

ioLogik 4000 Series

Modular remote I/O



Features and Benefits

- I/O expansion without a backplane
- Active communication with MX-AOPC UA Server
- Supports SNMP v1/v2c
- Easy configuration with Modular ioAdmin utility
- Friendly configuration via web browser
- Simplifies I/O management with MXIO library for Windows or Linux

Certifications



Introduction

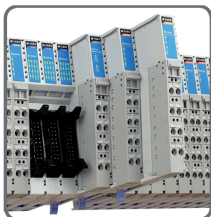
The ioLogik 4000 Series is suitable for remote monitoring and alarm systems, such as those used for water treatment systems, water supply systems, wastewater treatment systems, and power monitoring systems. These kinds of applications need more I/O points and a variety of I/O types, including temperature sensors, gas detectors, and water quality detectors, all of which can benefit from the versatile mixture of I/O features supported by the ioLogik 4000 Series.

Slice Form Factor and Flexible I/O Variety

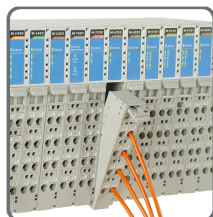
The unique modular construction of the ioLogik 4000 Series allows for mixing and matching of modules to achieve the best combination of I/O modules to meet the needs of a wide range of remote automation applications. An industrial modular housing enables I/O modules to be added to the base unit without a backplane. The ioLogik 4000 Series is perfect for space-limited applications, and high-density I/O points are provided for greater flexibility and expandability. Modules can connect to virtually any type of sensor, including but not limited to those for temperature, pressure, flow, voltage, current, and contact closure.

Easy Maintenance

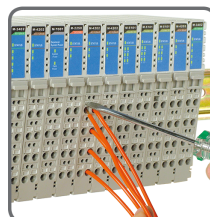
The ioLogik 4000 Series comes with removable spring-type terminal blocks (RTBs) that allow you to conserve field wiring for future use.



Slice-Type I/O Modules



Removable Terminal Block



Spring-Type
Terminal Block



Module Coding Tag

Specifications

Input/Output Interface

Buttons

Reset button

Control Logic

Language

ioLogik E4200: Click&Go, NA-4010/4020/4021: None

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)

NA-4010: 1
ioLogik E4200: 2, 2 MAC addresses

Ethernet Software Features

Configuration Options	NA-4010/ioLogik E4200: Web Console (HTTP) NA-4010/4020/4021: Windows Utility (ioAdmin) ioLogik E4200: Windows Utility (Modular-ioAdmin)
Industrial Protocols	NA-4010: Modbus TCP Server (Slave), MXIO Library NA-4020/4021: MXIO Library ioLogik E4200: Modbus TCP Server (Slave), Moxa AOPC (Active Tag), MXIO Library, SNMPv1/v2c, SNMPv1 Trap
Management	NA-4010/ioLogik E4200: DHCP Client, HTTP, IPv4, TCP/IP, UDP NA-4010/4020/4021: ioAdmin ioLogik E4200: Modular-ioAdmin

Serial Interface

Baudrate	1200 bps to 115.2 kbps
Connector	NA-4021: DB9 female NA-4020: Terminal block
Data Bits	7, 8
Flow Control	NA-4020: ADDC® (automatic data direction control) for RS-485 NA-4021: None
No. of Ports	1
Parity	None, Even, Odd
Serial Standards	NA-4021: RS-232 NA-4020: RS-485
Stop Bits	1, 2

Serial Signals

RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-485-2w	Data+, Data-, GND

Serial Software Features

Industrial Protocols	NA-4020/4021: Modbus RTU Server (Client)
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DIP Switch Configuration

Serial Interface	Fixed baudrate
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Modbus TCP

Max. No. of Client Connections	8
Mode	Client

Power Parameters

No. of Power Inputs	1
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System Power Parameters

Power Connector	Spring-type Euroblock terminal
No. of Power Inputs	1
Input Voltage	11 to 28.8 VDC
Power Consumption	NA-4010: 60 mA @ 24 VDC NA-4020/4021: 70 mA @ 24 VDC ioLogik E4200: 175 mA @ 24 VDC

Datasheet

Field Power Parameters

Power Connector	Spring-type Euroblock terminal
No. of Power Inputs	1
Input Voltage	11 to 28.8 VDC
Current in Field Power Contact	10 A (max.)

