



myREX24
V2

REX 100

REX 300



INDUSTRY 4.0
PREDICTIVE MAINTENANCE
INDUSTRIAL INTERNET OF THINGS
DIGITAL FACTORY

SECURE IOT REMOTE MAINTENANCE ACCESS

Remote maintenance | Visualization | Alarming | Logging

THE RIGHT SOLUTION FOR EACH SECTOR



Mechanical and plant engineering

REX industrial routers enable manufacturers of machines to directly access the network of their customers' systems in a secure and flexible manner.

In this way the technicians at the headquarters remain connected with the machines for maintenance and service in spite of worldwide deployment of the machines.

The extensive monitoring and alarm functions of the myREX24 V2 portal enable quick reaction to problems in the systems and help to minimize machine downtimes. Predictive maintenance is thus possible for any systems manufacturer and mechanical engineer.

The REX Global SIM can be used to implement this global connectivity easily with cost control.



Energy and environment

Wind energy is a participant in the generation of renewable energy that is more important than any other renewable energy source. But wind turbines are technically complex systems that are exposed to very high loads during operation.

Regular review of their condition and maintenance of safe operation is therefore essential. However, this is difficult because wind turbines are often erected in hard-to-reach areas or in the ocean.

The solution is a connection to the myREX24 V2 portal, which ensures a flexible and reliable connection with the control center, thus enabling permanent monitoring. Alarm functions triggered at an early point in time can prevent damage to expensive systems in critical situations.



Water supply/infrastructure

Networking of pumping stations or remote monitoring of water treatment plants can be implemented easily and safely with the modern industrial router system REX. In this way it is possible to monitor data in real time and facilitate easier resolution of problems in case of operational disturbances or deviations in the parameters.

Likewise, it is also possible to connect distributed stations to a higher-level system.

Alarm functions and extensive visualizations over the cell phone or the tablet enable uninterrupted and secure operation even with large and decentralized systems.



Building automation

In modern industrial and office buildings, many activities now run automatically, such as switching on of lights and controlling the heating and ventilation system as required and on a schedule. An intelligent control system that regulates everything saves energy, protects the environment, and conserves resources.

The industrial routers of the REX family can be used together with the myREX24 V2 portal to monitor the control system at any time and take corrective action when necessary. With the Ethernet routers it is possible to access building automation conveniently from your desk or on a mobile basis with tablet PC or smartphone.

REX 100 ETHERNET ROUTER



SOON ALSO AVAILABLE WITH SECURE
M12 CONNECTION!

- Secure OpenVPN remote maintenance access via myREX24 V2 portal
- Integrated 3 or 4-port LAN switch
- WAN, 3G, LTE or WiFi variants available
- Digital inputs for establishing a connection and issuing alarms
- Integrated firewall
- Space-saving compact size
- Supports all of the usual mobile communications standards and is downwards-compatible where network coverage isn't present
- USB-over-IP

Ethernet participants, such as PLC control systems, can be reached with the REX 100 industrial routers, irrespective of the manufacturer.

The REX 100 routers are systematically designed to operate in conjunction with the myREX24 portal: All programming and remote maintenance is carried out exclusively through the portal. Data transmission takes place via an encrypted VPN tunnel on the basis of the secure OpenVPN protocol.

With the digital inputs, alarms can be sent via the myREX24 V2 portal as SMS and e-mail.

The USB host port present in all devices enables the connection of USB devices (e.g. programming port of a motor) via the remote maintenance tunnel (USB-over-IP).



REX 300 ETHERNET ROUTER

- Secure OpenVPN remote maintenance access via myREX24 V2 portal
- Remote maintenance of PROFIBUS (RS232/RS485) and Ethernet-compatible devices (PROFINET-compatible)
- Data server for data access to SPS via RFC1006 (ISO on TCP), MPI, PROFIBUS, Modbus TCP/RTU, Allen Bradley, etc.
- Directly connect S7-MPI/PROFIBUS devices
- S7-MPI/PROFIBUS driver included
- Integrated firewall
- Serial-over-IP

The REX 300 Ethernet routers are specially designed for use in an industrial environment. They enable reliable and secure Internet remote maintenance of machines and systems. Thanks to the integrated Firewall, remote access is allowed only for authenticated users.

