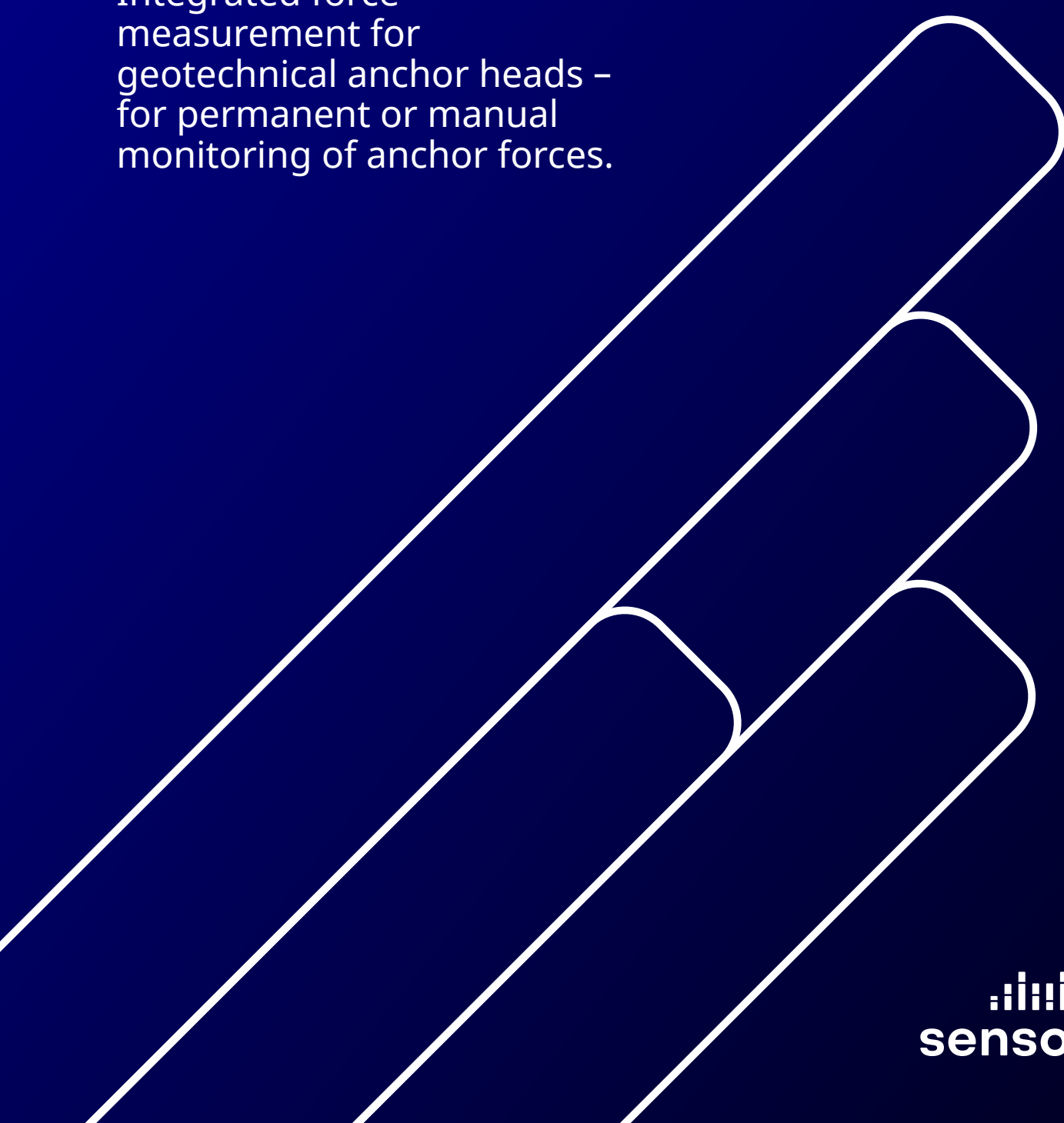


# Force measurement for geotechnical anchors S.Ring HFS

Integrated force  
measurement for  
geotechnical anchor heads –  
for permanent or manual  
monitoring of anchor forces.



# Compliant and robust by design

The S.Ring HFS complies with the requirements of ÖNORM B 4456:2021, DIN EN 1537 and DIN 51308.

The load cell is directly integrated into the anchor head and fully embedded within the corrosion protection system. The anchor system is designed in accordance with standards with double corrosion protection DCP. This includes encapsulation as well as additional plastic or steel sheathing.



