
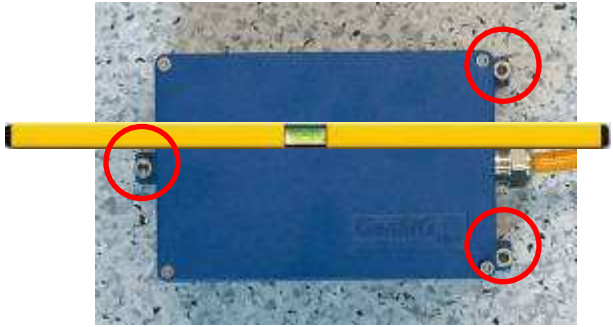
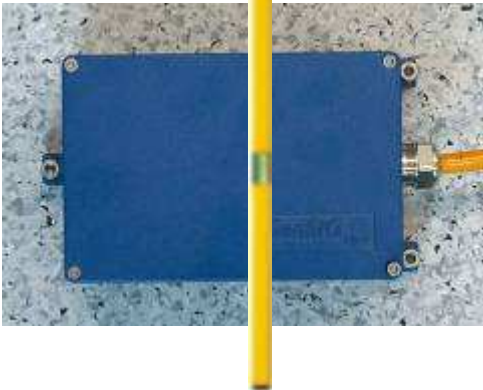





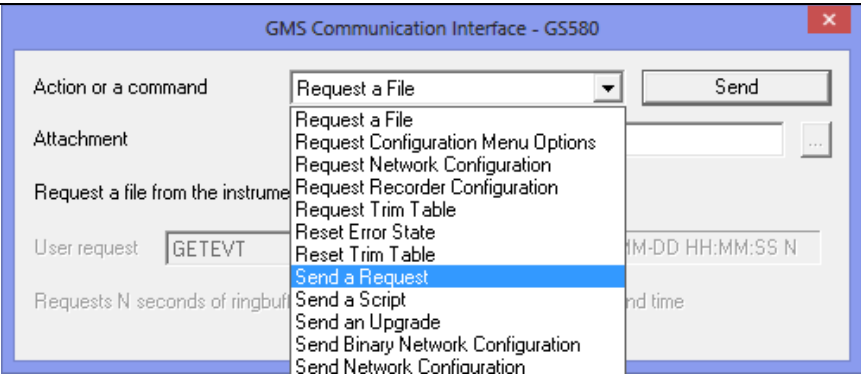
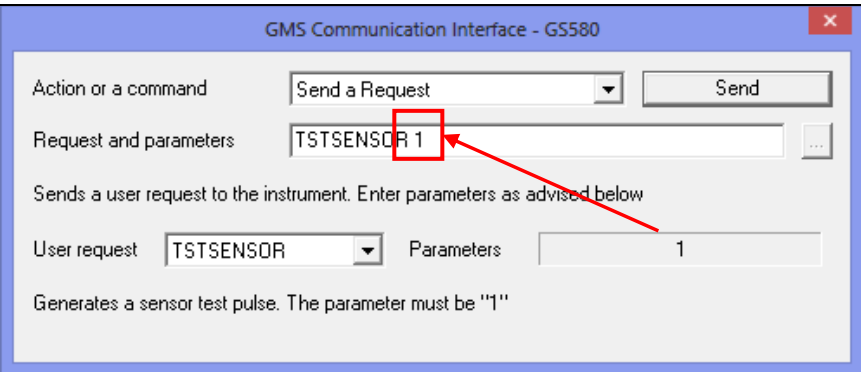
Sensor Installation and Maintenance Guide

1. Installation

<p>1.1. Levelling</p>	
<p>Use a water-level</p>	 <p>Fig 1. Water-level</p>
<p>Use the three screws to adjust properly.</p>	 <p>Fig 2. Sensor levelling</p>
	 <p>Fig 3. Sensor levelling</p>
<p>A typical levelling is around $\pm 1^\circ$ Which means around ± 2 mm for the sensor length</p>	 <p>Fig 4. Sensor levelling</p>

2. Possible Tests

To check the sensor you can send a testpulse. This will create an event with the response of the sensor.

<h3>2.1. GMS-xx</h3>	
<p>Right click on the specific station and choose "GMS Control"</p> <p> <i>Make sure to have set at last one triggerset and set the threshold to a reasonable value</i></p>	
<p>Choose "Send Request"</p>	
<p>Choose under "User request" TSTSENSOR</p> <p>Add "1" as parameter and press "Send"</p> <p>The request will be sent to the GMS, executed and the file uploaded to the server.</p> <p>The file will be stored in C:\GeoDAS_DATA\Incoming\station-name</p>	

2.2. GxR-/GNC-xx

Open the "Instrument Setup Manager"

Go to the "Sampling" Tab

Press "Correct the Baseline"

