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wienet

INDUSTRIAL **AUTOMATION**

Easy remote access to machines and systems,
machine data collection and machine operation.

HELLO
WIELAND ELECTRIC

Over 100 years of safe connections.

As the inventor of safe electrical connection technology,
we are committed to individual and safe system solutions.

Together with our broad product portfolio we offer comprehensive services for industry applications as well as building installation and lighting technology. This experience amounts to Wieland being the global market leader for pluggable, electrical installations in commercial buildings and a dependable partner for machine safety. Our solutions are designed for the secure safety of your team, ensuring that integration of our system is fast and easy while saving time and cost. Thanks to our modular solutions your requirements can be satisfied in a fast, flexible, and fail-safe way.

We operate worldwide with subsidiaries, production facilities, and sales partners and have an excellent global network. Our specialist teams are supporting customers and projects across the globe - personally and individually. Our competences in engineering, production, and logistics processes are interlinked with each other for maximum efficiency.

We are looking forward to exploring all partnership opportunities with you.

1910
founded in Bamberg

1600+
employees worldwide

6
production sites

70+
countries worldwide

wieland

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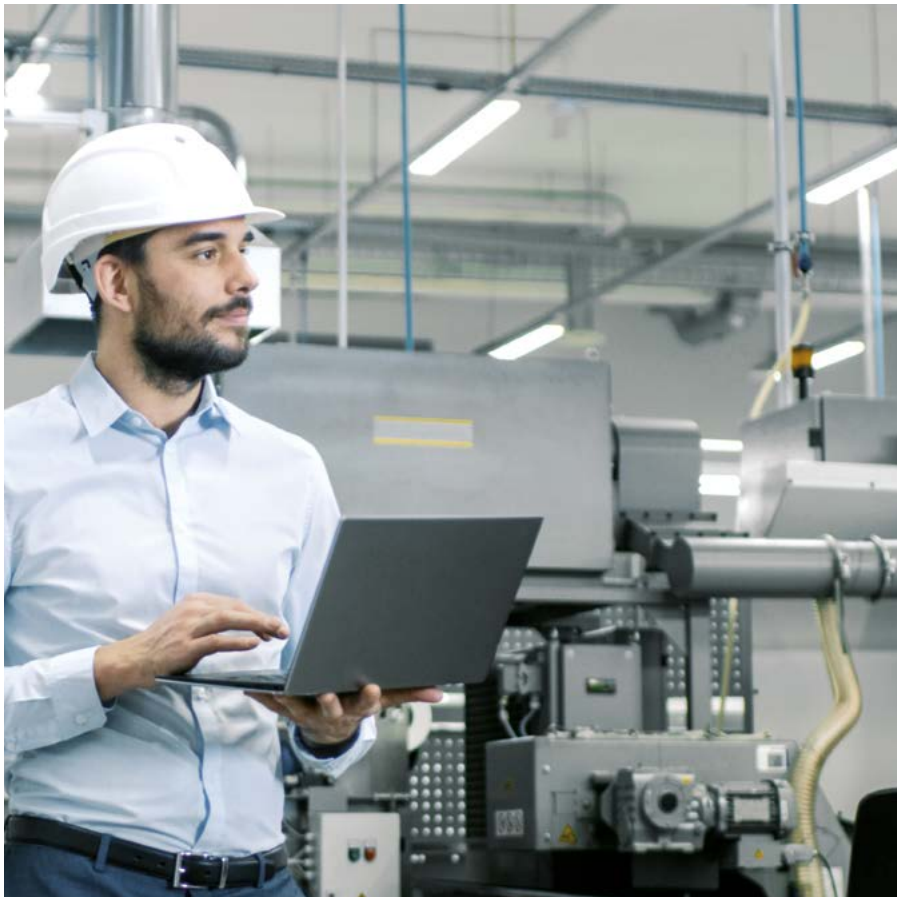

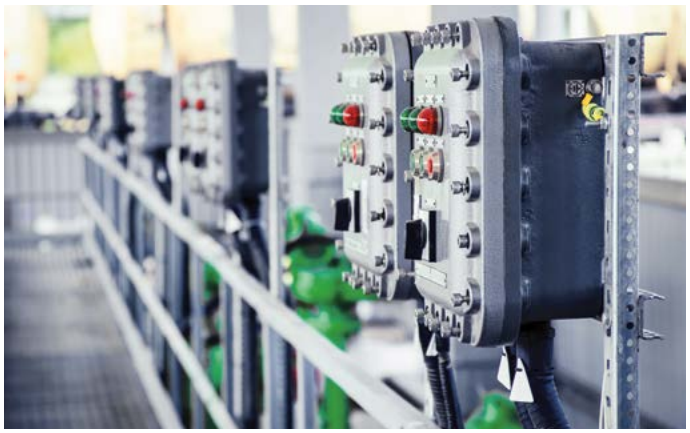

READY FOR **DIGITISATION –** SECURE CONNECTION TO THE INTERNET.

The global deployment of machines makes worldwide communication with machines more and more important to avoid costly service work on site. In addition, modern production technology requires networks that are able to exchange data between a wide variety of processes and machines.
With the communication solutions from Wieland Electric, you lay the foundation for this, enabling remote access to your automation devices at any time, no matter where you are.

Today it is essential to collect machine and system data in order to be able to be competitive in the market. Only this makes predictive maintenance possible and ensures you can continuously improve your machines and systems. Our wienet IoT solutions and the wienet CLOUD put you in the position to do this. On site, our I/O systems and the operating HMI provide best control, directly at the source of the data.

PRODUCTS FOR:

+ MACHINE BUILDING
+ WATER AND WASTE WATER MANAGEMENT
+ PROCESS INDUSTRY
+ BUILDING AUTOMATION
+ E-MOBILITY
+ TRAFFIC INFRA-STRUCTURE
+ VIDEO MONITORING
+ SMART GRID
+ WIND POWER PLANTS
+ CHARGING STATIONS

AUTOMATION **SOLUTIONS** FOR YOUR **MACHINES** + **PLANTS.**

VPN-ROUTERS

When remote access to your machines and plants is required, encrypted VPN connections are the answer. Security VPN routers enable secure and encrypted remote access to all devices in your machine network.

The VPN portal WIE-Service24 is the command center for this and manages all your VPN connections.

IIoT GATEWAYS AND WIENET CLOUD

In the era of Industry 4.0 and the Industrial Internet of Things (IIoT), the collection, evaluation and visualization of machine and device data is essential. Only these prerequisites make predictive maintenance, machine learning or the development of AI solutions possible. The IIoT gateways bundle the data and send them to the CLOUD-based data base systems for further processing.

FIELD CONNECTION WITH REMOTE I/O

Distributed I/O systems are still the state of the art to connect sensor data to a control layer or to bring control commands into the field and, together with the IIoT gateways, provide you with a complete control platform. Of course, the I/Os can also be connected to other control systems with standard fieldbus protocols.

MACHINE OPERATION USING HMI

Touch panels are today used in many machines and systems for the visualization, operation, and diagnosis. By transferring the user habits from the consumer world into the automation world, the HMI ECO series has been especially developed for industrial requirements and needs. Make the machine the flagship of your company with your own logo on the operating unit.

SERIAL SERVERS

You are using devices with serial interfaces, but without an Ethernet interface and would still like to connect these devices to the network. Then the serial device servers form the gateway between serial and Ethernet communication, with you being able to connect to the LAN or WLAN network.

SWITCHES

Reliable and highly available machine communication is the basis for the reliable operation of your machine. Choose unmanaged switches to simply network devices, protocol switches for the integration into your automation environment or fully managed switches for full control in the network.

For further information on this topic, we recommend the reference on page 63 to our catalog wienet Switches - Securely networked, order no. 0801.1

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WIENET SECURITY **ROUTER.**

INDUSTRIAL MOBILE ROUTER **WR-LTE V3**

Type	Art. No.
wienet WR-LTE v3 SL	83.041.0700.1
wienet WR-LTE v3 SL 5-port	83.041.0709.1
wienet WR-LTE v3 SL 5-port WIFI	83.041.0769.1

INDUSTRIAL MOBILE ROUTER **4G LTE V2**

Type	Art. No.
wienet LR77 SLv2 ETH	83.041.0055.1
wienet LR77 SLv2	83.041.0050.1
wienet LR77v2f SL	83.041.0500.1
wienet LR77 v2c SL ETH	83.041.0505.3
wienet LR77 v2c SL ETH WIFI	83.041.0565.3

INDUSTRIAL MOBILE ROUTER **3G UMTS V2**

Type	Art. No.
wienet UR5i SLv2	83.041.0040.1
wienet UR5i SLv2 ETH	83.041.0045.1
wienet UR5iv2f SL	83.041.0400.1
wienet UR5i v2c SL ETH	83.041.0405.3
wienet UR5i v2c SL ETH WIFI	83.041.0465.3

INDUSTRIAL LAN ROUTER **XR5I** + **WR-LAN**

Type	Art. No.
wienet XR5iv2f SL ETH	83.041.0605.1
wienet XR5i v2c SL ETH	83.041.0605.3
wienet XR5i v2c SL ETH WIFI	83.041.0665.3
wienet WR-LAN v3 SL 5-port	83.041.0809.1
wienet WR-LAN v3 SL 5-port WIFI	83.041.0869.1

Interfaces	Antenna ports	Dimensions W x H x D (mm)
2x LAN, USB, 2DI, 1DO, 2x SIM	ANT, DIV, GPS	55 x 125 x 97
5x LAN, USB, 2DI, 1DO, 2x SIM	ANT, DIV, GPS	55 x 125 x 97
5x LAN, USB, 2DI, 1DO, 2x SIM, WIFI	ANT, DIV, GPS, WIFI	55 x 125 x 97

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Interfaces	Antenna ports	Dimensions W x H x D (mm)
2x LAN, USB, DI, DO, 1x SIM	ANT, DIV	42 x 113.5 x 80.5
LAN, USB, DI, DO, 1x SIM	ANT, DIV	42 x 113.5 x 80.5
LAN, USB, DI, DO, 2x SIM	ANT, DIV	42 x 113.5 x 80.5
2x LAN, 2x SIM	ANT, DIV	42 x 113.5 x 80.5
2x LAN, 2x SIM, WIFI	ANT, DIV, WIFI	42 x 113.5 x 80.5

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Interfaces	Antenna ports	Dimensions W x H x D (mm)
LAN, USB, DI, DO, 1x SIM	ANT, DIV	42 x 113.5 x 80.5
2x LAN, USB, DI, DO, 1x SIM	ANT, DIV	42 x 113.5 x 80.5
LAN, USB, DI, DO, 2x SIM	ANT, DIV	42 x 113.5 x 80.5
2x LAN, 2x SIM	ANT, DIV	42 x 113.5 x 80.5
2x LAN, 2x SIM, WIFI	ANT, DIV, WIFI	42 x 113.5 x 80.5

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Interfaces	Antenna ports	Dimensions W x H x D (mm)
2xLAN, USB, DI, DO	-	42 x 113.5 x 80.5
2x LAN	-	42 x 113.5 x 80.5
2x LAN, WIFI	WIFI	42 x 113.5 x 80.5
5x LAN, USB, DI, DO	-	55 x 125 x 97
5x LAN, USB, DI, DO, WIFI	WIFI	55 x 125 x 97

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WIENET VPN + CLOUD + IIoT.

VPN SERVICES

Type	Art. No.
wienet VPN V3 - single VPN license	ZD.000.0020.5
wienet VPN V3 - 10 VPN licenses	ZD.000.0021.5
wienet VPN V3 - 25 VPN licenses	ZD.000.0022.5
wienet VPN V3 - 50 VPN licenses	ZD.000.0023.5
wienet VPN V3 - 100 VPN licenses	ZD.000.0024.5

CLOUD SERVICES

wienet CLOUD

Type	Art. No.
wienet CLOUD project registration	ZD.000.0040.0
wienet CLOUD IoT gateway registration	ZD.000.0041.0
wienet CLOUD IoT gateway Data flat Month	ZD.000.0042.5
wienet CLOUD SMS fee	ZD.000.0043.0

IIoT STARTER KITS

Type	Art. No.
wienet IoT SK 115-W	83.041.1000.0
wienet IoT SK 100-DIO8-3G-W	83.041.1011.0

IIoT GATEWAYS

Type	Art. No.
wienet IoT GW 115-W	83.041.1100.0
wienet IoT GW 100-PB-W	83.041.1280.0
wienet IoT GW 100-PN-W	83.041.1250.0
wienet IoT GW 100-EIP-W	83.041.1260.0
wienet IoT GW 100-DIO8-W	83.041.1210.0

IIoT MODEM GATEWAYS

Type	Art. No.
wienet IoT GW 100-PN-3G-W	83.041.1251.0
wienet IoT GW 100-PN-WIFI-W	83.041.1252.0
wienet IoT GW 100-EIP-3G-W	83.041.1261.0
wienet IoT GW 100-EIP-WIFI-W	83.041.1262.0
wienet IoT GW 100-DIO8-3G	83.041.1211.0
wienet IoT GW 100-DIO8-WIFI-W	83.041.1212.0

Service description
VPN client single license for router, IoT gateway, PC or mobile device
10 VPN client licenses for router, IoT gateway, PC or mobile device
25 VPN client licenses for router, IoT gateway, PC or mobile device
50 VPN client licenses for router, IoT gateway, PC or mobile device
100 VPN client licenses for router, IoT gateway, PC or mobile device

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Service description
Setting up a project in the wienet CLOUD portal
Registration of an IoT gateway in the wienet CLOUD portal
Monthly data flat rate in the wienet CLOUD portal
Costs per SMS from the wienet CLOUD portal

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Scope of kit
GW 115-W serial gateway, WEB-PLC programming, free use of the wienet CLOUD portal for one year.
GW 100-DI08-3G-W I/O gateway, antenna, power supply, Ethernet cable, input simulator, WEB-PLC programming, free use of the wienet CLOUD portal for one year

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Number of ports	Dimensions W x H x D (mm)
1x RS485, 2x 10/100BaseT	37 x 97 x 62
1x Profibus, USB, MICRO SD, 1x RS232/RS485, 1x 10/100BaseT	46 x 105 x 78
2x ProfiNet, USB, MICRO SD, 1x RS232/RS485, 1x 10/100BaseT	46 x 105 x 78
2x EtherNet/IP, USB, MICRO SD, 1x RS232/RS485, 1x 10/100BaseT	46 x 105 x 78
1x EtherNet/IP, USB, MICRO SD, 1x RS232/RS485, 1x 10/100BaseT	46 x 105 x 78

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Number of ports	Modem	Dimensions W x H x D (mm)
2x ProfiNet, USB, MICRO SD, 1x RS232/RS485	3G UMTS	46 x 105 x 78
2x ProfiNet, USB, MICRO SD, 1x RS232/RS485	WLAN	46 x 105 x 78
2x EtherNet/IP, USB, MICRO SD, 1x RS232/RS485	3G UMTS	46 x 105 x 78
2x EtherNet/IP, USB, MICRO SD, 1x RS232/RS485	WLAN	46 x 105 x 78
1x EtherNet/IP, USB, MICRO SD, 1x RS232/RS485, 8 digital inputs/outputs	3G UMTS	46 x 105 x 78
1x EtherNet/IP, USB, MICRO SD, 1x RS232/RS485, 8 digital inputs/outputs	WLAN	46 x 105 x 78

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RICOS FLEX.

