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Kitas tester TSTS

Allows fast checks of the Kitas sensor

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Kitas tester TSTS A03

The Kitas TSTS allows fast checks of the sensor parameters in vehicles with tachograph.
The tester has the ability to check sensors installed and uninstalled from the vehicle.

Technical Data:

- LCD Display 12x2.
- USB connector for PC.
- Plug RJ-45 to connect sensor.
- Record of last test parameters.
- Operating temperature -20°... +70°C.
- Current measurement accuracy ±0,1[mA].
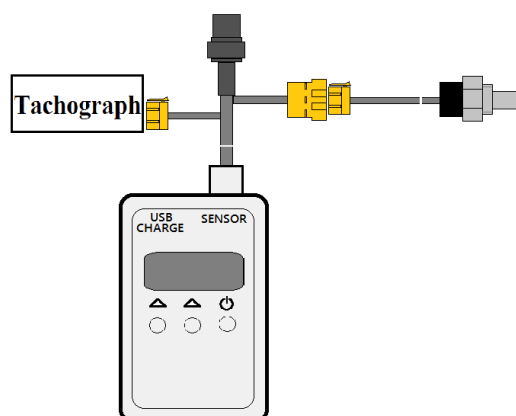- Current measuring range 2...30[mA].

Start testing

Connect the sensor before switching on the tester:
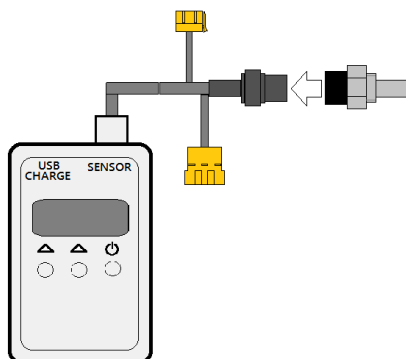
Connections if sensor uninstalled.

Connections if sensor installed.

After pressing ⏻ , a heading TEST SENSOR, battery charge status and the version of tester program appears on the screen.
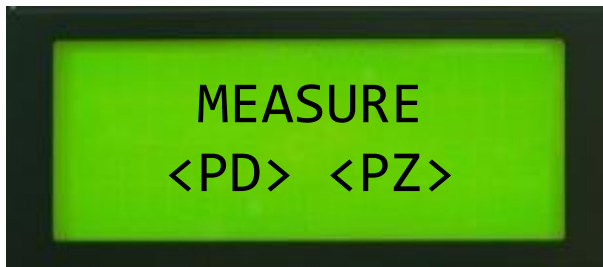
Screen start:

```
TEST SENSOR
START RECORD
```

Press right button: △   the parameters of the last test can be read in memory.
Press left button: △   selection of the test options.

```
MEASURE
<PD> <PZ>
```

<PD> - read data from the sensor and then measure the current consumption.

```
AVERAGING
LARGE SMALL
```

After selecting AVERAGING the reading will start automatically and the following parameters of the sensor will be show:

- Serial number
- Pairing status (pairing with Digital or Analogue Tachograph)
- Sensor type
- Manufacture date

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After displaying the above data, the current measurement will start.

A – maximum current value
B – minimum current value
**C** – sensor line state (H-high, L-low).
   Maximum and minimum currents are set separately for two states of this line.
D - current measurement of the current flowing from the sensor.
   In case of a sensor mounted on the vehicle, this will be the current returning to the tachograph.
E – current measurement of current flowing to the sensor.
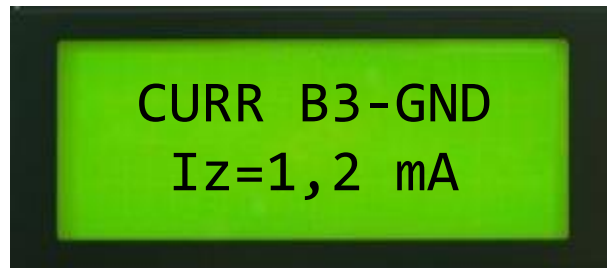   In case of a sensor mounted on the vehicle, this will be the current coming out of the tachograph.
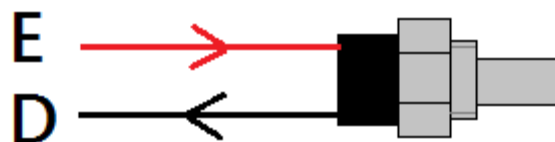
F – recording time of current measurement (max 5 minutes)