Wait a couple seconds until the correction has been done

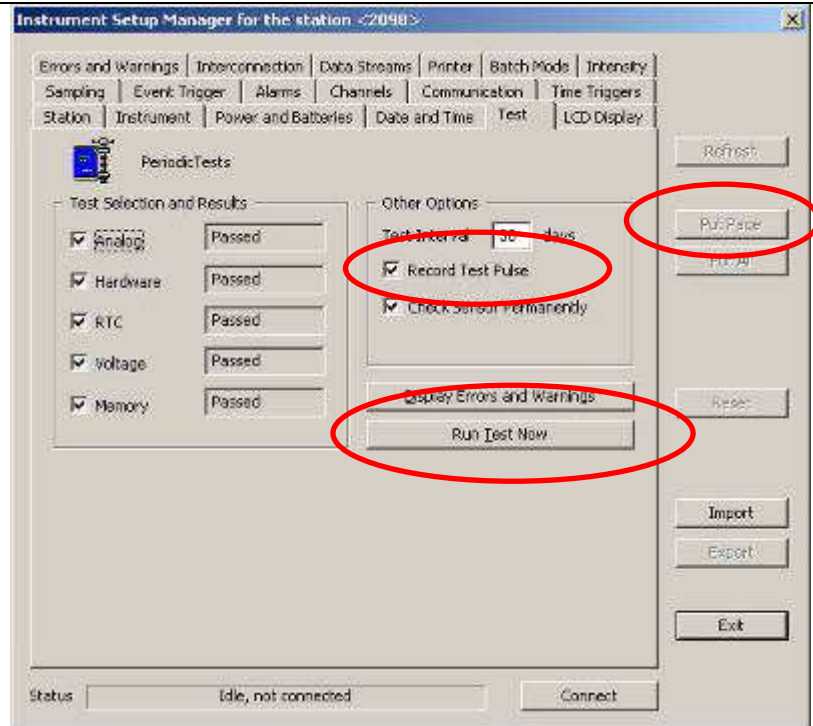
Go to Tab "Test"

Enable "Record Test Pulse"

Push "Put Page"

Push "Run Test Now"

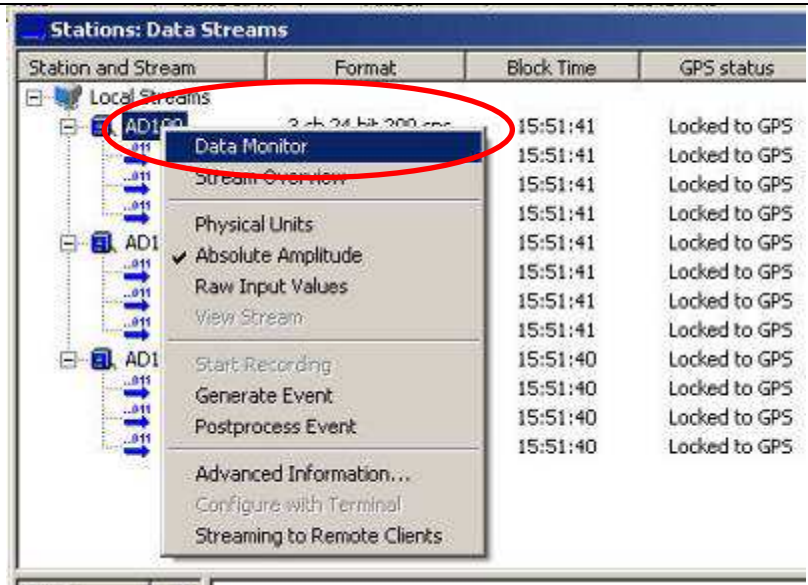
The event will be stored in C:\GeoDAS_DATA\Data\Station-name



2.3. CR-5P

Requirement : The trigger has been set in "Data Streams"

Right click on the channel and open "Data Monitor"

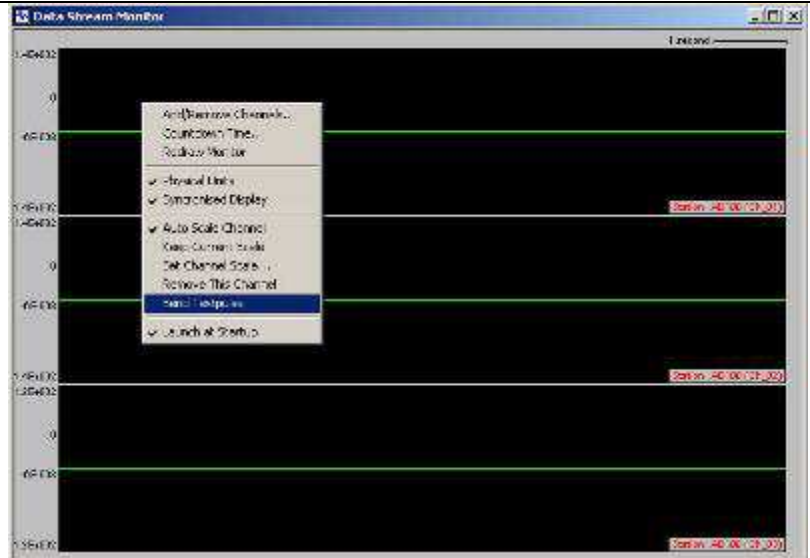


Right click and push "Send Testpulse"

The event will be stored in C:\GeoDAS_DATA\Data\channel-name



Because the testpulse will be sent to the sensor, the recorder reacts similar to an event. Make sure to enable the Local Trigger in the Datastream Monitor Setup and set the trigger threshold low enough



