

DATASHEET

Wireless POINT I/O Adapter, non-CE ILX34-AENWG

The ProSoft Technology[®] Wireless POINT I/O Adapter is a high-speed, standards-based 802.11g wireless input/output (I/O) communication adapter offering a convenient wireless alternative for linking Rockwell Automation[®] controllers to distributed process I/O modules. Combining Rockwell Automation's field proven I/O with ProSoft Technology's Integrated Wireless Architecture[™] technology and support, the Wireless POINT I/O Adapter provides users an optimum distributed I/O communication solution.

The Wireless POINT I/O Adapter Add-On Profile (AOP) utilizes the familiar RSLogix[™] 5000 programming environment and connection-based EtherNet/IP[™] protocol to simplify configuring and communicating with POINT I/O racks scattered throughout the process facility. The compact size of POINT I/O systems, when coupled with the Wireless POINT I/O Adapter, make them ideal for collecting data from and controlling moving systems such as robots, automated carts, overhead cranes, earthmovers, as well as fixed-position racks in hard-to-reach areas of the process plant.

The Wireless POINT I/O Adapter can be used in networks with RadioLinx[®] Industrial Hotspots or third party 802.11g access points to provide high-speed, low latency 802.11g client communication over widely spaced plant areas. This ability to work with existing standards-based wireless technology protects and leverages the end-users' investment. For security, the Wireless POINT I/O employs 802.11i WPA2 with AES Encryption.



Features	Benefits
EtherNet/IP connection-based communication	 Connection-based communication for the highest level of integration with Rockwell Automation[®] controllers and software
Program using RSLogix 5000 version 17 or later and AOP	 Simplified integration with a familiar programming environment Easy to configure, no special configuration software required Integrated web page for wireless configuration
302.11g client	 Standards-based wireless protects investment and allows communication with RadioLinx Industrial Hotspots or 3rd party 802.11g access points High-speed, low latency wireless communication
Supports ProSoft Technology Integrated Wireless Architecture when used with RadioLinx Industrial Hotspots	 Optimizes wireless bandwidth through intelligent routing of multicast packets Limits loss of I/O messages
Jses Rockwell Automation [®] POINT I/O modules	 Field-proven, cost effective I/O platform POINT I/O diagnostic features include channel-level diagnostics, removal and insertion under power Many Input/Output types to choose from – digital I/O, analog I/O, POINT Guard I/O, RTD, thermocouple, serial-interface for ASCII, and counters Easy to add / customize point count – up to 63 POINT I/O modules per adapter

Configuration

Both wireless and I/O configuration is done using the ILX34-AENWG Add-On Profile in RSLogix 5000 v17 (or later). Configuration of wireless parameters may be done using the integrated web pages to enable configuration of I/O modules over-the-air.

General Specifications

- Data communication interface via IEEE 802.11g 54Mb Wireless standard
- Configuration interface via 10/100 full/half duplex Cat5 cable
- EtherNet/IP messages encapsulated within standard TCP/UDP/IP protocol
- Half/full duplex 54 Mbps wireless operation
- Communication to and from other POINT I/O modules on the same DIN-rail
- Communication supported by RSLinx software
- I/O configuration via RSLogix™ 5000 software
- No network scheduling required
- No routing tables required
- Support of connections from multiple controllers simultaneously

Functional Specifications

Expansion I/O Capacity

POINTBus Current Output	ILX34-AENWG uses 1.0A, 300 mA available for I/O modules. Use 1734-EP24DC backplane extension power supplies to extend beyond 300 mA
	supplies to exterio beyond 500 mA
Maximum # of Modules	63 modules
Max # of Rack Optimized Connections	5 for digital I/O modules only
Max # of direct connections	20

Hardware Specifications

Power Supply	
Input Voltage	24V DC nominal 10-28.8 V range
Power Consumption	10.0 W max @ 28.8 VDC
Input Protection	Reverse Polarity, Transients
Isolation Voltage	1800 VDC for 60 sec

General	
Indicators (RF status)	Link, Activity
POINTBus Output Current	300 mA maximum
Thermal Dissipation	9.5 BTU / hr maximum
Dimensions inches (mm)	3.0H x 2.16W x 5.25L (76.2H x 54.9W x 133.4L)
Mass	12 oz / 340 grams
EtherNet Connector	RJ-45, Category 5

Environmental

Environmental	
Operating Temperature	-20° to 55° C. IEC 60068-2 -1 cold, -2 dry heat, -14 thermal shock
Storage Temp	-40° to 85° C
Relative Humidity	5 to 95% noncondensing. IEC 60068-2-30
Shock	IEC 60068-2-27 30g operating 50g nonoperating
Vibration	IEC 60068-2-6 5g 10-500Hz
ESD Immunity	IEC 60068-4-2 6kV contact discharge 8kV air discharge
Radiated RF Immunity	IEC 60068-4-3 10V/m 1kHz sine AM Modulation 30MHz to 2GHz
	10V/m 200 Hz AM Pulse 50% to 100 % frequencies
EFT/B Immunity	IEC 61000-4-5 4kV at 5kHz power ports, 2kV 5.0kHz communication ports



Example Application



Surge Transient Immunity	IEC 61000-4-5 1kV line-line (DM) and 2kV line-earth (CM) on comm. Ports 1kV line-line (DM) and 2kV line-earth (CM) on power ports
Conducted RF Immunity	IEC 61000-4-6 10Vrms 1kHz sine 80% modulation AM 150kHz to 80MHz
Emissions	CISPR 11 Group 1 Class A
Enclosure rating	None (open style)

Radio / RF

Communication standard	802.11g
Security	802.11i (WPA2)
Encryption	None, WEP, AES
RF Power	12 dBm (16 mW) without antenna gain – allows up to 6 dBi antenna for ETSI, 100 mW EIRP limited countries
Antenna connection	One RP-SMA connector
IGMP querying support	Use of WDS to support IGMP querying and multicast
Indoor distance	100 meters at 54 Mbps (use RadioLinx [®] Industrial Hotspots radios to extend range)
Outdoor distance	Up to 3 km with high gain, directional antennas and RF line-of-sight

Enclosure	
Cover	Molded plastic, integrated DIN rail clip
All other components	Supplied by Rockwell Automation [®] standard 1734-AENTR parts
Enclosure rating	None (open style)
LED Indicators	 Link Activity System Power Field Power Module Status Network Status Network Activity

POINTBus Status

Performance

Wireless packets per second	Up to 1000
RSLogix I/O Configuraton	Allow 20 ms per I/O connection
Requested Packet Interval,	Example: Set RPI = 100ms for 5 I/O connections
Typical for one adapter per	(For recommended RPI using multiple adapters per
single 802.11 network	single network, contact ProSoft Technical Support)



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Agency Approvals & Certifications

CSA	C22.2 No. 213-1987
CSA CB Certified	IEC61010
ATEX	EN60079-0 Category 3, Zone 2
	EN60079-15
Ex St.	PG

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Wireless Approvals

Visit our website at www.prosoft-technology.com for current wireless approval information.

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Additional Products

ProSoft Technology[®] offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms.

Compatible products in this product line include:

RLX-IHW RLXIB-IHW-66 RLXIB-IHG

For a complete list of products, visit our website at: www.prosoft-technology.com

Ordering Information

To order this product, please use the following:

Wireless POINT I/O Adapter

ILX34-AENWG

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft Technology distributors near you, go to:

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