FIELDBUS COUPLER

Type	Art. No.
ricos FLEX BC DP	83.036.1000.1
ricos FLEX BC MODBUS	83.036.1040.0
ricos FLEX BC PROFINET	83.036.1010.1
ricos FLEX BC EtherNet/IP	83.036.1050.0
ricos FLEX BC EtherCAT	83.036.1060.0

POTENIAL DISTRIBUTION BLOCK **+ POWER**MODULE

Type	Art. No.
ricos FLEX PV 8xDC24V	83.036.0000.0
ricos FLEX PV 8xDC0V	83.036.0010.0
ricos FLEX PV 4xDC24V 4DC0V	83.036.0020.0
ricos FLEX PW DC 24V	83.036.0030.0

DIGITAL INPUTS **+** OUTPUTS

Type	Art. No.	Extension
ricos FLEX 8xDI DC24V	83.036.2300.0	Digital inpu
ricos FLEX 4xDO DC24V 0,5A	83.036.3200.0	Digital outp
ricos FLEX 8xDO DC24V 0.5A	83.036.3300.0	Digital outp

ANALOG INPUTS **+** OUTPUTS

Type	Art. No.	Extension
ricos FLEX 4xAI 12BIT 0…10V	83.036.4200.0	Analog inpu
ricos FLEX 4xAI 12BIT 0(4)…20mA	83.036.4224.0	Analog inpu
ricos FLEX 4xAI 16BIT R,RTD	83.036.4261.0	Analog inpu
ricos FLEX 4xAO 12BIT 0…10V	83.036.5200.0	Analog outp
ricos FLEX 4xAO 12BIT 0(4)…20mA	83.036.5220.0	Analog outp

	Fieldbus	Connection	Dimensions W x H x D (mm)
	Profibus DP	9-pol Sub-D-female	48.5 x 109 x 76.5
	Modbus TCP	RJ45 / Ethernet 10/100 Mbit	48.5 x 109 x 76.5
	PROFINET IO	2 x RJ45 / Ethernet 100 Mbit	48.5 x 109 x 76.5
	EtherNet/IP	RJ45 / Ethernet 100 Mbit	48.5 x 109 x 76.5
	EtherCAT	2 x RJ45 / Ethernet 100 Mbit	48.5 x 109 x 76.5

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	Extension module	Number of terminals	Output voltage/current	Dimensions W x H x D (mm)
	Potential distribution block	8 x 24 V DC	-	12.9 x 109 x 52.5
	Potential distribution block	8 x 0 V DC	-	12.9 x 109 x 52.5
	Potential distribution block	4 x 24 V DC; 4 x 0 V DC	-	12.9 x 109 x 52.5
	Power module	-	24 V / 10 A	12.9 x 109 x 76.5

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module	Number of interfaces	Voltage	Electricity	Dimensions W x H x D (mm)
ut	8 binary inputs	24 V DC	-	12.9 x 109 x 76.5
put	4 outputs	24 V DC	0.5 A	12.9 x 109 x 76.5
put	8 outputs	24 V DC	0.5 A	12.9 x 109 x 76.5

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module	Number of interfaces	Resolution	Measuring range	Dimensions W x H x D (mm)
ut	4 inputs	12 BIT	0 … 10 V	12.9 x 109 x 76.5
ut	4 inputs	12 BIT	0 (4) … 20 mA	12.9 x 109 x 76.5
ut	4 inputs	16 BIT	RTD, PT100	12.9 x 109 x 76.5
put	4 outputs	12 BIT	0 … 10 V	12.9 x 109 x 76.5
put	4 outputs	12 BIT	0 (4) … 20 mA	12.9 x 109 x 76.5

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WIENET HMI ECO TOUCH PANELS.

Type	Art. No.
HMI-ECO-043	83.050.0000.0
HMI-ECO-070	83.050.0001.0
HMI-ECO-100	83.050.0002.0
HMI-ECO-120	83.050.0003.0
HMI-ECO-150	83.050.0004.0

ACCESSORIES

Type	Art. No.
HMI-LICENSE-SINGLE	ZW.000.0170.0
SP-CABLE-ETH1	R1.190.1020.0

WIENET SERIAL SERVER.

Type	Art. No.
wienet SDS-DB	83.040.0500.0
wienet SDS-TB	83.040.0501.0
wienet SDS-DB KIT	83.040.0502.0
wienet SDS-TB KIT	83.040.0503.0
wienet WSDS 1 COM DB TB	83.040.0510.0

ACCESSORIES.

Type	Art. No.
MPI-ETH ADAPTER ACCON-NETLINK-PRO	F0.000.0031.8
wienet ANTENNA GXR623	83.041.0200.0
wienet ANTENNA GXR606	83.041.0210.0
wienet ANTENNA 15863V2 ROOF ANT.	F0.000.0035.1
wienet ANTENNA 15018 MAGNETIC HOLDER	F0.000.0036.1
wienet ANTENNA 150181V2 ANTENNA ROD	F0.000.0036.2
wienet PS 12V 15094 12V POWER SUPPLY V2	F0.000.0037.3
wienet ANTENNA 15854 WIFI MAGNET ANT.	F0.000.0037.4
wienet ANTENNA 15874V2 WIFI ROOF ANT.	F0.000.0037.5
wienet ANTENNA 15862V2 PANEL ANT.	F0.000.0037.6
wienet PS 12V 15094 12V POWER SUPPLY V3	F0.000.0037.7
wienet ANTENNA 15872V2 PANEL ANT.	F0.000.0037.8
wienet I/O CABLE 15096V3 1M	F0.000.0037.9
wienet I/O CABLE 15096V3 3M	F0.000.0038.0
wienet RJ45 8S Terminal	80.000.3001.0
wienet RJ45 extender	F0.000.0038.0
wienet VPN ACC WR-RS232	F0.000.0049.7
wienet VPN ACC WR-RS422/485	F0.000.0049.8
wienet VPN ACC WR-IO	F0.000.0049.9
wienet VPN ACC WR-ETH	F0.000.0050.0

Monitor size in inch	Resolution in pixels	Dimensions W x H x D (mm)
4.3	480 x 272	129 x 103 x 33
7	800 x 480	203.5 x 148 x 37
10	1024 x 600	270.8 x 212.8 x 42.5
12	1024 x 768	335.4 x 245.8 x 58.2
15	1024 x 768	399.1 x 267.6 x 57.5

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Description
Single-user license for **hmi**PLAN programming software
Ethernet programming cable, 2 m

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10/100 RJ45 LAN ports	WLAN	Serial interface	Installation	Dimensions W x H x D (mm)
1	-	1x D-Sub	Screws	65 x 78 x 28
1	-	1x terminal block	Screws	65 x 78 x 28
1	-	1x D-Sub	DIN top hat rail	88.5 x 78 x 28
1	-	1x terminal block	DIN top hat rail	88.5 x 78 x 28
1	Yes	1x D-Sub or terminal blocks	DIN top hat rail	47 x 110 x 90

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Description
Programming adapter for Siemens controllers from MPI/Profibus to Ethernet
Mobile network antenna 2G, 3G, flat design, suitable for outdoor installation
Mobile radio antenna 2G, 3G, round beam rod antenna, suitable for outdoor installation
Mobile radio antenna 2G, 3G, 4G roof antenna, suitable for outdoor installation
Magnetic holder for mobile radio antennas
Mobile radio antenna 2G, 3G, 4G for installation on magnetic holder
Switching power supply 230 V AC / 12 V DC suitable for v2 routers
WIFI antenna with magnetic holder
WIFI antenna, roof antenna
Mobile radio antenna, panel antenna 2G, 3G, 4G, powerful (+5dBi) LTE antenna
Switching power supply 230 V AC / 12 V DC with preassembled plug for v3 routers
Mobile radio antenna, panel antenna 2G, 3G, 4G, powerful (+9dBi) LTE antenna
Preassembled connection cables 1 m, for connecting the I/Os with the v3 router
Preassembled connection cables 3 m, for connecting the I/Os with the v3 router
CAT.5 interface module push-in connection clamps to RJ-45 socket
CAT.5 interface module RJ-45 socket to RJ-45 socket
VPN router v2 - extension module RS232
VPN router v2 - extension module RS422/485
VPN router v2 - extension module 4xDI (2x with counter function), 2x AI (4-20mA), 1x DO
VPN router v2 - extension module additional Ethernet port

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WIENET SECURITY **ROUTER.**

Remote access to local networks is the communication basis for almost any Industry 4.0 or IoT application.
With wienet security routers and the VPN server portal WIE-Service24, machines and devices are securely connected to the Internet and the encrypted transfer of data via VPN is ensured.

+ Direct connection of terminal devices via local Ethernet network or serial interface
+ Remote access with original manufacturer software without additional programs
+ Access to the Internet via LAN, mobile radio or WLAN
+ Secure data connection thanks to latest encryption technology
+ Reliable transfer of alarms via SMS or e-mail

PERFORMANCE FEATURES

+ Internet connection	LAN-LAN, WLAN, mobile communications
+ Mobile radio standards	UMTS 3G, LTE 4G
+ VPN protocols	open VPN, IpSec, L2TP, GRE (PPTP, easyVPN)
+ Operating temperature	-30 °C to +60 °C

RoHS conform CE E8

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WIENET – EASY REMOTE MAINTENANCE.

One of the top goals of any machine builder today is the ability for remote maintenance of machines and systems. This reduces maintenance costs drastically and optimizes machine availability for the customers. The wienet Security VPN routers have been specially designed for the easy remote maintenance of machines and installations at customer locations or satellite stations using the Internet. This means, that OEMs and system integrators can troubleshoot machines with remote maintenance without the need for them being on site.

REMOTE ACCES USING SECURE VPN CONNECTIONS

The Security VPN routers from Wieland enable the secure access to machines and systems by using encrypted VPN connections, supporting the standard VPN technologies OpenVPN and IPsec. Up to four VPN channels can be operated simultaneously.

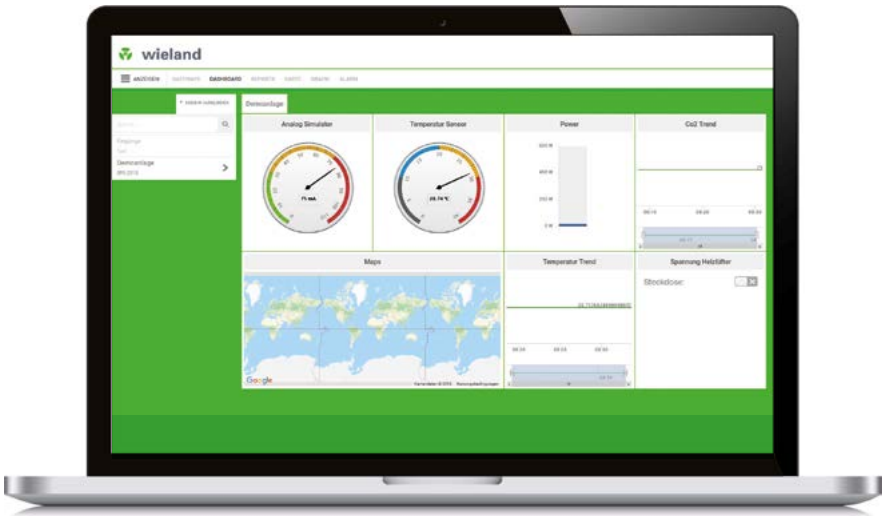
The interaction with the VPN server portal WIE-Service24 v3 has been optimized for VPN operation.

CONTROLLING AND MONITORING THE VPN CONNECTIONS

All wienet VPN routers (except the compact models) have digital inputs and outputs. With one input, for example, the VPN connection can be controlled via an PLC output or with a key switch. The digital output can be used as a switching output or status output. The VPN mobile routers can be controlled with SMS commands.

WEB-BASED USER INTERFACE

All wienet VPN routers are configured with a web-based user interface. This means that it can be operated with any standard browser without the need for installing extra software.



VERSATILE APPLICATIONS:

- **Energy supply**
  Wind turbines, solar farms, transformer stations, combined heat and power units, biogas cogeneration systems, heat pumps, …
- **Water and waste water management**
- **System monitoring in machine building**
  Washing systems, compressors, packaging machines, ...
- **External surveillance camera**
- **Vending**
  Online telemetry of sales or ticket vending machines
- **Mobile fleet management**
- **Smart metering**

READY-BUILT USER MODULES FOR EVEN MORE **FUNCTIONS.**

The functions of the wienet VPN routers can be expanded using preassembled software user modules.

We utilise the experiences we and our customers have gathered in recent years and offer our customers useful applications as free user modules. The user modules expand the user interface, so to say. You do not have to change or implement any program code, but can use the functions at once and very easily.

EXAMPLES FOR USER MODULES:

+ Azure IoT SDK Python
+ Node-RED
+ Node-RED FTP Node
+ Node-RED MQTT Node
+ Diverse protocol converters
+ Layer2 Firewall
+ Modbus Logger

Please contact our wienet Service-Center netcom@wieland-electric.com for the complete list of all available user modules.

