December 2020

WEBINAR

#LAUMASKNOWHOW
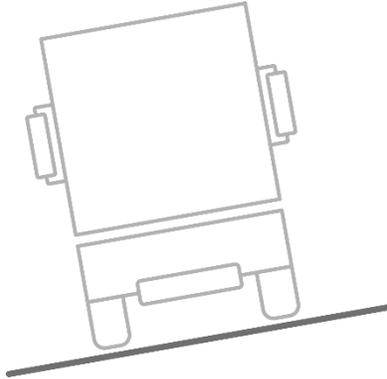
INCLINOMETER FUNCTION: ON BOARD WEIGHING
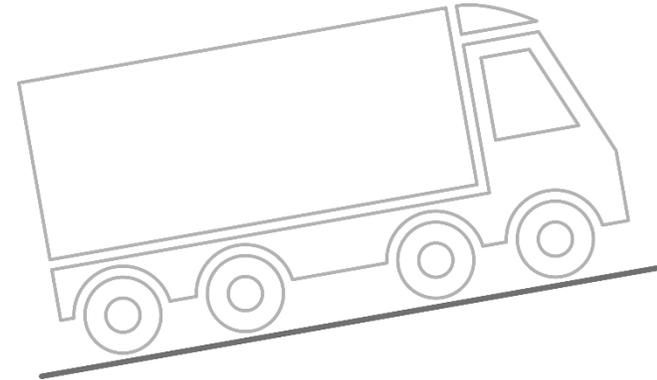
LAUMAS®

Innovation in Weighing
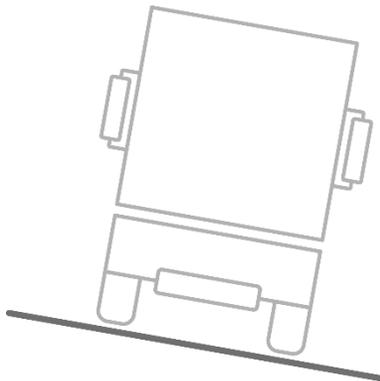
LAUMAS®
Innovation in Weighing
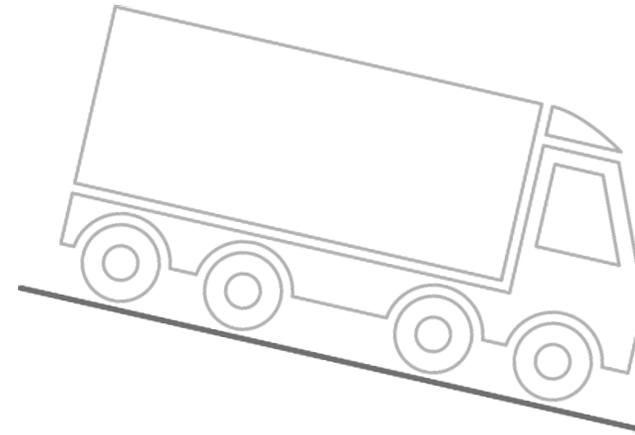
ALWAYS A CORRECT WEIGHT