2.4. Examples of testpulse

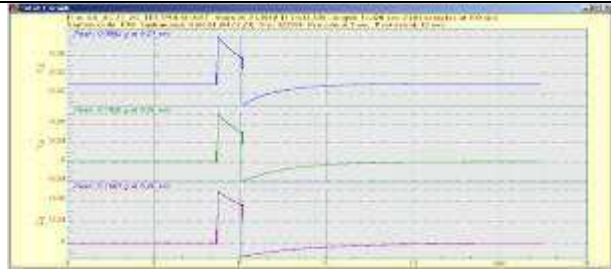


Fig 5. AC-23

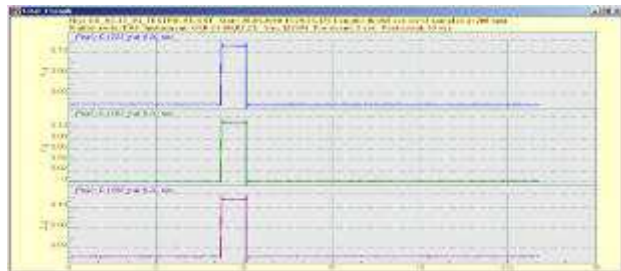


Fig 6. AC-43

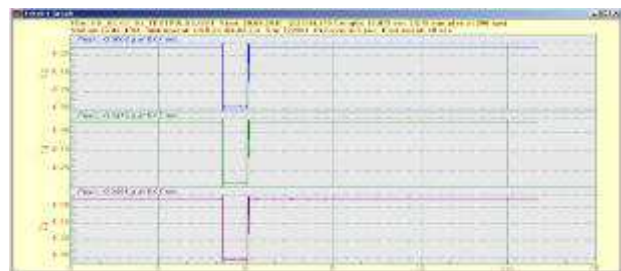









Fig 7. AC-63



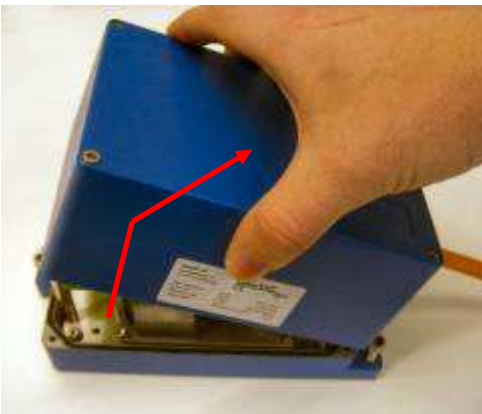
Fig 8. AC-73


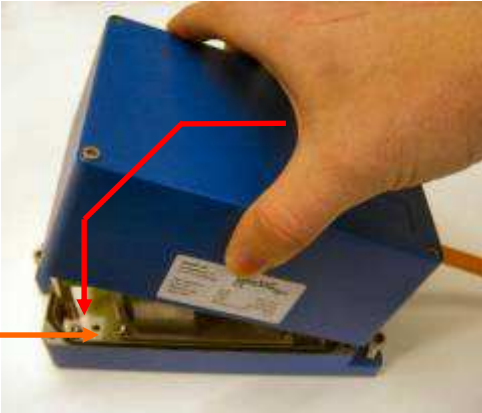
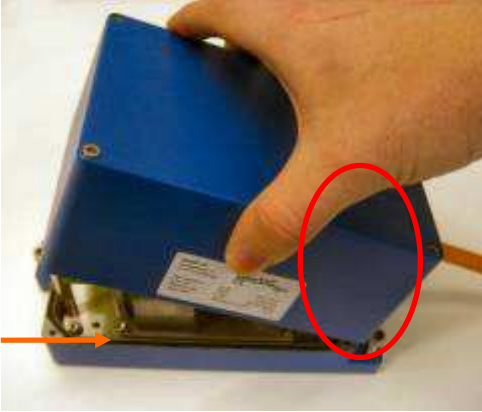


Fig 9. VE-53

2.5. Tilt Test				
		 Tilt Test can be done only on AC-4x, AC-6x and AC-7x		
		 Do always baseline corrections before you test		
X – Axis (Standard calibration Depends on how the sensor is calibrated, see the calibration label on the side)	 Fig 10. tilt X - axis	X : + 1 g Y : 0 g Z : - 1 g	 Fig 11. tilt X- axis	X : - 1 g Y : 0 g Z : - 1 g
	Y - Axis	 Fig 12. tilt Y - axis	X : 0 g Y : + 1 g Z : -1 g	 Fig 13. tilt Y - axis
Z - Axis	 Fig 14. tilt Z - axis		X : 0 g Y : 0 g Z : - 2 g (except on a 1g sensor, which can go only up to -1 g)	

3. Open and close a Sensor

3.1. Open a sensor	
Unscrew the 4 screws on the top Lift up carefully the lid to the side where the cable goes in	 Fig 15. Lift up the cover

<p>Put the lid on the side</p>	 <p>Fig 16. open sensor</p>
<p>3.2. Close the sensor</p>	
<p>Make sure the rubber is in the sealing rubber groove (orange arrow) Begin from the side where the cable goes in</p>	 <p>Fig 17. close cover</p>
<p>Make sure not to squeeze the cables Close carefully the cover and check the rubber (o-ring) is in place</p>	 <p>Fig 18. close sensor</p>