INDUSTRIAL MOBILE ROUTERS · **WIENET** WR-LTE V3
TECHNICAL DATA



Description	**wienet** WR-LTE v3 SL	**wienet** WR-LTE v3 SL 5-Port	**wienet** WR-LTE v3 SL 5-Port WiFi
Art. No.	83.041.0700.1	83.041.0709.1	83.041.0769.1
VPN mobile router interfaces			
Ethernet	2x 10/100 Mbit/s	5x 10/100 Mbit/s	5x 10/100 Mbit/s
USB slot	1x USB 2.0 host	1x USB 2.0 host	1x USB 2.0 host
SIM slot	2x mini SIM 2FF	2x mini SIM 2FF	2x mini SIM 2FF
SD slot	1x micro SD	1x micro SD	1x micro SD
Digital inputs	2x DI 10-60 V DC	2x DI 10-60 V DC	2x DI 10-60 V DC
Digital outputs	1x DO 300 mA / max. 60 V	1x DO 300 mA / max. 60 V	1x DO 300 mA / max. 60 V
WiFi/WLAN	-	-	1x WLAN 802.11 b/g/n
Antenna ports	ANT(SMA), DIV (SMA), GPS (SMA)	ANT(SMA), DIV (SMA), GPS (SMA)	ANT(SMA), DIV (SMA), GPS (SMA), WiFi (R-SMA)
LED indictaion	PWR, USR, DAT, IN0, IN1, OUT, SIM, WAN	PWR, USR, DAT, IN0, IN1, OUT, SIM, WAN	PWR, USR, DAT, IN0, IN1, OUT, SIM, WAN
Technical features			
Network connection	LTE	LTE	LTE
Networks	DHCP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, DMVPN, PPPoE Bridge, Dial-In, NTP Client-Server, IGMP, BGP, OSPF, RIP, SMTP, SMTPS	DHCP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, DMVPN, PPPoE Bridge, Dial-In, NTP Client-Server, IGMP, BGP, OSPF, RIP, SMTP, SMTPS	DHCP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, DMVPN, PPPoE Bridge, Dial-In, NTP Client-Server, IGMP, BGP, OSPF, RIP, SMTP, SMTPS
VPN	open VPN, Ipsec, L2TP, PPTP, GRE, EasyVPN	open VPN, Ipsec, L2TP, PPTP, GRE, EasyVPN	open VPN, Ipsec, L2TP, PPTP, GRE, EasyVPN
Configuration and diagnostics	Web-Interface, SMS, SNMP v1/v2c/ v3, Status	Web-Interface, SMS, SNMP v1/v2c/ v3, Status	Web-Interface, SMS, SNMP v1/v2c/ v3, Status
Technical data			
CPU	Cortex A8, 1GHz (2000 DMIPS)	Cortex A8, 1GHz (2000 DMIPS)	Cortex A8, 1GHz (2000 DMIPS)
Memory	256 MB flash memory, 512 MB RAM, 128 KB M-RAM	256 MB flash memory, 512 MB RAM, 128 KB M-RAM	256 MB flash memory, 512 MB RAM, 128 KB M-RAM
Operating voltage min.-max.	10 - 60 V DC	10 - 60 V DC	10 - 60 V DC
Power consumption max.	4 W	4 W	4 W
Operating temperature	-40 °C…+75 °C	-40 °C…+75 °C	-40 °C…+75 °C
Storage temperature	-40 °C…+85 °C	-40 °C…+85 °C	-40 °C…+85 °C
Rel. humidity during operation min.-max. (non-condensing)	0…95 %	0…95 %	0…95 %
Dimensions			
Width (mm)	55	55	55
Height (mm)	125	125	125
Depth (mm)	97	97	97
Weight	approx. 375	approx. 375	approx. 375

GENERAL TECHNICAL DATA FOR THE SERIES	
Mounting method	Top-hat rail
Protection class	IP30
Housing material	Aluminum
RoHs	Yes
Norms and approvals	CE, E8

INDUSTRIAL MOBILE ROUTER · **WIENET** 4G LTE V2
TECHNICAL DATA





Description **wienet**	LR77 SLv2 ETH	LR77 SLv2	LR77v2f SL	LR77 v2c SL ETH	LR77 v2c SL ETH WiFi
Art. No.	83.041.0055.1	83.041.0050.1	83.041.0500.1	83.041.0505.3	83.041.0565.3
VPN mobile router interfaces					
Ethernet	2x 10/100 Mbit/s	1x 10/100 Mbit/s	2x 1x 10/100 Mbit/s (LAN-LAN or switch bridge)	2x 1x 10/100 Mbit/s (LAN-LAN or switch bridge)	2x 1x 10/100 Mbit/s (LAN-LAN or switch bridge)
USB slot	1x USB 2.0 Host (type A)	1x USB 2.0 Host (type A)	1x USB 2.0 Host (type A)	-	1x USB 2.0 Host (type A)
SIM slot	1	1	2	2	2
Digital inputs	1x DI 10-30 V DC	1x DI 10-30 V DC	1x DI 10-30 V DC	-	-
Digital outputs	1x DO 120 mA / max. 30 V	1x DO 120 mA / max. 30 V	1x DO 120 mA / max. 30 V	-	-
WiFi/WLAN	-	-	-	-	1x WLAN 802.11 b/g/n
Antenna ports	ANT, DIV (2x SMA)	ANT, DIV (2x SMA)	ANT, DIV (2x SMA)	ANT, DIV (2x SMA)	ANT, DIV (2x SMA) WIFI (1x R-SMA)
LED indictaion	PWR, WAN, DAT, DI, DO, USR	PWR, WAN, DAT, DI, DO, USR	PWR, WAN, DAT, DI, DO, USR	PWR, WAN, DAT	PWR, WAN, DAT
Technical features					
Network connection	LTE 4G	LTE 4G	LTE 4G	LTE 4G	LTE 4G
Networks	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS
VPN	open VPN, Ipsec, L2TP, GRE	open VPN, Ipsec, L2TP, GRE	open VPN, Ipsec, L2TP, GRE	open VPN, Ipsec, L2TP, GRE	open VPN, Ipsec, L2TP, GRE
Configuration and diagnostics	Web interface, SMS, e-mail, SSH, SNMP v1/v2c/v3, status	Web interface, SMS, e-mail, SSH, SNMP v1/v2c/v3, status	Web interface, SMS, e-mail, SSH, SNMP v1/v2c/v3, status	Web interface, SMS, e-mail, SSH, SNMP v1/v2c/v3, status	Web interface, SMS, e-mail, SSH, SNMP v1/v2c/v3, status
Port expansion cards		- 1x ETH - 4x DI, 1DO, 1AI - RS232 - RS422/485	- 1x ETH - 4x DI, 1DO, 1AI - RS232 - RS422/485		
Technical data					
Operating voltage min.-max.	10 - 30 V DC	10 - 30 V DC	10 - 30 V DC	10 - 30 V DC	10 - 30 V DC
Power consumption max.	5.5 W	5.5 W	5.5 W	5.5 W	5.5 W
Operating temperature	-30 °C…+60 °C	-30 °C…+60 °C	-30 °C…+60 °C	-30 °C…+60 °C	-30 °C…+60 °C
Storage temperature	-40 °C…+85 °C	-40 °C…+85 °C	-40 °C…+85 °C	-40 °C…+85 °C	-40 °C…+85 °C
Rel. humidity during operation min.-max. (non-condensing)	0…95 %	0…95 %	0…95 %	0…95 %	0…95 %
Dimensions					
Width (mm)	42	42	42	42	42
Height (mm)	113.5	113.5	113.5	113.5	113.5
Depth (mm)	80.5	80.5	80.5	80.5	80.5
Weight	approx. 270	approx. 270	approx. 270	approx. 270	approx. 270

GENERAL TECHNICAL DATA FOR THE SERIES	
Mounting method	Top-hat rail
Protection class	IP20
Housing material	Aluminum
RoHs	Yes
Norms and approvals	CE, E8

INDUSTRIAL MOBILE ROUTER · **WIENET** 3G UMTS
TECHNICAL DATA





Description **wienet**	UR5i SLv2	UR5i SLv2 ETH	UR5iv2f SL	UR5i v2c SL ETH	UR5i v2c SL ETH WIFI
Art. No.	83.041.0040.1	83.041.0045.1	83.041.0400.1	83.041.0405.3	83.041.0465.3
VPN mobile router interfaces					
Ethernet	1x 10/100 Mbit/s	2x 10/100 Mbit/s	1x 10/100 Mbit/s	2x 10/100 Mbit/s	2x 10/100 Mbit/s
USB slot	1x USB 2.0 Host (type A)	1x USB 2.0 Host (type A)	1x USB 2.0 Host (type A)	-	-
SIM slot	1	1	2	2	2
Digital inputs	1x DI 10-30 V DC	1x DI 10-30 V DC	1x DI 10-30 V DC	-	-
Digital outputs	1x DO 120 mA / max. 30 V	1x DO 120 mA / max. 30 V	1x DO 120 mA / max. 30 V	-	-
WiFi/WLAN	-	-	-	-	1x WLAN 802.11 b/g/n
Antenna ports	ANT, DIV (2x SMA)	ANT, DIV (2x SMA)	ANT, DIV (2x SMA)	ANT, DIV (2x SMA)	ANT, DIV (2x SMA) WIFI (R-SMA)
LED indictaion	PWR, WAN, DAT, DI, DO, USR	PWR, WAN, DAT, DI, DO, USR	PWR, WAN, DAT, DI, DO, USR	PWR, WAN, DAT	PWR, WAN, DAT
Technical features					
Network connection	3G, GSM, GPRS, EDGE, UMTS, HSPA+	3G, GSM, GPRS, EDGE, UMTS, HSPA+	3G, GSM, GPRS, EDGE, UMTS, HSPA+	3G, GSM, GPRS, EDGE, UMTS, HSPA+	3G, GSM, GPRS, EDGE, UMTS, HSPA+
Networks	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS
VPN	open VPN, Ipsec, L2TP, GRE	open VPN, Ipsec, L2TP, GRE	open VPN, Ipsec, L2TP, GRE	open VPN, Ipsec, L2TP, GRE	open VPN, Ipsec, L2TP, GRE
Configuration and diagnostics	Web interface, SMS, e-mail, SSH, SNMP v1/v2c/v3, status	Web interface, SMS, e-mail, SSH, SNMP v1/v2c/v3, status	Web interface, SMS, e-mail, SSH, SNMP v1/v2c/v3, status	Web interface, SMS, e-mail, SSH, SNMP v1/v2c/v3, status	Web interface, SMS, e-mail, SSH, SNMP v1/v2c/v3, status
Port expansion cards	- 1xETH - 4xDI, 1DO, 1AI - RS232 - RS422/485	- 1xETH - 4xDI, 1DO, 1AI - RS232 - RS422/485	(2 slots) - 1xETH - 4xDI, 1DO, 1AI - RS232 - RS422/485		
Technical data					
Operating voltage min.-max.	10 - 30 V DC	10 - 30 V DC	10 - 30 V DC	10 - 30 V DC	10 - 30 V DC
Power consumption max.	5.5 W	5.5 W	5.5 W	5.5 W	5.5 W
Operating temperature	-40 °C…+70 °C	-40 °C…+70 °C	-40 °C…+70 °C	-40 °C…+70 °C	-40 °C…+70 °C
Storage temperature	-40 °C…+85 °C	-40 °C…+85 °C	-40 °C…+85 °C	-40 °C…+85 °C	-40 °C…+85 °C
Rel. humidity during operation min.-max. (non-condensing)	0…95 %	0…95 %	0…95 %	0…95 %	0…95 %
Dimensions					
Width (mm)	42	42	42	42	42
Height (mm)	113.5	113.5	113.5	113.5	113.5
Depth (mm)	80.5	80.5	80.5	80.5	80.5
Weight	approx. 287 g	approx. 287 g	approx. 287 g	approx. 287 g	approx. 287 g

GENERAL TECHNICAL DATA FOR THE SERIES	
Mounting method	Top-hat rail
Protection class	IP20
Housing material	Aluminum
RoHs	Yes
Norms and approvals	CE, E8

Subject to technical modifications

INDUSTRIAL LAN ROUTER · **WIENET** XR5I + WR-LAN
TECHNICAL DATA

Description wienet	XR5iv2f SL ETH	XR5i v2c SL ETH	XR5i v2c SL ETH WIFI	WR-LAN v3 SL 5-Port	WR-LAN v3 SL 5-Port WIFI
Art. No.	83.041.0605.1	83.041.0605.3	83.041.0665.3	83.041.0809.1	83.041.0869.1
VPN LAN router interfaces					
Ethernet	2x 10/100 Mbit/s	2x 10/100 Mbit/s	2x 10/100 Mbit/s	5x 10/100 Mbit/s	5x 10/100 Mbit/s
USB slot	1x USB 2.0 Host (type A)	-	-	1x USB 2.0 Host (type A)	1x USB 2.0 Host (type A)
SIM slot	1	1	1	1	1
Digital inputs	1x DI 10 - 30 V DC	-	-	1x DI 10 - 60 V DC	1x DI 10 - 60 V DC
Digital outputs	1x DO 120 mA / max. 30 V	-	-	1x DO 300 mA / max. 60 V	1x DO 300 mA / max. 60 V
WiFi/WLAN	-	-	1x WLAN 802.11 b/g/n	-	1x WLAN 802.11 b/g/n
Antenna ports	-	-	-	-	WIFI (R-SMA)
LED indication	PWR, DI, DO, USR	PWR	PWR	PWR, USR, IN0, IN1, OUT	PWR, USR, IN0, IN1, OUT
Technical features					
Network connection	3G, GSM, GPRS, EDGE, UMTS, HSPA+	3G, GSM, GPRS, EDGE, UMTS, HSPA+	3G, GSM, GPRS, EDGE, UMTS, HSPA+	3G, GSM, GPRS, EDGE, UMTS, HSPA+	3G, GSM, GPRS, EDGE, UMTS, HSPA+
Networks	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS	DHCP, FTP, NAT, PAT, VRRP, DynDNS Client, VLAN, QoS, PPPoE Bridge, Dial-In, NTP client server, BGP, OSPF, RIP, SMTP, SMTPS
VPN	open VPN, Ipsec, L2TP, GRE	open VPN, Ipsec, L2TP, GRE	open VPN, Ipsec, L2TP, GRE	open VPN, Ipsec, L2TP, GRE	open VPN, Ipsec, L2TP, GRE
Configuration and diagnostics	Web interface, SMS, e-mail, SSH, SNMP v1/ v2c/v3, status	Web interface, SMS, e-mail, SSH, SNMP v1/ v2c/v3, status	Web interface, SMS, e-mail, SSH, SNMP v1/ v2c/v3, status	Web interface, SMS, e-mail, SSH, SNMP v1/ v2c/v3, status	Web interface, SMS, e-mail, SSH, SNMP v1/ v2c/v3, status
Port expansion cards	- 1xETH - 4xDI, 1DO, 1AI - RS232 - RS422/485				
Technical data					
Operating voltage min.-max.	10 - 30 V DC	10 - 30 V DC	10 - 30 V DC	10 - 60 V DC	10 - 60 V DC
Power consumption max.	5.5 W	5.5 W	5.5 W	4.5 W	4.5 W
Operating temperature	-40 °C…+70 °C	-40 °C…+70 °C	-40 °C…+70 °C	-40 °C…+75 °C	-40 °C…+75 °C
Storage temperature	-40 °C…+85 °C	-40 °C…+85 °C	-40 °C…+85 °C	-40 °C…+85 °C	-40 °C…+85 °C
Rel. humidity during operation min.-max. (non-condensing)	0…95 %	0…95 %	0…95 %	0…95 %	0…95 %
Dimensions					
Width (mm)	42	42	42	55	55
Height (mm)	113.5	113.5	113.5	125	125
Depth (mm)	80.5	80.5	80.5	97	97
Weight	approx. 287 g	approx. 287 g	approx. 287 g	approx. 327 g	approx. 327 g

