

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
- > Easy-to-use, quick programming library for VB, VC++, BCB, .NET
- > NIST-Traceability calibration for analog I/O channels
- > Firmware upgradable over RS-485



Specifications

Serial Communication

Interface: RS-485-2w: Data+, Data-, GND
Serial Line Protection: 15 KV ESD for all signals

Serial Communication Parameters

Parity: None
Data Bits: 8
Stop Bits: 1
Flow Control: None
Baudrate: 1200 to 115200 bps
Protocol: Modbus/RTU

Inputs and Outputs

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 (all channels):

10 samples/sec (voltage)
 6 samples/sec (current)

Built-in Resistor for Current Input: 106 ohms

Isolation: 3K VDC or 2K Vrms

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 page 13-26 for this product's dimensions diagram.
Weight: 200 g

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)

Standards and Certifications

Safety: UL 508
EMI: FCC Part 15 Subpart B Class A, EN 55022 Class A
EMS: IEC 61000-4, IEC 61000-6
Shock: IEC 60068-2-27
Freefall: IEC 60068-2-32
Vibration: IEC 60068-2-6
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 analog inputs and 2 analog outputs

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