

# CABIN

KIMAX 1



## Cabin Set includes:

### Kimax 1 cabin 2 sensors

Part number 10001

- 1 x display unit, cabin
- 1 x mounting bracket
- 2 x angle fittings
- 2 x air pressure throttle dia. 6mm
- 2 x T-fitting dia. Ø 8mm / 6mm / 8mm

### Kimax 1 cabin 1 sensor

Part number 10003

- 1 x display unit, cabin
- 1 x mounting bracket
- 1 x angle fitting
- 1 x air pressure throttle dia. 6mm
- 1 x T-fitting dia. 8mm / 6mm / 8mm

## Cabin version - for driver's cab

Intended for use in driver's cab: The Kimax 1 display unit is supplied with a mount for simple installation on the dashboard.

## The scale you take with you ...

Kimax 1, the axle load measuring unit for economical and convenient supervision of axle loads on vehicles, trailers and semitrailers equipped with a pneumatic suspension system.

Using a microprocessor and built-in memory, Kimax 1 calculates the current axle loads from the current air pressure in the suspension system and displays this figure as a three-digit value.

The pressure sensors are located in the display making a compact unit to avoid external influences on the electronic components and sensors.

## ... and warns when limits are exceeded

Kimax 1 has two separately adjustable alarm values. Alarm value 1 is indicated by a flashing display. Alarm value 2 switches in an internal relay. The relay signal can be used as ON/OFF input for another unit, for example an FM 200 on-board computer or a tachograph.

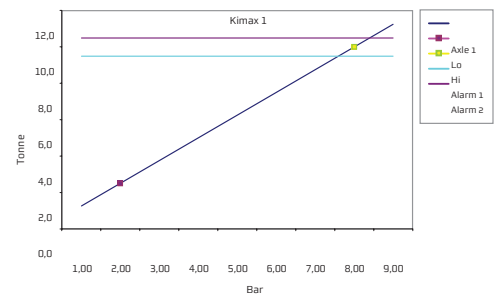
Kimax 1 helps to achieve economical transportation, avoid fines and simultaneously optimize the cargo weight.

## Air circuits

On vehicles with two independent pneumatic suspension circuits per axle or axle group, the air pressure is measured for each pneumatic circuit with the 2-sensor version and Kimax 1 calculates the current axle load from these two values.

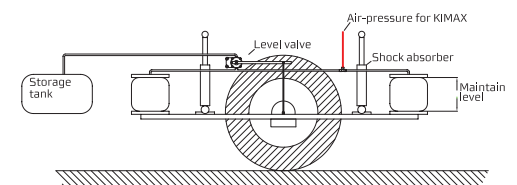
## Axle load measurement

Kimax 1 uses the linear interrelationship of the air pressure in the suspension system and the axle load: By using two reference points (empty weight and weight at maximum load) and the currently measured air pressure, Kimax 1 calculates the current axle load with an accuracy of 2 % of the maximum load.



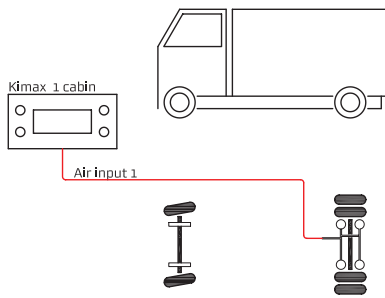
## Basic operation

Depending on load of the vehicle, the level valve maintain a constant height of the chassis above ground surface by regulating the pressure in the bellows.



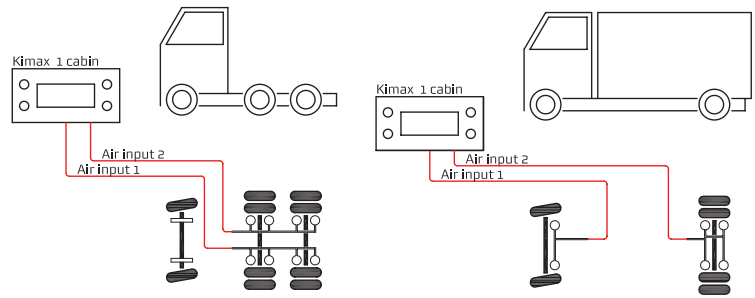
## 1 sensor most economical version

In this version, the reading is measured only on one of the two axles.



## 2 sensors measuring accuracy in all positions

In this version (Kimax 1 standard version), you can calculate the reading for both sides of the axle. This provides additional measuring accuracy (arithmetic mean), particularly when the vehicle is inclined to one side.



### Display of reading

KIMAX has a three-digit 7-segment LED display. The decimal points can be set at the second or third digit or removed completely depending on requirements.

Two modes of display can be selected:

- Automatic switch-off of display after approx. 2 minutes reading (recommended in cabins).
- Continuous display (recommended on trailer/semitrailer) (factory setting).

### Optionals:

**RS-232 serial output (option 1)** Kimax 1 is available with a serial output in RS-232 format, offering you the displayed value in digital format intended for on-board computers.

**Analogue output (option 2)** Kimax 1 is available with an analog 0–5 V output corresponding to the displayed value you read on the unit. The output is intended for on-board computers or remote display purpose.

**Serial printer output (option 4)** Kimax 1 is available with output for most common serial printers.

**Trailer version - for trailers/semitrailers** Intended for use on trailers and semitrailers: The display unit is designed for mounting in a sturdy, waterproof stainless steel housing direct on the chassis.

### Technical Specifications

|                       |   |
|-----------------------|---|
| Supply voltage        | 10 ... 30 Volt direct current                           |
| Current consumption   | Max. 90 mA (with relay active)                          |
| Relay output          | Normally open contact                                   |
|                       | max. 1 A/ 30 VDC  |
| Display               | Three-digits 7-segment LED,<br>character height 20.3 mm |
| Accuracy              | 2 % of maximum load at<br>0 °C - +50 °C                 |
| Air connection        | Quick release connection<br>6 mm air hose               |
| Maximum pressure      | 15,5 bar (225 psi)                                      |
| Operating pressure    | range 0 to 10.5 bar<br>(0 to 150 psi)                   |
| Operating temperature | -25 °C...+70 °C   |
| Storage temperature   | -40 °C...+70 °C   |
| Dimensions            | 100 x 50 x 40 mm  |
| Weight                | approx. 240 g   |

### KIMAX 1

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