1000 kg = 1000 kg displayed

1000 kg = 1000 kg displayed
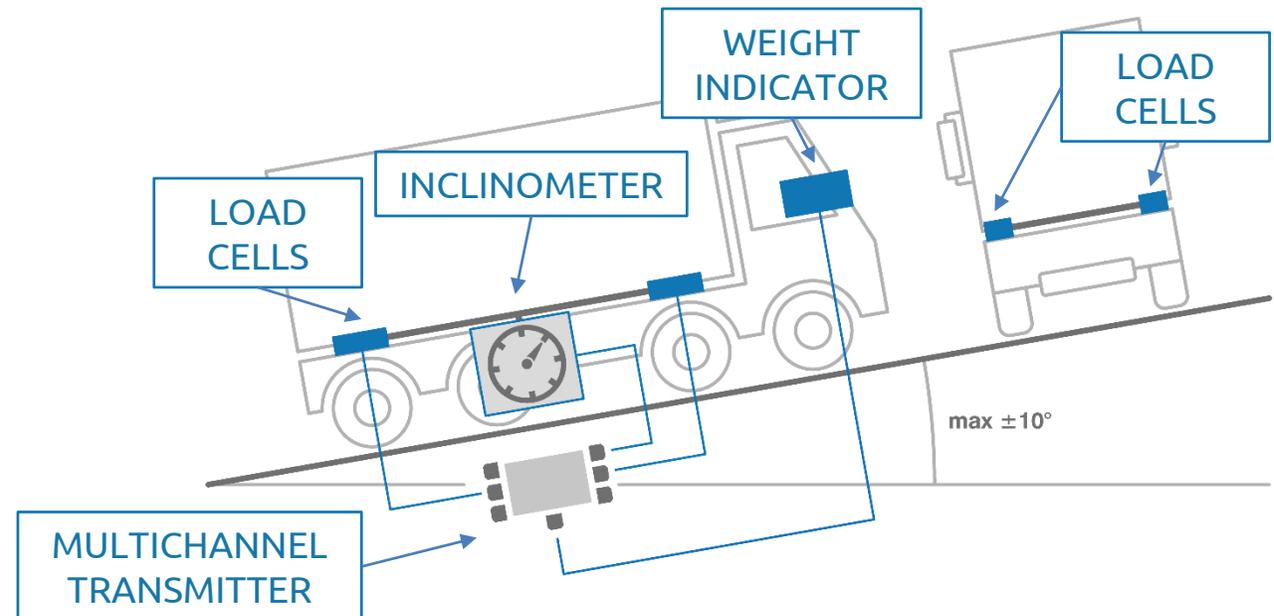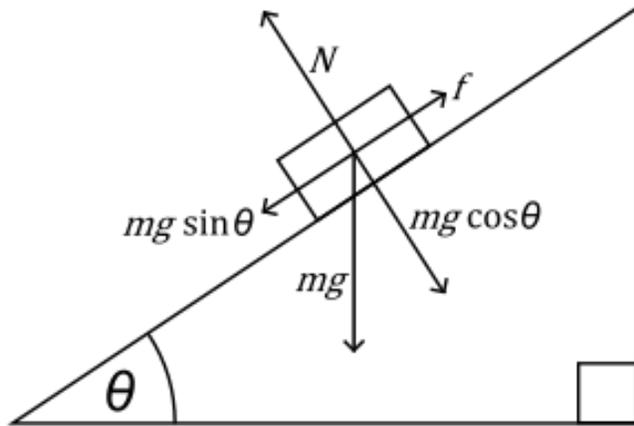
1000 kg = 1000 kg displayed

1000 kg = 1000 kg displayed

SLOPED WEIGHING SYSTEM: THE PROBLEM

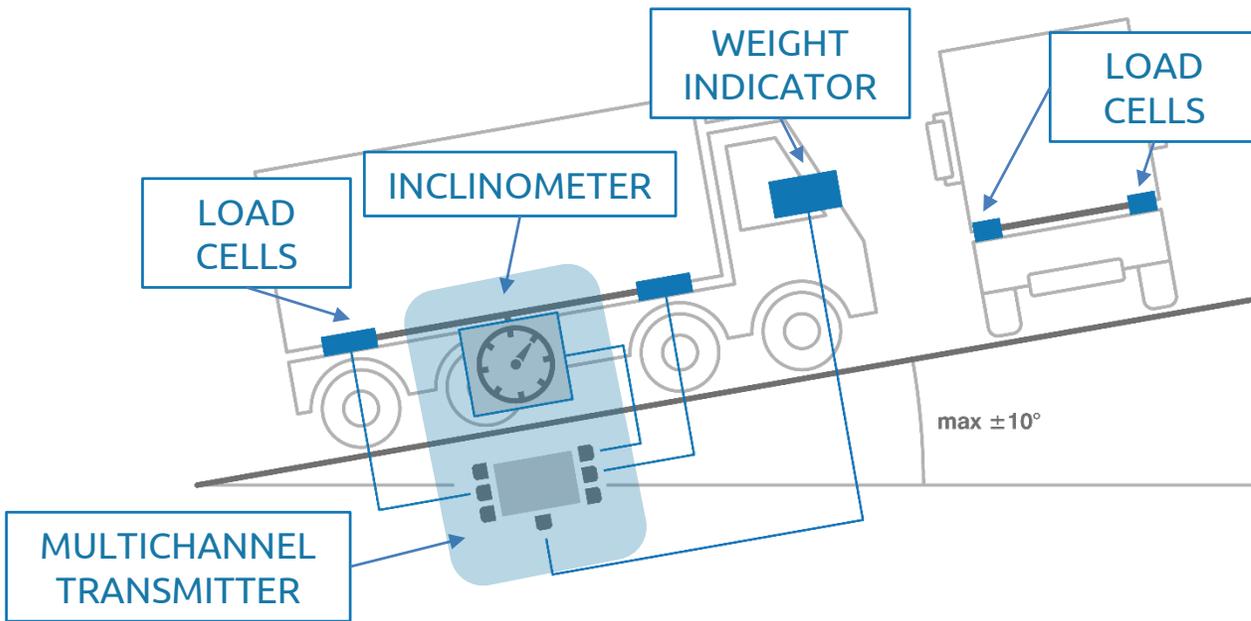## Plane inclination effects on the weighing system

