

Communication Solutions for **Schneider Electric** Users

In-Chassis Gateways Wireless



Who we are

We don't just sell products.
We sell tested, field-proven solutions.

At ProSoft Technology® our primary focus is to provide connectivity solutions that link dissimilar automation products.

In everything we do, the products we develop and the services we offer, we consider quality a priority. We don't just sell products. We sell tested, field-proven solutions. Our goal is to support our customers from pre-sales through the entire life-cycle of the application. We provide total solutions with quality products developed with customers in mind, a well-respected brand and industry-leading technical support.

For years, ProSoft Technology products have been used worldwide in nearly every industry. Our product lines have grown to over 500 communication modules supporting more than 100 different industrial communication protocols. ProSoft Technology has regional offices around the globe along with worldwide distribution to meet all your industrial application needs.

Tech Support

ProSoft Technology's technical support is unparalleled in the industrial automation industry. To continue our world-class technical support, we have opened offices in most time zones in an effort to support our customers at a local level.

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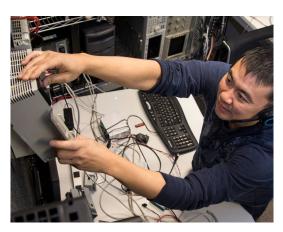
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See back cover for more contact information.

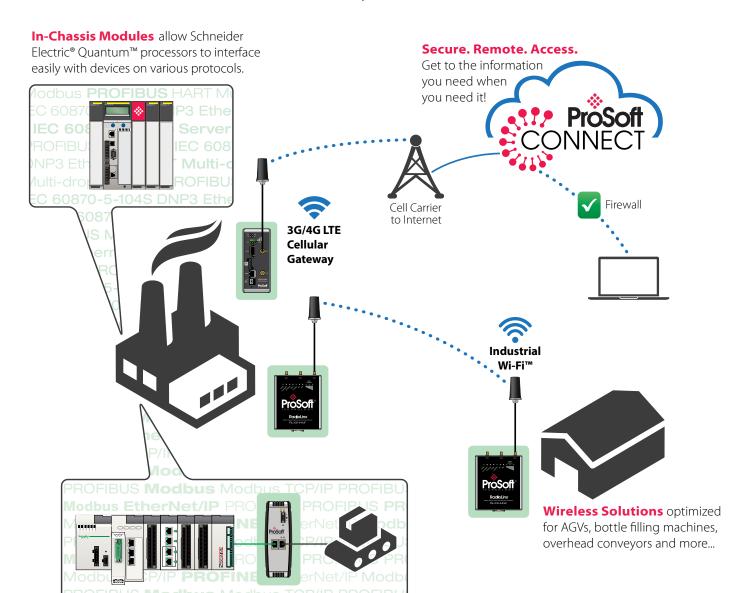








What we can do for your facilities



Stand-Alone Gateways allow your controllers to connect to various protocols (EtherNet/IP™, PROFIBUS, PROFINET, Modbus®, Modbus® TCP/IP...)

ProSoft Technology provides field-proven connectivity and communication solutions that bridge between various automation products seamlessly.

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Typical Applications for In-Chassis Interface Modules

PROFIBUS	Power generation & distribution, oil and gas, water/wastewater and packaging
DNP3 Ethernet	Connect RTUs, Intelligent Electronic Devices and protection equipment in substation automation applications to controllers
IEC 60870-5-104S Server	Substation applications for PLC to SCADA communications
Modbus	Interface with Modbus-compatible devices found in nearly every industry
HART Multi-drop	Devices commonly supporting the protocol include pressure, temperature, flow transmitters, and other similar instruments commonly found in the process and other industries.