An additional serial port in router versions with a WAN connection makes it possible to incorporate serial devices into your remote maintenance network (Serial-over-IP).

In combination with the myREX24 V2 portal, the complete scope of performance of industrial routers with the functions of remote maintenance, visualization, WEB2go, alarm and logging of the PLC data is possible.



MYREX24 V2 PORTAL

The myREX24 V2 portal is a coherent system for access to the components of your machine or system, for remote maintenance and remote diagnostics.

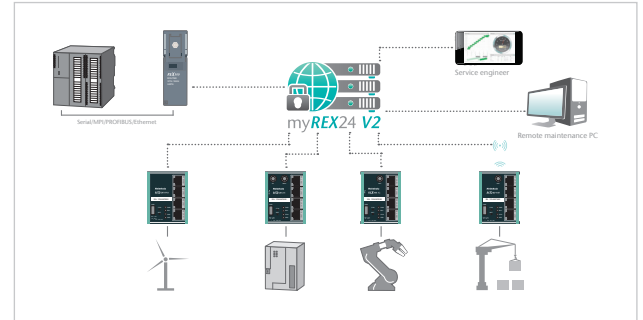
Check the data of your system via web browser – directly with your smartphone or tablet.

All data and statuses available to you as an external signal or as a value in a control system can be evaluated and monitored with the myREX24 V2 portal.

Log operating data directly in the myREX24 V2 portal and create your own reports.

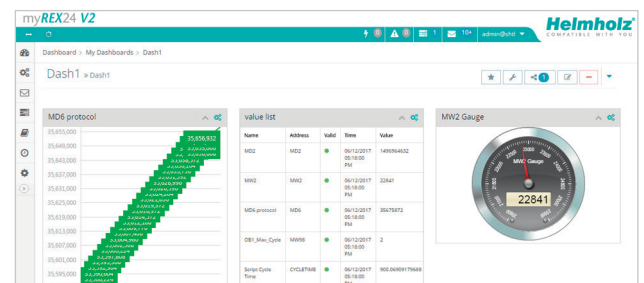
Remote maintenance

- Diagnosis, configuration and programming of the machine via the Internet
- Worldwide end customer support from your experts
- Quick availability of service
- Income through new service offerings and maintenance agreements
- Saving of travel costs, reduction of personal absence
- Standard OpenVPN clients also accessible through the portal
- Several simultaneous connections to one system



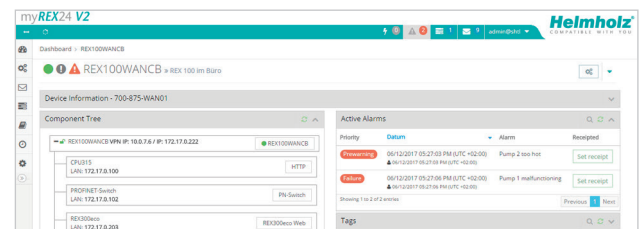
Visualization

- Freely configurable dashboards for the individual representation of the PLC data
- Extensive library of display elements, for example, pointer instruments and bar graphs
- Mobile and secure web access via HTTPS, also for smartphones and tablets
- Display of live and logged data
- Easy login with user ID and password



