

Ewon Flexy 205 is a compact modular IIoT gateway for collecting Remote Data and providing Remote Access to your industrial equipment.



With a configurable WAN/LAN switch, this gateway offers a wide range of extension cards to best fit your application and is perfect for data-intensive applications. Whether your requirements are to: create alarms, monitor dashboards, collect data for machine performance analysis, or even other advanced solutions, the Flexy 205 will meet your needs and expand your possibilities.

Like other routers from the Flexy family, the Flexy 205 has a web-based configuration and built-in scripting tools for customization.

Through the use of our Talk2M APIs, HTTPs scripting, or MQTT scripting, we enable easy integration with your favorite IIoT platform. The flexibility and robustness of the Flexy 205 guarantees a wide array of value-add services for Machines Builders.

Highlights

- IIoT gateway with most PLC protocols
- Flexible WAN interface: Ethernet, 4G, 3G, WiFi
- High performance for data processing
- Data logging and alarm notification
- OPC UA & Modbus server
- Compact and robust design, ideal for electrical cabinet
- Easy to set up through embedded web pages
- MQTT scripting to connect with IIoT Platforms
- SD card ready for easy commissioning

Typical Applications

- Remote Data Collection with IIoT platforms
- Remote Monitoring
- Remote Access

Extension cards



4G LTE

3G+

WiFi

Ethernet

MPI

2 Serial ports

3 USB ports

I/O

| General Features | |
|-----------------------------|--|
| Routing | Routing capability between LAN and WAN Ethernet interface and Ethernet to serial gateway |
| Ethernet to Serial Gateways | MODBUS TCP to MODBUS RTU; XIP to UNITELWAY; EtherNet/IP™ to DF1; FINS TCP to FINS Hostlink; ISO TCP to PPI, MPI (S7) or PROFIBUS (S7); VCOM to ASCII. |
| Data Acquisition Protocols | OPC UA, MODBUS/RTU, MODBUS/TCP, Unitelway, DF1, PPI, MPI (S7), PROFIBUS (S7), FINS Hostlink, FINS TCP, EtherNet/IP™, ISO TCP, Mitsubishi FX, Hitachi EH, ASCII, BACnet/IP. Stored in 2500 internal tags |
| Data Publishing Protocols | OPC UA, Modbus, MQTT, SNMP |
| Alarms | Alarms notification by email, SMS, FTP put and/or SNMP traps. 4 Thresholds : low, lowlow, high, highhigh + deadband and activation delay. Alarm logs in http and via FTP, Alarm cycle: ALM, RTN, ACK and END |
| Datalogging | Internal data base for data logging (real-time logging and historical logging up to 1,000,000 timestamps). Retrieval of the database with files transferred by FTP or email |
| SD card reader | YES, for easy commissioning (firmware upgrade, backup, Talk2M registration). |
| Router | IP filtering, IP forwarding, NAT, Port forwarding, Proxy, Routing table, DHCP client/server |
| VPN Tunnelling | Open VPN either in SSL UDP or HTTPS |
| VPN Security | VPN sessions are end-to-end encrypted using SSL/TLS protocol. Communications between the remote user and the eWON are fully encrypted using the SSL/TLS protocol, thereby ensuring data authenticity, integrity & confidentiality. Indeed, all users and eWON units are authenticated using x509 SSL certificates and end-to-end traffic is encrypted using strong symmetric & asymmetric algorithms that are part of the SSL/TLS protocol cipher suite. |
| Programmable | Script interpreter for Basic language, Java 2 Standard Edition environment |
| Synchronization | Embedded real-time clock, manual setup via http or automatic via NTP |
| File Management | FTP client and server for configuration, firmware update and data transfer |
| Website | Embedded web interface with setup wizards for configuration and maintenance (no extra software needed). Authentication with login/password and session control for security. Possibility of uploading custom web GUI. Compatible with viewON web HMI. |
| User Flash Disk | up to 30MB available for user application |
| Maintenance | SNMP and/or via FTP files |

| Flexy 205 Base Module | |
|---------------------------------|---|
| Mechanicals | Din Rail or wall screw fixing system Dimensions: 133 x 122 x 55 mm (H x D x W); Weight: 280 g without extension card |
| Power supply | 12 - 24VDC +/-20%, LPS Consumption: depending on the extension card installed (see Installation guide on our website) |
| Input/output | 2x digital input: 0 to 12/24VDC; 1.5kV isolation 1x digital output: open drain (MOSFET) 200mA; 1.5 kV isolation |
| Flexy 205 base module interface | 4 x RJ45 Ethernet 10/100 Mb .Configurable LAN/WAN ports, port 1 always LAN |

