



GMS-V1X01 GMS-V1X02

Calibration

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1 General

One of the measuring functions in the BRM unit must be calibrated at installation and it is the rotor position measurement (POM). The other functions are calibrated at manufacturing using precise signal generators.

Some of the functions can be re-calibrated and these are also described in this manual.

2 Document revision

Feb. 26, 2020/BL Created.

3 POM calibration

Calibration of the rotor position measurement means that the position sensor, POT-50, is calibrated together with the amplifiers in the BRM unit. Do this at installation and if the BRM unit or the POT-50 sensor are replaced.

Do like this:

On the display of the BRM unit.

- Step using NEXT until "Rotor position" is shown on the upper line.
- Step using PLUS until "Zero Cal." is shown.

On the POT-50 sensor.

- Press in the tip of the position sensor completely hold still.

On the display of the BRM unit.

- Press ENT to edit, "Sel" is replaced by "Edit".
- Press ENT for about 1 second. "Sel" is shown again and the value should read 0.00 ± 0.01 mm.
- Step using PLUS until "Span Cal." is shown.

On the POT-50 sensor.

- Release the tip of the position sensor completely.

On the display of the BRM unit.

- Press ENT to edit, "Sel" is replaced by "Edit".
- Press ENT for about 1 second. "Sel" is shown again and the value should read 50.00 ± 0.01 mm.

The calibration is done.

3.1 VIM Refiner vibration

This function cannot be calibrated.

3.2 TVD Touch vibration

This function cannot be calibrated.

3.3 CMD Control motor

This function cannot be calibrated.

3.4 HPA(B) Hydraulic pressure A resp. B

In this example we set range of the HPM-A function to 50.00 ton.

Same procedure for HPA and for HPB. Connect a 4-20 mA current simulator to the input of the chosen function, HPA or HPB.

On the display of the BRM unit.

- Step using NEXT to "Hydr. Pressure A(B)" is shown on the upper line.
- Step using PLUS until "Zero Cal." is shown.

External 4-20mA simulator.

- Set the value to 4.00 mA.

On the display of the BRM unit.

- Press ENT to edit, "Sel" is replaced by "Edit".

- Press ENT for about 1 second. "Sel" is shown again and the value should read 0.00 ± 0.01 ton.
- Step using PLUS until "Span Cal." is shown.

External 4-20mA simulator.

- Set the value to 20.00 mA.

On the display of the BRM unit.

- Press ENT to edit, "Sel" is replaced by "Edit".
- Press ENT for about 1 second. "Sel" is shown again and the value should read 50.00 ± 0.01 ton (*). (*) = Using 50.0 ton as range.

The calibration is done.

3.5 OT1/OT2 Temp fr./to bearing

Same procedure for OT1 and for OT2. Connect a PT-100 simulator to the input of the chosen function, OT1 or OT2.

On the display of the BRM unit.

- Step using NEXT to "Temp. Fr./To bearing" is shown on the upper line.
- Step using PLUS until "Zero Cal." is shown.

External PT-100 simulator.

- Set the value to 0.0 °C.

On the display of the BRM unit.

- Press ENT to edit, "Sel" is replaced by "Edit".
- Press ENT for about 1 second. "Sel" is shown again and the value should read 0.00 ± 0.1 °C.
- Step using PLUS until "Span Cal." is shown.

External PT-100 simulator.

- Set the value to 100.0 °C.

On the display of the BRM unit.

- Press ENT to edit, "Sel" is replaced by "Edit".
- Press ENT for about 1 second. "Sel" is shown again and the value should be 100.00 ± 100.1 °C.

The calibration is done.

3.6 MPM Main motor power

In this example we set range of the MPM function to 10.00 MW.

Connect a 4-20 mA current simulator to the input of the chosen function MPM.

On the display of the BRM unit.

- Step using NEXT to "Main motor power" is shown on the upper line.
- Step using PLUS until "Zero Cal." is shown.

External 4-20mA simulator.

- Set the value to 4.00 mA.

On the display of the BRM unit.

- Press ENT to edit, "Sel" is replaced by "Edit".
- Press ENT for about 1 second. "Sel" is shown again and the value should read 0.00 ± 0.01 MW.
- Step using PLUS until "Span Cal." is shown.

External 4-20mA simulator.

- Set the value to 20.00 mA.

On the display of the BRM unit.

- Press ENT to edit, "Sel" is replaced by "Edit".
- Press ENT for about 1 second. "Sel" is shown again and the value should read 10.00 ± 0.01 MW (*). (*) = Using 10.0 MW as the MPM Range

The calibration is done.

3.7 AIN Analog input

In this example we set range of the Ain function to 10.00 MW.

Connect a 4-20 mA current simulator to the input of the chosen function AIN.

On the display of the BRM unit.

- Step using NEXT to "Analog input" is shown on the upper line.
- Step using PLUS until "Zero Cal." is shown.

External 4-20mA simulator.

- Set the value to 4.00 mA.

On the display of the BRM unit.

- Press ENT to edit, "Sel" is replaced by "Edit".
- Press ENT for about 1 second. "Sel" is shown again and the value should read 0.00 ± 0.01 .
- Step using PLUS until "Span Cal." is shown.

Extern 4-20mA simulator.

- Set the value to 20.00 mA.

On the display of the BRM unit.

- Press ENT to edit, "Sel" is replaced by "Edit".
- Press ENT for about 1 second. "Sel" is shown again and the value should read 50.00 ± 0.01 (*). (*) = Using 10.0 as the AIN Range

The calibration is done.

4 CONTACT

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