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# Triaxial Fluxgate Magnetic Field Sensor FLC3-70 Operating Instructions

### 1. Safety precautions

The instrument must not be operated in explosive atmosphere.

The instrument should only be used in dry environment.

A wrong connection of the supply voltage or a supply voltage of more than  $12~\rm V$  may cause permanent damage to the instrument and may cause consequential damages.

Stefan Mayer Instruments shall not be liable for any direct, indirect, special, incidental or consequential damages arising out of the use of its instruments.

### 2. Mounting

Four M3 threaded holes are provided for mounting of the sensor. The edge at the rear side of the sensor serves for alignment of the X- and Y-axes.

Caution! The plastic threads of the sensor can be easily damaged. Mounting screws must be carefully screwed in. The screws must not project into the sensor by more than 5 mm!

It is recommended to use only plastic screws for mounting of the sensor.

#### 3. Electrical connections

The connection wires are colour coded as follows:

red:  $V_{+}$ , supply voltage +4.8 to 12 V

black:  $V_{-}$ , supply ground

green: OUT-, analog output reference ground

yellow: X, analog output X-component white: Y, analog output Y-component blue: Z, analog output Z-component

The analog output reference ground OUT- is internally adjusted to half supply voltage. It must not be connected to supply ground or any other potential.

## 4. Magnetic field

The sensor contains electronics parts which can be weakly magnetized. In order to avoid offset errors the sensor should not be exposed to magnetic fields which exceed the measurement range of the sensor.