

RELIABLE SECURE CONNECTIVITY

XGP5908A/XGP5916A Series
Industrial Protocol Gateway





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FEATURE HIGHLIGHTS

- Compliant with IEC 61850-3 and IEEE 1613 Power Substation Standards
- 8 or 16-port RS-232/422/485, baud rate up to 921.6 Kbps
- Isolated redundant power inputs with 24-48 VDC ,100-240 VAC, 100-370 VDC variations
- Works in environments from -40 to 85°C
- Same hardware platform for different protocol conversion (Modbus TCP/RTU/ASCII, DNP3.0 TCP or serial, IEC 60870-5-101, IEC 60870-5-103, IEC60870-5-104, IEC 61850)
- User friendly configuration with a Java-Based Windows utility
- Embedded PPTP, IPsec and OpenVPN Client/Server for enhanced security



PRODUCT DESCRIPTION

The XGP5908A/XGP5916A Series is a highly reliable and fault tolerant Industrial Protocol Gateway. Its powerful architecture provides seamless conversion between the different protocols Ethernet or Serial based. The serial devices communicating on different protocols could be integrated into the system and extend its reach over the gateway's redundant Ethernet that can be set up as dual-subnet or RSTP redundancy. This device is designed to work in most demanding industries such as power substations, power generation, oil and gas, farming and manufacturing.

The configuration carried out through a user friendly, Java- Based Windows Utility called eNode Designer, that allows configuring target platforms, set device properties and protocol data mapping. The configuration is completely dependent on the "eNode Module" which represents that device or application – but may include things such as changing the communication port settings and defining where data point information enters and leaves the eNode Designer system.

XGP5908A/XGP5916A Series embeds an additional layer of security, allowing the devices to be deployed in topologies that request data to flow through the Internet and preventing sensitive control and monitoring data to be readable from malicious activities. IPsec VPN encryption, configurable in both peer-to-peer and peer-to-side modes will make sure the data passing is encrypted through a strong 128, 192 or 256-bit AES encryption. OpenVPN-based applications can take advantage of Client/Server support on our device.