PROFIBUS Solutions



PROFIBUS DP Master

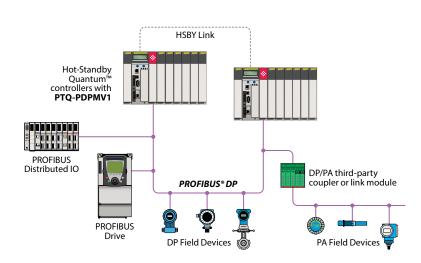
Features

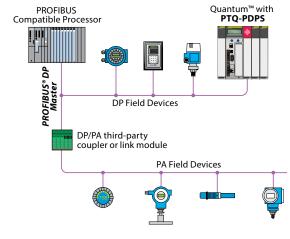
- Acts as input/output module between the PROFIBUS network and processor
- Includes software to interface between any compliant FDT device DTM and applicable PROFIBUS slave devices.
- Hot Standby features support for SE 140 671 CPU
- Configuration over Ethernet
- Supports up to 125 slave devices with repeaters



PROFIBUS DP Slave

- Supports PROFIBUS DPV0 Slave implementation
- Up to 244 bytes of Input and Output data, for a maximum of 400 bytes total.
- Ability to connect to a PC for configuration and troubleshooting













Smart Energy Communications

DNP3 Solution



Ethernet Features

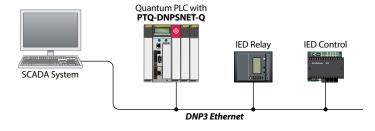
- Acts as a Server on a DNP Ethernet network
- Allows user to set on-line/off-line quality flag that is reported to the DNP host.
- Module supports DNP Subset Level 2 features and some Level 3 features allowing SCADA systems supporting DNP protocol to be integrated into the Quantum platform

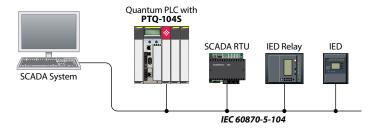
IEC 60870-5-104 Solution



Server Features

- Functions as a Server on the network supporting data read/write commands from an IEC 60870-5-104 client
- · One TCP server socket
- Supports unsolicited messages, either cyclic or spontaneous
- Event timestamping configurable by type



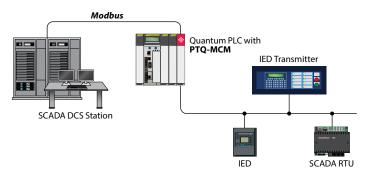


Modbus Communication Module



Features

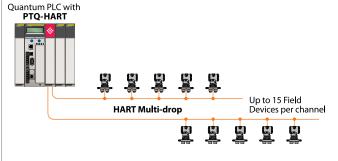
- Emulates Modbus Master or Slave devices
- Adds two additional Modbus Serial ports to existing platform
- Compatible with all Quantum programming packages
- Suitable for SCADA and field device interface applications



PIG-HAST

HART Multi-drop Modules

- Supports four Master channels with each channel configured independently to emulate a HART Master
- Each Master is completely user-configurable
- Supports up to 15 HART devices per channel
- Supports the HART Multi-drop implementation of the protocol
- Recognized as an Options module and has access to PLC memory for data transfer













Ethernet/IP™ Gateway Solutions

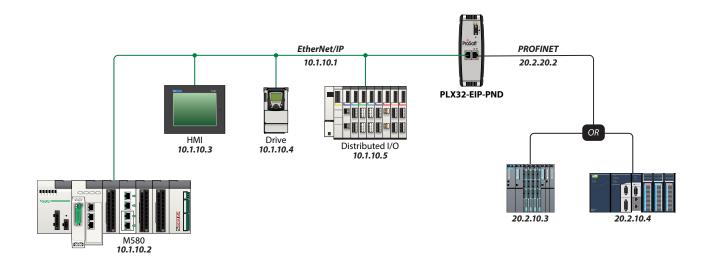
- Multiple I/O Connections
- 4,000-word database
- Bi-directional data transfer
- Remote Configuration and Diagnostics
- SD Card slot for disaster recovery
- Up to four Serial ports

