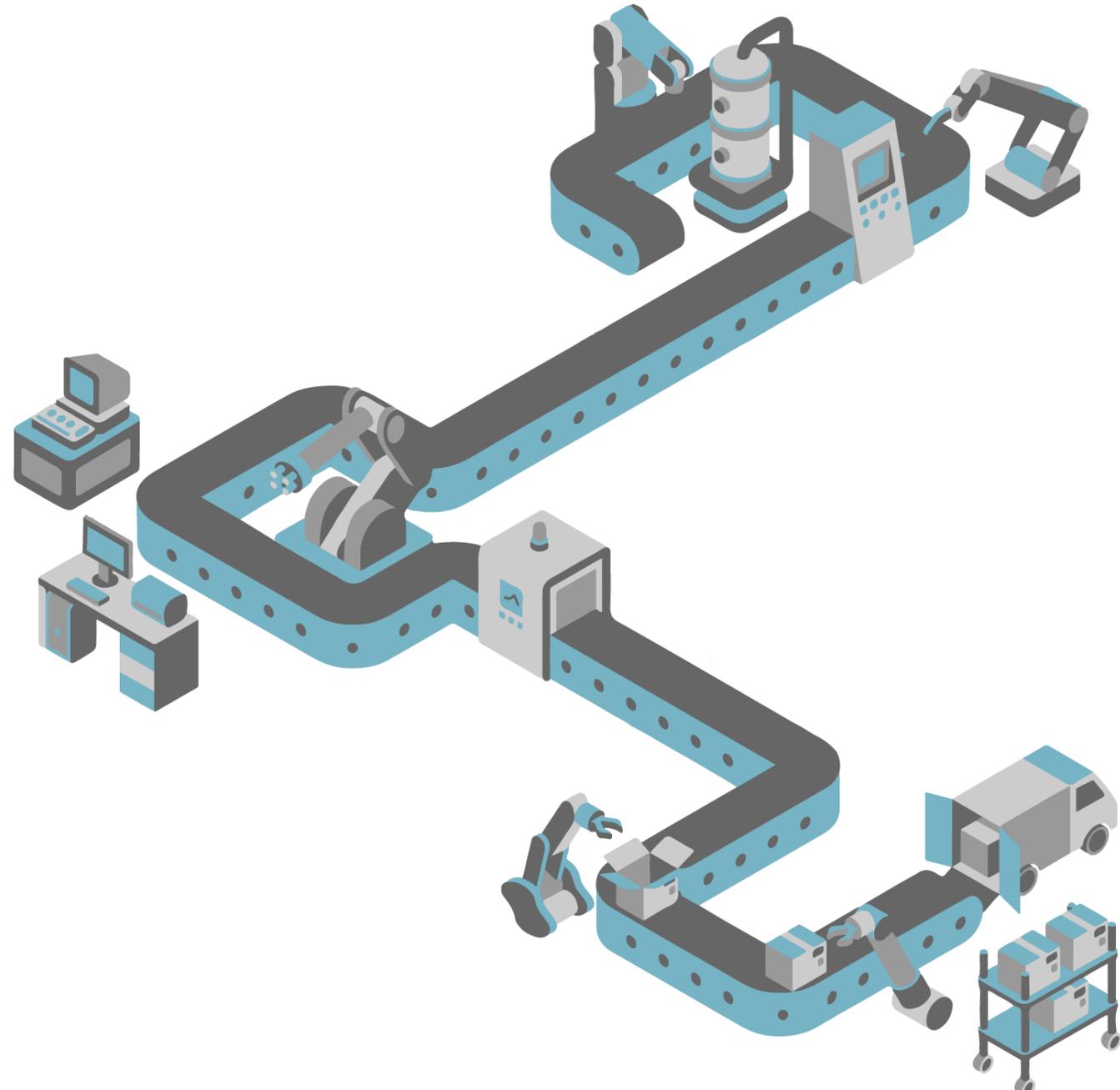
REAR PANEL

WiFi

CERTIFICATIONS

FIELD BUSES

**Modbus-RTU**





-G / -2G

ADVANCED  
FEATURES

WEIGHBRIDGE



- Alphanumerical keyboard
- Multi-language
- 99-item database
- OPZWUSB → barcode reader + external keyboard
- External printer
- Statistical control of prepackages (OIML R87)





# WEIGHBRIDGE

- CONNECTIONS
- MAIN FEATURES
- COMMON FEATURES
- REAR PANEL
- BGE
- PROG-WBRIDGE
- UPCOMING



- 1x RS-232
- 2x RS-485
- 4x outputs
- 2x inputs

- 2x RS-232
- 2x RS-485
- 5x outputs
- 3x inputs
- 1x Ethernet TCP/IP port
- 2x USB port



