



TYPE APPROVAL CERTIFICATE

No.
ELE031621XP

This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description</i>	Pressure transmitters
<i>Type</i>	MBS 5100 MBS 5103 MBS 5150 MBS 5153
<i>Applicant</i>	DANFOSS A/S Nordborgvej 81 DK-6430 Nordborg (office E14-S1) DENMARK
<i>Manufacturer</i>	DANFOSS A/S - DANFOSS (TIANJIN) LTD.
<i>Place of manufacture</i>	WUQING DEVELOPMENT AREA, 9 QUANHUI ROAD 31700 Tianjin (Tianjin) CHINA
<i>Reference standards</i>	IACS E10 Rev.7, Rules for the classification of ships.- Part C - Machinery, systems and fire protection. - Ch.3, Sect. 6, Table 1.

Issued in **Gdańsk** on **April 15, 2021**. This Certificate is valid until **April 14, 2026**


RINA Services S.p.A.
Jaroslaw Kondracki

This certificate consists of this page and 1 enclosure



TYPE APPROVAL CERTIFICATE

No.

ELE031621XP

Enclosure - Page 1 of 1

MBS 5100

MBS 5103

MBS5150

MBS5153

Two-wire pressure transducer series MBS 5100/ MBS 5103/ MBS 5150/ MBS 5153

Description

Operating temperature:	up to 85°C
Measuring range:	from 0 to 1 up to 0 to 600 bar
Output signal :	4- 20 mA
Power supply:	10 to 32 Vdc
Accuracy:	(incl. non linearity, hysteresis and repeatability): $\pm 0.1\%$ FS (typ.); 0.3% (max)
Non linearity:	(Best fit straight line): $\pm 0.2\%$ FS
Hysteresis and repeatability:	$\pm 0.1\%$ FS

Reference Documents:

- Engineering Sheet: MBS 5153 Pressure Transmitter, ESH060N1279
- Danfoss data sheet: AI369160646499en-000101, dated 2021.02
- Existing design 060N9000 ver01 and updated design 060N9000 ver02

Test reports:

- 120-30437 E10 Marine High Voltage test of 060X0271
- 120-30437 E10 Marine Vibration of 060X0271
- 120-30437-1 Damp Heat test of 060X0271
- 120-30437-1 Marine Dry Heat and Cold test of 060X0271
- E201507E2

This certificate annuls and replaces the previous one n° ELE071320XP/001

Gdańsk April 15, 2021