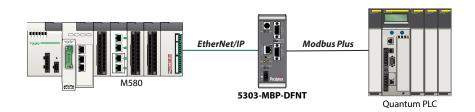


EtherNet/IP to PROFINET Device Gateway



EtherNet/IP to Modbus Plus Gateway



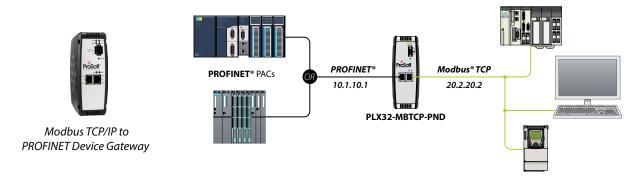


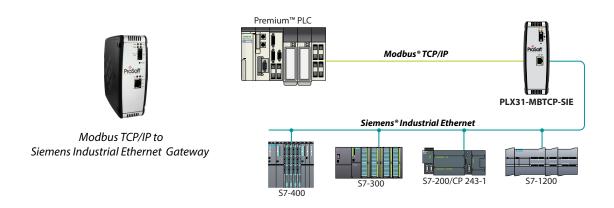


Modbus® TCP/IP Gateway Solutions

Features

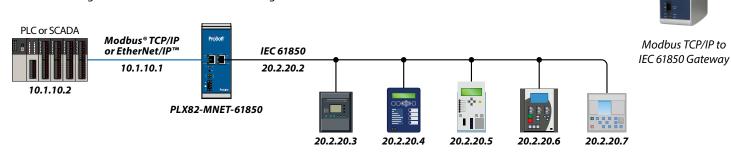
- No gateway configuration is required for Server functionality other than setting up the network and database parameters in the user configuration file
- Supports client and server communications
- · Gateways with two Ethernet ports allow you to isolate networks, passing only the data you want between devices
- Up to four Serial ports





IEC 61850 Features

- · Allows compatible IEC 61850 devices such as relays and IEDs to interface with HMI, SCADA, or DCS systems
- Imports IEC 61850 configuration files from relays and utilizes a drag-and-drop interface to map the data
- · Extended diagnostic information available in configuration software

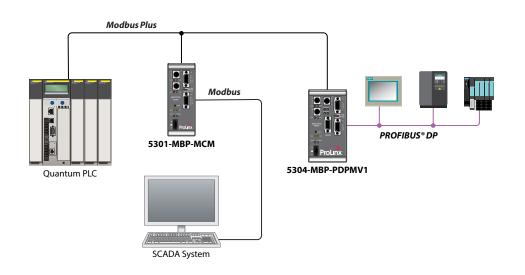






Modbus® Plus Gateway Solutions

- True Peer-to-Peer connectivity with the Modbus Plus network
- Actively exchanges Global In and Out Data with Modbus Plus network
- Supports Master Read/Write commands

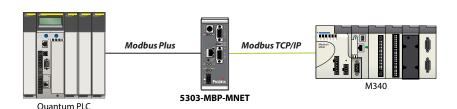




Modbus Plus to Modbus Gateway

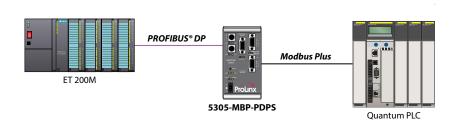


Modbus Plus to PROFIBUS Master Gateway





Modbus Plus to Modbus TCP/IP Gateway





Modbus Plus to PROFIBUS Master Gateway







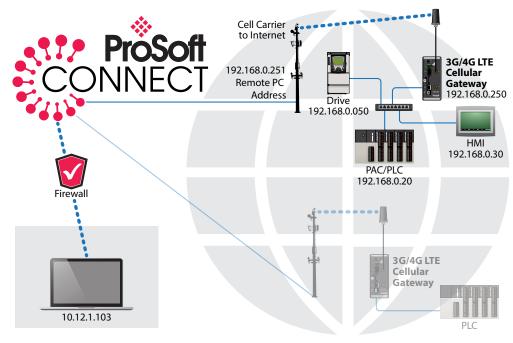


Secure. Remote. Access.

