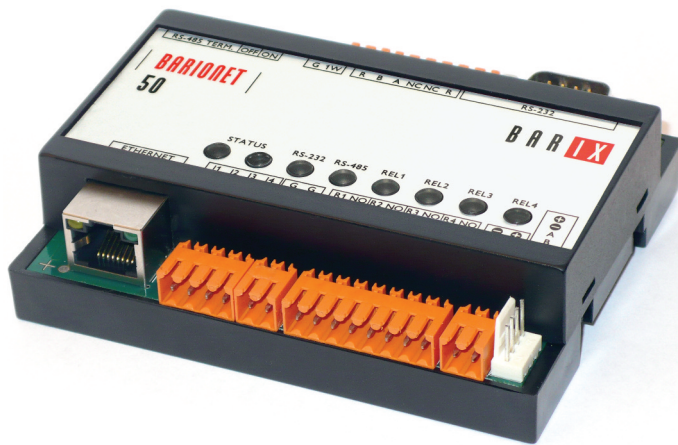# BARIONET
50

Low Cost IP Automation Controller with Modbus/TCP and SNMP Support

10/100 Mbit Ethernet connection,
RS-232 and RS-485 serial interfaces, 4 dry contact inputs,
4 relays (30 V, 0.5 A), universal Dallas 1-Wire® interface,
Bus extension connector for additional I/O devices

Low power (4 Watt max.), reliable system architecture

Supports TCP/IP protocol suite, integrated webserver/client,
application protocols Modbus/TCP, SNMP, etc.

User programmable

Technical Specifications

I/O Interfaces:
On detachable screw terminal blocks:
4 relay outputs (30 VDC, 0.5 A)
4 digital inputs (dry contacts)
Dallas 1-Wire® interface

Serial Interfaces:
RS-232 (DSub-9 male, 5-wire RXD, TXD, RTS, CTS, GND), RS-485 on detachable screw terminal block as well as on 4 pin extension connector,
both with serial speeds from 300 bps to 230 kbps (asynchronous)

Network Interface:
RJ45 10/100 Mbit Ethernet (Autodetect)

Supported protocols:
TCP/IP, UDP, ICMP, IGMP, AutoIP, IPzator™, DHCP, CGI, HTTP web server for control, status and configuration.

API:
Modbus/TCP, SNMP, CGI, UDP/TCP based ASCII protocol

Misc:
8 LED status indicators
Extension connector (4 pin: power and RS-485)

Power input:
9..30 VDC, 4 Watt max.

Case:
high quality plastic, 135 g,, DIN-rail mount.
4.13" x 3.34" x 1.25", 105 mm x 85 mm x 31 mm

Reliability,environmental conditions:
MTBF: Min. 233'000h acc. to MIL217F at 24 VDC supply and 40°C ambient temperature
Operating temp.:0 to +50°C / 32 to 104°F,
storage temp.: 0 to +70°C / 32 to 158°F,
both 0 - 70% relative humidity, non-condensing

Certifications:
FCC A, CE A, RoHS compliant (lead free)

Overview

Barionet 50 is a fully programmable network controller for interfacing devices to open, IP-based networks. With the Barionet 50 contact closures and devices with serial ports can be network-enabled and easily controlled via web browser and standards-based automation systems.

Barionet 50 is a modular component that operates either stand-alone or with other units, web servers and control systems, thus capable of building large, intelligent, distributed systems for a wide variety of commercial control, monitoring, and home automation applications.

Four logical inputs and four relays interface to contact closures.
An expansion port connects to up to 32 Barix Modbus modules.
A Dallas 1-Wire® interface supports up to 50 digital temperature sensors or can be programmed in BCL to support any other 1-Wire® device.
Two asynchronous serial interfaces (1xRS-232, 1xRS-422/485) allow for the connection of a wide range of additional I/O modules and smart sensors from various manufacturers. The serial ports can also be used independently for tunneling applications.
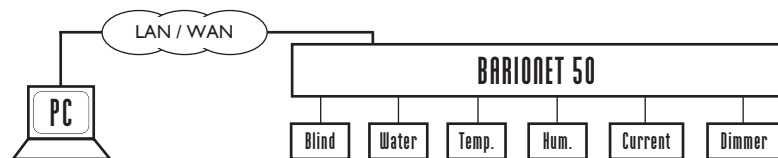
Common Applications
- Monitoring, controlling, and interfacing devices to IP-based networks or central management systems in commercial, industrial, and home applications
- Access control, machine data collection, and environmental monitoring
- Monitoring contact closures
- Temperature sensing and logging
- Intelligent 1-Wire® interface

The Barionet 50 firmware provides fully documented interfaces, which support a variety of different communication methods:
UDP and TCP, as well as higher-level protocols such as CGI, XML, and Modbus/TCP and SNMP (private MIB included in device).

The unit is programmable for stand-alone or connected operation in a powerful control language, enhanced with advanced functions for network communications. The language syntax is very similar to the well known Basic language, so most programmers can instantly craft interface solutions. The built-in web server can serve user specific pages, which can contain data generated by the control program or the various inputs.

For further information, distribution partners, detailed technical specifications and information about other versions and products please visit **www.barix.com**