GENERAL TECHNICAL DATA FOR THE SERIES	
Mounting method	Top-hat rail
Protection class	IP20 / IP30
Housing material	Aluminum
RoHs	Yes
Norms and approvals	CE, E8

Subject to technical modifications

wieland

VPN SERVER OR IIoT CLOUD.

Secure access to your machines and plants – around the globe.

COMPLEXITY

	ONLY VPN REMOTE MAINTENANCE	ONLY IIoT	REMOTE MAINTENANCE AND IIoT
HARDWARE	WIENET VPN ROUTERS	WIENET IIoT GATEWAYS	WIENET IIoT GATEWAYS
PORTAL	WIE-SERVICE24	WIENET CLOUD	WIENET CLOUD (IIoT) + WIE-SERVICE24 (VPN)
APPLICATIONS	SECURE ACCESS TO CONTROLLERS, HMI, DRIVES, …	DATA COLLECTION, EVALUATION AND VISUALIZATION	BOTH

wieland

REMOTE MAINTENANCE VIA **WIENET** VPN PORTAL.

The wienet VPN portal is the pivotal element where all VPN connections are managed. The VPN connections are based on OpenVPN. The VPN end devices (router, PC, smartphone, IIoT gateways, …) require a VPN configuration file, which is generated in the wienet VPN portal and made available to the user. After the implementation, the end devices establish an outgoing, encrypted VPN tunnel to the wienet VPN portal. The assignments of who is allowed to communicate with who are also specified in the wienet VPN portal. Users can be created and rights can be assigned in the user management.

FEATURES OF THE WIENET VPN PORTAL

SECURE CONNECTION

The wienet VPN portal ensures the secure connection of your machines and systems: The individual specification of the access rights and encryption of the VPN connections protects your machines and systems. Tedious, error-prone manual router configuration is no longer necessary. Remote access can be accomplished with any Internet-capable PC or smartphone.

The first 30 VPN licenses are free of charge!

THE LICENSE MODEL IN DETAIL

After the test phase with only one or very few VPN end devices, you have up to 30 additional VPN client licenses at your disposal for free, which you can use to let several persons and machines communicate with each other securely using an encrypted VPN connection.

If you require more licenses, additional blocks of VPN clients are allocated to you (upon consultation with your Wieland contact).

Please specify how many additional licenses you need in your order.

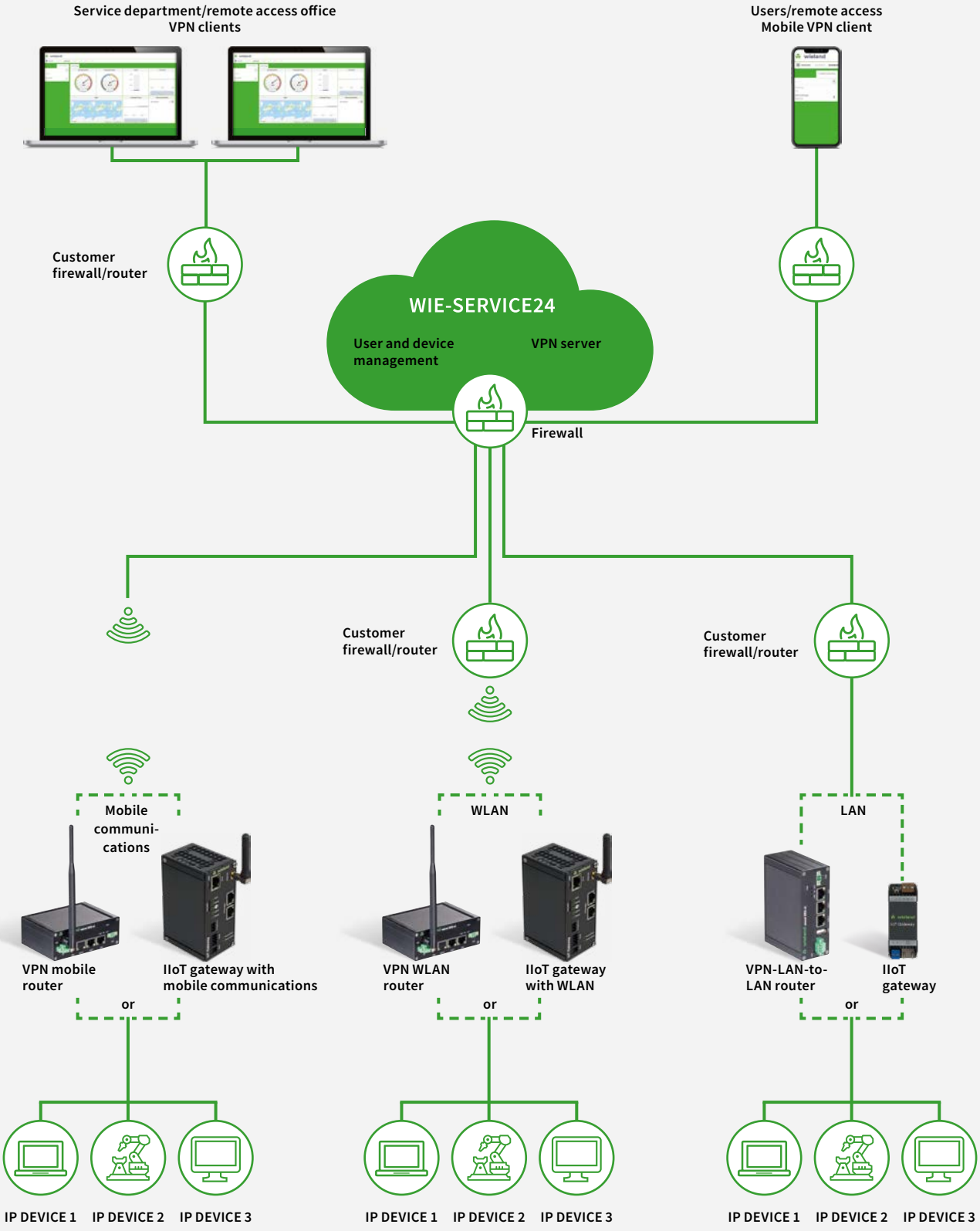
TEST ACCESS

The wienet VPN portal can be tested free of charge in connection with the wienet VPN routers.

Please get in touch with your wienet VPN contact at Wieland Electric under netcom@wieland-electric.com or by phone with our Telesales telephone: +49 951 9324-0.

You will be provided with a VPN end device for a limited time + wienet VPN portal access (several VPN end devices on request).

WIE-SERVICE24 APPLICATION.



wieland

REMOTE MAINTENANCE VIA **WIENET** VPN PORTAL.

M2M DEVICE MANAGEMENT IN THE CLOUD

Complete systems, machines and networks can be connected to each other with our VPN service portal. The individual specification of the access rights and the encryption of the VPN connections protects your machines and systems.

You set up the authorization management in seconds, individually for each device. The VPN service portal is so easy to use that users do not need in-depth knowledge of networks. WIE-SERVICE24 as one of the first software solutions for VPN service portals is a proven system for remote maintenance and has been undergoing a massive overhaul. User feedback was directly considered in the development of the current version 3.

FEATURES OF THE WIENET VPN SERVER

PERFORMANCE

Intel Skylake Xeon CPUs together with fast NVMe SSDs provide highest performance. High-speed thanks to redundant 10 Gbit network connection.

DAILY BACKUPS

Backups are created daily to ensure the recovery of an environment in case of an unexpected failure.

DDOS PROTECTION

The server is protected from DDoS attacks to the greatest possible extent thanks to comprehensive hardware applications and a complex filtering technology.

DATA PROTECTION

Operation of the cloud-based VPN server conforming to the GDPR.

EASY USER NAVIGATION

Clear, compact interface (with “one-page” feel) enables an easier and more intuitive user operation. Users can, as a brand new feature, create own accesses, which provides enhanced flexibility.

MORE TECH. FEATURES

- Secure networking based on proven and open standards
- 2-factor authentication
- Multi routing (≥ 2 subnets for each VPN tunnel)
- Flexible expansion of an exploited VPN IP address range

ACCESS PERMISSIONS

Access to the complete IP network behind the router is possible from any desktop and tablet computer via the VPN center. This can be complete systems, for example. Routing from one LAN to another LAN (site-to-site VPN) is also possible. This is a skillful workaround to avoid address conflicts during IP configuration in the connected local networks.

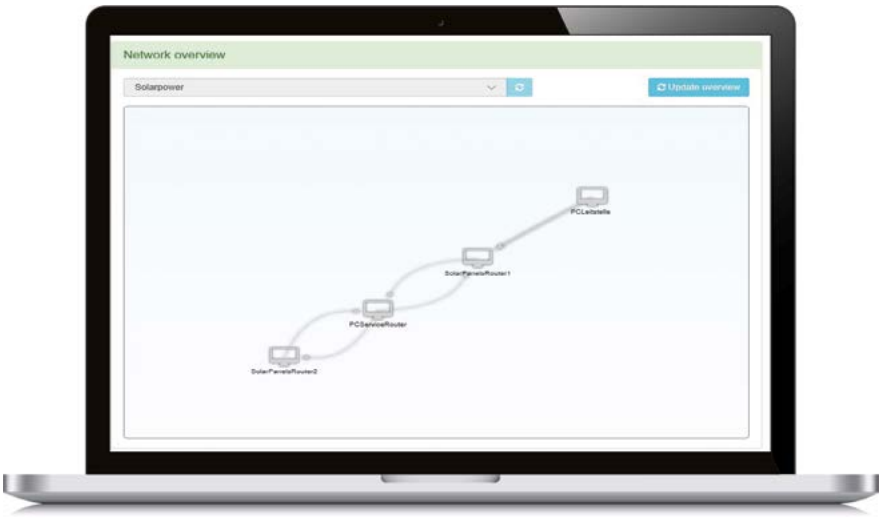


Figure: Access permissions

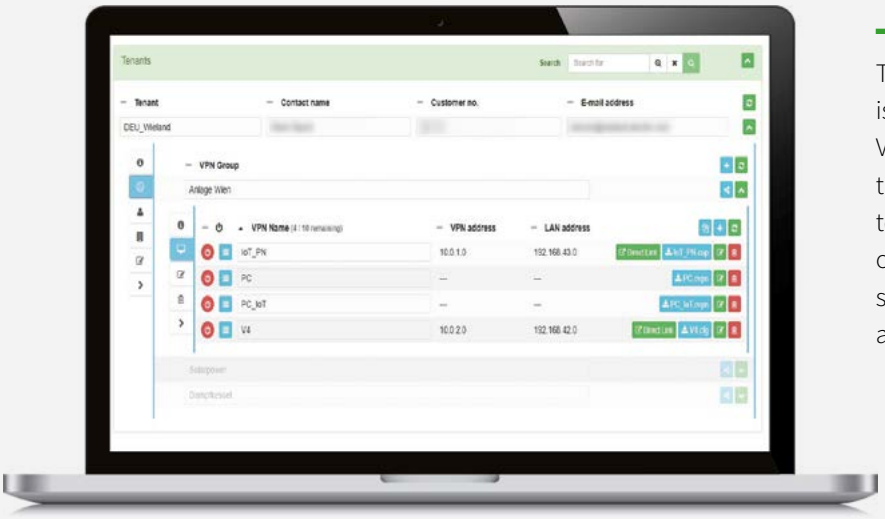


Figure: Simplified user management (one-page design)

ENHANCED USER MANAGEMENT

The new, enhanced user management is particularly remarkable. In WIE-SERVICE24 v3, customers can for the first time create accounts for their customers and inherit the complete scope of functions. In these cases, users only see their own systems and/or VPN accesses.

wieland

WIENET CLOUD IN **MACHINE** BUILDING.

The Internet of Things for industrial applications (IIoT) offers a host of new potentials. Production, energy generation and the transport industry are areas that have already been utilizing the opportunities of IIoT. Successful application cases, for example, are the remote monitoring and control of machines, sensor-controlled supply chains and connected logistics processes or big data-capable diagnosis.

The wienet CLOUD rounds out our comprehensive gateway portfolio to give you all the transformation modules you need. We realize your IIoT applications with a simple modular concept. All the data you need in the cloud are provisioned or retrieved through our wienet CLOUD IoT gateways.