Flexy Extension Cards

| Dual serial ports (FLA3301) | |
|-----------------------------|---|
| Number of ports | 1x male SUBD9 serial port RS232/422/485 configurable by dipswitch and 1x male SUBD9 RS232 serial port with RTS, CTS signals |

| Cellular 3G+ (FLB3202) | |
|------------------------|--|
| Frequencies | Pentaband UMTS/HSPA+ modem (800/850, 900, AWS1700, 1900, 2100 MHz) Quad band GPRS/EDGE (850, 900, 1800, 1900 MHz) |
| Antenna Connector | Type SMA - Female |
| Antenna | Not included in the delivery |



| EU 4G LTE (FLB3204) | |
|---------------------|---|
| Frequencies | 4G: B7(2600), B1(2100), B3(1800), B8(900), B20 (800)MHz 3G: B1 (2100), B8 (900) MHz 2G: B3 (1800) , B8(900) MHz |
| Antenna Connector | Type SMA - Female |
| Antenna | Not included in the delivery |

| NA 4G LTE (FLB3205) | |
|---------------------|---|
| Frequencies | AT&T compliant 4G: B12/B13(700),B5(850), B4(AWS1700),B2(1900), 3G: B2(1900), B5(850)MHz |
| Antenna Connector | Type SMA - Female |
| Antenna | Not included in the delivery |

| Verizon 4G LTE (FLB3203) | |
|--------------------------|---|
| Frequencies | only Verizon network compatible, no CDMA 4G: B4(AWS1700), B13(700) MHz |
| Antenna Connector | Type SMA - Female |
| Antenna | Not included in the delivery |

| WiFi (FLB3271) | |
|-------------------|---|
| Wan connectivity | WiFi: 802.11 b/g/n WiFi/WLAN client for remote connection |
| Frequencies | Channels: 1 to 11 (inclusive) |
| Security | WPA2, WPA and WEP |
| Antenna Connector | Reverse SMA male connector |
| Antenna | included in the delivery; frequency: 2.4 GHz; impedance: 50 Ohms, gain:2.0 dB |

| I/O card (FLX3402) | |
|-------------------------|---|
| Number of inputs/output | I/O card with 8x DI, 2x DO, 4x AI (0-10V, 4-20mA) |
| Range | AI : voltage mode 0-10V - 16 bit resolution or current mode 4-20mA, user selectable with Dip Switch configuration. DI : 0 to 12/24 VDC,DO: 2A/30V VAC/VDC |
| Isolation | AI: 1.5kV from power supply, DI: 1.5 kV from electronic AND power supply, DO: 1.5kV from electronic AND from power supply |

| 3 USB Ports Card (FLB3601) | |
|----------------------------|---|
| Leds | 4 leds : 1 global status, 1 for each port status |
| Connector | Type A female |
| Current limit | Each port has its own 500mA current limit. Global current limit on the board is 500mA |
| Port activation | All ports will be enabled/disabled together |
| Isolation | Earth GND isolation is limited to 500V due to USB connector design |

| Ethernet WAN (FLX3101) | |
|------------------------|--|
| Ethernet port | 1x RJ45 Ethernet 10/100 base Tx; 1.5kV isolation |

| MPI (FLC3701) | |
|---------------|---|
| | 1 x female SUBD9 MPI port, 1.5kV functional isolation from power supply |



| Temperature Range | |
|----------------------------------|---|
| base modules and extension cards | Operating: -25°C to +70°C, 10 to 95% relative humidity (non-condensing) Storage: -40°C to +70°C, 10 to 95% relative humidity (non-condensing) |
| Marking | CE FCC cRU _{US} |
| Warranty | 36 months |
| Type tests | Temperature - Operating & Storage tested according to: IEC 60068-2-1 Cold test IEC 60068-2-2 Dry heat test IEC 60068-2-14 Change of temperature IEC 60068-2-30 Cyclic damp heat test Vibration & shocks tested according to: IEC 60068-2-27 Bumps IEC 60068-2-64 Vibration (broad-band random) IEC 60068-2-6 Vibration (sinusoidal) |
| CE | Compliant with: EMC directive 2014/30/EU RE directive 2014/53/EU* LV directive 2014/35/EU* RoHS directive 2011/65/EU REACH regulation 1907/2006 According to standards: EMC: ITE emission Class A and Immunity EN55032; EN55024 EN301489-1*; EN301489-17*; EN301489-52* Spectrum*: EN301511; EN301908-1; -2 & 13 EN300328 Health: EN62311 Safety: EN60950 |
| FCC | Compliant with: CFR 47, part 15B class A; 15C*; 22H*; 24E*; 27*; 68* |
| IC | Compliant with IC (Industry Canada) RSS-130 -132; RSS-133; RSS-139; RSS-210 |
| Japan | This equipment has the Type Approval Certification based on the Radio Law |
| Safety | Conform to: EN60950-1; UL60950-1; CSA-C22.2 n° 60950-1-07 UL recognized: file number E350576 |

* when applicable depending on the plugged EXT cards

Part Number

| Base Module | Part Number |
|-------------|-------------|
| Flexy 205 | Flexy 205 |

| Extension Cards | |
|--------------------|--|
| Dual serial ports | |
| Cellular 3G+ | |
| EU 4G LTE | |
| NA 4G LTE | |
| VERIZON 4G LTE | |
| WIFI | |
| 3 USB Ports Cards | |
| Ethernet WAN | |
| Extension I/O card | |
| MPI | |

