CONFIGURATION OF ANALYSIS DEVICE FOR FIBER OPTIC SENSORS

This quick guide helps you to programme the temperature monitor. It does not replace the operating manual. Only use these brief instructions if you have read and understood the operating manual and the safety instructions contained therein.

The transformer may only be handled by personnel (=specialists) qualified for the task in question.

The term "specialists" or "qualified personnel" within the meaning of this manual shall refer to persons who due to their education, knowledge, experience and instructions from the person in control of work activity are able to recognize and avoid the hazards, which might emanate from their area of work.

▶ **Notice**

Any person who is entrusted with working on the unit has the responsibility to read this manual thoroughly and understand it, particularly the “Safety” chapter.

The authorized personnel must:

- Utilize and be trained in the proper usage of required Personal Protection Equipment (PPE).
- be aware of the local safety-specific mounting / erection provisions and comply with these at all times.
- have been authorized and instructed by the appropriate person in charge to perform the work on the transformer.
- Ensure unauthorized persons are not present in the danger zone.

The following safety notices apply for the **entire duration** of the work:

⚠ DANGER

Risk of electric shock!

Non-compliance will result in death or serious injury!

Apply the five safety measures according to EN 50110-1 for the entire duration of the work, in the specified sequence (section “Working in the zero voltage state)!

The rules are:

1. De-energize main and auxiliary circuits
2. Lock out to prevent switching on
3. Verify zero voltage
4. Ground and short-circuit
5. Cover or block off adjacent live components

After completing the work:

Reverse the state established by applying the safety measures according to applicable local regulations or, if there are none, reverse the five safety measures listed above in the opposite sequence.

Only perform switching on if you are authorized to do so!

⚠WARNING

Flashover due to foreign matter!

Non-compliance can result in death or serious injury.

Foreign matter on transformer surfaces during energizing cause damage to windings, flashover and fire.

- Make sure that there are no impurities and foreign matter on any transformer surfaces.
- Remove metal dust and other dust which might be on any transformer surfaces.
- When working, do not place tools, screws and metal parts on the transformer.
- Make sure that no impurities and foreign matter are left in the enclosure and on other plant components.

⚠CAUTION

Risk of burns when touching hot surfaces!

Non-compliance may result in injury.

Before starting to work, make sure that the transformer's surfaces have cooled down to a temperature below 40°C, in order to avoid burns caused by unintentional contact!

Parts:

- Fiber optic sensor already build into the transformer
- Fiber optic sensor analysis device RUGGED Monitoring **O201**
- Trigger device TECSYSTEM **NT935IR**

Connect the components according to the circuit diagram.

The following steps are necessary for a working communication between O201 and NT935IR:

1. ⚠ **DANGER of electric shock**. Carry out work only in a zero voltage state. Apply the five safety measures for the entire duration of the work.
2. The O201 unit must be equipped with 4 – 20 mA analogue outputs.

3. Both units must be programmed.
   A quick guide for the NT935IR is enclosed with each unit. The latest version can be downloaded from the manufacturer's website https://tecsystem.it.
   Special software from the manufacturer is required for programming O201. The software and instructions can be downloaded from https://ruggedmonitoring.com after registration.
   The values for the alarms to be programmed can usually be found in the circuit diagram. If no specifications are available, they can be requested from SGB service.
4. The analogue outputs of O201, which are connected to the NT935IR, must be adjusted to the analogue inputs of NT935IR.
   For this purpose, set the scaling to the temperature range of the NT935IR from -40 to +200°C.

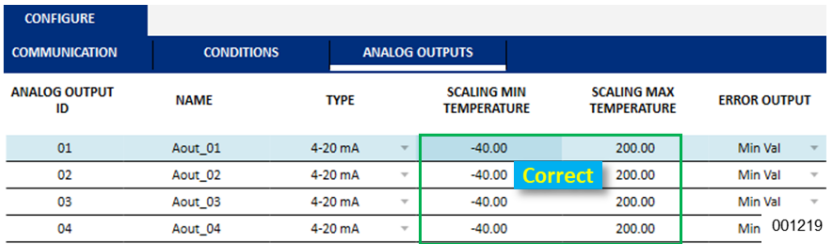

Fig. 1: Settings for scaling the analogue outputs of the O201