# WEIGHBRIDGE

CONNECTIONS

MAIN FEATURES

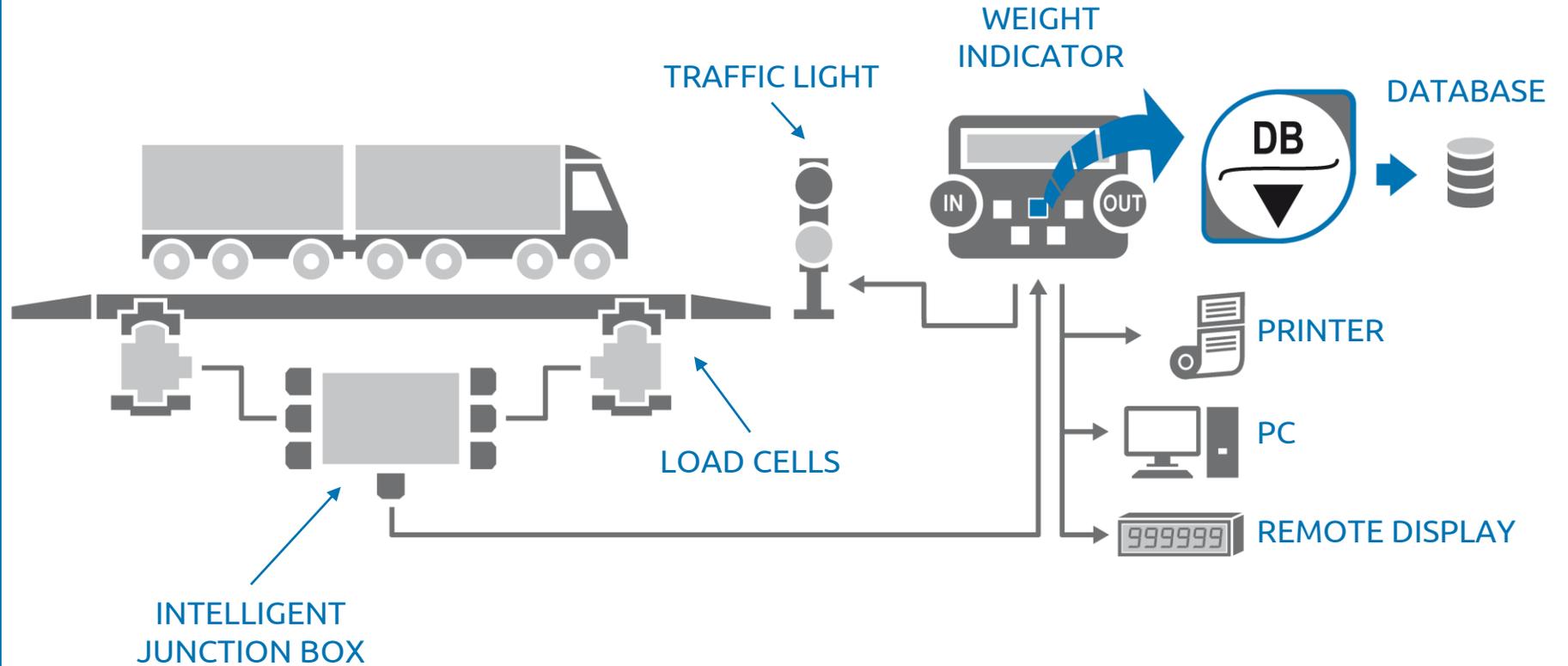
COMMON FEATURES

REAR PANEL

-BGE

PROG-WBRIDGE

UPCOMING



**Modbus-RTU**



## WEIGHBRIDGE

CONNECTIONS

MAIN FEATURES

COMMON FEATURES

REAR PANEL

-BGE

PROG-WBRIDGE

UPCOMING

- **Double, single and multiple weighing:** entry and/or exit, with trailer and multi-compartment trucks
- Open input weighings **archive** (max 254)
- **Database** for weighing data management
- **Alibi memory** to save weighing data
- **Traffic light** management via relay outputs
- **Totals management** (loaded and unloaded products)
- **External printers**
- **Customizable printouts**



# WEIGHBRIDGE

CONNECTIONS

MAIN FEATURES

COMMON FEATURES

REAR PANEL

-BGE

PROG-WBRIDGE

UPCOMING

-BL / -BR  
D version



-BGE  
D version



IP40 D-Sub desk version for any of the 3 indicators





## WEIGHBRIDGE

CONNECTIONS

MAIN FEATURES

COMMON FEATURES

REAR PANEL

-BGE

PROG-WBRIDGE

UPCOMING

- **500 vehicles** (license plates, preset tares)
- Products: **stocks** and **names database**
- Customers ID
- Operators
- Open weighings
- **Multi-language**
- **Barcode printing** (open weighing ID)
- **Remote display with traffic light** function → RIP6100IP65
- **Data transfer to USB** pen drive
- **TCP/IP** port



