



## IEPE Adapter for GSV-8

The IEPE adapter is suitable for connecting piezoelectric sensors to the Measuring amplifier GSV-8DS SubD15HD. The sensor is connected with a BNC connector.

The IEPE adapter feeds the sensor with a direct current constant current source. It has a high-pass behavior, so that in connection with the measuring amplifier a bandpass behavior results. It is therefore not suitable for static measurements, only for dynamic, i.e. those that move at least at the specified minimum frequency.

The lower -3dB limit frequency is 0.16 Hz.

The current of the constant current source for supplying the sensor is 4mA, the maximum source voltage is 24VDC.

The connected sensor must convert the measured quantity into a voltage that should not exceed a maximum of 10.5 V.

The IEPE adapter contains a 1-wire memory device (DS24B33), which can be used to store a TEDS data record according to IEEE 1451.4 with template ID 25.

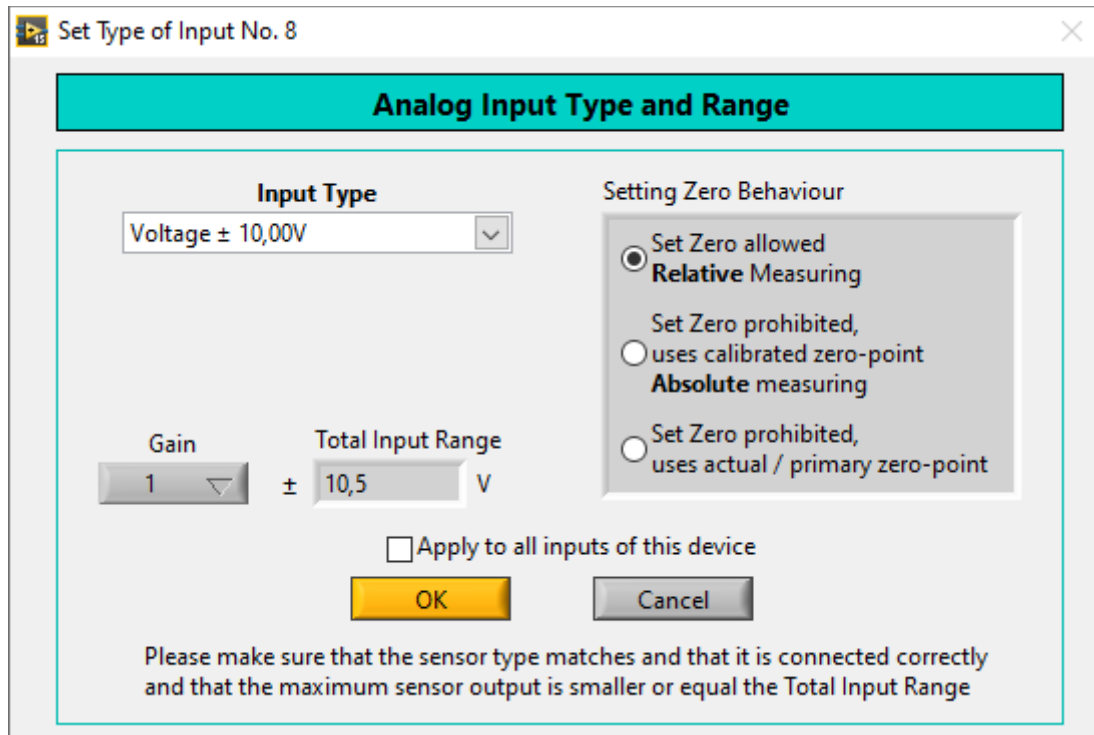
If desired, this can be written by ME if the calibration sheet of the sensor is present. In this case, the measuring amplifier usually configures itself automatically for the connected sensor correctly, provided that the sensor matching the TEDS data is connected to the corresponding IEPE.

Otherwise it is advisable to configure the scaling of the measuring amplifier in such a way that the GSV-8 outputs already fully scaled physical values, which correspond to the transformed measurement quantity. This parameterization is only necessary once, if the sensor example remains connected to this measuring amplifier input, since the GSV-8 stores this in its non-volatile memory.

The "Voltage Input" input type must be selected on the GSV-8 to operate the sensor (unless it has already been set by the TEDS data).

The following describes how to set the IEPE with a specific sensor without configure the use of TEDS data.

