

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. **91 035 - 84 HH**

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

Product Description **Temperature Switch**

Type **CAS 178, CAS 180, CAS 181
CAS 1080**

Environmental Category **D, EMC1**

Technical Data /
Range of Application **CAS 178: 20 °C - 80 °C, switching difference 2 °C
CAS 180: 70 °C - 120 °C, switching difference 2 °C
CAS 181: 60 °C - 150 °C, switching difference 2.5 °C
CAS 1080: identical temperature sensor ranges, but with 2 parallel switches
Output: 1(2) c/o - contacts
Rating AC-15/14 (inductive load): 0.1 A 220 V AC
Rating DC-13 (inductive load): 12 W, 125 V DC
Sensors with 2 m armoured capillary
Protection tube material: brass or stainless steel
Time constant with protection pocket: z 0.5 = 35 s, z 0.9 = 130 s
Time constant without protection pocket: z 0.5 = 16 s, z 0.9 = 81 s
Degree of protection: IP 67**

Test Standard **Guidelines for the Performance of Type Approval, Chapter 2, Edition 2012**

Documents **Test reports: 60 - 763, 970042
Drawings: 060 R 0251, 060 R 0253, 060 R 0035 - 37
Data sheet: IC.PD.P10.J3.02 / 520B4674**

Remarks **None**

Valid until **2018-05-17**

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

Hamburg, 2013-05-28

Type Approval Symbol



Germanischer Lloyd


Marco Rinkel


Dariusz Lesniewski

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