

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

Analog Input

Channels: 8, sink type, 45 VDC, 200 mA

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

Data Format: 16-bit integer

Accuracy:

$\pm 0.1\%$ FSR @ 25°C

$\pm 0.3\%$ 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

CMR @ 50/60 Hz: 95 dB min.

Isolation: 3K VDC or 2K Vrms

Analog Output

Channels: 2

Resolution: 12 bits

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

Drive Voltage: 15 VDC for current output

Accuracy:

$\pm 0.1\%$ FSR @ 25°C,

$\pm 0.3\%$ FSR @ -10 and 60°C

Zero Drift: ± 9 μ V/°C

Span Drift: ± 25 ppm/°C

Load Resistor: Less than 250 ohms

Power Requirements

Power Input: 24 VDC nominal, 12 to 48 VDC

Power Consumption: 282 mA typical @ 24 VDC

Physical Characteristics

Wiring: I/O cable max. 14AWG

Dimensions: 115 x 79 x 45.63 mm (4.53 x 3.11 x 1.8 in)

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)

Regulatory Approvals

EMI: FCC Part 15, CISPR (EN55022) class A

EMS: IEC 61000-4, IEC 61000-6

Shock: IEC 60068-2-27

Freefall: IEC 60068-2-32

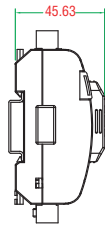
Vibration: IEC 60068-2-6

Warranty

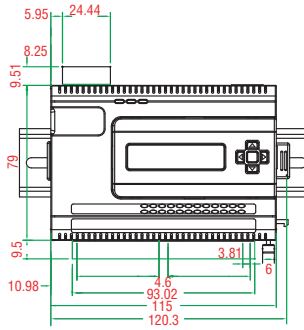
Warranty Period: 2 years

Details: See www.moxa.com/warranty

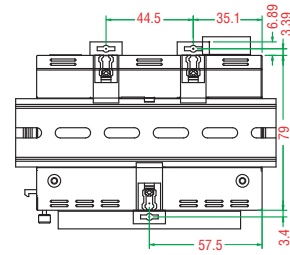
Dimensions (unit = mm)



Side View



Front View



Rear View

Pin Assignment

I/O (left to right)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Vin0+	Vin0-	Vin1+	Vin1-	Vin2+	Vin2-	Vin3+	Vin3-	Vin4+	Vin4-	Vin5+	Vin5-	Vin6+	Vin6-	Vin7+	Vin7-	Vout0+	Vout0-	Iout0+	Iout0-	Vout1+	Vout1-	Iout1+	Iout1-

Ordering Information

ioLogik R2140: RS-485 remote I/O with 8 analog inputs and 2 analog outputs

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