

# 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

**Analog Inputs:** 8 channels

**Analog Outputs:** 2 channels

**Isolation:** 3K VDC or 2K Vrms

### 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

### 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)

### 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](http://www.moxa.com/warranty)

## Ordering Information

### Available Models

**ioLogik R2140:** RS-485 remote I/O with 8AIs, 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