

# 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. **11 288 - 98 HH**

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

Product Description **Pressure Transmitter**

Type **MBS 3100/3150; MBS 3300/3350; MBS 2100/2150**

Environmental Category **D, H, EMC1**

Technical Data /  
Range of Application **MBS xx50: versions with integrated pulse-snubber**  
**Power supply: 24V DC (nom.); 5V DC (nom.) for MBS 21xx**  
**Output signal: 4-20 mA within range, increasing to 28 mA by over pressure**  
**Various ranges from 0V DC up to 10V DC**  
**10-90% of supply (ratiometric) for MBS 21xx**  
**Pressure ranges: 0-1 bar to 0-600 bar**  
**Operating temperature: MBS 31xx up to 85°C**  
**MBS 33xx up to 100°C/125°C**  
**MBS 21xx up to 125°C**  
**Wetted parts: stainless steel AISI 316 L**  
**Enclosure material: stainless steel AISI 316 L**  
**Pressure connection: various thread types**  
**Pressure reference: absolute, relative gauge**  
**Electrical connection: DIN-plug 43650, IEC 947-5-2 or cable AMP 173065**  
**Vibration: 5 Hz to 30 Hz amplitude = 5.5 mm**  
**20 Hz to 2000 Hz acceleration = 20 g**

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

Documents **Test reports: TR 060GPM970929(01),(02), PM941208(01), TR 060G-97/02/24**  
**Technical Report 2008-9027**  
**Circuit diagrams: 060R3050, 060C0337, 060C0340**  
**Data sheets: IK.21.H1.02, IC.PD.P21.C1.02, IC.PD.P21.L1.02**

Remarks **None**

Valid until **2019-02-10**

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File No. **I.D.01**

**Hamburg, 2014-02-11**

Type Approval Symbol



**Germanischer Lloyd**

*Marco Rinkel*  
Marco Rinkel

*Dariusz Lesniewski*  
Dariusz Lesniewski