COMMUNICATION

- Firewall
- Full-duplex communication
- Keep-alive mechanism
- Controllable data volume
- Low latency periods

SAFETY

- End-to-End encryption
- Mandatory authentication
- Password policy
- Structured authorization system

YOUR BENEFIT:

+ Scalable platform
+ No IT consulting needed
+ Worldwide visualization
+ Encrypted data
+ Complete solution and support from a single source

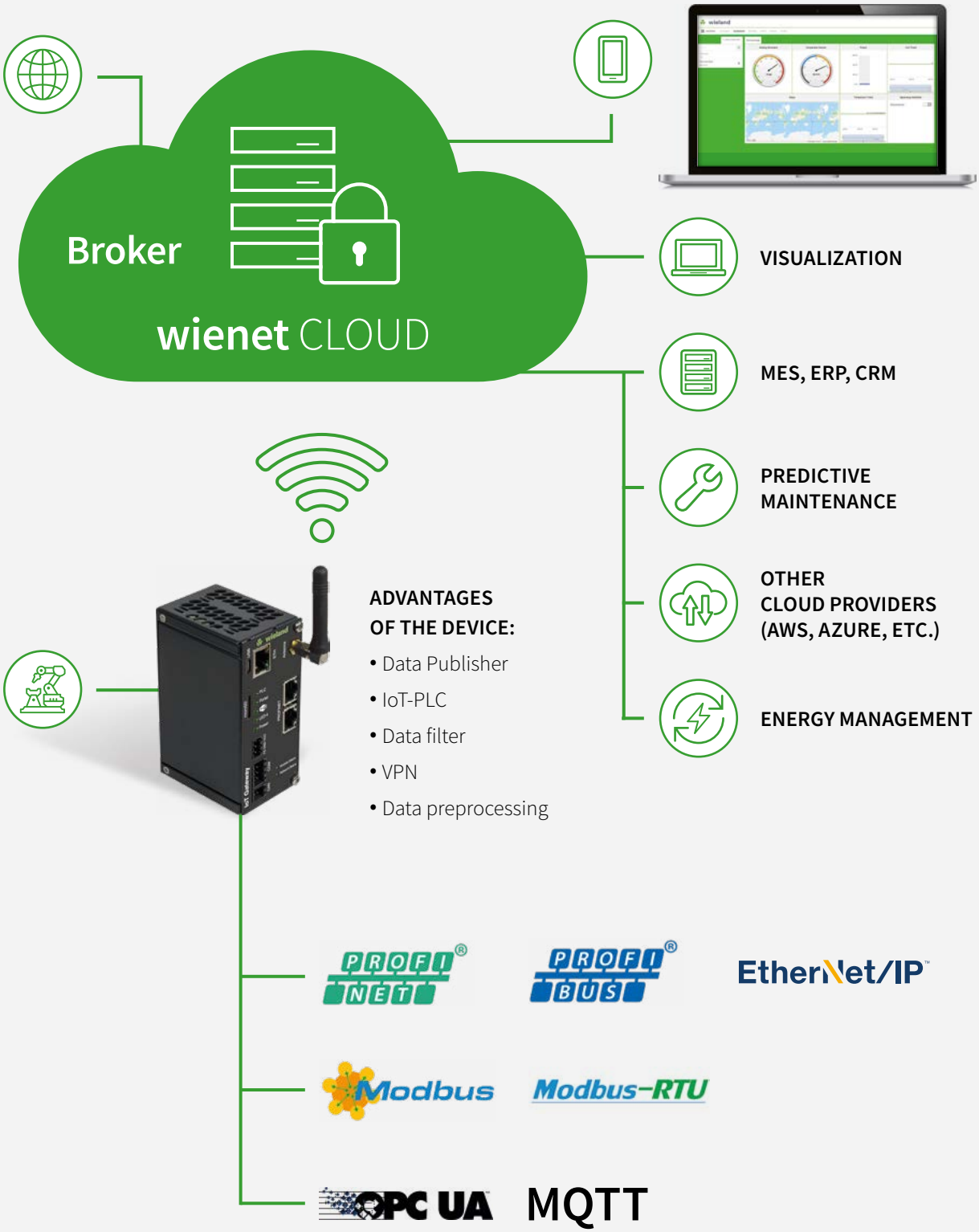
DATA MODEL

- Data types: boolean, integer floating point, string, byte, array
- Flexible event-trigger configuration
- QoS levels
- Value scaling/formatting
- Storing historical data

OPERATIONS

- Industrial Ethernet Protocol
- Professional hosting
- Scalable virtual data center
- High availability
- Service Level Agreement

WIENET CLOUD APPLICATION.



WIENET CLOUD
IIoT CLOUD SERVICES.

Our IIoT communication solutions provide you as mechanical engineers not only with efficient products, but also with a smart service module that you can use to guide your customers on the way to the Smart Factory, achieving a clear competitive advantage.

+ Easy entry to IIoT communication
+ Scalable, extendable solution
+ Hardware, cloud, service + support from a single source
+ Data can be accessed anywhere

PERFORMANCE FEATURES

+ Model	Gateway or modem gateway
+ Fieldbus	Profibus, ProfiNet, Ethernet IP, Modbus TCP, Modbus RTU
+ Serial interface	RS232/RS485
+ Software	RTOS-LNX real-time operating system
+ Communication services	MQTT, OPC UA

IIoT **STARTER KIT** – FOR YOUR EASY **ENTRY** INTO THE **IIoT.**

You are not sure if your company is ready for the Industrial Internet of Things? Just try it! Our starter kits include everything you need for an easy entry into the IIoT – from a gateway to cloud access.

THE STARTER KITS CONTAIN THE FOLLOWING:

- Gateway with VPN service and integrated IoT-PLC
- Free cloud access for one year
- Quick start guide for the connection with the cloud

PROCESS FOR A COMPLETE **IoT SOLUTION.**

1.

COLLECTION OF THE DIGITAL DATA AT THE MACHINE

Digitisation starts at the machine, where digital data are collected and prepared for their journey through the Internet.
The IoT gateways from the starter kit collect your data from Modbus RTU, Modbus TCP or digital I/Os.

SELECT ONE OF TWO MODELS:

WIENET IoT SK115-W

- 2x Ethernet 10/100 Mbit/s
- 1 serial RS485
- Communication via
  - Modbus RTU
  - Modbus TCP
  - OPC UA server
  - MQTT client (publisher/subscriber)

WIENET IoT SK100-DIO8-3G-W

- 1x Ethernet 10/100 Mbit/s
- 3G mobile modem
- 4 digital inputs, 4 digital outputs
- Communication via
  - Modbus RTU
  - Modbus TCP
  - OPC UA server
  - MQTT client (publisher/subscriber)

2.

FROM BIG DATA TO SMART DATA

The two worlds of production and IoT do not understand each other just like that. Edge intelligence is the key not only to making data comprehensible, but also to specifying them in order to be able to make good use of them. The easiest way to do this is with the IoT PLC integrated in the IoT gateways.

3.

EVALUATING THE DATA

The value of data is not always obvious. Mostly, digital data first have to be standardized, or several values must be combined to an overall value. Only once this has been done, they can serve as a reasonable basis for optimization measures and evaluations.

GATEWAYS · **WIENET** IoT-GW
TECHNICAL DATA





Description **wienet**	IoT GW 115-W	IoT GW 100-PB-W	IoT GW 100-PN-W	IoT GW 100-PB-W	IoT GW 100-DIO8-W
Art. No.	83.041.1100.0	83.041.1280.0	83.041.1250.0	83.041.1260.0	83.041.1210.0
IIoT gateway interfaces					
Ethernet	2x 10/100BaseT	1x 10/100BaseT	1x 10/100BaseT	1x 10/100BaseT	1x 10/100BaseT
Fieldbus	-	1x Profibus	2x ProfiNet	1x Profibus	-
Digital inputs/output	-	-	-	-	8
USB	-	1x USB 2.0	1x USB 2.0	1x USB 2.0	1x USB 2.0
SD	1x microSD	1x microSD	1x microSD	1x microSD	1x microSD
LED indictaion	-	Module status / network status	Module status / network status	Module status / network status	-
Software					
Operating System	RTOS-LNX real-time operating system	RTOS-LNX real-time operating system	RTOS-LNX real-time operating system	RTOS-LNX real-time operating system	RTOS-LNX real-time operating system
WEB-PLC editor and runtime	Visual program editor, I/O mapping editor	Visual program editor, I/O mapping editor	Visual program editor, I/O mapping editor	Visual program editor, I/O mapping editor	Visual program editor, I/O mapping editor
WEB-PLC diagram	512 functional units, I/O values, portal variables and constants	2048 functional units, I/O values, portal variables and constants	2048 functional units, I/O values, portal variables and constants	2048 functional units, I/O values, portal variables and constants	2048 functional units, I/O values, portal variables and constants
WEB-PLC function units	Data type converter, binary, bits and bytes, controllers, messages, numerical, memory, timing	Data type converter, binary, bits and bytes, controllers, messages, numerical, memory, timing	Data type converter, binary, bits and bytes, controllers, messages, numerical, memory, timing	Data type converter, binary, bits and bytes, controllers, messages, numerical, memory, timing	Data type converter, binary, bits and bytes, controllers, messages, numerical, memory, timing
WEB-PLC Additional features	Event log, SNTP, OpenVPN, DHCP, NAT, firewall, messages, CODESYS network variables, SNMP, COM servers, remote or locale update	Event log, SNTP, OpenVPN, DHCP, NAT, firewall, messages, Profibus DP, CODESYS network variables, SNMP, COM servers, remote or locale update	Event log, SNTP, OpenVPN, DHCP, NAT, firewall, messages, ProfiNet, CODESYS network variables, SNMP, COM servers, remote or locale update	Event log, SNTP, OpenVPN, DHCP, NAT, firewall, messages, Profibus DP, CODESYS network variables, SNMP, COM servers, remote or locale update	Event log, SNTP, OpenVPN, DHCP, NAT, firewall, messages, Profibus DP, CODESYS network variables, SNMP, COM servers, remote or locale update
Technical data					
CPU	SC145 embedded controller 32-bit processor with 528 MHz	SC145 embedded controller 32-bit processor with 528 MHz	SC145 embedded controller 32-bit processor with 528 MHz	SC145 embedded controller 32-bit processor with 528 MHz	SC145 embedded controller 32-bit processor with 528 MHz
Memory	128 MB RAM (DDR3), 64 MB flash disk	128 MB RAM (DDR3), 64 MB flash disk	128 MB RAM (DDR3), 64 MB flash disk	128 MB RAM (DDR3), 64 MB flash disk	128 MB RAM (DDR3), 64 MB flash disk
Realtime Clock	Lithium battery (rechargeable)	Lithium battery (rechargeable)	Lithium battery (rechargeable)	Lithium battery (rechargeable)	Lithium battery (rechargeable)
Operating voltage min.-max.	20.4 - 27.6 V DC	20.4 - 27.6 V DC	20.4 - 27.6 V DC	20.4 - 27.6 V DC	20.4 - 27.6 V DC
Operating temperature	0 °C…+55 °C	0 °C…+55 °C	0 °C…+55 °C	0 °C… +55 °C	0 °C… +55 °C
Storage temperature	-20 °C…+60 °C	-20 °C…+60 °C	-20 °C…+60 °C	-20 °C … +60 °C	-20 °C … +60 °C
Rel. humidity during operation min.-max. (non-condensing)	5…85 %	5…85 %	5…85 %	5…85 %	5…85 %
Dimensions					
Width (mm)	37	46	46	46	46
Height (mm)	97	105	105	105	105
Depth (mm)	62	78	78	78	78
Weight	Approx. 200 g	Approx. 350 g	Approx. 350 g	Approx. 350 g	Approx. 350 g

GENERAL TECHNICAL DATA FOR THE SERIES	
Mounting method	Top-hat rail
Protection class	IP20
Housing material	Powder-coated sheet steel (plastic housing with **wienet** IoT GW 115-W)
RoHs	Yes
Norms and approvals	CE

