

the power to control

bachmann.

Service trips? Just skip them

Remote Operation Retrofit Solution (RORS).

APPROVED
FOR
Vestas
V80/90

Further information on Remote Operation Retrofit Solution (RORS) can be found on our website.



REMOTE SUPPORT = EFFICIENCY ON SITE



Fault analysis – from a distance

From the control center, you have a complete overview of your systems, can carry out error analyses, and trigger multiple functional operations directly eliminating or better coordinating paths.



Service team support – from a distance

Experienced technicians provide remote support to several service teams at once. This reduces downtime and prevents incorrect spare parts equipment.



System start – from a distance

The Bachmann RORS system removes the need to restart the system on site. Commissioning is carried out conveniently from the control center – saving time and effort.



Parallel access – from a distance

RORS uses modern web technology, enabling both insight and access to systems. Experts can process error messages across locations, reduce downtime and plan service calls efficiently.



So far, yet so close

Technology doesn't just save distance, it saves time

Wind turbine operators are increasingly facing challenges as they can only access the turbine and operating data necessary for fault analysis when they are on site. Without remote access, even resetting simple faults is not possible. In addition, on-site deployment cannot be planned efficiently in terms of the equipment required or the expertise needed to rectify faults.

Effective remote monitoring and intelligent retrofit solutions offer decisive added value here: they not only enable precise fault diagnosis from a distance, but also targeted remote control and troubleshooting – without cost-intensive on-site service calls. This saves time, reduces operating costs and significantly increases system availability.

Much more than just watching from a distance.

At the heart of this technology is the remote panel, which can be accessed from any location via a web browser. From here, you not only have the same access as on site via the Servicebox, but the RORS also offers a wealth of additional information that is helpful for the actual assessment of the current system status.



SCADA-Extension

Remote functions of the wind energy generation system	Read access	Write access
Display: Operating states / data	✓	
Display: Logbooks and error lists	✓	
Display: Live data / chart display	✓	
Display: Parameter change	✓	✓
Function: Start / Stop / Reset		✓
Function: Manual operation of the system components		✓
Function: Reboot of the VOG (Vestas Overspeed Guard)		✓
Function: Enabling remote access by technicians in the nacelle	✓	✓
Function: Recording continuous data	✓	
Function: Reading out the switch position of the key switch (RCS, shift, local)	✓	



Why watch over just one system?

The RORS system provides the basis for the connection to the Wind Power SCADA system (WPS) from Bachmann and thus enables convenient and secure fleet monitoring.