ProSoft Connect is ProSoft Technology's secure, cloud-native platform, designed to help you gain value from the Industrial Internet of Things. ProSoft Connect allows you to monitor and troubleshoot remote automation equipment from wherever you are.

Features

- Uses your PC's operating system VPN, which minimizes the need for user-installed software
- EasyBridge[™] technology enables your PC to act like it is connected directly to a switch on the remote network
- Allows software tools such as RSWho, Studio 5000, Unity, TIA Portal and more to work without any routing



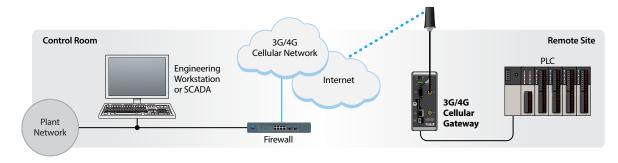
Industrial Cellular Gateway (M2M)

Data is shared with any EtherNet/IP™-based controller, including signal strength, data usage, operating temperature, and more.



4G LTE

- 4G LTE with fallback to 3G; this helps ensure clear connections worldwide and longevity for your application
- · Access to remote devices using secure VPN tunnels over internet connections
- · Built-in Web server for local/remote configuration, monitoring, and wireless network diagnostics





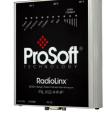


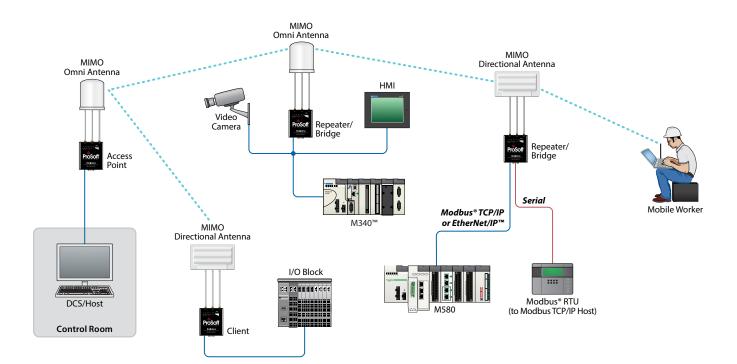




802.11n (abgn) Fast Industrial Hotspots

- Ultra-Fast access point switchover times of less than 10 ms are perfect for applications such as automated storage-retrieval systems and automotive skillet lines
- EtherNet/IP™ embedded object and Modbus® agent support lets users get radio diagnostics into their PAC/PLC, where the information can be analyzed and acted upon, helping to reduce downtime
- High-speed 802.11n RF data rates up to 300 Mbps (MIMO and Channel Bonding)
- WPA/WPA2-Personal (PSK, AES and/or TKIP); WPA/WPA2-Enterprise (IEEE 802.1X/RADIUS, AES and/or TKIP)
- Quick configuration and advanced diagnostics with included IH Browser utility, embedded Web server and OPC Diagnostic Server
- Designed for extreme temperatures (-40° to +70°C), high vibration/shock and hazardous locations (UL Class 1, Div 2, ATEX Zone 2)
- · Secure digital configuration storage for quick field replacement
- · Hotspots can be set up as Virtual Local Area Networks (VLAN) allowing for secure network segmentation









