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Operating Temperature Range and Insulating Materials

Wurth Electronics Midcom defines the operating temperature range as the temperature range that the product will function at in its intended application. The allowable peak temperature of insulating materials as defined in the safety standards must be considered separately.

Many safety standards have no requirement for peak temperatures as the intent of the standard may only be functional operation. Some safety standards consider the thermal class of each insulating material separately when defining the allowable peak temperature. Yet other safety standards, such as IEC 62368-1, define the allowable peak temperature based on the rated thermal class of the insulation system used. In the last case, if no insulation system is defined then the insulation system is considered as Class 105 (A) by default.

It is the responsibility of the customer to understand and account for the applicable safety standard, the thermal rating of the insulating materials, and the operating temperature range required by their end product.

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