BARIX

THE VOICE OF SIMPLICITY

BARIX IO12

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

Barix 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.

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 per 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 AWG 28 / 0.08 mm2 up to AWG 16 / 1.3 mm2 are provided for power input, RS-485, inputs and outputs. To connect to other Barionet devices the Barix 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.

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

Applications Barix IO12

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

Software Barix IO12 available

- 12 solid state sourcing outputs (up to 1.5 A @ 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.

Technical Specifications

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

Inputs
- 12 opto isolated inputs (5 to 30 VDC), registered (30 msec filter) and counted (<100 pulses/sec),
- ESD protected in groups of 4 with separate
- power terminals (10 to 30 VDC, 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 AWG 28 – AWG 16 / 0.08 – 1.3 mm²
- 2 extension connectors (3"/75 mm 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 30 VDC, 2 Watt max.

Case
- high quality plastic, 145 g, DIN-rail mount.
- 4.13" x 3.34" x 2.83", 105 mm x 85 mm x 32 mm

MTBF
- Min. 207 000h acc. to MIL217F at 25°C ambient temperature

Environmental

Operating Environment
0 to +40°C / 32 to 104°F

Storage Conditions
0 to +70°C / 32 to 158°F,
both 0 - 70% relative humidity, non-condensing

Certifications

FCC (A and B), CE (A and B)

Immunity
EN60730-1.2000

Emissions
EN60730-1:2000 (Class B)

Ordering Information

2005.9048 Barix IO12

For commercial related questions (distributors contacts, price list, business opportunities) please contact **sales@barix.com**

For technical inquiries (problem reports, request for documentation, etc) please contact **support@barix.com**

Barix AG – Seefeldstrasse 303 – CH-8008 Zurich – info@barix.com – www.barix.com
Phone: +41 43 43322 11 – Fax: +41 44 2742849