

Hazard Warnings

Hazard warnings in this manual indicate potential harm to the user or the product. For the person interacting with the product, the level of risk includes consequences ranging from slight, up to lethal injuries. As for the product, disobeying the warnings may cause damage to the equipment and/or void the warranty. Therefore, said warnings are made apparent to instruct and warn the user, which precautions have to be made prior to performing any actions described in this manual. The user must read and be familiar with the manual, before performing any tasks as described in this manual.

Hazard warnings in this manual are presented in these three forms:

WARNING: These warning notices refer to personal safety. Failure to obey these notices could result in personal injury or death.



WARNING

CAUTION: General precautions must be made. Failure to obey these notices could result in personal injury and/or equipment damage.



CAUTION

NOTE: Directs the user's attention to essential information.

Technical Data Sheet for the Temperature Sensors (PTC-Sensors)

1 General

The temperature sensors can be built into the windings of the actuator motor (according to DIN 44081/82 Standard). The individual temperature sensors are serially and internally connected within the motor. The temperature sensors require a tripping unit for evaluation. If the winding temperature of the motor exceeds a certain value, as determined by its insulation class, the resistance of the temperature sensor will increase markedly (see Figure 1, at ϑ_{NAT}). This increase in resistance is evaluated by the tripping unit. By incorporating the tripping unit into the motor drive, the motor will be protected from an excessive increase in temperature due to overload.

2 Characteristic Line

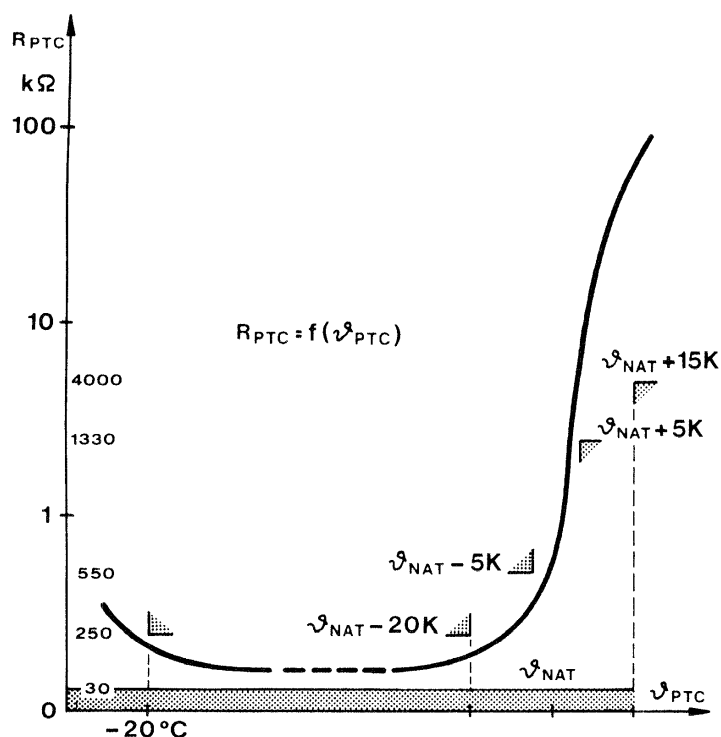


Figure 1: Characteristic line of the temperature sensor (PTC)

The characteristic line of the temperature sensor refers to a maximum testing voltage of 2,5V!

3 Technical Data

Highest permissible voltage	25V
recommended operation voltage	690mW
Testing voltage (litz wire against insulation)	2,5kV

CAUTION: The temperature sensor's own increase in temperature influences the thermal response. This is why only high-impedance measuring devices with a low power loss in the measuring circuit should be used for evaluation and monitoring purposes.



CAUTION

NOTE: At room temperature, the resistance of the temperature sensors in use with a three-phase motor (three sensors in series) usually amounts to about 200Ω.