4. Full scale and offset settings (AC-23 /AC-73)

<p>4.1. AC-23</p>	
<p>4.1.1. Offset correction</p>	
<p>If you change the full scale of an AC-23, you must readjust the offset.</p>	<p>Refer to the AC-23 operation manual</p>

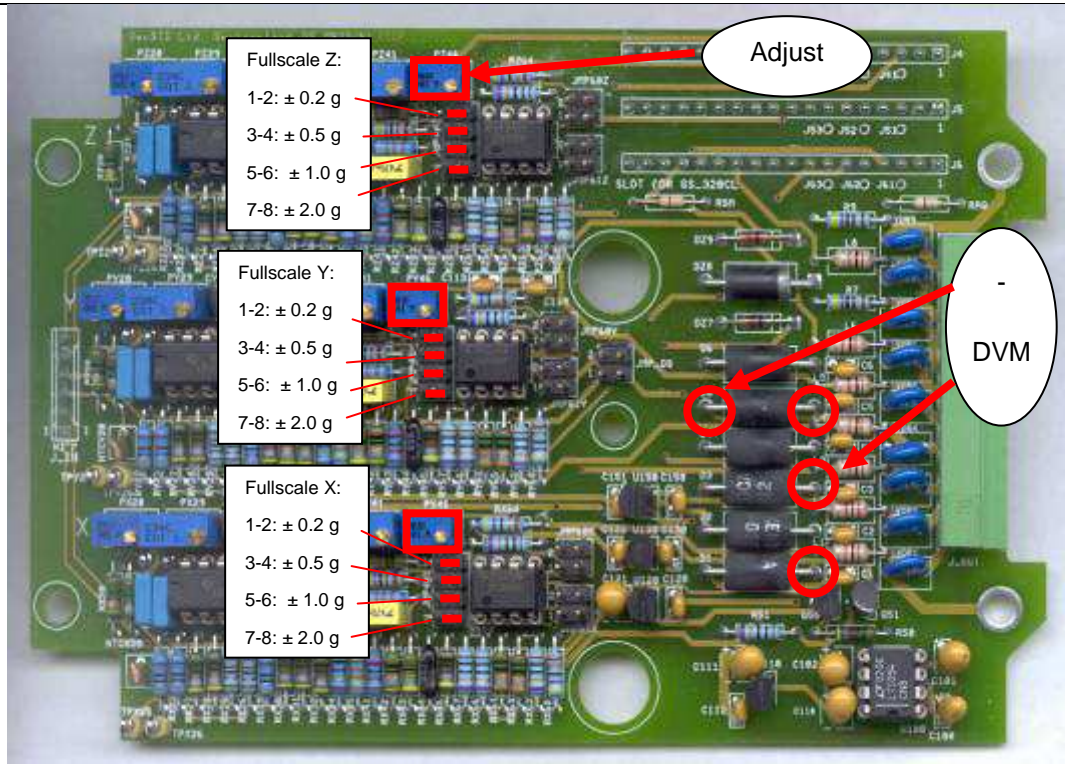


Fig 19. AC-23 board

Depending on the calibration
-> see the label on the housing

You should measure and adjust for either 0 V or 2.5 V ±0.02 V

4.2. AC-73

4.2.1. Fullscale settings

Set the wished fullscale according the table.
There is no recalibration needed in case changing the fullscale.