## WEIGHBRIDGE

CONNECTIONS

MAIN FEATURES

COMMON FEATURES

REAR PANEL

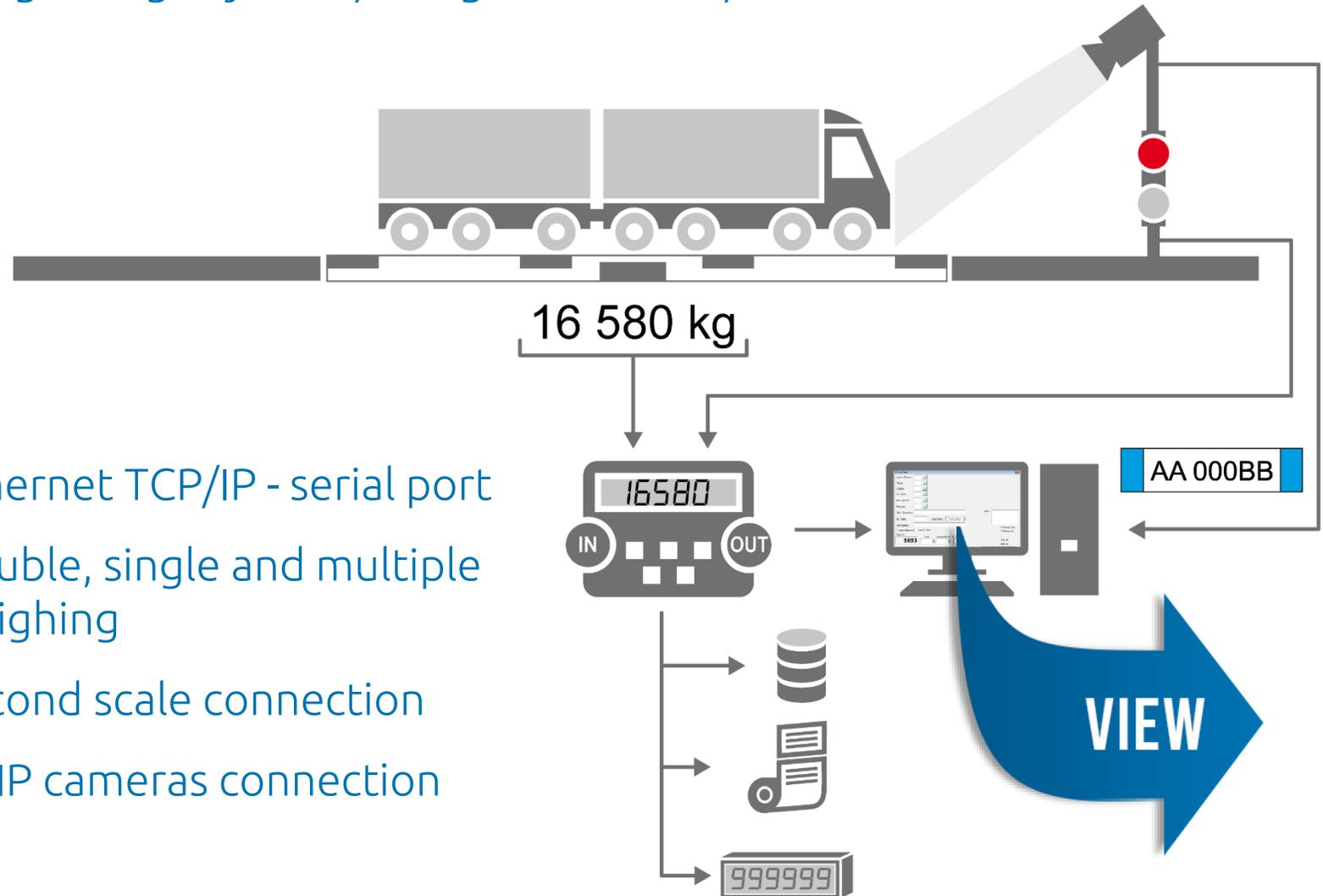
-BGE

PROG-WBRIDGE

UPCOMING

## Management software

- Weighbridge system / Weight indicator / CLM8



- Ethernet TCP/IP - serial port
- Double, single and multiple weighing
- Second scale connection
- 2x IP cameras connection



# PROG-WBRIDGE

PC- software



Print Weight

Product Code: MC2 RISO

Plate: TR1 EW345TR

Customer: 12 LAUMAS Srl

Supplier:

Opened RCD:

Container: PD1 Container 20'

Generic Code:

Nr. of bill: Date of bill: 13/02/2020

User data:

Read Scales B Weight B: ----

Weight A: **5169** Tare: 0 Container tare 3700 Nr. containers: 1

Note:

Print Date  
 Print Time

Prg.: 28  
RCD: 22

Scale connection performed properly

- Multiple weighbridge management with common database
- Data backup on Alibi memory (approved devices)
- Printout adjustment (by Crystal Report software)



## WEIGHBRIDGE

CONNECTIONS

MAIN FEATURES

COMMON FEATURES

REAR PANEL

-BGE

PROG-WBRIDGE

UPCOMING

## Upcoming Developments

- Easier display reading
- Data base access shortcut
- Barcode to link plate number/product/customer/operator
- New connection to digital column load cells



All this in the next dedicated webinar!

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