# Easy to integrate and durable

The S.Ring HFS can be seamlessly integrated into existing structural monitoring systems.

Installation and maintenance are possible without special tools.

The system is flexible in use and suitable for both temporary and permanent anchors.

The design ensures a long service life, even in highly corrosive soils or under exposure to de-icing salts.



# More safety for your projects

You receive the system directly from the anchor manufacturer and therefore save additional effort in the design phase.

Complete documentation facilitates construction supervision and also supports risk assessment by external bodies.



# Permanent monitoring or manual readout

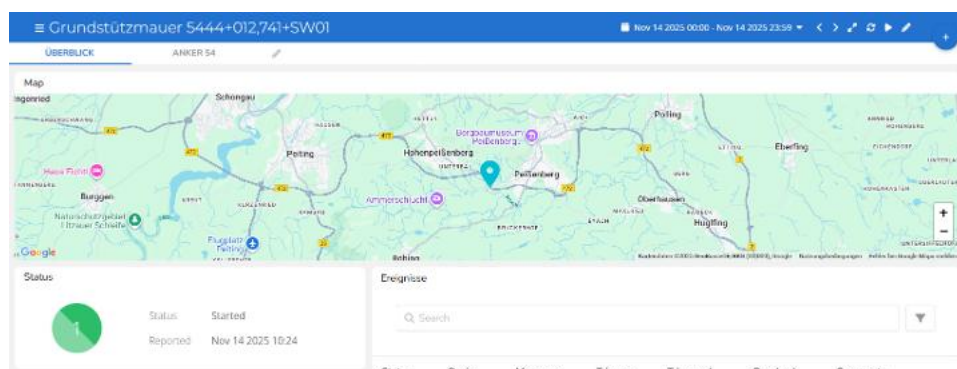
All plug connections are protected against dust, water and dirt. The device is robust and enables fast and precise measurement directly on site.

Manual data acquisition is carried out using a digital handheld readout device. It is preconfigured for the calibrated S.Ring HFS and connected via a cable up to 25 m in length.

For continuous monitoring, the data is transmitted to a gateway on site and sent via mobile network to the secure Monitoring Cloud.

Access is possible at any time via PC or mobile devices. The dashboard for data evaluation can be individually configured.

For long-term operation, a power supply on site is required.



# React early, avoid risks

In practice, this means the solutions can be easily integrated into existing process workflows.

You analyze the measured values directly and thereby detect force losses or overloads at an early stage.

In addition, thresholds and alarms can be defined so that critical developments are indicated in good time.



# All facts at a glance

**Application:** Strand anchors and bar anchors

**Strand anchors:** 4-strand to 22-strand, additional sizes on request

**Load range:** Up to 7,000 kN nominal load, additional load ranges on request

**Design variants:** Standard dimensions for anchor heads, project-specific custom solutions possible

**Measurement technology:** Full Wheatstone bridge strain gauge configuration, temperature compensated, suitable for extreme weather conditions

**Calibration:** All S.Ring HFS units are calibrated according to DIN 376 case D and comply with the requirements of DIN 51308

**Manual readout:** Digital handheld device, preconfigured, cable length up to 25 m, plug connections protected against dust, water and dirt IP67

**Permanent monitoring:** Data transmission to gateway, forwarding via mobile network to Monitoring Cloud, access via PC or mobile app, configurable dashboard, on-site power supply required

**Corrosion protection:** Fully integrated within the standards-compliant DCP system, no additional measures required



# Steel with sensors. Supporting tomorrow

Sensorise GmbH, based in Bremen, develops and integrates sensor technology into fastening elements.

Our solutions capture and analyze forces in real time and provide data for various applications.

They are used in different sectors including geotechnics, steel construction, mechanical and plant engineering, energy generation and civil engineering.

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# Further solutions from Sensorise

## **S. Ring M**

The S.Ring M is a ring-shaped load cell for large bolts up to 100 meganewtons. It is designed for demanding environments with protection classes IP67, IP68 and IP69. Installation is tool-free.

## **S.Bolt XP**

The S.Bolt XP is a sensor-integrated bolt. It measures static and dynamic loads. The patented InThread technology retains the full mechanical strength.

## **Sensorise Insights**

With Sensorise Insights, you receive data and create meaningful dashboards.

## **Services**

We offer asset monitoring for the permanent monitoring of safety-critical machines, systems and structures. In addition, we support design validation based on real measurement data and develop customized solutions for sensor integration.