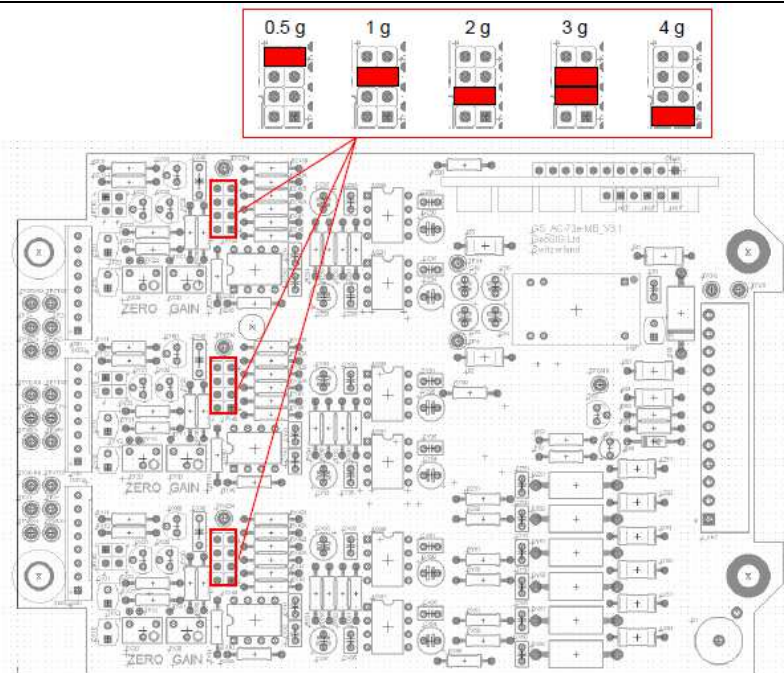

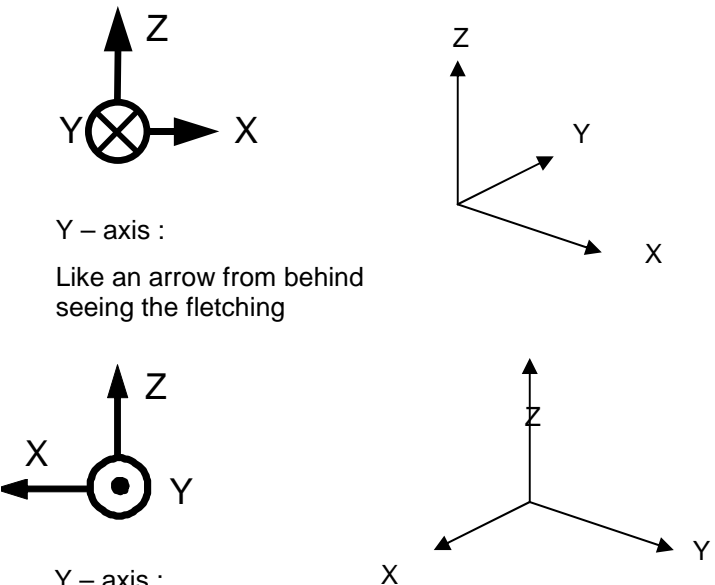


Fig 20. AC-73 board

5. Sensor label and orientation

<p>5.1. Label on a sensor</p> <p>$\pm 10\text{ V}$: means the maximum output voltage</p> <p>$\pm 2\text{ g}$: means the maximum fullscale</p>	
