



2013-09-26

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Reference: File DK1109 Project 12CA69359 Volume: 1  
Subject: Letter Report for DECLARATION OF CONFORMITY - MBT-series

### Statement

**Temperature Element in Danfoss temperature sensor types:  
MBT 5113 DIN B, MBT 5116 DIN B, MBT 5250, MBT 5252 DIN B, MBT 5260, MBT 5310, and MBT 153.**

**UL International Demko A/S hereby confirm that the above mentioned Temperature Elements can be considered to be Simple Apparatus in accordance with EN 60079-11:2012 §5.7:**

*The following apparatus shall be considered to be simple apparatus:*

a) *"Passive components, for example switches, junction boxes, resistors and simple semiconductor devices."*

*5<sup>th</sup> bullet. "when simple apparatus is located in the explosive atmosphere, the maximum surface temperature shall be assessed. When used in an intrinsically safe....."*

"The end-user shall evaluate the heating effect of the excitation current under normal and fault conditions."

Due to the fact that the above only is a selection of the clause, please refer to the standard for further details.

Simple apparatus shall conform to all relevant requirements of this standard (EN 60079-11:2012 incl. cl. 1), but need not be certified and need not to comply with Clause 12 (marking)

- The light metal content in enclosures for MBT 5113, 5116, and 5252 makes it necessary to protect them from friction and impact in the final installation to avoid the risk of ignition capable sparks.
- The plastic enclosure for MBT 5250, 5260, and 5310 are larger than the size permitted without precautions in the combination of Group IIC and Category 1/EPL Ga. Instruction for safe use shall accompany the product.
- The final temperature element shall pass a 500 Vac test between circuit and frame/ground in room temperature. Information shall be provided to the end-user about the relation between sensor temperature and dielectric strength/insulation resistance.
- MBT5310 is intended for bearings. It shall be accompanied by instructions on how to avoid circulating currents when used in machines where high currents are expected. Text similar to "The sensors shall be mounted in one single piece of section and not be used for bolting/bonding separate sections together."
- It is the manufacturer's responsibility to make the evaluation of the above mentioned types to comply with all the relevant requirements in the Directive and standards.

Sincerely,

Peter Alex-Petersen  
Engineering Leader  
Department: 3000EHRV  
Hazardous locations

Reviewed by:

Lucy Robert  
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