GATEWAYS **MODEM** · **WIENET** IoT-GW
TECHNICAL DATA

Description **wienet** IoT	GW 100-PN-3G-W	GW 100-PN-WIFI-W	GW 100-EIP-3G-W	GW 100-EIP-WIFI-W	GW 100-DIO8-3G-W	GW 100-DIO8-WIFI-W
Art. No.	83.041.1251.0	83.041.1252.0	83.041.1261.0	83.041.1262.0	83.041.1211.0	83.041.1212.0
IIoT gateway interfaces						
Ethernet	1x 10/100BaseT	1x 10/100BaseT	1x 10/100BaseT	1x 10/100BaseT	1x 10/100BaseT	1x 10/100BaseT
Fieldbus	2x ProfiNet	2x ProfiNet	2x EtherNet/IP	2x EtherNet/IP	-	-
Digital inputs/output	-	-	-	-	8	8
USB	1x USB 2.0	1x USB 2.0	1x USB 2.0	1x USB 2.0	1x USB 2.0	1x USB 2.0
SD	1x microSD	1x microSD	1x microSD	1x microSD	1x microSD	1x microSD
Modem	GSM, GPRS, EDGE, HSPA+, mini SIM (2FF), push slot on the rear	IEEE 802.11 a/b/ g/n, WiFi client, WiFi access point, WPA, WPA2-PSK	GSM, GPRS, EDGE, HSPA+, mini SIM (2FF), push slot on the rear	IEEE 802.11 a/b/ g/n, WiFi client, WiFi access point, WPA, WPA2-PSK	IEEE 802.11 a/b/ g/n, WiFi client, WiFi access point, WPA, WPA2-PSK	IEEE 802.11 a/b/ g/n, WiFi client, WiFi access point, WPA, WPA2-PSK
Antenna connector	1x SMA socket	1x SMA socket	1x SMA socket	1x SMA socket	1x SMA socket	1x SMA socket
LED indictaion	Module status / network status	Module status / network status	Module status / network status	Module status / network status	-	-
Software						
Operating System	RTOS-LNX real-time operating system	RTOS-LNX real-time operating system	RTOS-LNX real-time operating system	RTOS-LNX real-time operating system	RTOS-LNX real-time operating system	RTOS-LNX real-time operating system
WEB-PLC editor and runtime	Visual program editor, I/O mapping editor	Visual program editor, I/O mapping editor	Visual program editor, I/O mapping editor	Visual program editor, I/O mapping editor	Visual program editor, I/O mapping editor	Visual program editor, I/O mapping editor
WEB-PLC diagram	2048 functional units, I/O values, portal variables and constants	2048 functional units, I/O values, portal variables and constants	2048 functional units, I/O values, portal variables and constants	2048 functional units, I/O values, portal variables and constants	2048 functional units, I/O values, portal variables and constants	2048 functional units, I/O values, portal variables and constants
WEB-PLC function units	Data type converter, binary, bits and bytes, controllers, messages, numerical, memory, timing	Data type converter, binary, bits and bytes, controllers, messages, numerical, memory, timing	Data type converter, binary, bits and bytes, controllers, messages, numerical, memory, timing	Data type converter, binary, bits and bytes, controllers, messages, numerical, memory, timing	Data type converter, binary, bits and bytes, controllers, messages, numerical, memory, timing	Data type converter, binary, bits and bytes, controllers, messages, numerical, memory, timing
WEB-PLC Additional features	Event log, SNTP, OpenVPN, DHCP, NAT, firewall, messages, ProfiNet, CODESYS network variables, SNMP, COM servers, remote or locale update	Event log, SNTP, OpenVPN, DHCP, NAT, firewall, messages, ProfiNet, CODESYS network variables, SNMP, COM servers, remote or locale update	Event log, SNTP, OpenVPN, DHCP, NAT, firewall, messages, Ethernet/IP, CODESYS network variables, SNMP, COM servers, remote or locale update	Event log, SNTP, OpenVPN, DHCP, NAT, firewall, messages, Ethernet/IP, CODESYS network variables, SNMP, COM servers, remote or locale update	Event log, SNTP, OpenVPN, DHCP, NAT, firewall, messages, Ethernet/IP, CODESYS network variables, SNMP, COM servers, remote or locale update	Event log, SNTP, OpenVPN, DHCP, NAT, firewall, messages, Ethernet/IP, CODESYS network variables, SNMP, COM servers, remote or locale update
Technical data						
CPU	SC145 embedded controller 32-bit processor with 528 MHz	SC145 embedded controller 32-bit processor with 528 MHz	SC145 embedded controller 32-bit processor with 528 MHz	SC145 embedded controller 32-bit processor with 528 MHz	SC145 embedded controller 32-bit processor with 528 MHz	SC145 embedded controller 32-bit processor with 528 MHz
Memory	128 MB RAM (DDR3), 64 MB flash disk	128 MB RAM (DDR3), 64 MB flash disk	128 MB RAM (DDR3), 64 MB flash disk	128 MB RAM (DDR3), 64 MB flash disk	128 MB RAM (DDR3), 64 MB flash disk	128 MB RAM (DDR3), 64 MB flash disk
Realtime Clock	Lithium battery (rechargeable)	Lithium battery (rechargeable)	Lithium battery (rechargeable)	Lithium battery (rechargeable)	Lithium battery (rechargeable)	Lithium battery (rechargeable)
Operating voltage min.-max.	20.4 - 27.6 V DC	20.4 - 27.6 V DC	20.4 - 27.6 V DC	20.4 - 27.6 V DC	20.4 - 27.6 V DC	20.4 - 27.6 V DC
Operating temperature	0 °C…+55 °C	0 °C…+55 °C	0 °C…+55 °C	0 °C…+55 °C	0 °C…+55 °C	0 °C…+55 °C
Storage temperature	-20 °C…+60 °C	-20 °C…+60 °C	-20 °C…+60 °C	-20 °C…+60 °C	-20 °C…+60 °C	-20 °C…+60 °C
Rel. humidity during operation min.-max. (non-condensing)	5…85 %	5…85 %	5…85 %	5…85 %	5…85 %	5…85 %
Dimensions						
Width (mm)	46	46	46	46	46	46
Height (mm)	105	105	105	105	105	105
Depth (mm)	78	78	78	78	78	78
Weight	Approx. 350 g	Approx. 350 g	Approx. 350 g	Approx. 350 g	Approx. 350 g	Approx. 350 g

wieland

COMPACT I/O FIELDBUS **SYSTEM.**

ricos FLEX is a modular and extremely compact I/O system. It can be combined and used with any PLC and any IPC. ricos FLEX combines high functionality with a smart housing concept in a very compact design and can therefore be adjusted precisely to the requirements of the user.

All bus coupler units support up to 64 application modules. One module unit consists of a connecting module and an electronic module, which are connected with a secure sliding and latching mechanism.The connection module combines terminals, accommodation for the electronic module and the ricos FLEX backplane bus connector. So for servicing, only the electronic module is replaced by simply pulling out the connection module – the wiring and mounting on the 35 mm DIN profile rail remain intact. The stepped terminals with spring-force technology on the connecting module enable quick, clear and safe wiring. The integrated status LEDs and the labeling strips on the front of the electronic modules ensure that each channel status can be easily and uniquely assigned and read.

COMMUNICATION

- Transfer rate of 48 Mbit/s
- Very fast reaction time of up to 20 µs
- One connection module for all application modules

INSTALLATION

- Very simple assembly thanks to secure sliding mechanism
- Module protection through coding
- Service-friendly combination of connection module and application module
- Recommendation: Installation on high top hat rail (MR 35 x 15)

CONNECTION TECHNOLOGY

- Stepped wiring level with spring force terminal technology
- Simple module replacement with permanent wiring
- High modularity with 4 and 8-channel modules

INDICATION + LABELING

- Clearly arranged status and diagnostic displays with direct channel assignment for fast troubleshooting
- Labeling strips for individual marking of each channel

CONNECTION OF SENSOR/ACTUATOR LEVEL TO THE IIoT EDGE **CONTROLLER.**

ADVANTAGES OF THE DEVICE:

- Data Publisher
- IoT-PLC
- Data filter
- VPN
- Data preprocessing

Modbus

ADVANTAGES OF THE DEVICE:

- High-performance backplane bus
- Modular extendability
- Integrated power supply

I/O FIELDBUS SYSTEM **RICOS** FLEX.

The economic and compact I/O system ricos FLEX is equipped with a fast backplane bus, diagnosis LEDs for each channel and permanent wiring. It offers you highest cost effectiveness thanks to its modular concept, in particular when it comes to installation and service, and it can be combined and used with many systems from other manufacturers.

+ Cost-efficiency through a highly-modular design
+ Compact and space-saving design
+ Smart labeling and diagnosis concept
+ Easy installation and maintenance
+ High performance

PERFORMANCE FEATURES

+ Modularity	4 to 8-channel modules / up to 64 per bus coupler unit
+ Module width	12.9 mm
+ Fieldbus	Profibus DP, Modbus TCP, ProfiNet-IO, EtherNet/IP, EtherCAT
+ Performance	+/-1µs timed switching (independent of the fieldbus)

RoHS conform · CE · c UL us LISTED

FIELDBUS COUPLER· **RICOS** FLEX
TECHNICAL DATA

Description	**ricos** FLEX BC DP	**ricos** FLEX BC MODBUS
Art. No.	83.036.1000.1	83.036.1040.0
Technical data Fieldbus		
Fieldbus	Profibus DP	Modbus TCP
Connection	9-pol Sub-D-female	RJ45 / Ethernet 10/100 Mbit
Max. number of digital modules	64	64
Max. number of analog modules	64	64
Baud rate	9.6 kbit/s - 12 Mbit/s	100 Mbit/s
Address range for inputs max.	244 byte	1 KB
Address range for outputs max.	244 byte	1 KB
Technical features		
Operating voltage min.-max.	20.4 - 28.8 V DC	20.4 - 28.8 V DC
Input current	0.95 A	0.95 A
Operating temperature	0…+60 °C	0…+60 °C
Storage temperature	-25 °C…+70 °C	-25 °C…+70 °C
Rel. humidity during operation min.-max. (non-condensing)	10…95 %	10…95 %
Dimensions		
Width (mm)	48.5	48.5
Height (mm)	109	109
Depth (mm)	76.5	76.5
Weight	approx. 155 g	approx. 155 g

GENERAL TECHNICAL DATA FOR THE SERIES	
Mounting method	Top-hat rail
Terminal type	Spring clamp terminal
Terminal cross-section	0.08 - 1.5 mm^2
Max. modules per carrier	64
Protection class	IP20
Housing material	Plastic
Diagnosis display	LED
RoHs	Yes
Norms and approvals	CE, cULus

FIELDBUS COUPLER· **RICOS** FLEX
TECHNICAL DATA



Description	**ricos** FLEX BC PROFINET	**ricos** FLEX BC EtherNet/IP	**ricos** FLEX BC EtherCAT
Art. No.	83.036.1010.1	83.036.1050.0	83.036.1060.0
Technical data Fieldbus			
Fieldbus	PROFINET IO	EtherNet/IP	EtherCAT
Connection	2 x RJ45 / Ethernet 100 Mbit	RJ45 / Ethernet 100 Mbit	2 x RJ45 / Ethernet 100 Mbit
Max. number of digital modules	64	64	64
Max. number of modules	64	64	64
Baud rate	100 Mbit/s	100 Mbit/s	100 Mbit/s
Address range for inputs max.	512 bytes	1 KB	512 bytes
Address range for outputs max.	512 bytes	1 KB	512 bytes
Technical features			
Operating voltage min.-max.	20.4 - 28.8 V DC	20.4 - 28.8 V DC	20.4 - 28.8 V DC
Input current	0.95 A	0.95 A	0.95 A
Operating temperature	0…+60 °C	0…+60 °C	0…+60 °C
Storage temperature	-25 °C…+70 °C	-25 °C…+70 °C	-25 °C…+70 °C
Rel. humidity during operation min.-max. (non-condensing)	10…95 %	10…95 %	10…95 %
Dimensions			
Width (mm)	48.5	48.5	48.5
Height (mm)	109	109	109
Depth (mm)	76.5	76.5	76.5
Weight	approx. 155 g	approx. 155 g	approx. 155 g

POTENIAL DISTRIBUTION BLOCK **+ POWER**MODULE
RICOS FLEX · **TECHNICAL DATA**




Description **ricos**	FLEX PV 8xDC24V	FLEX PV 8xDC0V	FLEX PV 4xDC24V 4DC0V
Art. No.	83.036.0000.0	83.036.0010.0	83.036.0020.0
Technical data Potential distribution block			
Number of terminals	8 x 24 V DC	8 x 0 V DC	4 x 24 V DC; 4 x 0 V DC
Terminal voltage max.	30 V DC	0 V DC	30 V DC; 0 V DC
Terminal current max.	10 A	10 A	10 A
Max. total current per module	10 A	10 A	10 A
Technical features			
Operating voltage min.-max.	20.4 - 28.8 V DC	20.4 - 28.8 V DC	20.4 - 28.8 V DC
Operating temperature	0…+60 °C	0…+60 °C	0…+60 °C
Storage temperature	-25 °C…+70 °C	-25 °C…+70 °C	-25 °C…+70 °C
Rel. humidity during operation min.-max. (non-condensing)	10…95 %	10…95 %	10…95 %
Dimensions			
Width (mm)	12.9	12.9	12.9
Height (mm)	109	109	109
Depth (mm)	52.5	52.5	52.5
Weight	approx. 50 g	approx. 50 g	approx. 50 g

Description **ricos**	FLEX PW DC 24V
Art. No.	83.036.0030.0
Technical data Power module	
Input voltage min.-max.	20.4 - 28.8 V DC
Output voltage	24 V
Output current	10 A
Reverse polarity protection	Yes
Overvoltage protection	36 V
Technical features	
Operating voltage min.-max.	20.4 - 28.8 V DC
Operating temperature	0…+60 °C
Storage temperature	-25 °C…+70 °C
Rel. humidity during operation min.-max. (non-condensing)	10…95 %
Dimensions	
Width (mm)	12.9
Height (mm)	109
Depth (mm)	76.5
Weight	60 g

GENERAL TECHNICAL DATA FOR THE SERIES	
Mounting method	Top-hat rail
Terminal type	Spring clamp terminal
Terminal cross-section	0.08 - 1.5 mm²
Protection class	IP20
Housing material	Plastic
Diagnosis display	LED
RoHs	Yes
Norms and approvals	CE, cULus

DIGITAL INPUTS **+** OUTPUTS
RICOS FLEX · **TECHNICAL DATA**

Description	**ricos**	FLEX 8xDI DC24V
Art. No.		83.036.2300.0
Technical data Digital inputs		
Number of inputs		8
Input voltage min.-max.		20.4 - 28.8 V DC
Input current with signal 1		3 mA
Switching level 0		0 - 5 V DC
Switching level 1		15 - 28.8 V DC
Channel status (high)		LED (green)
Technical features		
Operating temperature		0…+60 °C
Storage temperature		-25 °C…+70 °C
Rel. humidity during operation min.-max. (non-condensing)		10…95 %
Dimensions		
Width (mm)		12.9
Height (mm)		109
Depth (mm)		76.5
Weight		approx. 60 g

Description	**ricos**	FLEX 4xDO DC24V 0,5A	FLEX 8xDO DC24V 0,5A
Art. No.		83.036.3200.0	83.036.3300.0
Technical data Digital outputs			
Number of outputs		4	8
Output voltage min.-max.		20.4 - 28.8 V DC	20.4 - 28.8 V DC
Output current at state 1		0.5 A / 2 A	0.5 A
Output protection		Short circuit and overload protection	Short circuit and overload protection
Channel status (high)		LED (green)	LED (green)
Technical features			
Operating temperature		0…+60 °C	0…+60 °C
Storage temperature		-25 °C…+70 °C	-25 °C…+70 °C
Rel. humidity during operation min.-max. (non-condensing)		10…95 %	10…95 %
Dimensions			
Width (mm)		12.9	12.9
Height (mm)		109	109
Depth (mm)		76.5	76.5
Weight		approx. 60 g	approx. 60 g

GENERAL TECHNICAL DATA FOR THE SERIES	
Mounting method	Top-hat rail
Terminal type	Spring clamp terminal
Terminal cross-section	0.08 - 1.5 mm²
Protection class	IP20
Housing material	Plastic
Diagnosis display	LED
RoHs	Yes
Norms and approvals	CE, cULus

