

TYPE EXAMINATION CERTIFICATE

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, Germany**

is found to comply with

**DNV GL class guideline DNVGL-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 **2018-02-16**This Certificate is valid until **2023-02-15**.for **DNV GL**DNV GL local station: **Magdeburg**Approval Engineer: **Andrii Pishchanskyi**

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Olaf Drews
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 Examination Certificate and not to the approval of equipment/systems installed.



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 GL Class Guideline, DNVGL-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			

Production place

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 GL. 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 Examination 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

A condition for retention of the Type Approval Certificate in its validity period is that periodical assessments are successfully carried out.

The objective of the periodical assessment is to verify that the conditions for the type approval have not been altered. The main scope of the periodical assessment will normally include:

- Verification of the TA applicant's production and quality system w.r.t ensuring continued consistent production of the type approved products at the TA applicant's own premises and at other companies that are given the responsibility for manufacturing of the products.
- Review of the TA documentation and that this is still used as a basis for the production
- Review of possible changes to the design, the material and the performance of the product
- Verification of the product marking

END OF CERTIFICATE