Innovative technologies and products for the energy industry

PERFECTION IN AUTOMATION
A MEMBER OF THE ABB GROUP



Your automation partner



for the energy industry

"With reliable products like the proven X20 system, and integrated industry-specific technology such as telecontrol protocols, B&R is the right partner for your sector of the energy industry."



Peter Kronberger
Global Technology Manager
Energy Industry



CHP units and cogeneration



Conventional power plants



Solar power



Wave and tidal power



Wind power

Your automation partner for the energy industry



Data management and O&M
APROL Process Data Acquisition (PDA) is a ready-to-use solution for real-time acquisition of operating data.

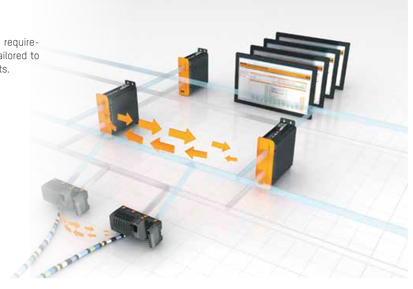
The flexibility of APROL PDA makes it possible to connect many different data sources in a variety of topologies. At the same time, the control computer is able to execute logic.

Open interfaces allow 3rd-party integration and help future-proof the system by making it easy to adapt and expand.

The unprecedented scalability accommodates systems ranging from 50 to 500,000 data points.

Full redundancy
The many different redundancy options satisfy the heightened requirements of high-availability systems. Optimal solutions can be tailored to specific requirements using cost-effective standard components.

Choose from:
- Server redundancy
- Hot standby controller redundancy
- Various types of network redundancy
- Power supply redundancy
- Sensor/actuator redundancy



Builders of conventional power plants, CHP and cogeneration equipment, photovoltaic systems, wind farms as well as wave and tidal power stations all put their trust in B&R.

ALSTOM · POWERLINK · TITAI · SCHNELL · ANDRITZ Automation · ZAT · RMB/ENERGIE GmbH Premium-Blockheizkraftwerke · mtu onsite energy · agriKomp · CE · KW ENERGIE · BELECTRIC · 8.2 · RMB/ENERGIE GmbH Premium-Blockheizkraftwerke · DEC 东方电气 DONGFANG ELECTRIC · NENUPHAR OFFSHORE WIND TURBINES · 上海电气 SHANGHAI ELECTRIC · LEINE LINDE SYSTEMS

SIL 3 / PL e / CAT 4

Groundbreaking safety technology
B&R's extensive portfolio of integrated safety technology facilitates streamlined, cost-optimized safety applications.

- Digital and counter inputs
- Digital and relay outputs
- Switching potential groups
- Analog and temperature inputs for PT100/1000 and temperature sensors

All modules have been certified to comply with the highest safety levels: SIL 3 per IEC 61508 and PL e per ISO 13849. Situation-dependent safety reactions with ultrafast response times in the 10-millisecond range help to optimize processes and mechanical components and save costs.

Remote access features allow for remote maintenance and restart authorization to be performed from a service center.

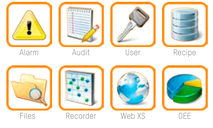


2/3 shorter development time
With mapp Technology, B&R shortens software development times by an average of two-thirds. This is made possible by intelligent software blocks that encapsulate frequently occurring basic functions.

Your software engineers will be able to dedicate much more time to optimizing the core process. Since B&R takes on the responsibility for ongoing maintenance of these blocks, you'll enjoy both improved software quality and reduced maintenance costs.

Basic functions covered by mapp components include:
- User and role management
- Alarm management
- Parameter management
- Loading/saving XML, CSV and text files
- Data recorder for temporary recording

mapp TECHNOLOGY



Open interfaces
The only future-proof solution is an open solution. Openness allows you to work with the tools you are most comfortable using. It allows machines to communicate effortlessly with external systems, and by facilitating the reuse of existing software for future solutions, it frees up valuable time to get your product to market faster. B&R offers openness on all levels and in all products.

Telecontrol
IEC 60870-5-101, -104
IEC 61850*, IEC 61400-25*

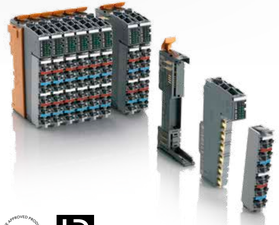
- **Seamlessly integrated**
  IEC 61131, C, C++, CFC
- **Simulation**
  MATLAB, MapleSim
- **E-CAD systems**
  Round-trip engineering with EPLAN Electric P8
- **Telecontrol**
  IEC 60870-5-101, -104
  IEC 61850*, IEC 61400-25*
- **Internet**
  Web server, HTTP client, remote diagnostics system
- **openSAFETY**
  Fieldbus-independent safety protocol
- **General fieldbus technology**
  POWERLINK, Modbus, CANopen, DeviceNet, Ethernet/IP, PROFIBUS, PROFINET
- **Process control / SCADA**
  Direct link to supervisory level with OPC UA

* in development

Robust control platform
B&R's robust X20 control platform satisfies all of the environmental requirements typically encountered in the energy industry.

The series offers an expanded temperature range from -25°C to +60°C and is certified by Germanischer Lloyd for maritime use in accordance with environmental categories D and EMC1.

Coated versions of X20 modules are available for situations where they will be exposed to condensation, corrosive gases or salt air.



Lloyd's Register Marine

Integrated automation
Global presence
Solid partnership



ETHERNET POWERLINK

open SAFETY

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