

BS2 Sicherheitssysteme GmbH
Monitoring- and Security Solutions for Building Structures



Content Overview

Company presentation

- **Monitoring solutions**

- **corroDec2G** - Cable- and energyless early warning systems for concrete structures
- **ZerberusWSS** - Cableless monitoring- / Alert solutions for measured data and system status
- **ARGUS** - Laser-based static monitoring
- Crack monitoring

- **Security technique**

- **Zerberus** protection of security-sensible accesses / building structures

Company presentation

- **Established in 2009**
- **Principal office: City of Boppard (Rhine)**
- **Owner-managed company – part of BS2 Group**
- **Specializing in monitoring- /safety technique for building structures and infrastructure objects**
- **Customer portfolio:**
 - Planning/consulting engineers
 - Energy providers
 - Construction companies / building owners
 - Industrial facilities
 - Operators of security-sensitive infrastructure objects
 - Public contracting authorities
- **Sales and service partners in D/NL/AT/CH/GB/SW**

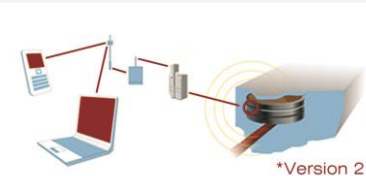


Cable- and batteryless early warning systems for concrete structures –by corroDec2G

- Early detection of detrimental factors in concrete structures
- Cable- and energyless system
- Extremely long service life
- Simple operation and status evaluation
- Application in new structures and also suitable for renovation (retrofittable)
- Areas of application:
 - Bridge structures
 - Waterworks
 - Parking facilities
 - Tunnels
 - Road construction
 - Industrial facilities
- Sensors for corrosion and humidity detection / temperature and potential measuring
- Remote data reading (as an option)
- Internationally proven in building structures of all kind (References available on request)



Version 1

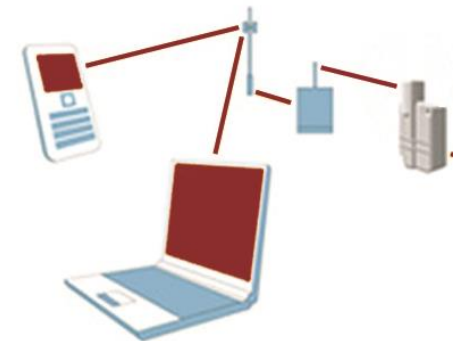
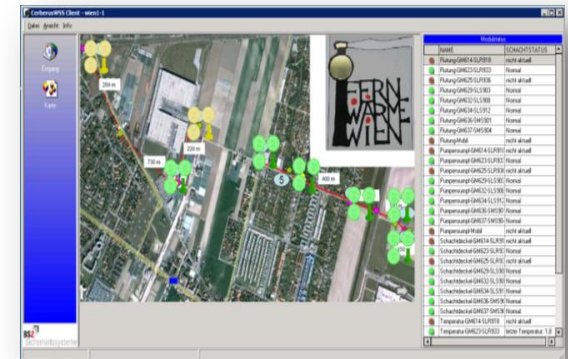


*Version 2

Cableless monitoring of measured values and system status – by “ZerberusWSS”