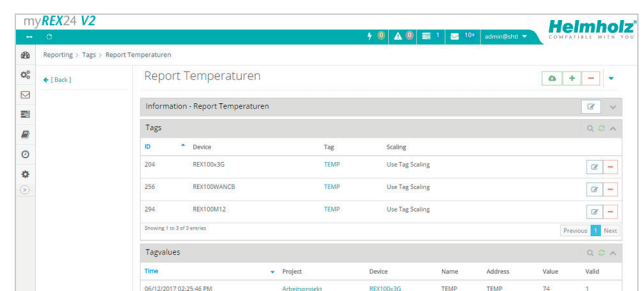
Alarming

- Monitoring of limit values
- Flexible alarm messages, also with acknowledgment
- Alarm messages via SMS, e-mail, voice calls or via the integrated message system
- User-dependent reporting profiles
- Calendar function for taking personnel deployment times into account



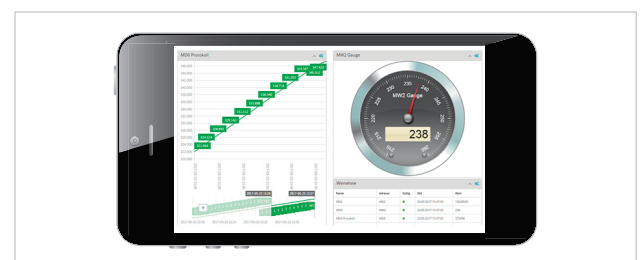
Logging

- Configuration, analysis, and evaluation via standard browser
- Planning of maintenance measures in keeping with actual usage of the system
- Continuous information on down times and production figures
- Connection of self-hosted databases
- Access to protocol data via WEB - API
- Automatic sending of reports (HTML, PDF, CSV)



WEB2go

- Easy access through an HTML5-enabled web browser
- Access to websites (HTTP/HTTPS), RDP, VNC, SSH, Telnet clients
- HTTPS encryption
- No additional software or app needed
- Ideal for mobile remote diagnostics via smartphone or tablet computers
- Monitoring and visualization



FURTHER ADVANTAGES OF HELMHOLZ REMOTE MAINTENANCE

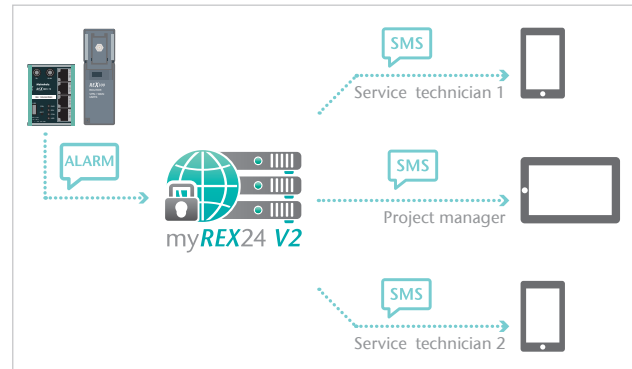
- Project administration
- User management
- Client administration
- Internal messaging system
- Task management

The myREX24 V2 portal is also designed for large projects with many systems, users, and end customers.

Flexible user management with extensive access rights and client administration allows you to always retain an overview and securely design access to the systems and their data.

shSMS

- Sending of SMS directly from the myREX24 V2 portal
- Sending of alarm SMS from devices without mobile connectivity
- Activating connections from myREX24 V2
- Simple cost control



Security

- Regular security updates
- Separate VPN channels
- High password security/2-factor authentication
- Extensive access management
- Separate database (optional)
- Own server (optional)



Virtual server

- Independence through autonomous operation of the server
- Virtual VMWare machine
- Simple setup
- Scalable system
- M2M possible
- Own front end design possible



Purchase your own myREX24 V2 portal to operate it yourself or with your existing hosting partner.

