

SENSOR

KIMAX 2 SPRING



Sensor Set includes:

Kimax 2 sensor 1 x SG sensor input
Part number 053000-0151

Dual group: you must have additional
2 x P/N 10211 SG sensor CM
Triple group: you must have additional
3 x P/N 10211 SG sensor CM

Kimax 2 sensor 2 x SG sensor input
Part number 053300-0151

2-axle you must have additional
2 x P/N 10211 SG sensor CM

Trailer version - direct on your chassis

Kimax 2 sensor is a slave unit without display intended for communication with Kimax 2 radio or Kimax 2 universal through dvice bus.

The Kimax 2 On-Board Load Control is an electronic weighing system which can be used in all vehicles whose axles or axle groups are equipped with steel spring suspension system.

Due to the modular construction, the product is very flexible and can be individually adapted to most vehicle conditions.

One tractor can easily shift from one trailer to the next without recalibrations

Sensor confirguration

A dual group need two SG sensors connected to same input, one sensor on each axle, for load equalization.

A triple group need three SG sensors connected to same input, one sensor on each axle, for load equalization.

A 2-axle trailer need two SG sensors connected to two individual inputs.

Kimax 2 sensor has two seperately adjustable alarm levels

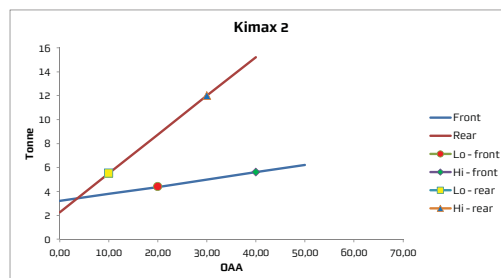
Alarm 1 is indicated by a flashing diode for the individual axle on the connected Kimax 2 radio or Kimax 2 universal display unit.

Alarm 2 which switches in an internal "relay" when the total weight for this vehicle is exceeded. The relay signal can be used as ON/OFF input for a warning lamp or another unit, for example a tracking GPS or an on-board computer.

Axle load measurement

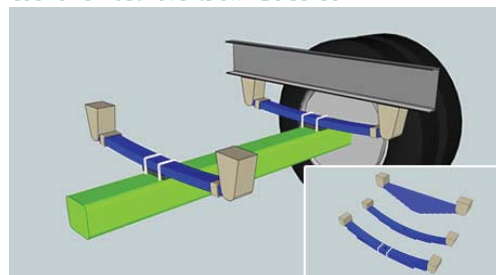
Kimax 2 uses the linearity between strain in the axles and load of the single axles.

By using two reference points for each axle (empty weight and weight at maximum load) and the currently measured strain, Kimax 2 calculates the current axle load with an accuracy of $\pm 2\%$ of the maximum load for each axle.



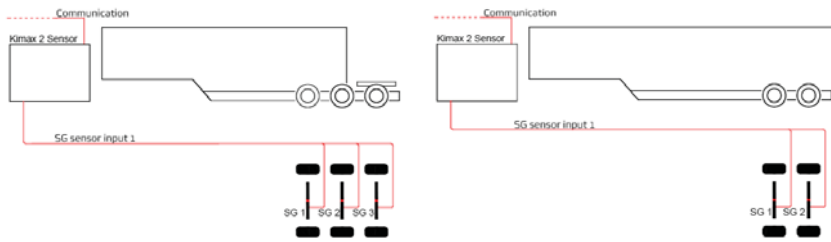
Basic operation

The strain in the axle will increase liniary with the load above the axle, in case of two or three axles in a group, each axle must have its own SG sensor.



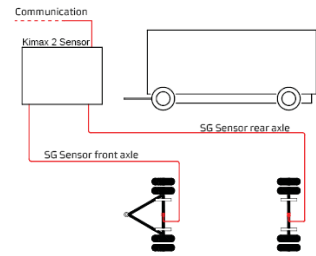
Basic semitrailer installation with dual or triple group

Dual or triple group trailers can be managed as single trailer connected to a tractor head unit as well as the trailers can be managed as an interlink configuration.



Basic trailer installation 2-axle

Each axle or axle group call for it own measuring channel. A 3-axle trailer equipped with a single front axle and a doubler rear axle group needs three SGsensors, one on each axle



Axle configuration and sensors

In order of achieving load equalization for axle groups, you must install a SG sensor on each non driven axle in the group.

In case of a dual group you must connect both sensors to same input on the Kimax 2 sensor.

In case of a triple group you must connect all three sensors to same input on the Kimax 2 sensor.

In case of two independed axles or two axle groups you must connect each axle or axle group to its own input (measuring channel).

Kimax 2 calculates the current axle load on each axle / axle group from a set of reference values LO and HI for each axle / axle group.

Optional versions:

Kimax 2 is exactly as flexible as your vehicle:

- Do you have a tractor equipped with steel springs on front axle and air suspension on rear axles combined with a lift axle? No problem!
- Do you have a truck with 2 front axles equipped with steel springs and two rear axles divided in left hand and right hand air circuits? No problem!
- Do you want to couple a trailer or semitrailer on the above vehicles, we do it!
- Do you want to couple a low bed trailer equipped with hydraulic suspension on a tractor equipped with air suspension? No problem!
- Do you want to swap from one trailer to another trailer, you just do it! Individual calibration values are stored in the Kimax unit on each vehicle.

Associated units

Kimax 2 sensor is a slave unit which is able to communicate with both Kimax 2 radio and Kimax 2 universal

Visit www.kimax.com for more details and informations.

Technical Specifications

Supply voltage	10 ... 30 Volt direct current
Current consumption	max. 90 mA
Alarm 2	output open collector NPN max. 0.2 A/ 50 VDC
Measuring accuracy	2 % of maximum load at 0 °C - +50 °C
SG Sensor	0-20 mA input
Device bus	Power line communication
Operating temperature	-25 °C...+70 °C
Storage temperature	-40 °C...+70 °C
Dimensions	180 x 135 x 60 mm
Weight	approx. 750 g
Approval	CE and E1

KIMAX 2

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Sense -Tech Weighing Systems are used all over the world. From the hectic harbours of Amsterdam to the dusty outback of Australia. And everywhere in between.