- Load cells measure only the vertical component of the weight

- The calculated weight values is distorted by the inclination

- The value of the weight changes depending on the plane inclination

N

f

$mg \sin\theta$

$mg \cos\theta$

mg

θ

WEIGHT INDICATOR

LOAD CELLS

INCLINOMETER

LOAD CELLS

max ±10°

MULTICHANNEL TRANSMITTER

SLOPED WEIGHING SYSTEM: LAUMAS SOLUTION

WEIGHT INDICATOR

LOAD CELLS

INCLINOMETER

LOAD CELLS

LOAD CELLS

max ±10°

MULTICHANNEL TRANSMITTER

TLM8

CLM8

TLB4

Inclination compensation system

- Multi-channel transmitter

- Biaxial incline sensor mechanically connected to the weight receptor

- Weight indicator

- The weight transmitter exploits the incline sensor reading to correct the calculated weight, removing the distortion introduced by the inclination

INCLINATION COMPENSATION: LAUMAS SOLUTION

- Complete management of the function via **MODBUS-RTU** or Fieldbus

LAUMAS
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INCLINATION COMPENSATION: LAUMAS SOLUTION

Maximum operative interval: ±10°

Two levels of tilt compensation available

Maximum allowed tilt configurable for each axis: associated tilt function

OIML R 76 certified (Class III – 5200 VSI – 2 intervals / 2 ranges)
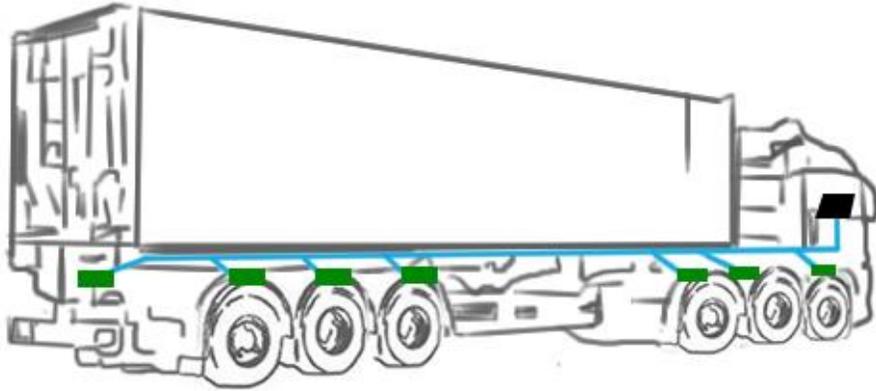
INCLINOMETER: TARGETS AND RESULTS

Weigh anywhere
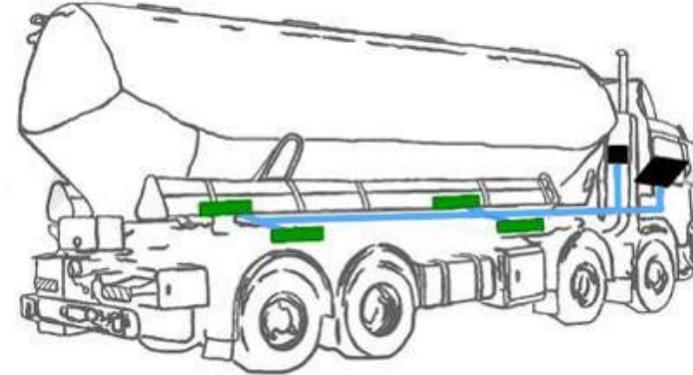and anytime

Time and money savings

Direct and immediate
feedback with
customer / supplier

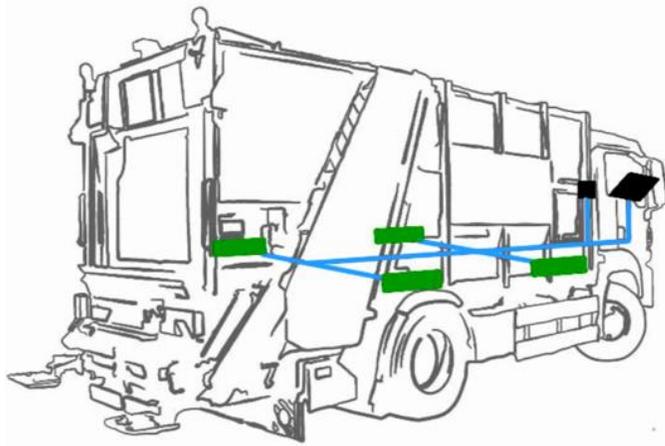Weighing approved for use in
relationship with third parties

