



# Rock Bolt Monitoring device **RBM-XR™**

**Model: RBM-XR 1x-1/0#**

*Sustainability by design.  
Innovation by heart!*

## Features

- Measures elongation up to 350 mm, single channel
- Wireless communication
- Battery powered

## Properties

- Size: 107x105x99 mm
- Weight: 425 gr
- Case: ABS plastic
- Rating: IP 65
- Lifetime up to 10 years\*

## Visualisation of data

- ThingWave App
- ThingWave Cloud
- ThingWave RealMine3D
- ThingWave Gateway

## Applications

- Mining
- Infrastructure
- Construction
- Buildings
- Tunnels

## Connectivity

- Mesh 2.4 GHz
- AES encryption
- Certified in EU, US and Australia

ThingWave's wireless Rock Bolt Monitoring device (RBM-XR) can sense deformations (elongation) on rock bolts in tunnels 24/7, thus providing data for situational awareness in real-time. RBM-XR can sense deformations up to 350 mm, and is therefore suitable for standard rock bolts, cable bolts and high-performance bolts.

All data is transmitted wirelessly to ThingWave Cloud. RBM-XR is fully integrated into ThingWave's digitalization platform Mining 4.0.

## Benefits

- ThingWave's IoT platform gives full overview over deformations in tunnels
- Sensor information is encrypted and securely stored
- Alarm generation
- Visualisation of sensor data
- Easy setup

\*Lifetime 10+ years under normal operation



MADE IN SWEDEN

PRODUCT DATASHEET