

ioLogik R2140

RS-485 remote I/O with 8 analog inputs and 2 analog outputs



- > 8 analog input channels for millivolts (mV), voltage, and current signal with wire-off detection (at 4 to 20 mA)
- > 2-channel analog outputs for voltage, current actuator control
- > 16-bit resolution analog inputs, 12-bit resolution analog output
- > Simplify I/O management with MXIO library on Windows or Linux platform
- > Firmware upgradable over RS-485



Specifications

Serial Communication

Interface: RS-485-2w: Data+, Data-, GND (3-contact terminal block)

Serial Line Protection: 15 kV ESD for all signals

Serial Communication Parameters

Parity: None

Data Bits: 8

Stop Bits: 1

Flow Control: None

Baudrate: 9600 to 115200 bps

Protocol: Modbus/RTU

Inputs and Outputs

Isolation: 3K VDC or 2K Vrms

Analog Inputs: 8 channels

Analog Outputs: 2 channels

Analog Input

Resolution: 16 bits

I/O Mode: Voltage / Current

Input Range: ±150 mV, ±500 mV, ±5 V, ±10 V, 0 to 20 mA, 4 to 20 mA

Accuracy:

±0.1% FSR @ 25°C

±0.3% FSR @ -10 and 60°C

Sampling Rate: (for current)

All channels: 6 samples/sec

• Per channel: 0.75 samples/sec

• Only one channel enabled: 0.75 samples/sec

Built-in Resistor for Current Input: 106 ohms

Input Impedance: 900 kΩ

Analog Output

Resolution: 12 bits

Output Range: 0 to 10 V, 4 to 20 mA

Drive Voltage: 15 VDC for current output

Accuracy:

±0.1% FSR @ 25°C,

±0.3% FSR @ -10 and 60°C

Load Resistor: Less than 250 ohms

Power Requirements

Power Input: 24 VDC nominal, 12 to 48 VDC

Power Consumption: 170 mA @ 24 VDC

Physical Characteristics

Wiring: I/O cable max. 14 AWG

Dimensions: 115 x 79 x 45.6 mm (4.53 x 3.11 x 1.80 in)

Note: Please see pages 14-26 for this product's dimensions diagram.

Weight: 200 g

Mounting: DIN rail or wall

Environmental Limits

Operating Temperature: -10 to 60°C (14 to 140°F)

Storage Temperature: -40 to 85°C (-40 to 185°F)

Ambient Relative Humidity: 5 to 95% (non-condensing)

Altitude: Up to 2000 m

Note: Please contact Moxa if you require products guaranteed to function properly at higher altitudes.

Standards and Certifications

Safety: UL 508

EMI:

EN 61000-3-2; EN 61000-3-3;

EN 61000-6-4; FCC Part 15, Subpart B, Class A

EMS:

EN 61000-4-2, EN 61000-4-3, EN 61000-4-4,

EN 61000-4-5, EN 61000-4-6, EN 61000-4-8,

EN 61000-4-11, EN 61000-6-2

Shock: IEC 60068-2-27

Freefall: IEC 60068-2-32

Vibration: IEC 60068-2-6

Green Product: RoHS, CRoHS, WEEE

Note: Please check Moxa's website for the most up-to-date certification status.

MTBF (mean time between failures)

Time: 280,923 hrs

Database: Telcordia (Bellcore)

Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

: Ordering Information

Available Models

ioLogik R2140: RS-485 remote I/O with 8 AIs, 2 AOs, -10 to 60°C operating temperature

Optional Accessories (can be purchased separately)

LDP1602: LCD module with 16 x 2 text display and 5 buttons

Package Checklist

- ioLogik R2140
- Documentation and software CD