<p>5.1.1. Sensor Orientation Label</p> <p>Z Axis is always vertical !</p>	 <p>Y – axis : Like an arrow from behind seeing the flething</p> <p>Y – axis : Like an arrow from front seeing the tip</p>

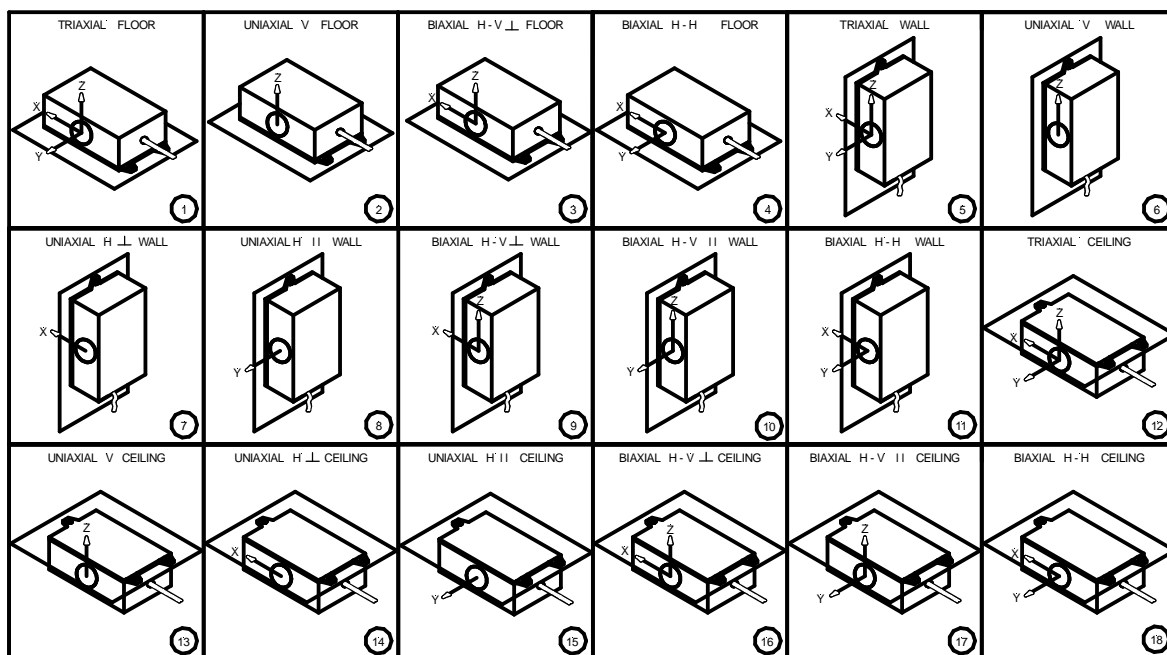
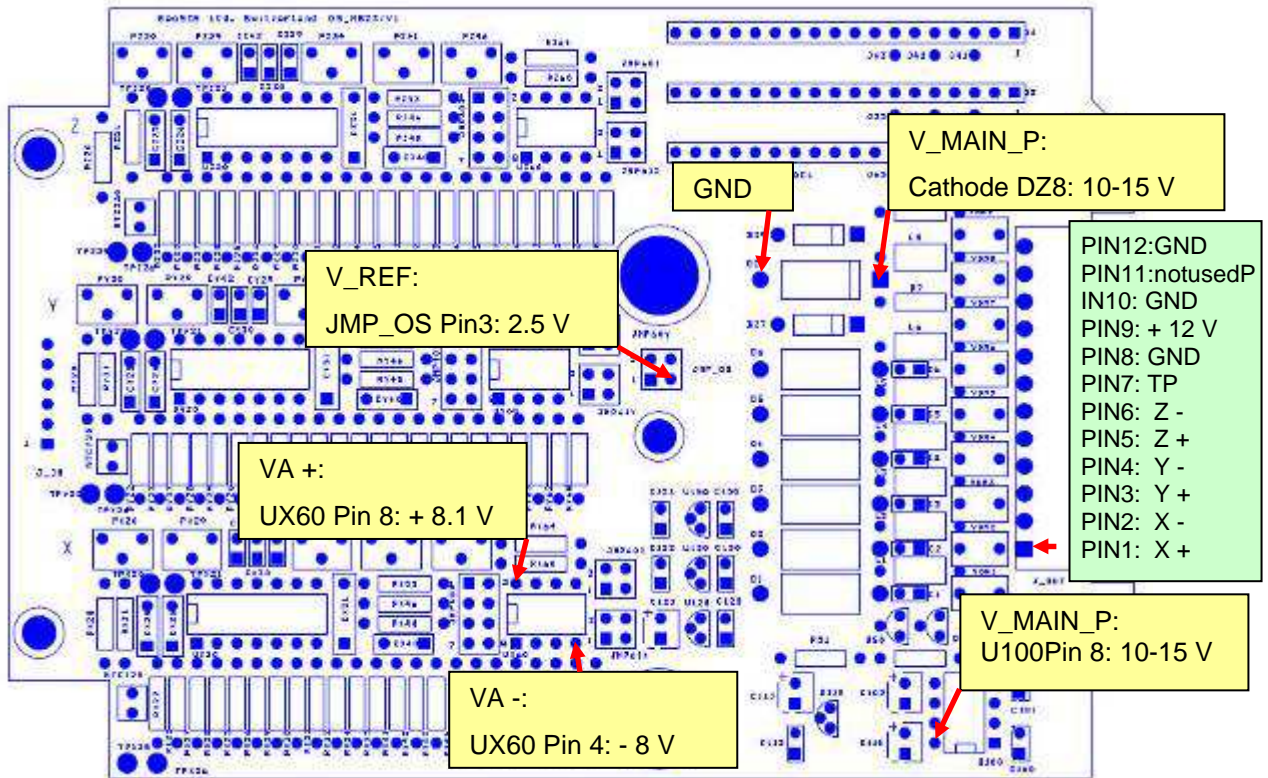


