DATASHEET

Flexy 205

IIOT GATEWAY AND REMOTE ACCESS ROUTER

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

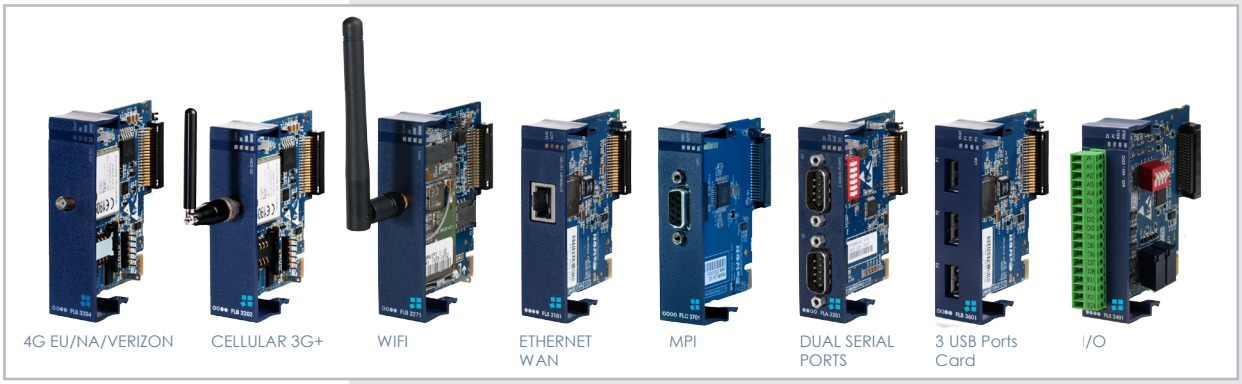
Typical Applications

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

eWON Flexy 205 is a compact modular 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.



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HMS Connecting Devices™

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/B17(700),B5(850), B4(AWS1700),B2(1900), B13(700)MHz 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

GENERAL CHARACTERISTICS, STANDARDS & DIRECTIVES

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 cULus
Warranty	24 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

* when applicable depending on the plugged EXT cards

Safety	Conform to: EN60950-1; UL60950-1; CSA-C22.2 n° 60950-1-07 UL recognized: file number E350576

PART NUMBER	
Base Module	**Part Number**
Flexy 205	Flexy205
Extension Cards	
Dual serial ports	FLA3301
Cellular 3G+	FLB3202
EU 4G LTE	FLB3204
NA 4G LTE	FLB3205
VERIZON 4G LTE	FLB3203
WIFI	FLB3271
3 USB Ports Cards	FLB3601
Ethernet WAN	FLX3101
Extension I/O card	FLX3402
MPI	FLC3701

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