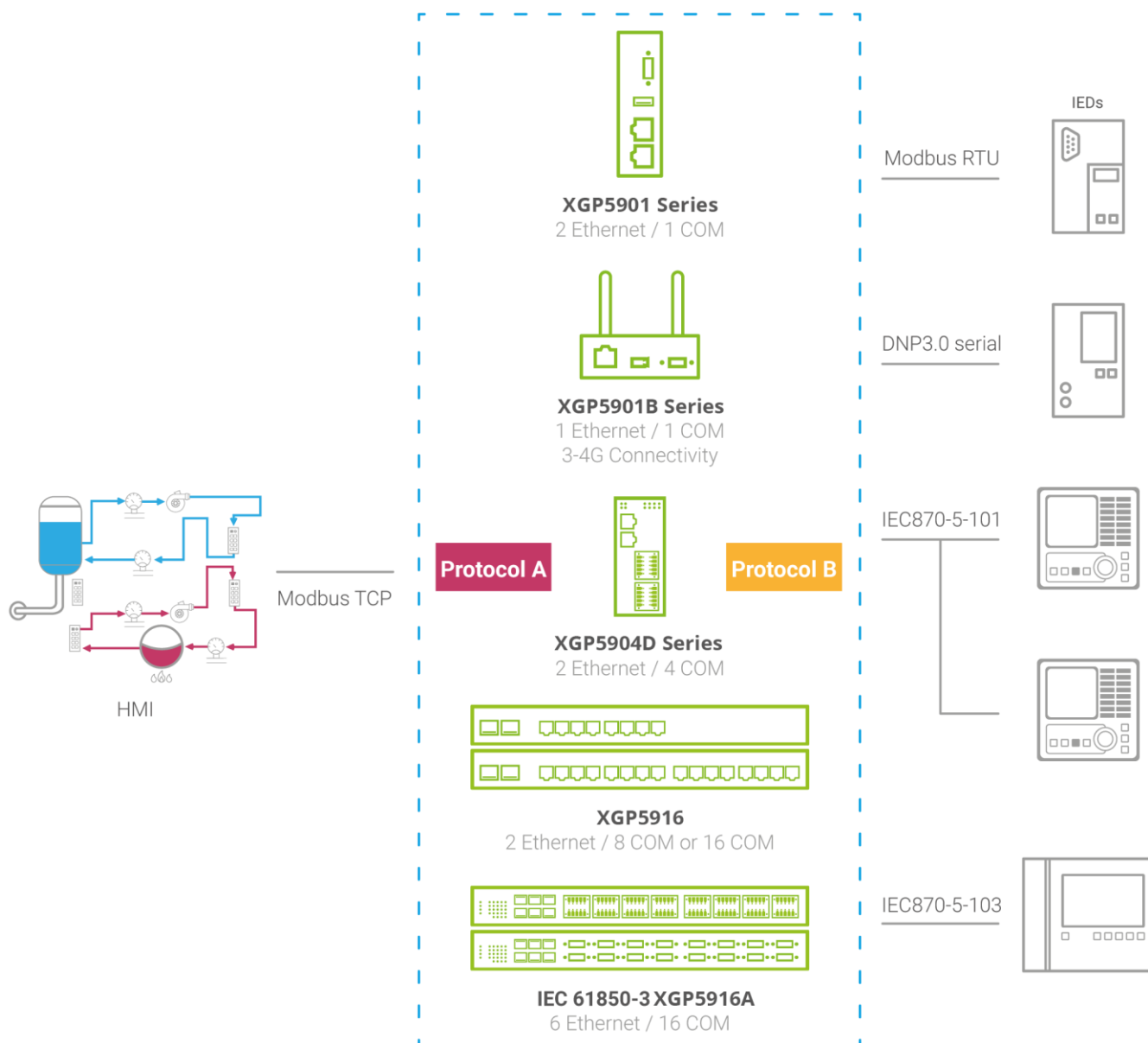
APPLICATION

Features

The protocol gateway's embedded protocol stacks allow

- Seamless conversion
- Exception/error Management
- Unsolicited event management for the protocols requiring them (such as DNP3)
- High performance
- Cost saving

General Architecture



* Protocol A and Protocol B - Please refer to Protocol Availability Matrix and order information



Application Example



The example shows how to Easily connect a Modbus Serial HMI, through Agatel’s Protocol Gateway to a DNP3.0 Ethernet Server IED. The host HMI has the role of a Modbus Serial Master while the end-device to be accessed is a DNP3.0 Ethernet Server.

Agatel’s protocol Gateway acts towards the HMI seamlessly as a Modbus Serial Slave, answering the poll commands or the write commands required by the Host by its virtual Modbus ID. Meanwhile, it acts as a DNP3.0 Ethernet Client with regard to the end-device whose DNP3.0 address is mapped to the virtual Modbus ID that the HMI is accessing.

Be careful! – all gateway functions listed in the datasheet refer to the “Gateway” role, and not which “host” or “slave” the gate way is connected to. In this example, the SKU shown is “X2SS-X3EC” (Modbus Serial Slave to DNP3.0 Ethernet Client)



PROTOCOL AVAILABILITY

Protocol Availability Matrix for XGP5908A_16A Series

Protocol B		Protocol A						
		Ethernet Server				Serial Slave		
		IEC 61850	DNP3	Modbus TCP	IEC 60870-5-104	DNP3	Modbus RTU/ASCII	IEC 60870-5-101
Ethernet Client	IEC 61850	n/a	X3ES-X5EC	X2ES-X5EC	X4ES-X5EC	X3SS-X5EC	X2SS-X5EC	X1SS-X5EC
	DNP3	X5ES-X3EC	n/a	X2ES-X3EC	X4ES-X3EC	X3SS-X3EC	X2SS-X3EC	X1SS-X3EC
	Modbus TCP	X5ES-X2EC	X3ES-X2EC	n/a	X4ES-X2EC	X3SS-X2EC	X2SS-X2EC	X1SS-X2EC
	IEC 60870-5-104	X5ES-X4EC	X3ES-X4EC	X2ES-X4EC	n/a	X3SS-X4EC	X2SS-X4EC	X1SS-X4EC
Serial Master	DNP3	X5ES-X3SM	X3ES-X3SM	X2ES-X3SM	X4ES-X3SM	n/a	X2SS-X3SM	X1SS-X3SM
	Modbus RTU/ASCII	X5ES-X2SM	X3ES-X2SM	X2ES-X2SM	X4ES-X2SM	X3SS-X2SM	n/a	X1SS-X2SM
	IEC 60870-5-101	X5ES-X1SM	X3ES-X1SM	X2ES-X1SM	X4ES-X1SM	X3SS-X1SM	X2SS-X1SM	n/a
	IEC 60870-5-103	X5ES-03SM	X3ES-03SM	X2ES-03SM	X4ES-03SM	X3SS-03SM	X2SS-03SM	X1SS-03SM





