ioLogik W5340

Active GPRS micro controller with 4 AIs, 8 DIOs, and 2 relay outputs

> Integrated, compact box solution for GPRS telemetry applications
> Definable GPRS connection strategy to optimize data transmission
> Intuitive menu driven front-end intelligence
> Flexible, Unicode alarm system supporting SMS, email, SNMP Trap, TCP, UDP
> One RS-232/422/485 serial port built in to connect with field serial devices
> Backup and sustainable data logging function
> Seamless SCADA connectivity by Active OPC technology
> Configure, update firmware, and program over the air via ioAdmin
> Windows/WinCE VB/ VC.NET and Linux C APIs

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: Introduction

The ioLogik W5340 series Active GPRS micro controllers are rugged, compact solutions for remote monitoring and alarm systems. With the ioLogik W5340 series, you can define a GPRS connection strategy, including Always-On and Wake-On-Demand, to optimize data transmission rates for different applications. In addition, the operational cost of GPRS communication depends on the data transmission rate. With Moxa's active technology, you can expect to cut transmission costs in half and offer different GPRS connection strategies to achieve better data transmission fees.

This rugged, compact solution is suitable for the following applications.

• Water and wastewater industries
• Broadcast and telecom radio tower monitoring
• Infrastructure management
• Oil & gas, power, and transportation
• Lighting control monitoring

: Specifications

Cellular
Interface: GPRS
Band Options: Quad-band 850/900/1800/1900 MHz
GPRS Multi-Slot Class: Class 10
GPRS Terminal Device Class: Class B
SMS: Point-to-Point Text/PDU
SIM Control Voltage: 3 V

LAN
Ethernet: 1 x 10/100 Mbps, RJ45
Protection: 1.5 KV magnetic isolation
Protocols: Modbus/TCP, TCP/IP, UDP, DHCP, Bootp, SNMP, SNTP

Serial Communication
Interface: 1 x RS-232/422/485, software selectable
(9-pin D-Sub male, or 5-contact terminal block)
Baudrate: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 bps

Analog Input
Channels: 4 analog inputs with differential input
Resolution: 16 bits
I/O Mode: Voltage / Current
Input Range: 0 to 10 V, ±10 V, ±5 V, 0 to 20 mA, 4 to 20 mA

Accuracy:
• ±0.1% FSR @ 25°C
• ±0.3% FSR @ -10 and 55°C
Sampling Rate (all channels): 100 samples/sec
Input Impedance: 200K ohms (min.)
Built-in Resistor for Current Input: 102 ohms

DI/DO Configurable Channels
Channels: 8
I/O Mode:
• DI or Event Counter (up to 900 Hz)
• DO or Pulse Output (up to 100 Hz)

Digital Input
Channels: Up to 8, source/sink selectable
Sensor Type: NPN/PNP type
I/O Mode: DI or Event Counter (up to 900 Hz)
Dry Contact:
• Logic 0: short to GND
• Logic 1: open
Wet Contact:

DI Type Status	Source	Sink
ON	0 to 3 VDC	10 to 30 VDC
OFF	10 to 30 VDC	0 to 3 VDC

Common Type: 4 points per COM
Isolation: 3K VDC or 2K Vrms
Counter/Frequency: 900 Hz, power off storage
Digital Filtering Time Interval: Software selectable
Over-voltage Protection: 36 VDC
Poweroff Counter: Supports poweroff counter storage function

Digital Output
Channels: Up to 8, sink type, 36 VDC, 200 mA
I/O Mode: DO or Pulse Output (up to 100 Hz)
Pulse Wave Width/Frequency: 10 ms/100 Hz
Over-voltage Protection: 45 VDC
Over-current Limit: 600 mA
Over-temperature Shutdown: 160°C
Output Current Rating: Max. 200 mA per channel
Isolation: 3K VDC or 2K Vrms

Relay Output
Channels: 2 Form A (Normal Open) relay outputs, 5 A
Contact Rating: 5 A @ 30 VDC, 5 A @ 240 VAC, 5 A @ 110 VAC
Inductance Load: 2 A
Resistance Load: 5 A
Breakdown Voltage: 500 VAC
Relay On/Off Time: 10 ms, 5 ms (max.)
Initial Insulation Resistance: 1G min. @ 500 VDC
Expected Life: 100,000 times (Typical)
Initial Contact Resistance: 30 milli-ohms (max.)
Pulse Output: 20 operation times per minutes at rated load
Isolation: 3K VDC or 2K Vrms