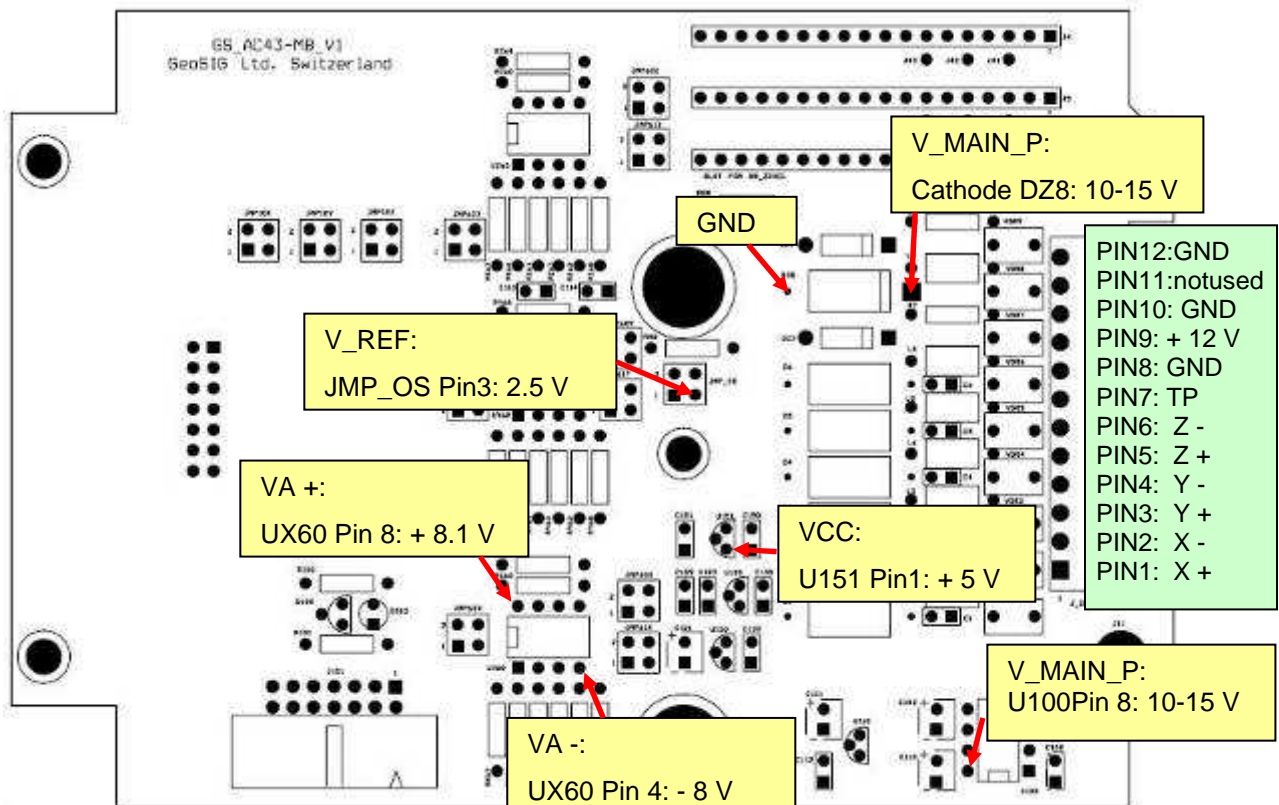
Fig 21. Orientation of the sensors

6. Important voltages

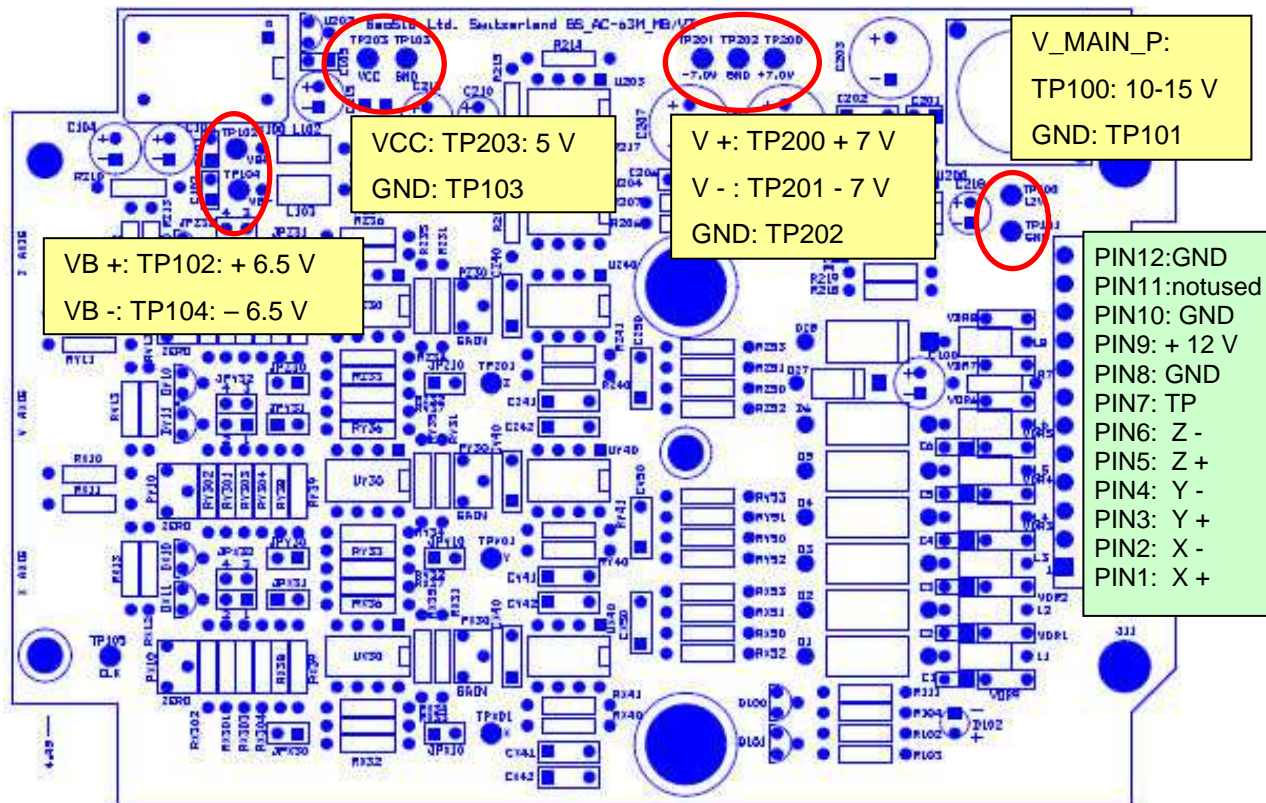
6.1. AC-23