REX Global SIM

- Network coverage in more than 50 countries worldwide
- Two possible rate zones (Europe and worldwide)
- Support for GSM services (3G data and SMS)
- Simple, transparent pricing with no hidden costs
- Convenient management of multiple SIM cards



FUNCTION OVERVIEW OF ROUTER PORTFOLIO

SOFTWARE FEATURES IN THE ROUTER

	REX 300	REX 300 ECO	REX 100
WAN (connection via external router)	✓*	✓*	✓*
PPPoE/PPTP WAN (connection via external DSL modem)	✓*	✓*	—
PPP modem (analog/GSM)	✓*	✓*	✓*
OpenVPN connection with myREX24 V2 portal	✓	✓	✓
SMTP client	✓	✓	✓
DNS server	✓	✓	—
NTP client	✓	✓	✓
DHCP server LAN	✓	✓	—
DHCP server WAN	✓	✓	—
DHCP client WAN	✓	✓	✓
Firewall with IP filter, 1:1 NAT and port forwarding	✓	✓	✓
RFC1006	✓	—	—
Triggering of VPN connection to the portal (via digital input, dial-out button, shSMS)	✓*	✓*	✓*
Routing WAN<->LAN, VPN<->LAN	✓	✓	✓
Local status/information via integrated web server	✓	✓	✓



PORT FUNCTIONS IN THE ROUTER

	REX 300	REX 300 ECO	REX 100
LAN	1x	1x	4x REX 100 3G/LTE/WiFi 3x REX 100 WAN
WAN (ext. router)	✓*	✓*	✓*
UMTS/HSDPA (3G)	✓*	✓*	✓*
LTE (4G)	—	—	✓*
WiFi	—	—	✓*
MPI/PROFIBUS (up to 12 Mbps)	✓	—	—
Serial port RS232/RS485 (Serial-over-IP)	✓*	—	—
USB host (USB-over-IP)	—	—	✓

* Depends on the specific model

FUNCTION OVERVIEW OF MYREX24 V2

ROUTER FUNCTIONS WITH MYREX24 V2

	REX 300	REX 300 ECO	REX 100
Router configuration in the portal	✓	✓	✓
Routed VPN connection (with shDIALUP)	✓	✓	✓
Connection reports	✓	✓	✓
Data server for PLC connection	✓	✓	—
Data protocolling	✓	✓	Only digital inputs
Alarm incidents	✓	✓	Only digital inputs
Visualization/monitoring	✓	✓	Only digital inputs
WEB2go (HTTP/HTTPS/RDP/VNC/SSH/Telnet)	✓	✓	✓
shSMS (wakeup SMS)	✓	✓	✓
Several active connections on one device	✓	✓	✓
Access restriction at the component level	✓	✓	✓
Firmware update via portal	✓	✓	✓
Serial-over-IP	✓*	—	—
USB-over-IP	—	—	✓

ACCOUNT OVERVIEW

	BASIC	INDIVIDUAL	EXPANDABLE TO
Number of accounts	1	1	—
Number of devices	50	250	—
Active simultaneous VPN connections	1	1	5
Several active connections on one device	No	Yes	—
Active Web2Go connections:	2	50	—
Number of users	Unlimited	Unlimited	—
Number of user groups	5	250	—
Number of clients	1	250	—
Dashboards	10	10	260
Alarms	10	10	260
Data points per device	10	250	—
Data point memory	50 k	50 k	5 M
Standard VPN clients (e.g. PC, panel)	0	0	500
Guaranteed bandwidth	-	1 Mbps	—
Access restriction at the component level	No	Yes	—
Reports	View	Process + export	—
Own front logo possible	No	Yes	—
Access to data point memory via WEB-API	No	No	Bookable one time
External data point memory (own SQL database)	No	No	Bookable one time
SMS	10	10	Unlimited
Voice calls	10	10	Unlimited

* Depends on the specific model

ORDERING DATA

ORDERING DATA FOR REX 100

ORDER NO.

