

# Type Approval Certificate



This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the GL Type Approval System.

Certificate No. **13 682 - 99 HH**

Company **Danfoss A/S  
Nordborgvej 81  
6430 Nordborg, DENMARK**

Product Description **Temperature Sensor**

Type **MBT 5116 Slim-line**

Environmental Category **D, H, EMC1**

Technical Data /  
Range of Application **Sensor element: PT 100, insert exchangeable  
Connection: 2- or 3- wire connection  
Cable gland: PG 11 or PG 13.5  
Temperature range: -50 °C up to 600 °C  
Accuracy: class B according to EN 60751  
Insertion length: 80 mm up to 300 mm  
Process connection: G 1/2A, G 3/4A, M 24x2 or M 33x2  
Material sensor and protection tube: 1.4571 (AISI 316 Ti)  
Response time: z0.5 = 30 s, z0.9 = 95 s (water, 0.2 m/s)  
z0.5 = 150 s, z0.9 = 450 s (air, 1 m/s)  
Degree of protection: IP 65  
\*Env. Cat. 'H': vibration test: 5 Hz - 25 Hz amplitude = 3.3 mm  
25 Hz - 2000 Hz, acceleration = 15 g**

Test Standard **Guidelines for the Performance of Type Approvals, Chapter 2 - Edition 2003**

Documents **Test reports : 980372, 980372-1, 980009b,c, 980030a  
Technical data: IK.23.N2.02, AC-TES/SP/jw**

Remarks **None**

Valid until **2014-04-07**

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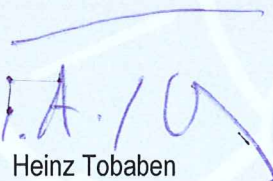
File No. **I.D.02**

**Hamburg, 2009-04-08**

Type Approval Symbol



**Germanischer Lloyd**

  
Heinz Tobaben

  
Dariusz Lesniewski

This certificate is issued on the basis of "Guidelines for the Performance of Type Approvals Part 1, Procedure".