PROTOCOL SPECIFICATION

IEC61850 Server/ Client	
Supported Functions	<ul style="list-style-type: none"> • Generic access to the data (Read, Write) • 8 Logical Devices per Port • GOOSE (Generic Object Oriented Substation Event) – a GOOSE message will be generated by the gateway automatically upon event(*) • (*)Being other protocols not Real-Time, there is no guarantee that GOOSE message is generated within 1 ms from the event itself.
Supported Control Type of commands	<ul style="list-style-type: none"> • Direct-with-Normal-Security Select Before Operate (SBO)-with-Normal-Security • Direct-with-Enhanced Security Select Before Operate (SBO)-with-Enhanced-Security
Implemented Protocol Subsets	<ul style="list-style-type: none"> • IEC 61850-6 (Substation Configuration Language Description: SCL) • IEC 61850-7-1 (Principles and Models) • IEC 61850-7-2 (Abstract Communication Service Interface: ACSI) • IEC 61850-7-3 (Common Data Classes: CDC) • IEC 61850-7-4 (Logical Nodes and data Object Classes) • IEC 61850-8-1 (Mapping to Manufacturing Message Specification: MMS) • Edition 1 & Edition 2 are both Supported
DNP3 Server/ Client/ Master/ Slave	
General Specifications	<ul style="list-style-type: none"> • Serial Mode or Ethernet with TCP or UDP Mode • Server side supports serving up to 5 client in TCP Mode • Client side in a single RS-485 port, supports connecting up to 16 IEDs • Client side supports connecting up to 16 IEDs • Maximum Fragment size 2048 octets • Protocol implementation with configurable parameters conforms to IEEE Std 1815-2012 level 2
Supported Functions	<ul style="list-style-type: none"> • Time Synchronization generic access to the data(Read, Write) • Commands with or without preselection (Select, Operate, Direct Operate) • Transmission of time-tagged events • Counter management (Immediate Freeze, Freeze and Clear) • Self-address
Supported DNP3 Object Library	<ul style="list-style-type: none"> • Binary Inputs up to 8000 pts • Binary Outputs up to 2000 pts • Double Inputs up to 4000 pts • Analog Inputs up to 250 pts • Analog Outputs up to 250 pts • Counters up to 250 pts
Modbus Server/ Client/ Master/ Slave	
General Specifications	<ul style="list-style-type: none"> • Support Modbus RTU and ASCII in Serial mode • Support Modbus in TCP mode • For Modbus Client in TCP mode, support connecting up to 64 Modbus servers • For Modbus Server in TCP mode, support serving up to 64 Modbus clients • Support maximum number of data points in read direction: 8000 pts • Support maximum number of commands in write direction: 4000 pts
Supported Function Codes	<ul style="list-style-type: none"> 1: Read Coils 2: Read Discrete Inputs 3: Read Holding Registers 4: Read Input Registers 5: Write Single Coil 6: Write Single Register 15: Write Multiple Coils 16: Write Multiple Registers 43/14: Read Device Identification (server side only)
Supported Exception Codes	<ul style="list-style-type: none"> 1: illegal function 2: illegal data address 3: illegal data value 4: server device failure 6: server device busy

IEC 60870-5-101 Master/ Slave

<p>General Specifications</p>	<ul style="list-style-type: none"> • Protocol implementation with configurable parameters conforms to the IEC 60870-5-101 edition 2 specification • Process Information in Monitor and Control Direction • Balanced and Unbalanced Modes • CP24Time2a or CP56Time2a timestamp for monitor direction report
<p>Supported Functions</p>	<ul style="list-style-type: none"> • Station Initialization • Interrogation • Read Procedure • Cyclic Data and Spontaneous Transmission (Slave Side only) • Clock Synchronization • Transmission of Integrated Totals • Direct and SBO command
<p>Supported Data Types</p>	<ul style="list-style-type: none"> • Monitors Points: Each supports up to 1000 pts: Single Point, Double Point, Step Position, Bit String, Measured with Normalized Value, Measured with Scaled Value, Measured Short Floating Point Value, Integrated Totals • Control Points: Each supports up to 500 pts: Single Command, Double Command, Regulating Step Command, Set Point Command with Normalized Value, Set Point Command with Scaled Value, Set Point Command Short Floating Point, Bit string

IEC 60870-5-103 Master/ Slave

<p>General Specifications</p>	<ul style="list-style-type: none"> • Protocol implementation with configurable parameters conforms to the IEC 60870-5- 103:1997 • Master supports connecting up to 16 IEDs • Process Information in Monitor and Control Direction • Unbalanced Modes
<p>Supported Functions</p>	<ul style="list-style-type: none"> • Station Initialization, Supports reset FCB and CU • General Interrogation • Clock Synchronization • Command Transmission • Test Mode • Blocking of Monitor Direction
<p>Supported Information</p>	<ul style="list-style-type: none"> • Monitor direction: <ul style="list-style-type: none"> * Status indications in monitor direction: from <16> to <30> * Supervision indications in monitor direction: <32>, <33>, from <35> to < 39>, <46>, <47> * Earth fault indications in monitor direction: from <48> to <52> * Fault indications in monitor direction: from <64> to <93> * Auto-reclosure indications in monitor direction: from <128> to <130> * Measurands in monitor direction: from <144> to <148> • Control direction: General commands in control direction: from <16> to <19>, from <23> to <26>

