TECH NOTE :: ClipX Using an acceleration sensor

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Brief description

This is an instruction for using an acceleration sensor with ClipX. In the following the connection and the setup of an IFM VSA001 and a SiliconDesigns 2220-050 sensor is described.

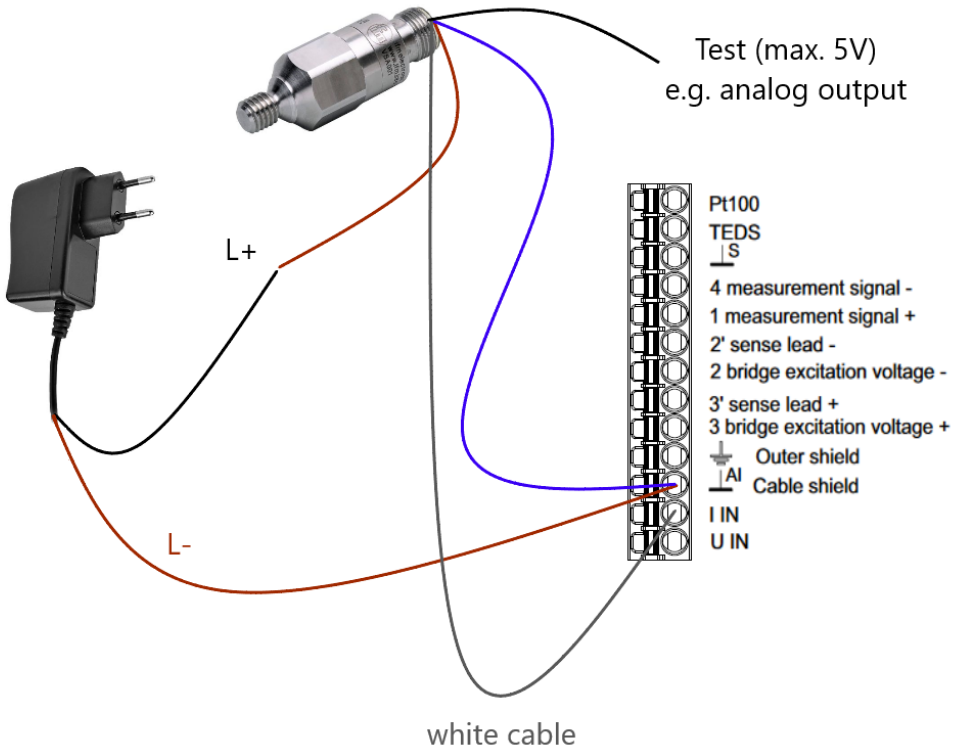
Building sketch

IFM VSA001

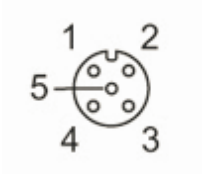
Connection

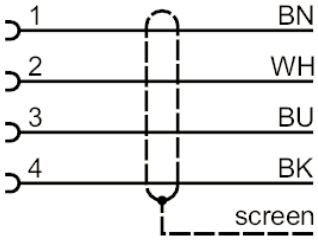
The following diagram shows schematically the connection. Since the sensor needs a supply voltage of 7.2V to 10.8V a suitable power supply is necessary.

Hint: The gray cable in the sketch represents the white cable of the sensor



Cable pinning (IFM EVT384):