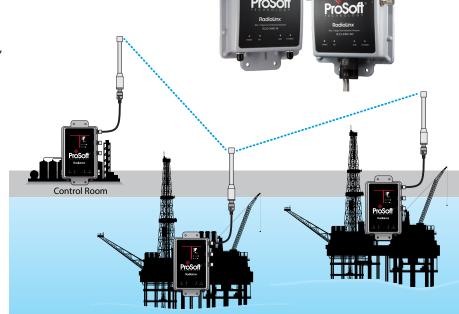




802.11n (abgn) Fast Watertight Industrial Hotspots

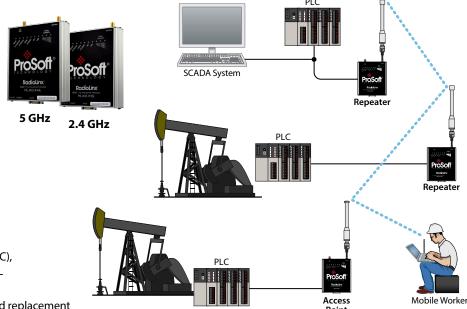
Features

- IP67 water/dust rated
- Designed for extreme temperatures (-40° to +70°C), high vibration/shock and hazardous locations (UL C1D2, ATEX Zone 2)
- Ultra-Fast Roaming with under 10 ms switchover times maintains connections for moving machines/platforms
- · Power over Ethernet (PoE)
- · QoS and VLAN for optimum traffic management
- WPA/WPA2-Personal (PSK, AES and/or TKIP)
- WPA/WPA2-Enterprise (IEEE 802.1X/RADIUS, AES and/or TKIP)



802.11g and 802.11a High-Power Industrial Hotspots

- Ultra-Fast access point switchover times of less than 10 ms are perfect for applications such as automated storage-retrieval systems and automotive skillet lines
- EtherNet/IP™ embedded object and Modbus® agent support lets users get diagnostics into their PAC/PLC, where the information can be analyzed and acted upon, helping to reduce downtime
- High RF power for longer range and coverage
- WPA/WPA2-Personal (PSK, AES and/or TKIP)
- WPA/WPA2-Enterprise (IEEE 802.1X/RADIUS, AES and/or TKIP)
- Designed for extreme temperatures (-40° to +70°C), high vibration/shock and hazardous locations (UL C1D2, ATEX Zone 2)
- Secure digital configuration storage for quick field replacement











Radiating Cable 2.4 and 5 GHz Band

Acting as a long, flexible antenna, the Radiating Cable is an alternative to traditional RF antenna systems.

Features

- Special coaxial shield design uses slots to radiate RF Signals
- Available in variable lengths, kits including all necessary accessories
- Pre-assembled cable for easy installation
- Tested for short- and medium-range distance applications (a cable up to 100 meters long connected with one radio module)
- Halogen-free low-smoke flame-retardant jacket

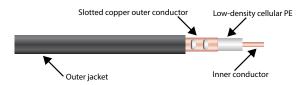
Specifications

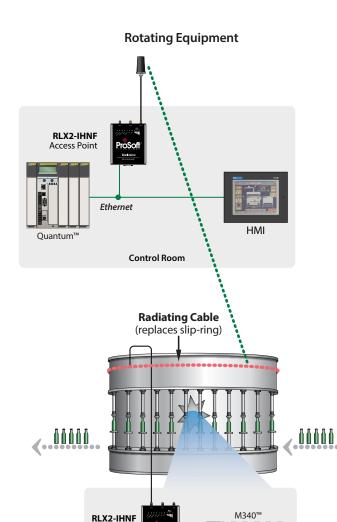
- Size: 12.7mm (0.5")
- · Frequency Range: 2.4 GHz, 5 GHz to 6 GHz
- Operating Temperature: -40° to 85°C (-40 to 185°F)

Benefits

- Optimized for ProSoft Technology's 802.11g, 802.11a, and 802.11n wireless LAN systems
- Wireless signal more stable in terms of response time

 useful in communicating with I/O
- Used in metallic environments, rotating/spinning machines, conveyors, AGV, warehousing and more





Ethernet

Onboard Control Panel Inside Rotating Equipment









Wireless I/O



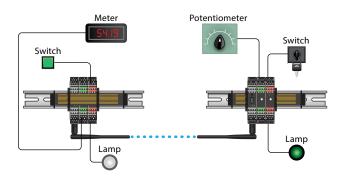
What would you monitor if you didn't have to worry about the cost of running wire?