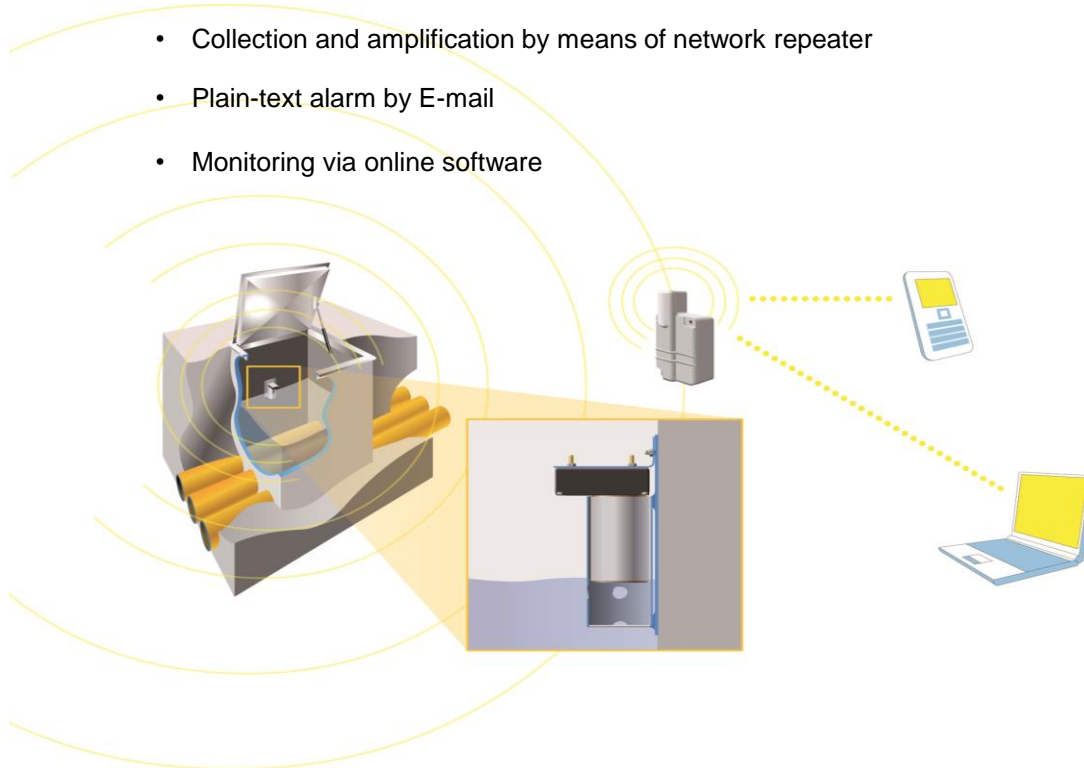
ZERBERUS

- **Cableless ultra-low energy – wireless network system**
- **Monitoring- and alarm signalling options for**
 - Water levels
 - Pressures
 - Temperatures
 - Admission control
 - Meter readings
 - Analogous-/Digital data
- **Ideally suited for covering larger areas / urban regions**
- **Sensors not needing electrical cables or data lines**
- **Fully encapsulated components allow use in extreme weather conditions**
- **Central online-monitoring software for connection to existing control points**
- **Areas of application:**
 - Energy supply and district heating
 - Industrial facilities
 - Water supply systems
 - Shaft monitoring / Alarm signaling
 - Reservoir dams / Waterworks



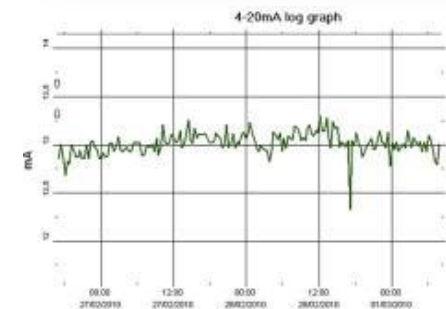
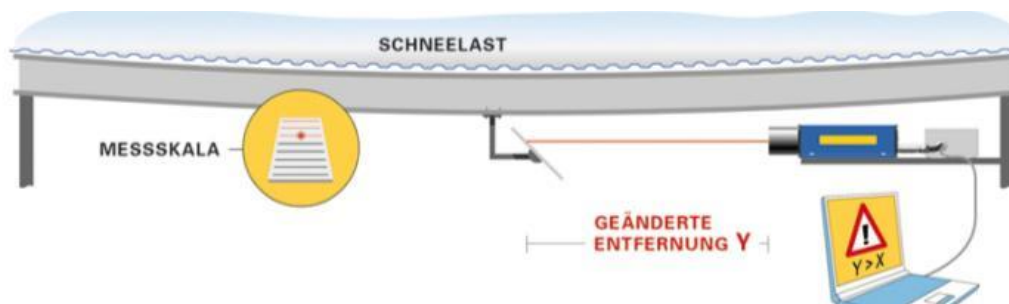
Cableless monitoring of measured values and system status

