M2M ROUTER
PRO4®

Industrial cellular router, gateway and data concentrator developed specifically for IoT and IIoT applications

Designed specifically for industrial use, the PRO4 router offers reliable, secure high-speed wireless connectivity and remote access. It enables the integration of various applications such as distribution automation, smart metering or the integration of Distributed Energy Resources (DER).

It comes with all the interfaces, protocols and management functions desirable in the world of industrial automation and smart grids. It is the preferred choice for mission-critical cellular communications of many large energy companies and IoT system integrators.

The PRO4 has a modular design, meaning that there are options for expansions. The open-source, Linux-based operating system OpenWrt (optionally Debian) allows users to run their own applications on the platform. The open-source OS with OTG functions - also guarantees that our clients will not depend on us in developing custom apps for their device. It comes in a IP51 housing, supports DIN-rail, and the ports can be protected under sealable terminal cover.

Supports the most important industrial and network protocols like TCP/IP, Modbus TCP, Modbus RTU, Modbus Gateway, MQTT, LwM2M etc. It has full remote access, monitoring and maintenance features (by our Device Manager® application.

Main features
- DUAL SIM: 4G LTE cellular module with LTE450 option
- 4 Ethernet ports (RJ45, LAN, 10/100Mbit)
- Industrial terminal block (RS485, 2 digital input)
- M-Bus expansion (order option)
- micro-SD card slot  • micro-USB configuration port
- Supercapacitor (against small power outages)
- Secure wireless data transmitting with Automatic Data Acquire System (for Modbus, MBus communication)
- Safety, networking and management protocols
- Remote firmware updates, configuration

Application
- Utility companies
- Smart metering
- Solar/PV farm surveillance
- Industrial users
- Corporate partners
**Technical Details**

### M2M Router PRO4®

**Power**
- Voltage Consumption: ±Max: 100/230V AC
- Min. 3W, Average 55/35W: 4W

**System**
- Frequency: 1.875/1.910/1.925/1.960/1.980/2.010 GHz
- Network: Long-term evolution (LTE), 4G; Global System for Mobile Communication (GSM), 2G; Worldwide Interoperability for Microwave Access (WiMAX), 3G; Code Division Multiple Access (CDMA), 1.9 GHz
- Network technology: 4G/LTE, 3G/UMTS, 2G/EDGE

**Interface Type**
- Three RJ45 ports (PoE capable)
- One RS-232/422/485 serial port
- One mini-USB port
- One microSD/SD card slot
- One USB host port
- One Ethernet port
- One power port

**Frequency (MHz)**
- LTE Cat.1: 850 MHz
- LTE Cat.2: 900 MHz
- LTE Cat.3: 1800 MHz
- LTE Cat.4: 2100 MHz
- LTE Cat.5: 2600 MHz

**Speed (Gbps)**
- Up to 300 Mbps
- Down to 75 Mbps

**Antenna connector**
- RP-SMA male

**Expansions (order option)**
- One SIM card slot

**User Interface**
- Web GUI (embedded web server)
- SSH console
- CLI (command-line interface)
- SNMP management

**Construction**
- IP53 protection against dust and water ingress
- UL 94 V0 flame-retardant material

**Dimensions/Weight**
- 110 x 110 x 58 mm / 440 grams (with terminal cover)
- 110 x 130 x 58 mm / 410 grams (without terminal cover)

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**Design and outfit**
- Plastic enclosure, fit to DIN-rail
- Industrial standard interfaces are presented, the ports can be protected by the sealable terminal cover
- Expansion options (see table)

**Compatibility**
- IO/RSS485 CONCENTRATOR® and Scada-, metering systems

**OpenWRT® system**
- Web interface, Linux CLI, UCI
- Security: Firewalld, diagnostic, monitoring of operation parameters, IEE 802.1x encryption, AES128/AES256 encryption, super-capacitor component against short power outages, remote reboot and maintenance, remote voice call
- Protocols: DHCP, DynDNS, IP route, NAT, IPv4/IPv6, FTP, SFTP, SNMP, NTP, HTTP/HTTPS, SSHv2, IP pass through, IPSec, OpenVPN
- Management: SNMPv3 protocol, optional Device Manager® software (configuration/updates)
- Scada Protocols: Modbus TCP / Modbus RTU
- M-Bus master protocol

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