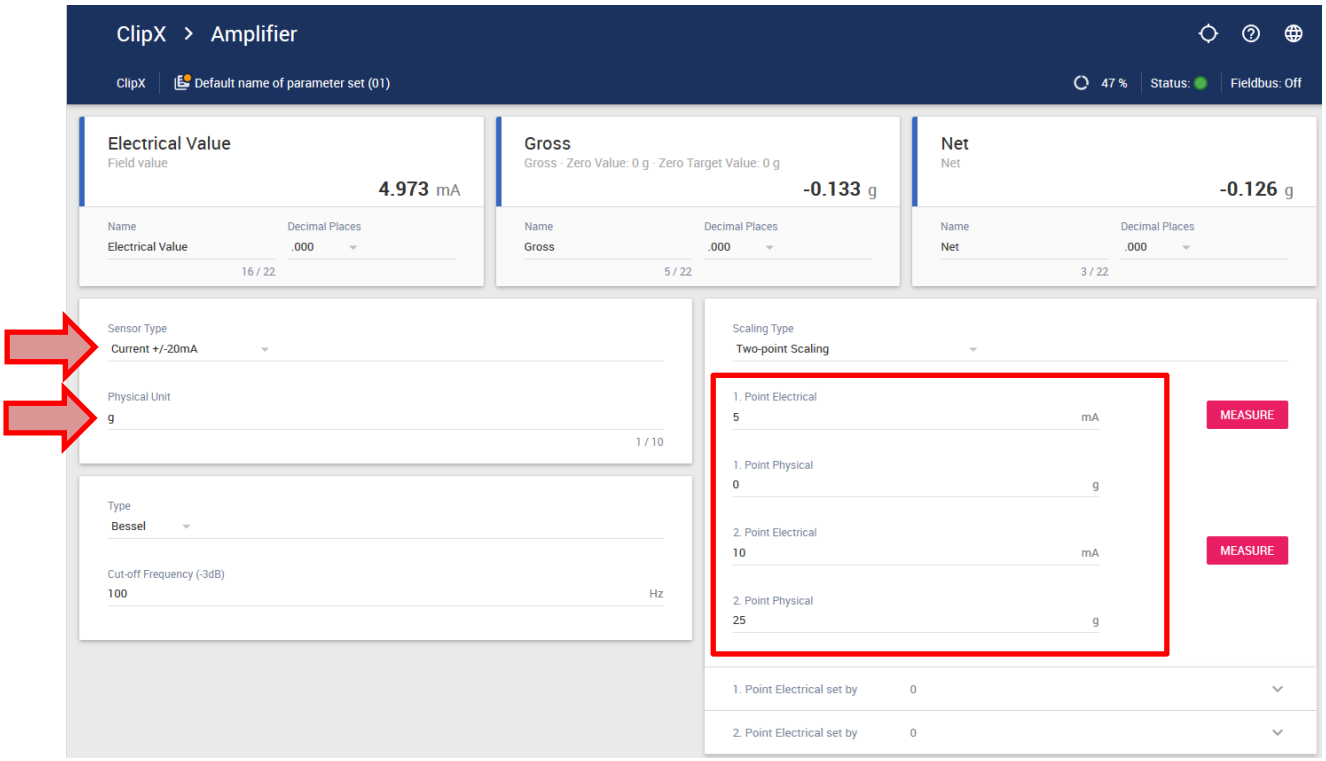


Test signal:
If a voltage of 4-5V is applied to the test signal, the result is a signal of ca. 5mA at the output of the sensor, which corresponds to 0g.

Setup

In the amplifier settings of ClipX the following settings must be changed:

- Sensor Type: Current +/-20mA
- Physical Unit: g
- Set scaling (right)