- **Sample applications for monitoring of water levels / temperatures in district heating systems**
 - Fully encapsulated, floodable water level and temperature indicator
 - Ultra-low energy signalling component installed within objects to be monitored
 - Collection and amplification by means of network repeater
 - Plain-text alarm by E-mail
 - Monitoring via online software



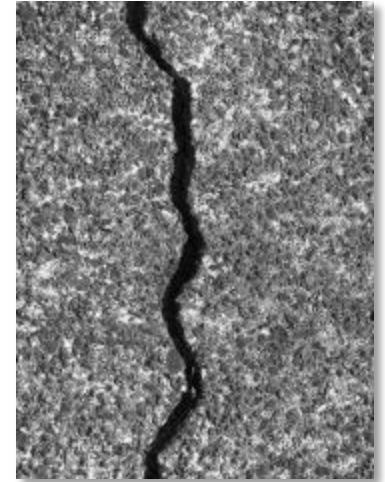
Laser-based static monitoring ARGUS

- Visualization of prevailing load conditions
- Alarm signalling on reaching preset limit states
- Decision guidance for evaluating load requirement and static fatigue of building structures
- Retrofittable – data remotely readable
- Areas of application:
 - e.g. in sports halls and ice rinks
 - long-span roof structures
 - Bridge structures



Crack Monitoring

- Internal and external monitoring of cracks within building structures
- Alarm signalling when preset limit state is reached
- Cableless data transfer / Remote inquiry (optional)
- Internal data storage / logging
- Special designs of monitoring modules can be materialized upon request



Protection of security-sensible accesses High-security doors / shaft covers

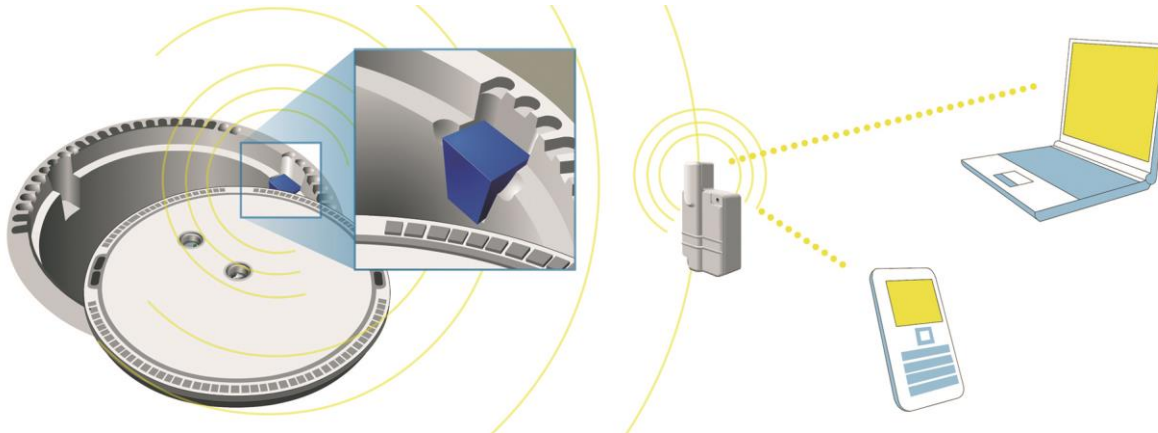
- Electronic admission system, combined with mechanical locking force
- Certified as per resistance class “RC 4” / “RC6”
“RC4”= 10 min. against forced opening attempt by hand tools
“RC6” also available = 20 min. against forced opening attempt by mech. tools
- Energy-autonomous locking system (no current supply / no battery required)
- Reading by passive transponder
- Increased safety (fire resistance, protection against forced access by drilling or use of angle grinder) available upon request
- System extendable by “ZerberusWSS” for cableless alarm signalling via GSM
- Areas of application:
 - Water supply
 - Food processing industry
 - Telecommunication networks
 - Panic rooms
 - Safe-keeping of weapons and ammunition
 - Energy supply

ZERBERUS





Function principle of the mechatronic locking system



Cableless electronic monitoring of shaft access covers / Doors etc.

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