



Structural monitoring

Infrastructure | Buildings | Industrial structures

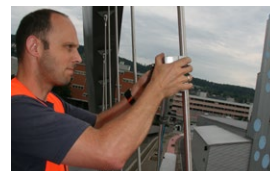
# ROBO<sup>®</sup>CONTROL – Monitoring Solutions for condition & performance assessments



Gleisbogen Bridge, Switzerland

## ROBO<sup>®</sup>CONTROL “Portable”

flexible, short-term, reliable



**mageba**



## Structural monitoring

# Mobile system for flexible applications

### Principle

ROBO®CONTROL “Portable” is a mobile and highly flexible monitoring system. Data such as loads, movements, stresses and vibrations of any part of a structure can be measured, irrespective of the material of which the structure is made. The system measures values at regular intervals, at frequencies of up to 500 Hz. Most projects are realised with monitoring frequencies in the range of 10 Hz to 200 Hz. All data is saved on removable data storage devices or laptop computers, facilitating an immediate evaluation of the data on site.

### Applications

- Assessment of condition of existing structures or parts of structures
- Evaluation of risks and of remaining life time
- Initial and reference measurements for use in combination with the permanent ROBO®CONTROL systems “BASIC” and “ADVANCED”
- Quality control and monitoring during different construction phases
- Adjustment and setting of flexible parts of a structure before commencement of service

### Services offered

mageba offers the system ROBO®CONTROL “Portable” as a complete service to the client. A critical point in order to achieve maximum value for the customer is an analysis of requirements before commencing work. Close cooperation with the bridge engineer is also required in order to ensure that sensible and useful results will be achieved. Cooperation with further external advisors / engineers / experts will always be supported by mageba.

### Features

- Robust electronics for temporary use on structures of any sort
- No connection to power grid required. Power requirements fulfilled by battery which enables system to operate for long periods at maximum frequency
- Measurement of any type of characteristic, e.g. vibrations, modal frequencies, forces, displacements, rotations and expansion due to temperature or other impacts
- Flexible arrangement of all system components to suit project requirements



- 1 Acceleration sensor (3D), installed to determine dynamic characteristics
- 2 Temperature sensor connected to steel structure

### Reference projects ROBO®CONTROL “Portable”



Gleisbogen Bridge (CH)



Weyermannshaus (CH)



Europe Bridge (CH)



Danube Bridge Sinzing (DE)



Run Yang Bridge (CN)



River Suir Bridge (IR)

### mageba ROBO®CONTROL systems



“Portable”



Permanent “BASIC”



Permanent “ADVANCED”

**mageba**  
mageba-group.com

engineering connections®