

TYPE APPROVAL CERTIFICATE

Certificate No:
TAP0000196
Revision No:
1

This is to certify:

That the **Pressure Gauge**

with type designation(s)
MRE, MRE-g

Issued to

SIKA Dr. Siebert & Kühn GmbH & Co. KG
Kaufungen, Hessen, Germany

is found to comply with

DNV rules for classification – Ships Pt.4 Ch.6 Piping systems

DNV class guideline DNV-CG-0339 – Environmental test specification for electrical, electronic and programmable equipment and systems

EN 837:1996/AC:1998 Pressure gauges – Part 1: Bourdon tube pressure gauges - Dimensions, metrology, requirements and testing (Corrigendum AC:1998 incorporated)

Application :

Type:	Temperature range:	Max. working press.:	Sizes:
MRE	B, D	0.6 to 2500 bar. Refer to certificate.	63, 100 and 160 mm
MRE-g	B, D	0.6 to 2500 bar. Refer to certificate.	63, 80, 100 and 160 mm

Issued at **Hamburg** on **2023-04-19**

This Certificate is valid until **2028-02-15** .

for **DNV**

DNV local unit: **Magdeburg**

Approval Engineer: **Christof Kotzmann-Bendrien**

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Sven Klinger
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

Bourdon tube pressure gauges with accuracy and technical conformity according to EN 837-1. Types and additional technical data, range of application and test standard, based on DNV Class Guideline, DNV-CG-0339 "Environmental test specification for electrical, electronic and programmable equipment and systems".

Type	Pressure [bar]	Tube pressure [bar]	Tube type	Material
MRE 63-1	0-0,6 to 0-600	40 bar and below: 60 bar and above:	C-form Spiral form	Bronze, brazed 316 SS, silver soldered
MRE-g 63-1	0-0,6 to 0-600			
MRE-g 80-1	0-0,6 to 0-600			
MRE 100-1	0-0,6 to 0-1000			
MRE-g 100-1	0-0,6 to 0-1000			
MRE 160-1	0-0,6 to 0-1000			
MRE-g 160-1	0-0,6 to 0-1000			
MRE 63-3	0-0,6 to 0-1000	60 bar and below: 100 bar and above:	C-form Spiral form	316 SS, argon arc welded 316 SS, argon arc welded
MRE-g 63-3	0-0,6 to 0-1000			
MRE-g 80-3	0-0,6 to 0-1000			
MRE 100-3	0-0,6 to 0-2500	40 bar and below: 60 bar and above:	C-form Spiral form	316 SS, argon arc welded 316 SS, argon arc welded
MRE-g 100-3	0-0,6 to 0-2500			
MRE 160-3	0-0,6 to 0-2500			
MRE-g 160-3	0-0,6 to 0-2500			
MRE 63-6	0-0,6 to 0-600	60 bar and below: 100 bar and above:	C-form Spiral form	Monel, argon arc welded Monel, argon arc welded
MRE-g 63-6	0-0,6 to 0-600			
MRE-g 80-6	0-0,6 to 0-600			
MRE 100-6	0-0,6 to 0-600	40 bar and below: 60 bar and above:	C-form Spiral form	Monel, argon arc welded Monel, argon arc welded
MRE-g 100-6	0-0,6 to 0-600			
MRE 160-6	0-0,6 to 0-600			
MRE-g 160-6	0-0,6 to 0-600			

Application/Limitation

The a.m. manometers are approved and may be used in piping systems on ships, offshore units and other structures classed by DNV. All gauges without electrical accessories are according ATEX directive.

The selection of the pressure gauges for the corresponding service conditions (pressure, temperature and medium) as well as the proper assembly and installation is to be carried out in accordance with the instructions of the manufacturer.

Type Approval documentation

Tests carried out

Marking of product

For traceability to this type examination the products are to be marked in accordance with EN 837-1:

- Individual serial number
- Manufacturer's trademark
- Pressure range
- Pressure unit
- Wetted material
- Accuracy class

Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment to verify that the conditions for the Type Approval are complied with. Refer to the Class Program DNV-CP-0338, Sec.4



Job Id: **262.1-027677-2**
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To check the validity of this certificate, please look it up and find out in approval finder <https://approvalfinder.dnv.com>.

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