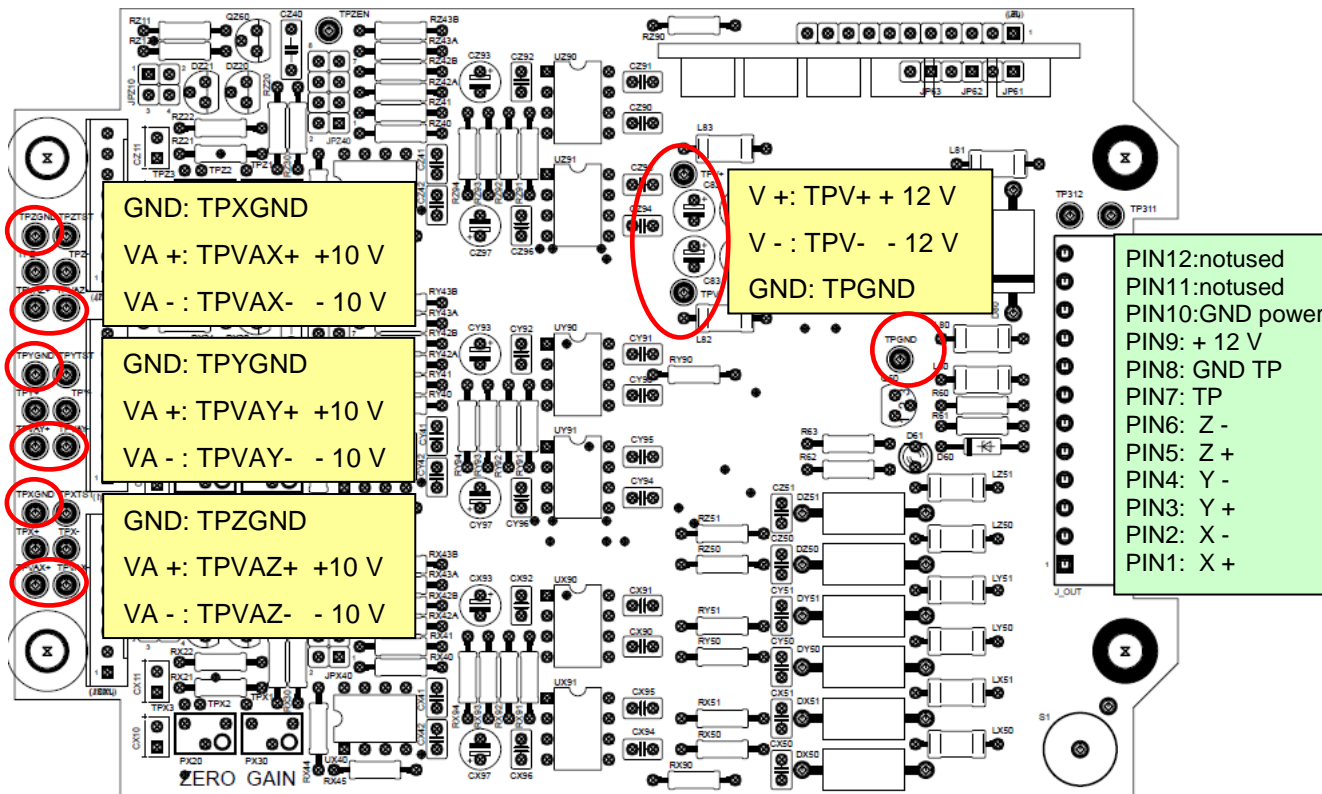
6.2. AC-43



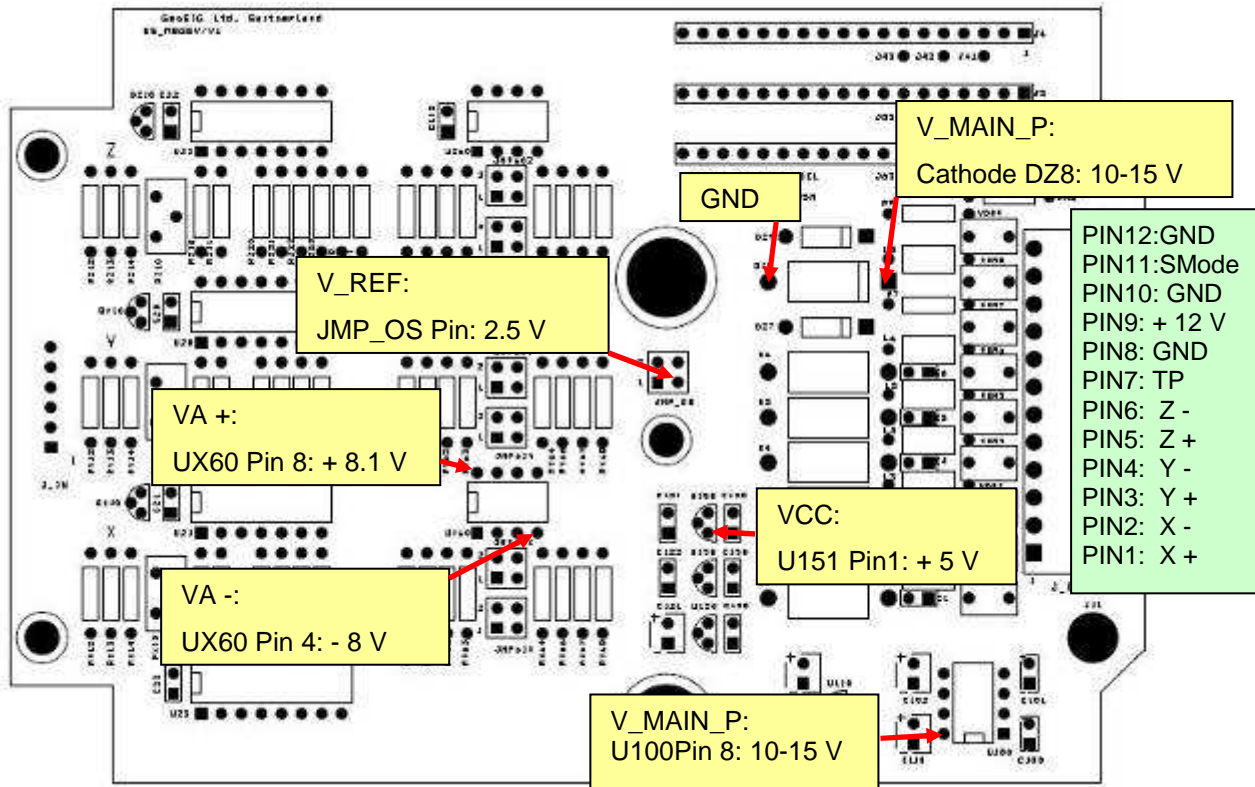
6.3. AC-63



6.4. AC-73



6.5. VE-13 / 23



6.6. VE-53