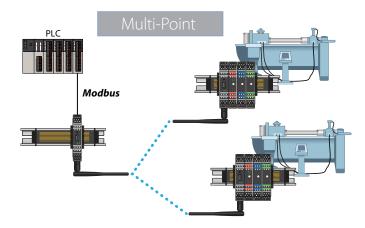
Whether you have a point-to-point application or many distributed I/O devices, our Wireless I/O solutions are a great alternative to long wire runs. Eliminate running conduit, trenching or permitting. The system can be expanded as your I/O needs grow.

Features

- · Bi-directional
- 868 MHz, 900 MHz or 2.4 GHz
- Each radio can connect up to 16 I/O modules
- Available as Analog I/O 0-10 V, Analog I/O 4-20 mA & Digital/Discrete I/O

Point-Point







Protocol / Connectivity	Part Number	Product Features	Protocol Features	
DH-485	PTQ-DH485	Allows Modico® Quantum™ processors to easily interface with DH-485 protocol compatible devices.	Compatible devices include not only Rockwell Automation® PLCs but also a wide assortment of end devices.	
DNP over Ethernet with Quality Flag	PTQ-DNPSNET-Q	Allows user to set on-line/off-line quality flag that is reported to the DNP host.		
HART Multi-drop	PTQ-HART	Allows Quantum processors to easily interface with HART-compatible devices.	HART-compatible devices include pressure, temperature, and flow transmitters, as well as other similar instruments commonly found in the process industry.	
IEC 60870-5-104 Server	PTQ-104S	Allows Quantum I/O-compatible processors to interface with IEC 60870-5-104-compatible hosts.		
Modbus® Master/Slave	PTQ-MCM	Adds additional Modbus Master and/or Slave communication ports to Quantum processors. Supports RS-232, RS-422, or RS-485 network types.		
PROFIBUS DP Master	PTQ-PDPMV1	Allows Quantum processors to easily interface with a PROFIBUS DP slave devices.	Industries that use PROFIBUS technology include power and distribution applications,	
PROFIBUS DP Slave	PTQ-PDPS	Allows Quantum processors to easily interface with PROFIBUS DP Master device.	petrochemical, water and gas, SCADA, and DC	

ProSoft Technology®

Stand-Alone Gateways Product Selection Chart

Application / Protocol	DF1	EtherNet/IP™	HART	IEC 61850	Modbus Master/Slave	Modbus Plus
DF1						5301-MBP-DFCM 5302-MBP-DFCM4
EtherNet/IP™						5303-MBP-DFNT
HART						5307-MBP-HART
Modbus Master/Slave						5301-MBP-MCM 5302-MBP-MCM4
Modbus® Plus	5301-MBP-DFCM 5302-MBP-DFCM4	5303-MBP-DFNT	5307-MBP-HART		5301-MBP-MCM 5302-MBP-MCM4	
Modbus® TCP/IP				PLX81-MNET-61850 PLX82-MNET-61850		5303-MBP-MNET
PROFIBUS DP Master						5304-MBP-PDPMV1
PROFIBUS DP Slave						5305-MBP-PDPS
PROFINET Device		PLX31-EIP-PND PLX32-EIP-PND				

Application / Protocol	Modbus TCP/IP	PROFIBUS DP Master	PROFIBUS DP Slave	PROFINET Device	Siemens® Industrial Ethernet
EtherNet/IP™				PLX31-EIP-PND PLX32-EIP-PND	
IEC 61850	PLX81-MNET-61850 PLX82-MNET-61850				
Modbus Plus	5303-MBP-MNET	5304-MBP-PDPMV1	5305-MBP-PDPS		
Modbus TCP/IP				PLX31-MBTCP-PND PLX32-MBTCP-PND	PLX31-MBTCP-SIE PLX32-MBTCP-SIE
PROFINET Device	PLX31-MBTCP-PND PLX32-MBTCP-PND				
Siemens Industrial Ethernet	PLX31-MBTCP-SIE PLX32-MBTCP-SIE				