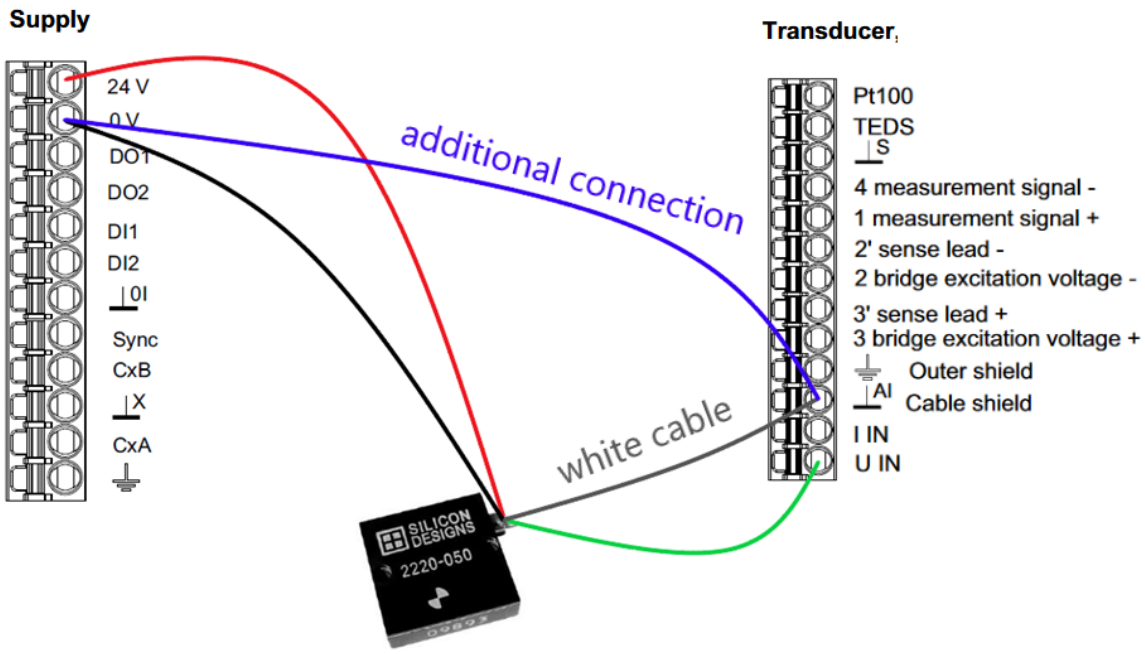


SiliconDesigns 2220-050

Connection

The acceleration sensor of SiliconDesigns required a supply voltage of 9V to 32V. Therefor the supply voltage of the ClipX can be used.

The following diagram shows schematically the connection:

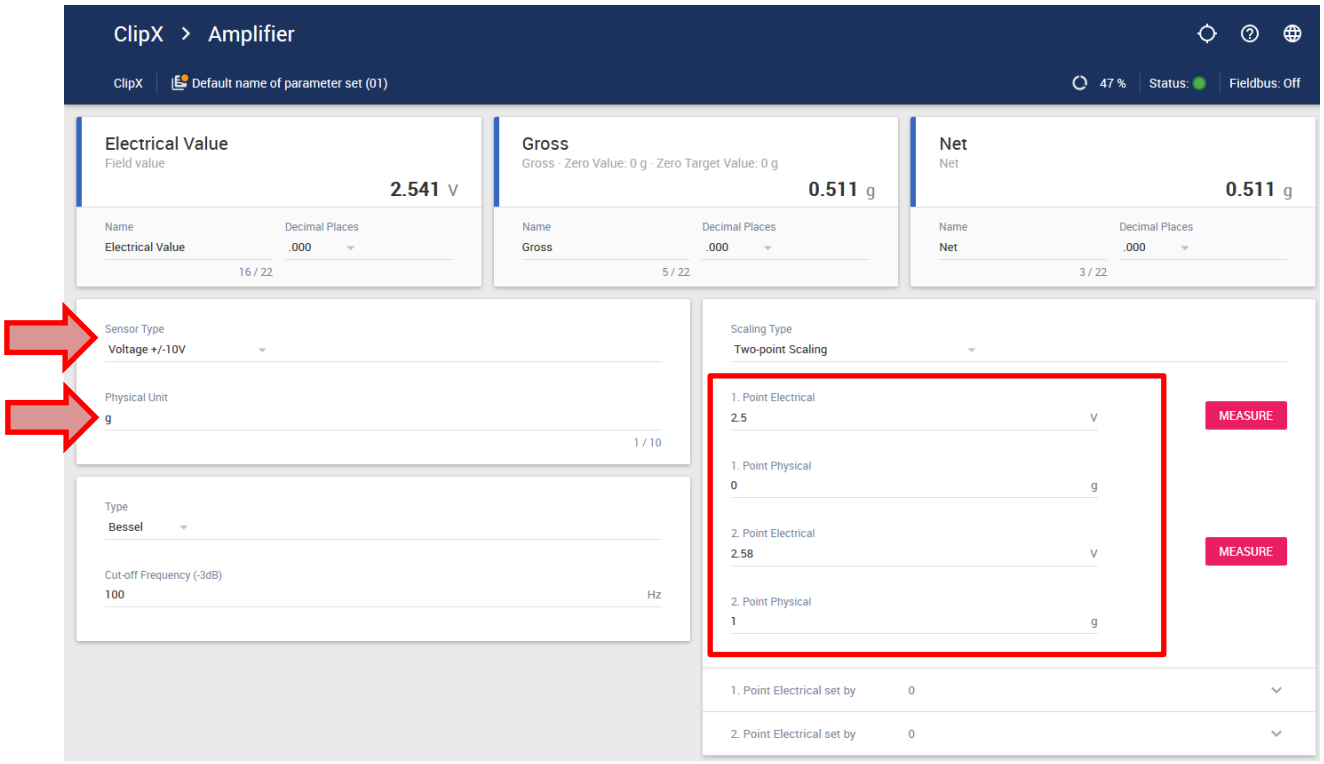


Red: V_S (Supply voltage) Black: GND Green: Measurement signal+ White: Measurement signal-

Setup

In the amplifier settings of ClipX the following settings must be changed:

- Sensor Type: Voltage +/-10V
- Physical Unit: g
- Set scaling (right)



Disclaimer

These examples are for illustrative purposes only. They cannot be used as the basis for any warranty or liability claims.