

# BARIONET IO12



## BARIX BARIONET IO12

**DIN-rail mountable I/O unit  
for commercial control, signaling,  
switching, sensing and counting  
applications**

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12 solid state sourcing outputs (up to  
1.5A @ 6 to 30 VDC)

12 ESD protected inputs (opto isolated  
in groups of 4, 10 to 30 VDC)

RS-485 (2-wire) serial interface,  
Modbus/RTU protocol

Two extension connectors for easy daisy  
chaining of power supply, additional I/O  
units (IO12), relay units (R6) etc.



# BARIONET IO12

## Technical Specifications

### Outputs:

12 solid state current sourcing (thermal and over current protected, max 1.5A each, max 6A in total, connector for external power supply, 30VDC max

### Inputs:

12 opto isolated inputs (5 to 30VDC), registered (30msec filter) and counted (<100 pulses/sec), ESD protected in groups of 4 with separate power terminals (10 to 30VDC, polarity protected)

### Serial Interface:

RS-485 (2-wire), 9'600/19'200 Baud , 8 bit, Even/No parity, software configurable, Modbus/RTU protocol

### Connectors:

Separate detachable screw terminal blocks for wires AWG28 - AWG16 / 0.08 - 1.3 mm<sup>2</sup>  
2 extension connectors (3"/75mm cable included)

### Misc:

2 LED's for power and RS-485 send indication  
Internal connector for default settings jumper

### Power supply requirements:

12 to 24 VAC / 9 to 30VDC, 2 Watt max.

### Case:

high quality plastic, 170 grams, DIN-rail mount.  
4.13" x 3.34" x 2.83"/105mm x 85mm x 32mm

### Environmental conditions:

Temperature: 32 to 104° F / 0 to 40° C  
< 70% relative humidity non-condensing

### Conformity:

FCC (A and B), CE (A and B)  
Emission EN60730-1:2000 (Class B)  
Immunity EN60730-1:2000

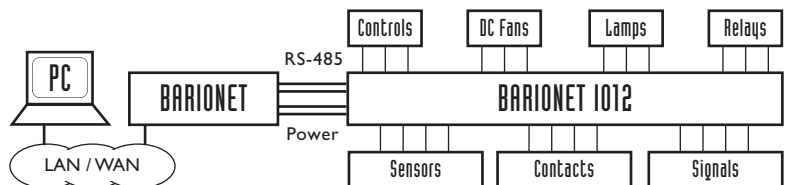
Barix Barionet™ IO12 is a DIN-rail mountable I/O unit for commercial control, signaling, switching, sensing and counting applications.

Using the industry standard Modbus protocol over 2-wire RS-485 the device can be controlled from any Modbus capable master.

Twelve outputs allow the use of the Barionet IO12 in a wide range of switching and signaling applications:

- Switching DC power for controls, fans, motors and relays
- Activate bells, door strikes, lamps/indicators and alarms

Each output is capable of sourcing up to 1.5 Amps drawn from a DC power supply (5 to 30 Volts over separate supply terminals). For thermal reasons the total current should not exceed 6 Amps which leaves 0.5 Amps per output when using all outputs.



Twelve opto isolated electro static discharge protected inputs are powered in groups of 4 by 3 separate external power inputs. For counting applications each input signal is directly fed into a counting register (up to 100 pulses/second).

At the same time each signal is filtered (debounced) and stored in a state register for dry contact and push button applications.

Separate removable screw terminal blocks supporting wires from AWG28 / 0.08mm<sup>2</sup> up to AWG16 / 1.3mm<sup>2</sup> are provided for power input, RS-485, inputs and outputs.

To connect to other Barionet devices the Barionet IO12 features two extension connectors on both sides of the device carrying power and RS-485 signals (one extension cable included).

A mounting bracket is available as an accessory.

Barionet IO12 supports Modbus/RTU protocol at speeds of 9'600 and 19'200 Bauds, with and without parity and is a low cost alternative to add I/O capabilities to Modbus systems.

Up to 31 Barix Barionet extension units can be directly connected to a Modbus Master such as the Barix Barionet and can be increased to up to 250 devices using standard RS-485 repeaters.

Using the Barix Barionet, the Barionet IO12 can be controlled by a local Basic application (BCL) as well as remotely using TCP, UDP, Modbus/TCP and SNMP.

For further information, distribution partners, detailed technical specifications and information about other versions and products please visit [www.barix.com](http://www.barix.com)