ANALOG INPUTS· **RICOS** FLEX
TECHNICAL DATA



Description	**ricos** FLEX 4xAI 12BIT 0…10V	**ricos** FLEX 4xAI 12BIT 0(4)…20mA	**ricos** FLEX 4xAI 16BIT R,RTD
Art. No.	83.036.4200.0	83.036.4240.0	83.036.4261.0
Technical data Analog inputs			
Number of inputs	4	4	4
Measuring ranges	0 - 10 V	0 (4) - 20 mA	RTD, PT100
Resolution in bits	12	12	16
Conversion time	1.15 ms	1.15 ms	1.15 ms
Module status	LED (green)	LED (green)	LED (green)
Technical features			
Operating temperature	0…+60 °C	0…+60 °C	0…+60 °C
Storage temperature	-25 °C…+70 °C	-25 °C…+70 °C	-25 °C…+70 °C
Rel. humidity during operation min.-max. (non-condensing)	10…95 %	10…95 %	10…95 %
Dimensions			
Width (mm)	12.9	12.9	12.9
Height (mm)	109	109	109
Depth (mm)	76.5	76.5	76.5
Weight	approx. 60 g	approx. 60 g	approx. 60 g

GENERAL TECHNICAL DATA FOR THE SERIES	
Mounting method	Top-hat rail
Terminal type	Spring clamp terminal
Terminal cross-section	0.08 - 1.5 mm²
Protection class	IP20
Housing material	Plastic
Diagnosis display	LED
RoHs	Yes
Norms and approvals	CE, cULus

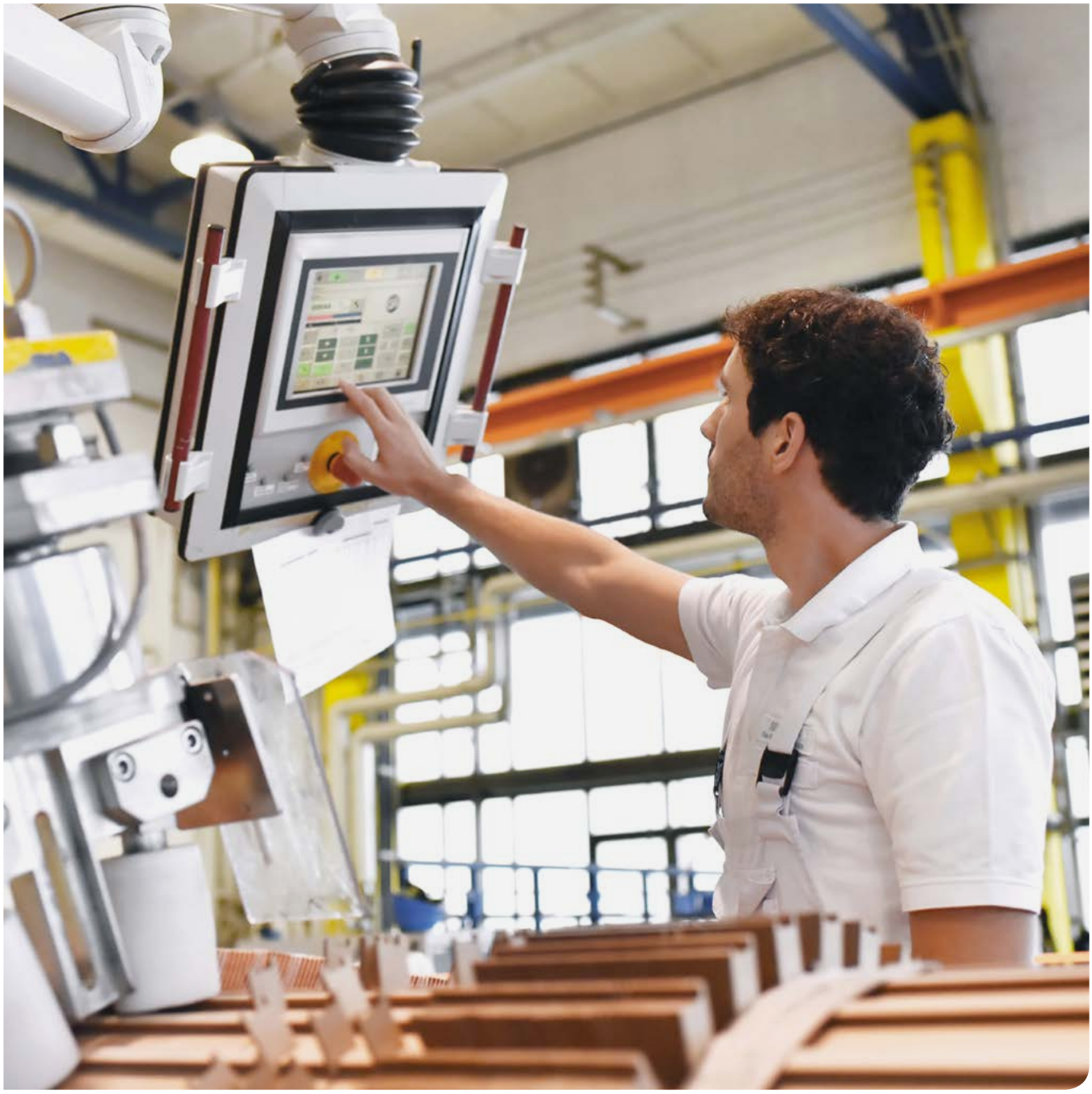
ANALOG OUTPUTS· **RICOS** FLEX
TECHNICAL DATA

Description	**ricos** FLEX 4xAO 12BIT 0…10V	**ricos** FLEX 4xAO 12BIT 0(4)…20mA
Art. No.	83.036.5200.0	83.036.5220.0
Technical data Analog outputs		
Number of outputs	4	4
Measuring ranges	0 - 10 V	0 (4) - 20 mA
Resolution in bits	12	12
Conversion time	2 ms, all channels	2 ms, all channels
Module status	LED (green)	LED (green)
Technical features		
Operating temperature	0…+60 °C	0…+60 °C
Storage temperature	-25 °C…+70 °C	-25 °C…+70 °C
Rel. humidity during operation min.-max. (non-condensing)	10…95 %	10…95 %
Dimensions		
Width (mm)	12.9	12.9
Height (mm)	109	109
Depth (mm)	76.5	76.5
Weight	approx. 60 g	approx. 60 g

FUNCTIONAL TOUCH **PANELS** **WIENET HMI** ECO.

Touch panels are today used in many machines and systems for the visualization, operation, and diagnosis. By transferring the user habits from the consumer world into the automation world, the HMI ECO series has been especially developed for industrial requirements and needs.

+ Easy programming via Ethernet or USB client
+ Quick commissioning and configuration via USB host
+ Seamless data exchange between the hmi PLAN visualization software and the samos® PLAN 6 planning software
+ Convenient data exchange with renowned PLC manufacturers with export and import functions
+ One project file for all variables
+ Simple conversion between variables



PERFORMANCE FEATURES

+ Resolution:	up to 1024 x 768 pixels
+ Expanded temperature range:	From -10 °C to +60 °C (standard panels) From -20 °C to +60 °C (on request)
+ Design:	IP66 / Nema 4
+ Screen sizes:	4.3“, 7“, 10“, 12.1“ and 15“
+ Programmable menu pages:	> 7,000

wieland

EASY CONFIGURATION – **HMI** PLAN.

Rely on the safe operation of your machine. hmi PLAN, our software for the HMI ECO panels, integrates software drivers for more than 40 manufacturers. Configuration will also be like child's play with hmi PLAN. Import your variables from samos® PLAN 6 into the software for easy configuration of your panel and avoid naming errors when creating the safety variables to shorten the commissioning time of your panel.

THE BENEFITS TO YOU:

+ Flexible structure with several applications
+ Conversion independent of variable
+ Non-volatile internal Memory
+ 9 user levels with password protection
+ Real-time clock and data even after reboot
+ Alarm messages per e-mail
+ Recipe management
+ Data collection, sequence control, macros

PERFECT SOLUTION BUNDLE

Together with samos® PRO COMPACT, we offer you a consistent, intuitive complete solution for your machines.

+ Programmable with hmi PLAN via Ethernet/USB
+ Convenient import of variables with samos® PLAN 6
+ On-board Modbus TCP in SP-COP2-ENI
+ Wieland driver in hmi PLAN for samos® PRO
+ Default settings in hmi PLAN
+ Easy toggling between Modbus master and slave

SEEMLESS DATA EXCHANGE

Rely on the import/export function of hmi PLAN with samos® PLAN and avoid errors when naming your safety functions.

+ Export of variables form samos® PLAN 6 with “one click”
+ Convenient import of tags in hmi PLAN
+ Automatic import of variable addresses
+ Considerably time-saving when troubleshooting

wieland

MY LOGO – CUSTOMER-SPECIFIC DESIGN.

Our HMI touch panels are used to visualize, operate, and diagnose in many machines and systems. Together with our safety controller samos® PRO, the automation of entire systems is possible with HMI ECO.

15'' **12,1''** **10''** **7''** **4,3''**

"MyLogo" offers you our panels in your own design. This ensures the consistent design of your machines. Starting from orders of 100 panels.

YOU HAVE THE CHOICE:

- Screen size
- BG Color
- Own logo
- Customized printing

CREATE YOUR OWN DESIGN IN A FEW STEPS

+ Get temporary offer
+ Select your RAL colors
+ Download and use of the DXF file template
+ Send customized design template to Wieland
+ Clarification and feedback of production/delivery time by Wieland
+ Get final offer
+ Validate and order final design (DXF file)

VNC FUNCTIONALITY.

Control via smartphone and tablet

With our HMI-ECO panels, it is now possible to control your machine with your smartphone or tablet. Virtual Network Computing (VNC) makes it possible. This gives you flexibility when it comes to controlling as well as to monitoring your machine.

YOUR ADVANTAGES AT A GLANCE

+ End devices for commissioning and diagnosis
+ Each panel serves as a VNC server
+ Remote control for the machine
+ Monitoring of the machine
+ Authentication by user level

TOUCH PANELS · **WIENET HMI** ECO
TECHNICAL DATA



Description	**HMI**-ECO-043	**HMI**-ECO-070	**HMI**-ECO-100
Art. No.	83.050.0000.0	83.050.0001.0	83.050.0002.0
Technical data			
Screen size	4.3" diagonal	7" diagonal (wide screen)	10" diagonal
Resolution	480 x 272 pixels	800 x 480 pixels	1024 x 600 pixels
Dimensions/weight			
Width (mm)	129	203.5	270.8
Height (mm)	103	148.5	212.8
Depth (mm)	33	37	42.5
Frame size (mm)	118.5 x 92.5	191.5 x 138	259.5 x 201.5
Weight	approx. 230 g	approx. 550 g	approx. 1100 g
Technical features			
Programming software	hmiPLAN	hmiPLAN	hmiPLAN
Screen type	TFT color LCD with LED backlight	TFT color LCD with LED backlight	TFT color LCD with LED backlight
Touch technology	Resistive touch	Resistive touch	Resistive touch
Serial interface	1x Industrial Ethernet, 1x RS232, 1x RS422, 3x RS485	1x Industrial Ethernet, 1x RS232, 1x RS422, 4x RS485	1x Industrial Ethernet, 1x RS232, 1x RS422, 4x RS485
Number of colors max.	16 bits	16 bits	16 bits
Backlight life in hours	20000 h	20000 h	20000 h
Luminance	450 cd/m²	450 cd/m²	350 cd/m²
CPU type	RISC ARM9 32 bit	RISC ARM9 32 bit	RISC ARM9 32 bit
Main memory max.	64 MB	64 MB	64 MB
USB 2.0	Host and client	Host and client	Host and client
Ethernet	RJ-45	RJ-45	RJ-45
Operating voltage min.-max.	24 V DC +- 10 % (insulated)	24 V DC +- 10 % (insulated)	24 V DC +- 10 % (insulated)
Power	10 W	20 W	20 W
Real time clock	Yes	Yes	Yes
Battery backed RAM	Yes	Yes	Yes
Operating temperature	-10…+60 °C (-20…+60 °C on request)	-10…+60 °C (-20…+60 °C on request)	-10…+60 °C (-20…+60 °C on request)
Storage temperature	-20…+70 °C	-20…+70 °C	-20…+70 °C
Rel. humidity during operation min.-max. (non-condensing)	10-90 %	10-90 %	10-90 %

GENERAL TECHNICAL DATA FOR THE SERIES	
Mounting method	Built-in component
IP rating (front)	IP66 / NEMA 4
Cooling	Natural Cooling with min. 50 mm distance
Shock	50 G, 11 Ms, X, Y, Z, direction (EN 60068-2-27)
RoHs	Yes
Norms and approvals	FCC Part 15 Class A, CE, cULus (cULus for size 12 & 15 only from Q4/2019)

TOUCH PANELS · **WIENET HMI** ECO
TECHNICAL DATA

Description	**HMI**-ECO-120	**HMI**-ECO-150
Art. No.	83.050.0003.0	83.050.0004.0
Technical data		
Screen size	12.1" diagonal	15" diagonal
Resolution	1024 x 768 pixels	1024 x 768 pixels
Dimensions/weight		
Width (mm)	335.4	399.1
Height (mm)	245.8	267.6
Depth (mm)	58.2	57.5
Frame size (mm)	302 x 228	384.5 x 283
Weight	approx. 2000 g	approx. 3000 g
Technical features		
Programming software	hmiPLAN	hmiPLAN
Screen type	TFT color LCD with LED backlight	TFT color LCD with LED backlight
Touch technology	Resistive touch	Resistive touch
Serial interface	1x Industrial Ethernet, 1x RS232, 1x RS422, RS485	1x Industrial Ethernet, 1x RS232, 1x RS422, 4x RS485
Number of colors max.	16 bits	16 bits
Backlight life in hours	20000 h	20000 h
Luminance	500 cd/m²	350 cd/m²
CPU type	RISC ARM9 32 bit	RISC ARM9 32 bit
Main memory max.	64 MB	64 MB
USB 2.0	Host and client	Host and client
Ethernet	RJ-45	RJ-45
Operating voltage min.-max.	24 V DC +- 10 % (insulated)	24 V DC +- 10 % (insulated)
Power	20 W	20 W
Real time clock	Yes	Yes
Battery backed RAM	Yes	Yes
Operating temperature	-10…+60 °C (-20…+60 °C on request)	-10…+60 °C (-20…+60 °C on request)
Storage temperature	-20…+70 °C	-20…+70 °C
Rel. humidity during operation min.-max. (non-condensing)	10-90 %	10-90 %

ACCESSORIES

Description	**Type**	**Art. No.**	**PU**
Ethernet programming cable, 2 m	SP-CABLE-ETH1	R1.190.1020.0	1
Single-user license for hmiPLAN programming software	HMI-LICENSE-SINGLE	ZW.000.0170.0	1

WIENET SERIAL **DEVICE SERVERS.**

Our serial device servers let you connect your end devices with serial interface directly to the Ethernet network. The Ethernet interface can be cable-based (LAN) or via radio (WiFi). This means, even older devices can be integrated into the network and thus into the IIoT environment.