Physical Characteristics

Housing	Plastic
Dimensions	45 x 99 x 70 mm (1.77 x 3.90 x 2.76 in)
Weight	NA-4010/4020/4021: 150 g (0.33 lb) ioLogik E4200: 180 g (0.396 lb)
Installation	DIN-rail mounting

Environmental Limits

Operating Temperature	-10 to 60°C (14 to 140°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Altitude	2000 m ¹

Standards and Certifications

EMC	EN 55032/24, EN 61000-6-2/-6-4
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Safety	UL 508
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6

Declaration

Green Product	RoHS, CRoHS, WEEE
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MTBF

Time	NA-4010: 4,739,300 hrs NA-4020: 4,721,640 hrs NA-4021: 4,695,360 hrs ioLogik E4200: 357,000 hrs
Standards	Telcordia SR332

Warranty

Warranty Period	2 years
Details	See www.moxa.com/warranty

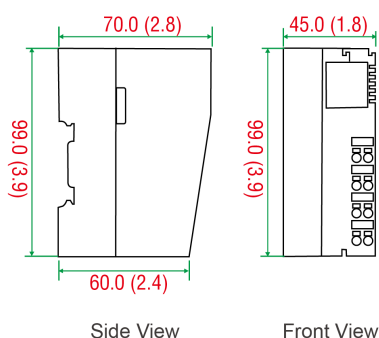
Package Contents

Device	1 x ioLogik 4000 Series remote I/O
Installation Kit	1 x terminal block, 8-pin, 3.81 mm
Documentation	1 x quick installation guide (ioLogik E4200) 1 x warranty card
Note	This product requires additional modules (sold separately) to function.

Dimensions

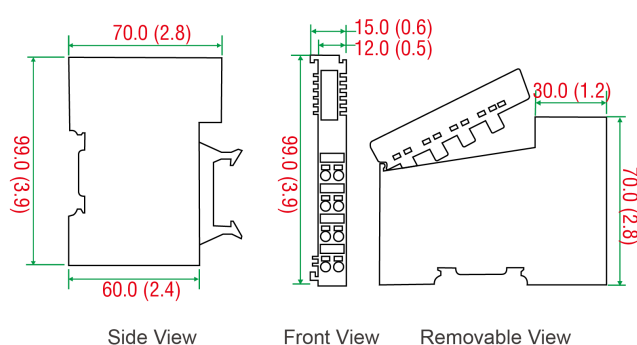
I/O Network Adapter

Unit: mm (inch)



I/O Module

Unit: mm (inch)



Ordering Information

Model Name	Control Logic	Ethernet Interface	Serial Interface	No. of Support I/O Modules
ioLogik E4200	Click&Go	2 x RJ45	–	16
NA-4010	–	1 x RJ45	–	32
NA-4020	–	–	RS-485	32
NA-4021	–	–	RS-232	32

Accessories (sold separately)

I/O Modules

M-1450	For the ioLogik 4000 Series, 4 DI, 110 VAC
M-1451	For the ioLogik 4000 Series, 4 DI, 220 VAC
M-1600	For the ioLogik 4000 Series, 16 DI, 24 VDC, sink type
M-1601	For the ioLogik 4000 Series, 16 DI, 24 VDC, source type
M-1800	For the ioLogik 4000 Series, 8 DI, 24 VDC, sink type
M-1801	For the ioLogik 4000 Series, 8 DI, 24 VDC, source type
M-2450	For the ioLogik 4000 Series, 4 relays, 24 VDC/230 VAC, 2 A
M-2600	For the ioLogik 4000 Series, 16 DO, 24 VDC, 0.5 A, sink type
M-2601	For the ioLogik 4000 Series, 16 DO, 24 VDC, 0.5 A, source type
M-2800	For the ioLogik 4000 Series, 8 DO, 24 VDC, 0.5 A, sink type
M-2801	For the ioLogik 4000 Series, 8 DO, 24 VDC, 0.5 A, source type
M-3802	For the ioLogik 4000 Series, 8 AI, 4 to 20 mA, 12 bits
M-3810	For the ioLogik 4000 Series, 8 AI, 0 to 10 V, 12 bits
M-4402	For the ioLogik 4000 Series, 4 AO, 4 to 20 mA, 12 bits

M-4410	For the ioLogik 4000 Series, 4 AOs, 0 to 10 V, 12 bits
M-6200	For the ioLogik 4000 Series, 2 AIs, RTD: PT100, JPT100
M-6201	For the ioLogik 4000 Series, 2 AIs, TC

Power Modules

M-7001	For the ioLogik 4000 Series, system power module
M-7002	For the ioLogik 4000 Series, field power module
M-7804	For the ioLogik 4000 Series, potential distributor module, 0 VDC 8 channel
M-7805	For the ioLogik 4000 Series, potential distributor module, 24 VDC, 8 channel

Software

MX-AOPC UA Server	OPC UA Server software for converting fieldbus to the OPC UA standard
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