Wheel Load Strip Sensor WL 400

ADVANCED TECHNOLOGY: Unbelievable light weight and thin design

With the proven technology combined with new technical approaches the new strip sensor makes mobile pre-selection easier than before. A standard system weighs in less than 80 kg and creates the base for an unbeatable mobility. The wheel load strip sensor WL 400 can also be used in fixed installation for tolling and freight management applications.

Application	Weighing in motion up to 20 km/h of wheel and axle loads of vehicles with pneumatic tires (Low Speed - Weigh In Motion)
Operation modes	Dynamic weighing Static calibration is possible
Range	0...20 t per wheel (12 bar)[1)]
Speed range	0.5...20 km/h
Temperature range	-20...+60°C
Accuracy	Dynamic ± 3% (at 10km/h)
Errors due to external factors	Due to external influences as vehicle oscillations or the quality of the measuring station additional errors may occur
Execution	Corrosion resistant aluminium alloys, water resistant IP 67
Supply	DC 12 V … 24 V from the Interface Box
Data in- and output	CAN / USB (for PC)
Electrical connection	2 plugs, waterproof and robust, protected by housing
Weight	2.3 kg
Platform height	11 mm

Operation

Because of its light weight, the wheel load strip sensor WL 400 is easy to transport and can be used at any time without the need of fixed installation. Measurements are made on firm and level ground using levelling mats to ensure that all wheels of multiple axle systems are on the same level. As an alternative the sensors may be placed into a recess in the pavement. The depth must be the same as the height of the sensor to ensure that the strip surface is perfectly level to the pavement. Preferably the specially designed mounting frame is used.

In the normal case two sensors are used, one for the left, the other for the right track of the vehicle. The sensor size is large enough so that the driver encounters little problems to pass the sensor within the active area. The entire system (2 sensors, position frame, 4 levelling mats) weighs in less than 80 kg and fits into a trunk of a personal car.

There is no display on the sensor. Its signal is sent to the PC via the rugged cable. The further processing, visualization and printout is performed by a personal computer with the software EC 200.

Accessories

For accessories as levelling mats, cables, etc. refer to data sheet A8498.

Selection Chart

Ordering example:	**WL 400 /**	**4 4 1 . 1 1 1 / 11Y / . . .**
Temperature range	- 20 °C ...+ 60 °C	**4**
Accuracy	3%	**4 1**
Strip length	standard	**1 1 1**
Ranges	0 . . . 20t	**11Y**
For official test	The ordering code is determined after the approval procedure	

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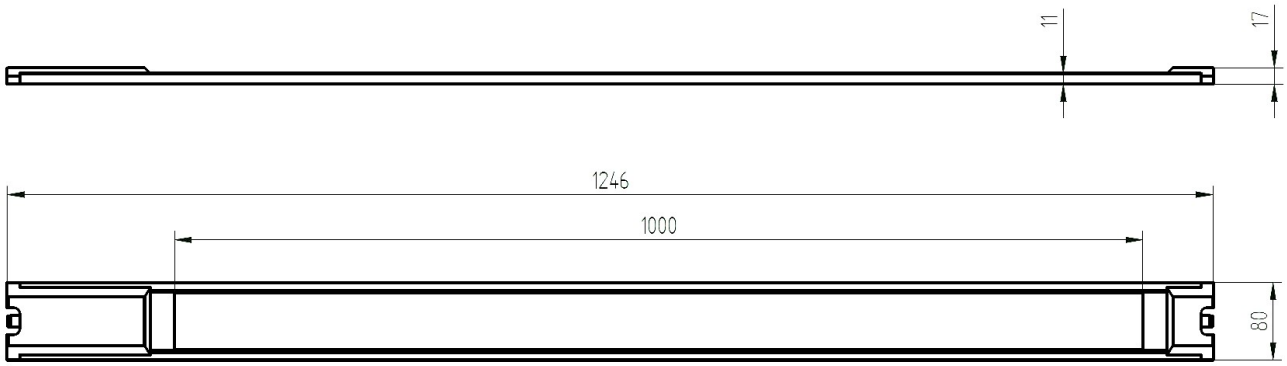
Dimensions



Technical Specification

Execution		standard
Range		0...20 t (max. 12 bar tire pressure)[1)]
Division (d)		10 kg
Accuracy (sensor only)[2)]		
dynamic weight	in operation	± 3% of the measured weight
static weight	at first calibration	± 1.5% of the measured weight
Speed range		0.5...20 km/h
Minimum load		500 kg
Permissible load per area		12 kg/cm^2
Loading limit per area		24 kg/cm^2 (Hard rubber wheels not allowed)
Operating temperature		-20 °C .... +60 °C
Storage temperature		-30 °C .... +85 °C
Electromagnetic compatibility		EN 55022 class A, EN 61000-4-3 10 V/m
Zero tracking		automatic
Type of protection (IEC 144)		IP 67
Overrunable		completely overrunable incl. cable
Operating site		firm and level ground, max. 5% slope (≈ 3°)
Active surface		1000 mm x 56 mm
Height (active surface)		11 mm
Over all dimensions		1246 mm x 80 mm x 17 mm
Power supply / Consumption		DC 12 V…24 V, 1.5 W at 12 V
Data port		CAN

1) The range can be increased as long as the permissible load per area (tire pressure) is not exceeded.
2) The stated values are intrinsic sensor errors (difference between the measured and the applied load). Additional errors may occur depending on various external factors like: quality of the levelling, of the pavement, vehicle oscillations.

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