Open the measuring amplifier with GSVmulti by Add Chann



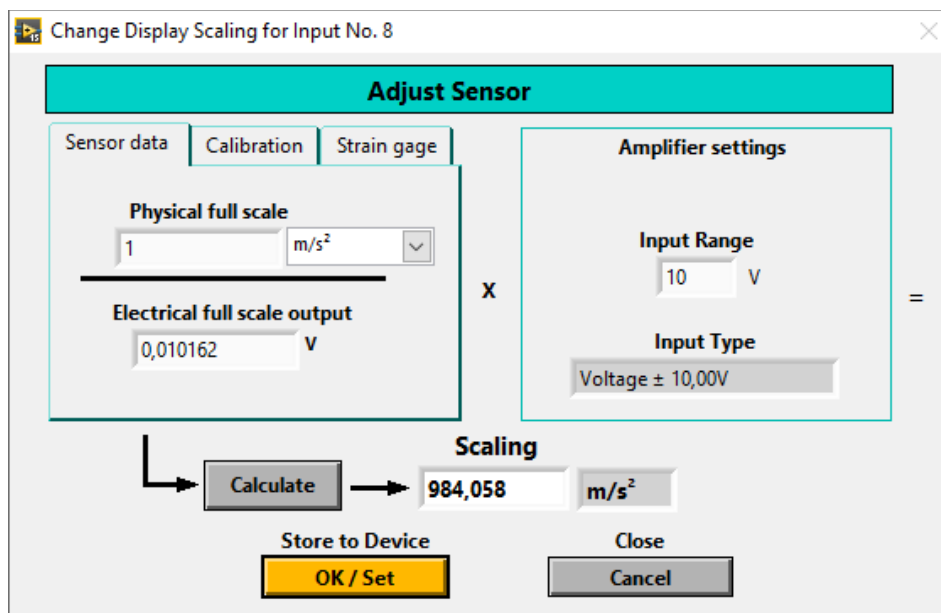
Here you can also specify whether zeroing should be allowed or not. Click OK (Yellow buttons save parameters in the amplifier).

Set the user scale. You need a calibration record for this. It is described here using the example of an acceleration sensor whose calibration record contains the following information:

10.162 mV/(m/s<sup>2</sup>) | 99.66mV/g

Allows you to choose between two different units of acceleration to display: m/s<sup>2</sup> or g.

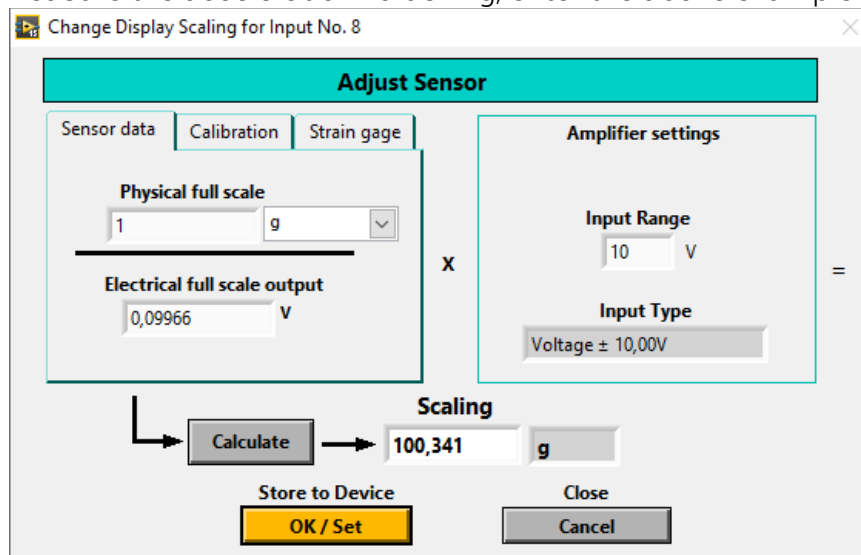
Open the User Scaling dialog for this input (set Actual Channel accordingly, click User Scaling):



For m/s<sup>2</sup> one would enter as shown above, i.e. the Electrical Full Scale Output for the specified Physical full scale in Volts. Click Calculate. The user scale is calculated automatically:

User Scale = (Physical full scale / Electrical Full Scale Output) x Input Range.

If you want to measure the acceleration value in g, enter the above example as follows:



Click OK / Set to save the scaling value and unit in the GSV-8. You can now measure in the specified unit.



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