Power Requirements
Power Input: 24 VDC nominal, 12 to 36 VDC
Power Consumption:
• GPRS Always On (Communication): 4.2 W
• GPRS On Demand: 2.8 W

Physical Characteristics
Dimensions: 46.8 x 135 x 105 mm (1.84 x 5.31 x 4.13 in)
Weight: 495 g

Environmental Limits
Operating Temperature:
Standard Models: -10 to 55°C (14 to 131°F)
Wide Temp. Models: -40 to 70°C (-40 to 158°F)
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)
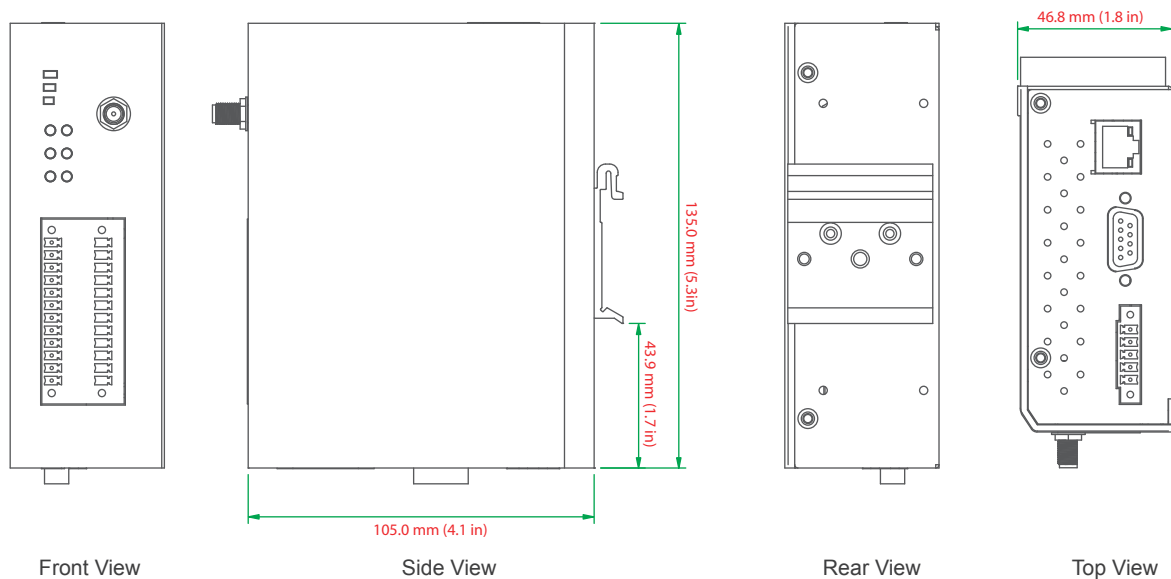
Regulatory Approvals
EMI: FCC part 15, CISPR (EN55022) Class A
EMS:
IEC 61000-4-2 (ESD), levels 2, 3
IEC 61000-4-3 (RS), level 2
IEC 61000-4-4 (EFT), level 2
IEC 61000-4-5 (Surge), level 3
IEC 61000-4-6 (CS), level 2
IEC 61000-4-8 (PM), level 1
IEC 61000-4-11 (DIP)
IEC 61000-6-2 (ESD), levels 2, 3
IEC 61000-6-4 (EFT), level 2
Safety: UL508 (Pending)
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.

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

Dimensions

Front View   Side View   Rear View   Top View

46.8 mm (1.8 in)
135.0 mm (5.3in)
43.9 mm (1.7 in)
105.0 mm (4.1 in)

⋮ Ordering Information

Available Models
ioLogik W5340: Active GPRS micro controller with 4 AIs, 8 DIOs, and 2 relay outputs, -10 to 55°C operating temperature
ioLogik W5340-T: Active GPRS micro controller with 4 AIs, 8 DIOs, and 2 relay outputs, -40 to 70°C operating temperature