REX 100 WAN, 3 x LAN (switch)/1 x WAN port, incl. Quick Start Guide	700-875-WAN01
REX 100 3G, 4 x LAN (switch)/1 x 3G modem (UMTS), incl. Quick Start Guide	700-875-UMT01
REX 100 LTE, 4 x LAN (switch)/1 x LTE modem, incl. Quick Start Guide	700-875-LTE01
REX 100 WiFi, 4 x LAN (switch)/1 x WiFi, incl. Quick Start Guide	700-875-WIF01
REX 100 M12 WAN, 3 x LAN (switch)/1 x WAN port, incl. Quick Start Guide	700-876-WAN01
Stationary external antenna for REX 100 3G/LTE, 5 m cable, SMA socket	700-751-ANT31
Magnetic base antenna, internal, for REX 100 3G/LTE, 3.5 m cable, SMA socket	700-751-ANT32
MiMo wall antenna for REX 100 3G/LTE, 2x5 m cable, SMA socket	700-751-ANT35
Magnetic base antenna for REX 100 WiFi, 2.4 GHz, incl. 1.5 m cable	700-889-ANT01
Omni antenna for REX 100 WiFi, 2.4 GHz (antenna cable necessary, order data under www.helmholz.de)	700-889-ANT02
Panel antenna for REX 100 WiFi, 2.4 GHz, 8 dBi (antenna cable necessary, order data under www.helmholz.de)	700-889-ANT03
Panel antenna for REX 100 WiFi, 2.4 GHz, 18 dBi (antenna cable necessary, order data under www.helmholz.de)	700-889-ANT04

ORDERING DATA FOR REX 300

ORDER NO.

REX 300 VPN + WAN, PROFIBUS, analogue + serial port incl. telephone and Ethernet cable, as well as Quick Start Guide	700-872-MDM02
REX 300 VPN + WAN, PROFIBUS, UMTS + serial port incl. Ethernet cable and Quick Start Guide	700-872-UMT02
REX 300 VPN + WAN + serial port, PROFIBUS, without modem incl. Ethernet cable and Quick Start Guide	700-873-WAN02
REX 300 eco, VPN + WAN, without MPI port, without modem, incl. Ethernet cable and Quick Start Guide	700-874-WAN02
REX 300 eco, VPN + UMTS, without MPI port, incl. Ethernet cable and Quick Start Guide	700-874-UMT02
Stationary quad-band antenna for REX 300, GSM/UMTS, 2 dBi, approx. 5 m cable, FME socket	700-751-ANT11
Quad-band antenna with magnetic base for REX 300, GSM/UMTS, 2 dBi, approx. 2.5 m cable, FME socket	700-751-ANT12

ORDERING DATA REX GLOBAL SIM

ORDER NO.

REX Global-SIM, mini SIM card with €15 initial credit Delivery package: SIM card, phone number, and activation data (PIN, PUK, ICCID)	700-879-SIM01
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ORDER DATA FOR MYREX24 V2

ORDER NO.

Account Basic Free basic account with access to myREX24 V2 and a maximum of 50 devices.	—
Account Individual Annual license (In order to book additional options, the "Account Individual" must first always be ordered.)	800-872-INDIV
Annual license for an additional active VPN connection	800-872-ACT01
Annual license for 250 dashboards	800-872-DSH25
Annual license for 250 alarms	800-872-ALM25
Annual license for 1 M additional data points in the myREX24 V2 data point memory	800-872-DPS01
Annual license for provision of a WEB-API	800-872-API01
Annual license for external database memory	800-872-EXT01
Annual license for standard VPN clients + 25 units	800-872-VPN25
Provision of 250 additional SMS	800-872-SMS25
Provision of 250 additional voice calls	800-872-CAL25

In order to book additional options, the "Account Individual" must first always be ordered.

The licenses for the service myREX24 V2 have a minimum term of 12 months. Billing takes place in January for one year.

When acquiring a license during the current year, the fee will be charged in monthly rates for the rest of the year. The term extends automatically for another 12 months when no cancellation in writing is submitted by September 30th.

For larger applications (e.g. more than 250 devices planned), we recommend using the myREX24 V2 portal as a virtual server. The virtual server can be configured individually and grows in a linear progression along with your requirements.

We would be happy to create an offer for you.