

# BARIX

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## BARIONET OVERVIEW

Universal, programmable I/O Device Servers



**BARIONET 1000**

**BARIONET 500**

**BARIONET 1100**

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The Barionet Products are fully programmable I/O device server of Barix, based on Linux/Lede/OpenWRT. The devices feature a wide range of interfaces such as USB, WiFi, serial ports, analog and digital I/Os, Relays, Dallas 1-wire support and optional CAN and LoRa Interface. They are IPv4 or IPv6 capable. Supporting SNMP, Modbus and universal ASCII protocols, the Barionet devices can be easily integrated into 3rd party management systems. Barix Products are developed in Switzerland and manufactured in the EU.

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### Applications

- Automation engineering in buildings, public transport and network infra-structures
- Machine control
- Access control and security systems driving horns or lights
- Environmental monitoring at power stations, sluices, or in agriculture
- Contact closure monitoring
- Logging of temperature and humidity
- HVAC steering
- PV power management

### Specifications

- Embedded Linux / Lede / OpenWRT
  - Programmable in C++, Lua or Python
  - IPv4 / IPv6 stack
  - 10/100 Ethernet ports
  - Wi-Fi 802.11 b/g/n, 2.4Ghz
  - Relay outputs
  - Digital Outputs
  - Digital Inputs
  - Universal Inputs (analog or digital)
  - RS232 Interfaces
  - RS485 Interfaces
  - USB Interfaces
  - Interfaces for temperature sensor – Dallas 1-wire® 18DS20
  - Optional CAN Interface
  - Optional LoRa Interface
  - Barionet DIN-Rail Case
  - Supply Voltage 9-30 VDC
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# Barionet Product Overview

## BARIONET 1000

## BARIONET 500

## BARIONET 1100

Operating System			
Operating System	Linux / Lede / OpenWRT	Linux / Lede / OpenWRT	Linux / Lede / OpenWRT

CPUs / Memory			
CPU	MediaTek MT7620A, Qino Module	MediaTek MT7620N Qino Lite Module	MediaTek MT7620A, Qino Module
RAM	64MB SDRAM	64MB SDRAM	64MB SDRAM
Flash	16MB Flash	16MB Flash	16MB Flash
Real Time Clock	---	---	RTC with Gold Cap Buffer

User Interface			
Web	Web interface for control / configuration	Web interface for control / configuration	Web interface for control / configuration
LEDs	10 x single Color LED Status indicators	10 x Multicolor LED Status indicators	10 x Multicolor LED Status indicators
Buttons	---	Reset & Factory Defaults Button	Reset & Factory Defaults Button

Network / WiFi Interfaces			
Ethernet	1 x Ethernet (RJ45) Interface 10/100 fdx/hdx, auto negotiation	1 x Ethernet (RJ45) Interface 10/100 fdx/hdx, auto negotiation	1 x Ethernet (RJ45) Interface 10/100 fdx/hdx, auto negotiation
WiFi	WiFi 802.11 b/g/n, 2.4 GHz	WiFi 802.11 b/g/n, 2.4 GHz	WiFi 802.11 b/g/n, 2.4 GHz
Protocols	IPv4, IPv6 capable, TCP/IP, UDP, ICMP, DHCP, CGI, HTTP, SNMP	IPv4, IPv6 capable, TCP/IP, UDP, ICMP, DHCP, CGI, HTTP, SNMP	IPv4, IPv6 capable, TCP/IP, UDP, ICMP, DHCP, CGI, HTTP, SNMP

I/O Interfaces			
Relais	2 x Relay Outputs (250VAC, 5A)	4 x Relay Outputs (30VDC, 0.5A)	2 x Relay Outputs (250VAC, 5A)
Digital Outputs	4 x Digital Outputs (open-collector, 24VDC, 0.3A)	---	4 x Digital Outputs (open-collector, 24VDC, 0.3A)
Digital Inputs	4 x Digital Inputs (0-15VDC) with conf. pullups	4 x Digital Inputs (0-15VDC) with configurable pullups	4 x Digital Inputs (0-15VDC) with conf. pullups
Universal Inputs	4 x Universal Inputs (Analog 0-15VDC 12bit or Digital 0-15VDC) with configurable pullups	---	4 x Universal Inputs (Analog 0-15VDC 12bit or Digital 0-15VDC) with configurable pullups

Serial Interfaces			
RS-232	1 x RS-232 (DSub-9 male) Interface, 600-115'200 baud rate, 7-8 bit, Odd/Even/None Parity	1 x RS-232 (DSub-9 male) Interface, 600-115'200 baud rate, 7-8 bit, Odd/Even/None Parity	1 x RS-232 (DSub-9 male) Interface, 600-115'200 baud rate, 7-8 bit, Odd/Even/None Parity
RS-485	---	1 x RS-485 (Screw Terminal) Interface, 600-115'200 baud rate, 7-8 bit, Odd/Even/None Parity	1 x RS-485 (Screw Terminal) Interface, 600-115'200 baud rate, 7-8 bit, Odd/Even/None Parity
CAN	---	---	Optional CAN Interface

USB Interface			
USB Interface	2 x USB Host (Type A) Interface	1 x USB Host (Type A) Interface	2 x USB Host (Type A) Interface

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Miscellaneous Interfaces			
1- Wire®	Universal Dallas 1-Wire® Interface for external temperature sensors 18DS20 and other 1-Wire® equipment	Universal Dallas 1-Wire® Interface for external temperature sensors 18DS20 and other 1-Wire® equipment	Universal Dallas 1-Wire® Interface for external temperature sensors 18DS20 and other 1-Wire® equipment

Environmental			
Operating Environment	0°C to + 50° / 32 to 122°F environmental 0 - 70% relative humidity, non-condensing	-40°C to + 60° / -40 to 140°F environmental 0 - 70% relative humidity, non-condensing	-40°C to + 60° / -40 to 140°F environmental 0 - 70% relative humidity, non-condensing
Storage Conditions	0 to +70°C / 32 to 158°F 0 - 70% relative humidity, non-condensing	0 to +70°C / 32 to 158°F 0 - 70% relative humidity, non-condensing	0 to +70°C / 32 to 158°F 0 - 70% relative humidity, non-condensing

Miscellaneous			
Power Requirements	Single 9-30V DC supply voltage, 2.5 Watt	Single 9-30V DC supply voltage, 2.5 Watt	Single 9-30V DC supply voltage, 2.5 Watt
Measurements	4.05" x 3.35" x 1.22" 103mm x 85mm x 31mm	4.05" x 3.35" x 1.22" 103mm x 85mm x 31mm	4.05" x 3.35" x 1.22" 103mm x 85mm x 31mm
Weight	180g	170g	180g
Warranty	Two years	Two years	Two years
Certifications	RoHS, FCC (A&B), CE (A&B), RED	RoHS, FCC (A&B), CE (A&B), RED	RoHS, FCC (A&B), CE (A&B), RED
Ordering Information	2016.9187P Barionet 1000 NoPSU	2017_9194P_BARIONET 500 NO PSU	2017_9195P_BARIONET 1100 NO PSU

For commercial related questions (distributors contacts, price list, business opportunities) please contact  
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For technical inquiries (problem reports, request for documentation, etc.) please contact  
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