



# MH<sup>®</sup>4



## Construction monitoring – with reliability

Anything else will put your success at risk.



# BRANDES

... for safety today and beyond

# MH<sup>®</sup>4

## Manual system control during the construction period and when the system is in operation

The versatile BS-MH<sup>®</sup>4 multifunction instrument is equipped with extensive functions for taking measurements and transmitting system data and is easy to operate.

The BS-MH<sup>®</sup>4 offers post-insulation companies, network operators and every measurement technician all the advantages of a dedicated inspection system for all types of measuring loops and BRANDES sensor cables. Connect, switch on and measure – ingeniously simple. The BS-MH<sup>®</sup>4 features the user-friendly **BRANDES technology** in a compact design.

### How the BS-MH<sup>®</sup>4 operates

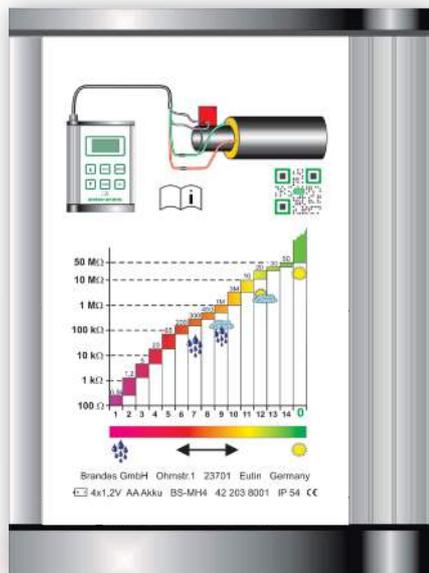
The BS-MH<sup>®</sup>4 mobile system tester has automated measuring functions on BRANDES NiCr measuring loops, in the Nordic system (copper loops) and in the HDW System<sup>®</sup> and is easy to operate.

It enables manual testing and inspection of sensing loops and sensor cables as well as the associated condition assessment of monitored pipes and other objects. The measuring line set makes it possible to establish all the necessary connections to connection points and pipe contacts.

Each **measuring cycle** includes the testing of loop continuity, for BRANDES sensor technology (NiCr) the measurement of the **loop length**, the measurement of the **MH<sup>®</sup> level (insulation resistance)** with testing for metallic contact between sensing loop and pipe, the measurement of the **transition resistance** at the pipe contact and the **control of the supply voltage** as well as the **measurement of external or element voltage**.

**The measurement logs can be temporarily stored in the instrument and edited immediately or later by means of the BRANDES app and forwarded directly by e-mail. As an alternative, the logs can read out via a USB connection.**





BRANDES Connect is available for free in the Google Play Store.



## FEATURES

- measurement, storage and transmission of measuring point data, such as MH@ values (insulation resistances), loop lengths, geographic coordinates (GPS), external and element voltages, metallic contact and status information
- useable on BRANDES NiCr measuring loops, on Nordic systems (copper loops) and HDW systems®, and on BRANDES probe and sensor cables, e.g. on refrigeration and heating lines or on collecting surfaces and in raised floors
- bright OLED graphical display 128 x 64 pixels with brightness control and optimal readability in daylight and in dark spaces
- designed with robust aluminium housing, suitable for use in the field
- The waterproof membrane keypad with six function keys enables easy and safe handling under all operating conditions.
- All measurement logs can be transmitted wirelessly via Bluetooth, e.g. to a smartphone with the BRANDES Connect app, and forwarded in a targeted way, including additional text information, by e-mail.
- Measurement logs can also be read out directly via the USB port.
- A wide range of supply options ensure availability for daily use.
- The recording of geographic positions, linking with current measurement data and further processing with the BRANDES route editor opens up new possibilities for system documentation.
- loop, continuity and point measurements for loop reconnaissance and moisture testing during line repairs

# 55 years of know-how from monitoring of over 60,000 km of pipe networks

## THE MISSION: safeguarding your investment

- Pipe systems are exposed to high levels of stress due to „hot and cold cycles“.
- Effective monitoring of the systems is existentially important to precisely locate damage and avoid major and therefore expensive repairs.

## THE SOLUTION: BRANDES

- BRANDES is the market leader in high-quality early moisture detection systems for local and district heating, the purpose of which is to prevent damage and localise leaks.
- BRANDES has been the largest system-independent and neutral provider for around 50 years.
- greatest reliability and product quality with the highest technical compatibility
- BRANDES invests more than 6% of its annual turnover in research and development.

## BRANDES offers the complete service cycle

- conceptualisation, consulting and planning through to construction monitoring
- production and fabrication almost entirely from a single source
- training and analysis as well as documentation of the systems and routes
- system maintenance and monitoring, software updates and telephone support

## References and solutions

- BRANDES has been working together with many customers for many decades.
- BRANDES develops centralised and decentralised monitoring systems for small and large networks.
- BRANDES supplies energy providers and industrial companies in over 30 countries.
- With its numerous international patents and property rights, BRANDES is the seal of quality for reliability in the early detection of moisture.
- BRANDES has been certified according to ISO 9001 since 1995.

MH® levels as evaluation criteria were determined on the basis of many years of empirical damage evaluation. Our definition for „dry“, which is recognised industry-wide, the acceptance value of > 10 megaohms and the moisture rating in MH® levels are based on our special measurement procedure. The result is many years of system reliability.

**Safeguard your investment. Count on the reliability of monitoring technology from BRANDES.**



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