+ Converting a serial interface to an Ethernet interface
+ Integration of serial devices directly into the Ethernet network
+ Suitable for industrial use

TYPICAL APPLICATIONS:

+ Access control system
+ Connection of measuring devices
+ Identification systems
+ Cash register systems
+ Serial Com interface to PLC, drives, HMIs, ...

SERIAL **DEVICE SERVERS** · **WIENET** SDS
TECHNICAL DATA



Description	**wienet** SDS-DB	**wienet** SDS-TB	**wienet** SDS-DB KIT
Art. No.	83.040.0500.0	83.040.0501.0	83.040.0502.0
Communication Ethernet			
Ethernet interface	1x 10/100BASE-T(X) RJ45	1x 10/100BASE-T(X) RJ45	1x 10/100BASE-T(X) RJ45
Standard	IEEE 802.3 for 10BASE-T IEEE 802.3u for 100BASE-T(X)	IEEE 802.3 for 10BASE-T IEEE 802.3u for 100BASE-T(X)	IEEE 802.3 for 10BASE-T IEEE 802.3u for 100BASE-T(X)
Serial interface			
Connection	D-Sub RS-232/485 software configurable	Terminal block (TB5) RS-232/485 software configurable	D-Sub RS-232/485 software configurable
Baud rate	1,200-460,800 bps (RS-485 4-wire permitted up to 921,600 bps)	1,200-460,800 bps (RS-485 4-wire permitted up to 921,600 bps)	1,200-460,800 bps (RS-485 4-wire permitted up to 921,600 bps)
Parity	None, odd, even, space, mark	None, odd, even, space, mark	None, odd, even, space, mark
Data Bits	7, 8	7, 8	7, 8
Stop Bits	1, 2	1, 2	1, 2
Data flow control	None, Xon/Xoff, RTS/CTS (only RS-232)	None, Xon/Xoff, RTS/CTS (only RS-232)	None, Xon/Xoff, RTS/CTS (only RS-232)
Software			
Protocols	IPv4, TCP, UDP, DHCP Client, SNMP, HTTP, HTTPS, Telnet, ARP	IPv4, TCP, UDP, DHCP Client, SNMP, HTTP, HTTPS, Telnet, ARP	IPv4, TCP, UDP, DHCP Client, SNMP, HTTP, HTTPS, Telnet, ARP
IT security	Ipsec encapsulation	Ipsec encapsulation	Ipsec encapsulation
Configuration	Web user interface	Web user interface	Web user interface
Virtual COM	Windows/Linux redirection software	Windows/Linux redirection software	Windows/Linux redirection software
TCP server	4 Connection, Virtual COM or reverse Telnet	4 Connection, Virtual COM or reverse Telnet	4 Connection, Virtual COM or reverse Telnet
TCP client	Single Destination or Virtual COM	Single Destination or Virtual COM	Single Destination or Virtual COM
UDP	Up to 4 ranges of Ips	Up to 4 ranges of Ips	Up to 4 ranges of Ips
Supply			
Supply voltage	9 - 30 VDC via pluggable connection clamp	9 - 30 VDC via pluggable connection clamp	9 - 30 VDC via pluggable connection clamp
Power consumption	< 9 W	< 9 W	< 9 W
Ambient conditions			
Operating temperature	-40 °C…+70 °C	-40 °C…+70 °C	-40 °C…+70 °C
Storage temperature	-40 °C…+70 °C	-40 °C…+70 °C	-40 °C…+70 °C
Relative humidity	5…95 % (no moisture condensation)	5…95 % (no moisture condensation)	5…95 % (no moisture condensation)
Protection class	IP30	IP30	IP30
Dimensions			
Width (mm)	65	65	88.5
Height (mm)	78	78	78
Depth (mm)	28	28	28
Weight	approx. 185 g	approx. 185 g	approx. 185 g

Standards and provisions of the SDS series	
EMC	FCC Part 15, Subpart B, Class A, EN 55032, EN61000-6-4, EN 61000-3-2, EN 61000-3-3, EN 55024, EN 61000-6-2

SERIAL **DEVICE SERVERS** · **WIENET** SDS
TECHNICAL DATA

Description	**wienet** SDS-TB KIT	**wienet** WSDS 1 COM DB TB
Art. No.	83.040.0503.0	83.040.0510.0
Communication Ethernet		
Ethernet interface	1x 10/100BASE-T(X) RJ45	1x 10/100BASE-T(X) RJ45
Standard	IEEE 802.3 for 10BASE-T IEEE 802.3u for 100BASE-T(X)	IEEE 802.3 for 10BASE-T IEEE 802.3u for 100BASE-T(X)
WIFI network	-	IEEE 802.11 b/g/n
Serial interface		
Connection	D-Sub RS-232/485 software configurable	D-Sub or TB5 RS-232/422/485 software configurable
Baud rate	1,200-460,800 bps (RS-485 4-wire permitted up to 921,600 bps)	1,200-460,800 bps (RS-485 4-wire permitted up to 921,600 bps)
Parity	None, odd, even, space, mark	None, odd, even, space, mark
Data Bits	7, 8	7, 8
Stop Bits	1, 2	1, 2
Data flow control	None, Xon/Xoff, RTS/CTS (only RS-232)	None, Xon/Xoff, RTS/CTS
Software		
Protocols	IPv4, TCP, UDP, DHCP Client, SNMP, HTTP, HTTPS, Telnet, ARP	IPv4, ICMP, TCP, UDP, DHCP Client, SNMP, SMTP, HTTP, DNS, NTP, RADIUS, RFC2217, WPS, Syslog
IT security	Ipsec encapsulation	Ipsec encapsulation Wireless: WEP, WPA, WPA2, TKIP, AES, 802.1x"
Configuration	Web user interface	Web user interface
Virtual COM	Windows/Linux redirection software	Windows/Linux redirection software
TCP server	4 Connection, Virtual COM or reverse Telnet	4 Connection, Virtual COM or reverse Telnet
TCP client	Single Destination or VirtualCOM	Single Destination or VirtualCOM
UDP	Up to 4 ranges of Ips	Up to 4 ranges of Ips
Supply		
Supply voltage	9 - 30 VDC via pluggable connection clamp	9 - 30 VDC via pluggable connection clamp
Power consumption	< 9 W	< 6 W
Ambient conditions		
Operating temperature	-40 °C…+70 °C	-10 °C…+60 °C
Storage temperature	-40 °C…+70 °C	-40 °C…+85 °C
Relative humidity	5…95 % (no moisture condensation)	5…95 % (no moisture condensation)
Protection class	IP30	IP30
Dimensions		
Width (mm)	65	47
Height (mm)	78	110
Depth (mm)	28	90
Weight	approx. 185 g	approx. 500 g

Standards and provisions of the WSDS series	
EMC	EN 301489-1 V 1.9.2, EN 301489-17 V2.2.2 (Class A) FCC Part 15, Subpart B, Class A, EN 55032, EN61000-6-4, EN 61000-3-2, EN 61000-3-3, EN 55024, EN 61000-6-2
Radio	FCC 15C 15 247, FCC 15E 15.407, EN 301893 V1.7.1, EN 300328 V1.8.1

ACCESSORIES



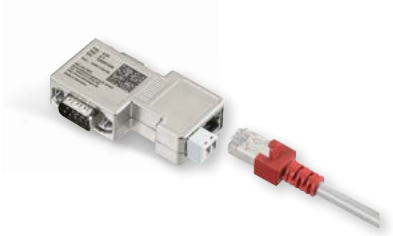
Description	**wienet** ANTENNE GXR623	**wienet** ANTENNE 15863V2	**wienet** ANTENNE 15018	**wienet** ANTENNE 150181V2
Art. No.	83.041.0200.0	F0.000.0035.1	F0.000.0036.1	F0.000.0036.2
General data				
Application	Flat mobile radio antenna for 2G and 3G mobile networks, e.g. for outdoor installation on cabinets or machines	Mobile radio round beam roof antenna for indoors and outdoors	Magnetic holder for antennas with SMA/M connection	Mobile radio rod antenna
Technical data				
Frequency bands	GSM, GPRS, EDGE, UMTS	GSM, GPRS, EDGE, UMTS, LTE	GSM, GPRS, EDGE, UMTS, LTE	GSM, GPRS, EDGE, UMTS, LTE
Gain max.	2.2 dBi	4 dBi	-	5 dBi
Connection	SMA/M	SMA/M	SMA/F (antenna), SMA/M (cable)	SMA/M
Cable	2.5 m	5 m	2.5 m	-
Dimensions, approx. in mm	75 x 80 x 13	82 x 48 x 48	42 x 50 Ø	Height approx. 240 mm
Installation	Wall	Including mast or wall mounting bracket	Magnetic holder	On magnetic holder or directly on device



Description	**wienet** ANTENNE 15862V2	**wienet** ANTENNE 15872V2	**wienet** ANTENNE 15854V2 WIFI MAGNET ANT.	**wienet** ANTENNE 15874V2 WIFI
Art. No.	F0.000.0037.6	F0.000.0037.8	F0.000.0037.4	F0.000.0037.5
General data				
Application	Mobile radio high-performance outdoor antenna for LTE	Mobile radio high-performance outdoor antenna for LTE	WLAN 2.4 GHz WIFI/WLAN rod antenna with magnetic holder	WLAN 2.4 GHz WIFI/WLAN roof/wall antenna for indoors and outdoors
Technical data				
Frequency bands	GSM, GPRS, EDGE, UMTS, LTE	GSM, GPRS, EDGE, UMTS, LTE	2.4 GHz ISM band for WIFI/WLAN, Bluetooth, or Zigbee	2.4 GHz ISM band for WIFI/WLAN, Bluetooth, or Zigbee
Gain max.	5 dBi	9 dBi	4.8 dBi	4.8 dBi
Connection	2x SMA/M	2x SMA/M	SMA/M-RP	SMA/R
Cable	2x 5 m	2x 5 m	2.5 m	5 m
Dimensions, approx. in mm	186 x 155 Ø	230 x 180 Ø	223 x 29	82 x 48 x 48
Installation	Including mast or wall mounting bracket	Including mast or wall mounting bracket	Magnetic holder	Including mast or wall mounting bracket

ACCESSORIES

Programming adapter MPI-ETH ADAPTER ACCON-NETLINK-PRO



Type	Art. No.	PU
MPI-ETH ADAPTER ACCON-NETLINK-PRO	F0.000.0031.8	1

TECHNICAL DATA	
Supported operating systems	No restriction
Hardware requirements	Ethernet interface and TCP/IP protocol
Supported PLCs	S7-200, S7-300, S7-400
Weight in kg	Approx. 0.25
Protection class	IP20
Supply voltage	24 V DC ± 25 %
External power supply	Yes
Max. current consumption	150 mA
Galvanically insulated	Yes
Operating temperature	0 °C…60 °C
Storage/transport temperature	-20 °C…+90 °C
Admissible relative air humidity	5…85 % at 30 °C (no condensation)
Connection cable to the PLC	Permanently mounted, active (no stub line, 1.2 m)
Connection cable to PC/router	Patch cable (Ethernet, straight, 3 m)
Supported bus profiles	MPI, DP, standard, universal (DP/FMS), user-defined, with automatic detection
Supported transmission rates from bus connection to PLC	9.6 kbit/s to 12 Mbit/s with automatic detection
Supported Ethernet transmission rates	10/100 Mbit/s with automatic detection
Max. number of connections on TCP/IP	16

Switching power supply 12 V for v3 + v2 routers

Type	Art. No.	PU
wienet PS 12 V v3	F0.000.0037.7	1
wienet PS 12 V v2	F0.000.0037.3	1

TECHNICAL DATA	
Input voltage	100 - 240 V AC 50/60 Hz
Output voltage	12 V DC
Output current max.	1000 mA

Pre-assembled 6-pole IO male with wires for v3 routers

Type	Art. No.	PU
wienet IO-Kabel 1m	F0.000.0037.9	1
wienet IO-Kabel 3m	F0.000.0038.0	1

TECHNICAL DATA	
Wires	CYA 0.5 mm² (2x white, 2x purple, 2x orange)
Male	WR-MPC4 for v3 router IO interface

RJ45 interface modules

Passive interface modules, RJ45 to RJ45, RJ45 to PCB terminals, shield is also connected, PCB version with shield connection clamp

Type	Art. No.	Art. No.	PU
wienet RJ45 8S Terminal	80.000.3001.0		1
wienet RJ45 Extender		80.000.3002.0	1

TECHNICAL DATA		
Connecting cable	STP Cat 5	
Rated current	0.9 A	
Rated voltage	50 V DC	
Voltage resistance	300 V	
Data rate	100 Mbit/s	
Operating temperature range	-40 °C…+65 °C (85 °C max. 0.6 A)	
Weight approx.	approx. 50 g	
Pin assignment	1:1	
Housings	Plastic PA 6.0 GK30	
Installation	Top-hat rail	
Dimensions (W x H x D)	25.6 x 51 x 80 mm	25.3 x 46.5 x 80 mm
Connection type	Push-in terminals and RJ45 socket	2x RJ45 socket

OUR **SECTOR KNOWLEDGE.**

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