So fast, so efficient, so simple, so safe

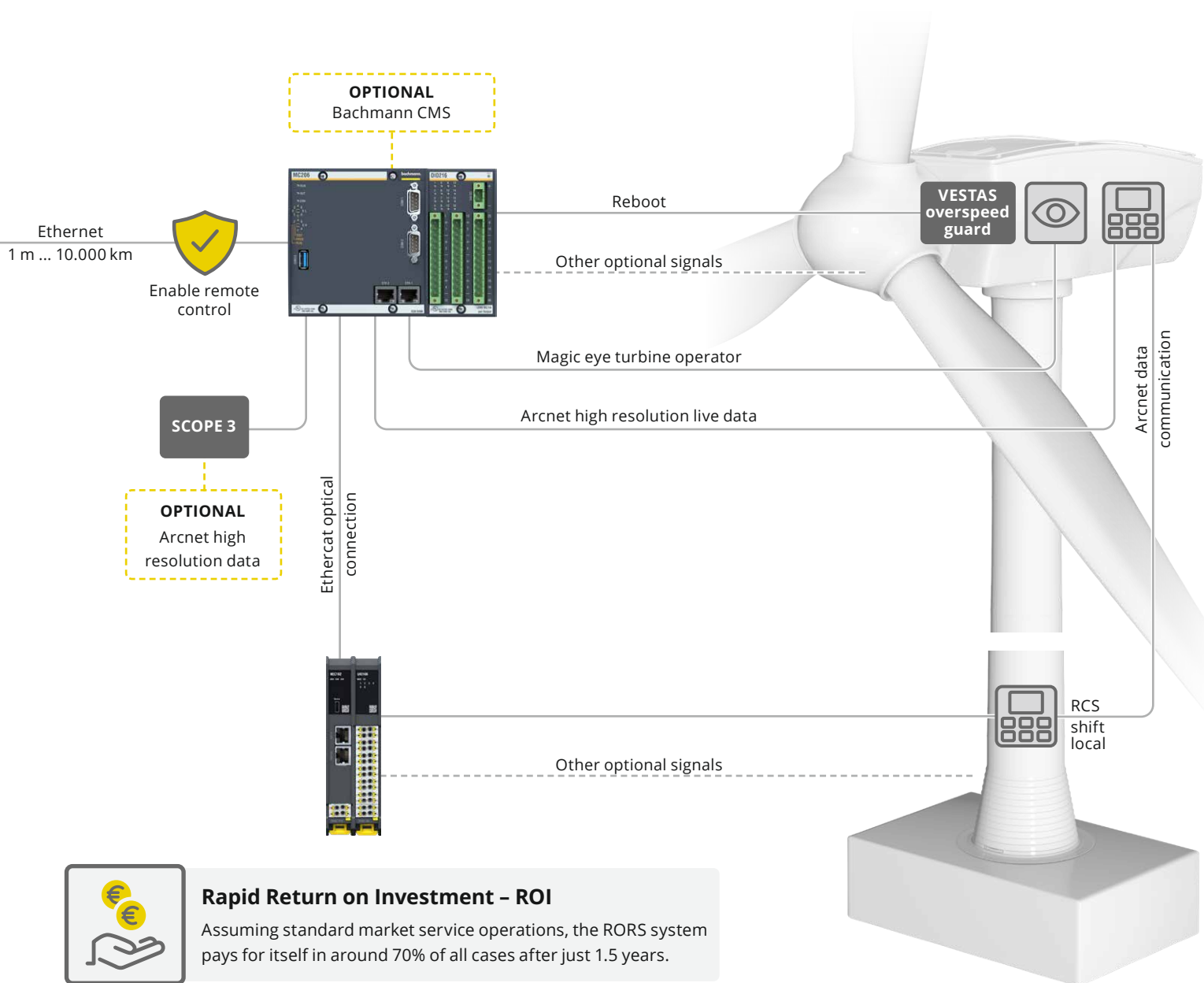
Simple topology = Innovative technology

Sophisticated technology

The effective combination of proven technologies into one efficient unit: This is engineering at its highest level. Only Bachmann-certified individual components are used, enabling us to combine quality and functional reliability for a very long view.

Maximum data availability

System and operating data is aggregated to the highest quality and, backed up in the system, is available at any time for dedicated fault analysis.



Everything you need is included

Specifications

Access security

Anyone who installs a door to the system has the convenience of access, but also the risk of unauthorized access. From functional security to active cyber protection, our solutions prevent unauthorized entry or exit – our systems are designed for this and are constantly updated.

Quality for the future

- Quality and durability – this is what Bachmann stands for
- Distinctive quality of detail in parts and components
- Compliance with the highest environmental standards throughout the entire production process
- State-of-the-art manufacturing and testing processes
- 48-hour climate stress test for each hardware module
- ISO 14001 certified

What makes us special

Many skills are required from the first conversation to successful implementation. It is a sign of quality when customers always return because they appreciate the consistent focus on solutions as well as the respectful cooperation. Our employees' many years of experience create security and trust.

Simple installation

The RORS is extremely easy to install and the downtime of the system is negligible. In addition, all components are designed to be extremely robust and no special expertise is required for installation on site. All hardware components are also EMC protected.

Part description	Type	Quantity
Compact switch cabinet	Industrial metal box Dimensions: 40 x 30 x 15 cm	1
Hardware in the nacelle	NT255 / MC206 / DIO216	1
Arcnet Hub	Interface for turbine communication	1
Interface RS232	Magic Eye optical interface	1
Media Converter	EtherCAT-FOC	2
Multimode FOC	4 fibers	1
Hardware in the tower base	NEC102 / UIO106	1
Adapter for key switch	Adapter for connection to the key switch in the tower base	1

The right solution is a matter of trust, which is why we always offer a no-obligation consultation with our experts. It is important to us that you feel confident about your choice of system solution and the right partner.



YOU WILL FIND MORE INFORMATION ON
bachmann.info



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