APPLICATIONS: ON BOARD WEIGHING
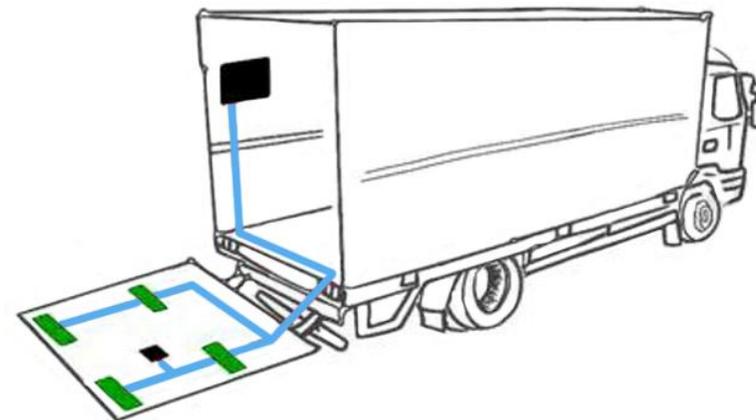

Container

Tank

Garbage

Motorized platform

APPLICATIONS: PALLET TRUCKS, FORKS AND WEIGHING ON WHEELS

▶ **Pallet Truck Scale installation**

▶ **Forks installation**

▶ **Forklift installation**

▶ **Platform on wheels**

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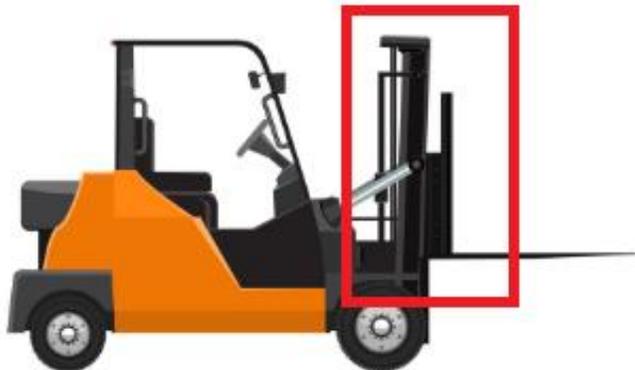
COMPONENTS

LOAD CELLS

INCLINOMETER SENSOR

MULTICHANNEL TRANSMITTERS

WEIGHT INDICATORS

TLM8

TLB4

CLM8

HMI / PLC

COMPONENTS: MULTICHANNEL TRANSMITTERS

CLM8

TLM8

- Load cell input
- Inclinometer sensor serial port connection
- Weight indicator serial port connection
- Different installations
- Different cases and IP protection classes

TLB4

COMPONENTS: LOAD CELLS

The most common load cells

- Load cells for more than one support

- Single point load cells

- Different capacities

COMPONENTS: INCLINOMETER SENSOR

CONNECTION VIA RS-485/RS-232

▶ **NS-15/DPN2-RXG**

▶ **NS-15/DPG2-RUG**

COMPONENTS: WEIGHT INDICATORS

- Different installations

- Different cases and dimensions

- Different IP protection classes

COMPONENTS: OPERATOR PANEL

- Your **HMI** Operator Panel or **PLC**

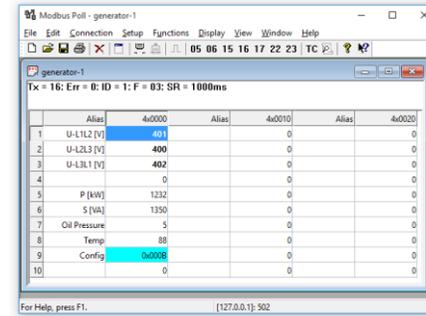- Total control of LAUMAS multichannel transmitters

DEMO: SETUP

SCALE

MODBUS-POLL

INSTRUMENT MANAGER

NS-15/DPN2-RXG

TCP/IP

CLM8

RS232-LINK

X - 7.15°
Y - 3.23°

RS485-LINK

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Send us an e-mail to request the **participation certificate** or further information

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#LAUMASKnowHow

Webinar Calendar

Check the program of the **next online courses** and choose the one that suits you best

Thanks for your attention!