At any time while pressing the button ⏻, the measurement will be stopped, the results will be saved and the device will shut down.
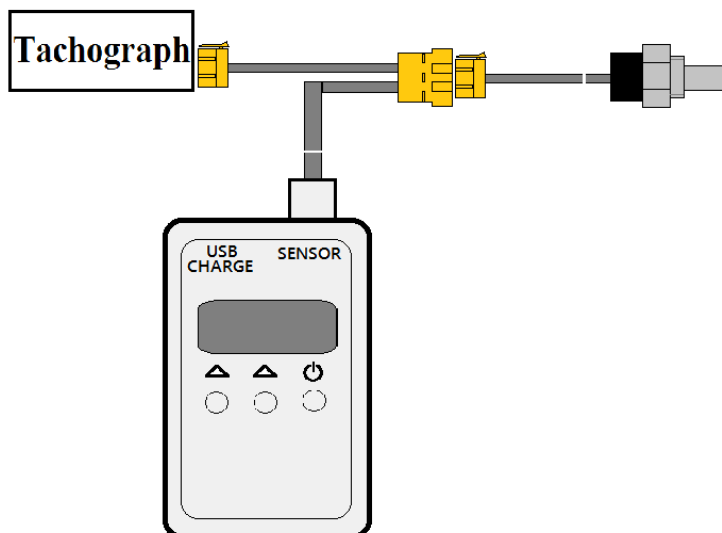
<PZ> - Measure the short-circuit current of the signal line.

```
CURR B3-GND
Iz=1,2 mA
```

When the sensor's signal line is in a high short-circuit state to the mass, that will cause the current flow, and will be displayed. In case of low short-circuit state, the current should not flow.

1. Validation DIGITAL test:

Connect TSTS:

Make a test **<PZ>** on a moving vehicle. If the sensor works correctly, after some time the tachograph will display error (of cable, etc.).

2. Program ProgTSTS:

The program is available on our website

After installation of the program, connect tester TSTS A03. During the first connection to computer wait until the system installs the drivers.

The program will start after correct connection with the computer and then will download and display the serial number of TSTS and the chosen language(can be changed later):
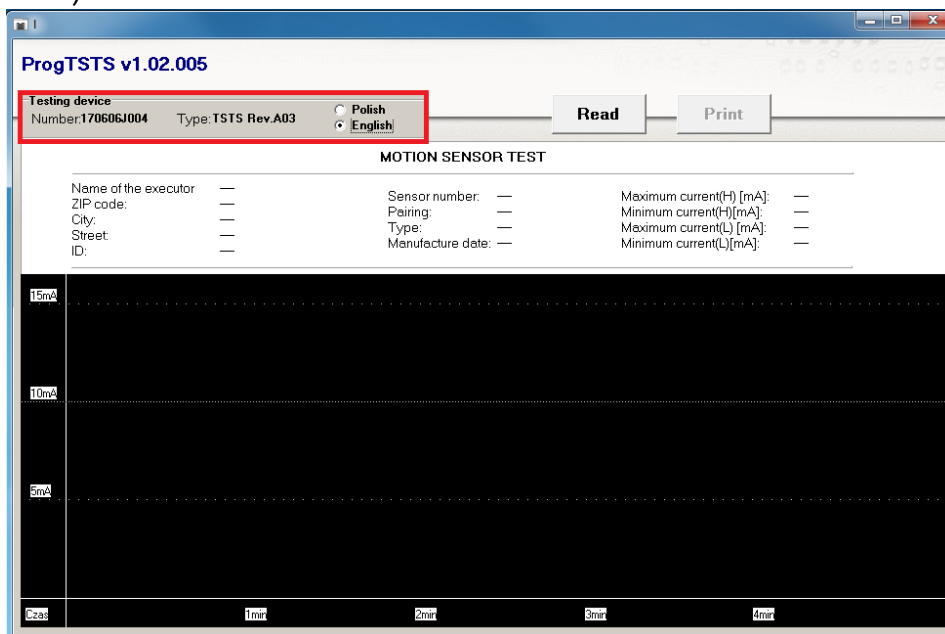
After pressing „Read" data from the last test will display by the device. Example:

Supply current by manufacturer:

Each manufacturer of motion sensors gives max. value of supply current. In the most popular motion sensors the value should not exceed 15 Am. Here are the measurement of the most common motion sensors.

1. After switching on the power of motion sensor.

Status	Current intensity KITAS2+ [mA]	Current intensity KITAS2 [mA]
Impulse	10,1 - 10,4	5,8 - 6,1
No impulse		6,5 - 6,8

2. One minute after switching off the power of motion sensor.

Status	Current intensity KITAS2+ [mA]	Current intensity KITAS2 [mA]
Impulse	2,1 - 2,4	5,8 - 6,1
No impulse		6,5 - 6,8

3. While driving.

Status	Current intensity KITAS2+ [mA]	Current intensity KITAS2 [mA]
Drive	11,3 - 11,4	6,5 - 6,7

4. After stopping

Status	Current intensity KITAS2+ [mA]	Current intensity KITAS2 [mA]
Impulse	10,1 - 10,4	5,8 - 6,1
No impulse	11,8 - 12,2	6,5 - 6,8

5. Two minutes after stopping.

Status	Current intensity KITAS2+ [mA]	Current intensity KITAS2 [mA]
Impulse	2,1 - 2,4	5,8 - 6,1
No impulse	3,8 - 4,3	6,5 - 6,8

There can be a jump of current intensity 1,7 – 1,8 mA more than the maximum values, if the motion sensor is misaligned with tachograph.