Model	802.11abgn Weatherproof Industrial Hotspot	802.11abgn Fast Industrial Hotspot	802.11g High-Power Industrial Hotspot	802.11a High-Power Industrial Hotspot	Industrial Cellular Gateway	Point-to-Point Wireless I/O	Multi-Point Wireless I/O
	RLX2-IHNF-W(C)	RLX2-IHNF	RLX2-IHG	RLX2-IHA	ICX35-HWC	BM-xxx0-RM1K	BM-xxxx-GM1K
Features & Specifications					T		
Device Connectivity	Ethernet	Ethernet/Serial	Ethernet/Serial	Ethernet/Serial	Ethernet/Serial		Modbus® Serial
Frequency Band(s)	2.4 & 5 GHz	2.4 & 5 GHz	2.4 GHz	5 GHz	Cellular	Several frequencies available	Several frequencies available
Regions Unlicensed Use Allowed	Global	Global	North America, Latin America, Australia, New Zealand, Middle East	North America, Latin America, Australia, New Zealand, Middle East	Global	North America, Europe, Australia, Middle East	North America, Europe, Australia, Middle East
Wireless Technology	IEEE 802.11abgn	IEEE 802.11abgn	IEEE 802.11g	IEEE 802.11a	4G LTE Cellular HSPA	Frequency Hopping	Frequency Hopping
Max Outdoor Range (miles/km)	5 mi /8 km	5 mi /8 km	20 mi / 30km	5 mi / 8 km	Unlimited	1-4 mi / 1.6-6.4 km	5-30 mi / 8-48 km
Fast Roaming	Yes	Yes	Yes	Yes	N/A	N/A	N/A
Repeater Mode	Yes	Yes	Yes	Yes	N/A	N/A	N/A
Max RF Data Rate	300 Mbps	300 Mbps	54 Mbps	54 Mbps	N/A	N/A	N/A
Security/Encryption	802.11i / 128 bit AES	802.11i / 128 bit AES	802.11i / 128 bit AES	802.11i / 128 bit AES	Internal Firewall	Proprietary FHSS / 128 bit AES	Proprietary FHSS / 128 - to 256-bit AES
RF Based IGMP Querying	Yes	Yes	Yes	Yes	N/A	N/A	N/A
Self-Healing Network	Yes	Yes	Yes	Yes	N/A	N/A	N/A
Advanced Diagnostics (signal strength LEDs, web server, network management software, OPC tag server, SNMP)	Yes	Yes	Yes	Yes	N/A	N/A	N/A
Hazardous Location Approvals	Class 1, Div 2/ Atex Zone 2 (WC)	Class 1, Div 2/ Atex Zone 2	Class 1, Div 2/ Atex Zone 2	Class 1, Div 2/ Atex Zone 2	Class 1, Div 2	Class 1, Div 2 / Atex Zone 2	Class 1, Div 2 / AAtex Zone 2 / C1D2
Outdoor/Wash Down Rated Model	IP67	N/A	N/A	N/A	N/A	N/A	N/A
Wireless Applications							
Long-Range SCADA	N/A	N/A	Yes	Yes	Yes	N/A	N/A
Short-Range SCADA	Yes	Yes	Yes	Yes	Yes	N/A	N/A
Mobile Worker (Wi-Fi)	Yes	Yes	Yes	Yes		N/A	N/A
EtherNet/IP™ Object	Yes	Yes	Yes	Yes	Yes	N/A	N/A
EtherNet/IP™ Implicit Messaging (High Speed 10)	Yes	Yes	Yes	Yes	N/A	N/A	N/A
Serial DF1, ASCII, Modbus [®] , DNP3, etc.	N/A	Yes (encapsulation)	Yes (encapsulation)	Yes (encapsulation)	N/A	N/A	N/A
Video	Fast Frame Rate	Fast Frame Rate	Yes	Yes	Yes	N/A	N/A

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