IEC 60870-5-104 Server/ Client

<p>General Specifications</p>	<ul style="list-style-type: none"> • Server side supports serving up to 5 client • Client side supports connecting up to 10 IEDs • Protocol implementation with configurable parameters conforms to the IEC 60870-5-104 specification edition 2 • Process Information in Monitor and Control Direction • CP56Time2a timestamp for Control Commands
<p>Supported Functions</p>	<ul style="list-style-type: none"> • Station Initialization • Interrogation • Read Procedure (Server side only) • Cyclic Data and Spontaneous Transmission (Server side only) • Clock Synchronization • Transmission of Integrated Totals • Direct and SBO command
<p>Supported Data Types</p>	<ul style="list-style-type: none"> • Monitors Points: Each supports maximum 1000 pts: Single Point, Double Point, Step Position, Bit String, Measured with Normalized Value, Measured with Scaled Value, Measured Short Floating Points Value, Integrated Totals. • Control Points: Each supports maximum 500 pts: Single Command, Double Command, Regulating Step Command, Set Point Command with Normalized Value, Set Point Command with Scaled Value, Set Point Command Short Floating Point, Bitstring. • Event Logging (Server Side only) Universal Event Buffer up to 20,000 Events





SPECIFICATION

Network Interface	
Ethernet Port	6 x RJ-45 or 6 x SFP slot
LAN Mode	Dual Subnets or RSTP Redundancy
Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-T(X) and 100BASE-FX
Serial Interface	
Connector	5-Pin 5.08mm Terminal Block or D-Sub9 connector
Port	8 or 16
Mode	RS-232/422/485, software selectable
Baud Rate	1,200~921,600 bps
Parity	None, Odd, Even
Data Bits	5,6,7,8
Stop Bits	1,2
Power Characteristics	
Connector	10-Pin Terminal Block
Input Voltage	24-48 VDC 100-240 VAC/ 100-370 VDC for HV Series
Power Consumption	0.73A @ 24 VDC 0.35A @ 100 VAC 0.2A @ 100 VDC
Power Redundancy	Yes (Two Modules)
Reverse Polarity Protection	Yes
Mechanicals	
Housing	IP30 protection, metal housing
Dimensions (W x H x D)	440.6mm x 44mm x 309mm
Installation	19" Rack Mount
Reset Button	Yes
Weight	4kg
Environmental Limits	
Operating Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Ambient Relative Humidity	5 ~ 95% RH, (non-condensing)
Software	
Protocols	IPv4, ARP, ICMP, TCP, UDP, DHCP Client, DNS Client, Telnet, HTTP, HTTPS, , SMTP/TLS, SNMP v1/v2c/v3, Syslog, 802.1D-2004 RSTP, OpenVPN client/server, IPsec VPN peer-to- peer and peer-to-side, maximum VPN throughput of 37.9Mbps(*), and PPTP

* Testing conditions may affect the VPN throughput





REGULATORY APPROVALS

Regulatory Approvals				
Safety	EN 60950-1			
EMC	FCC Part 15, Subpart B, Class A EN 55032, Class A EN 61000-6-2, Class A EN 61000-3-2 EN 61000-3-3 EN 55024 EN 61000-6-4 IEC 61850-3 / IEEE 1613			
Test	Item		Value	Level
IEC 61000-4-2	ESD	Contact Discharge	±8KV	4
		Air Discharge	±15KV	4
IEC 61000-4-3	RS	Enclosure	10 V/m	3
IEC 61000-4-4	EFT	AC Power Port	±4.0KV	4
		DC Power Port	±4.0KV	4
		Signal Port	±4.0KV	4
IEC 61000-4-5	Surge	AC Power Port	Line-to Line±2.0KV	4
		AC Power Port	Line-to Earth±4.0KV	4
		DC Power Port	Line-to Line±1.0KV	3
		DC Power Port	Line-to Earth±2.0KV	3
		Signal Port	Line-to Line±2.0KV	4
		Signal Port	Line-to Earth±4.0KV	4
IEC 61000-4-6	CS	AC Power Port	10 Vrms	3
		DC Power Port	10 Vrms	3
		Signal Port	10 Vrms	3
IEC 61000-4-8	PFMF	Enclosure	100A/m	5
IEC 61000-4-11	DIP	AC Power Port	-	-
Shock	MIL-STD-810F Method 516.5			
Drop	MIL-STD-810F Method 516.5			
Vibration	MIL-STD-810F Method 514.5 C-1 & C-2			
RoHS	Yes			
REACH	Yes			
MTBF	XGP5916A-6S-SI-HV: 9.18 years; XGP5916A-6S-SI: 8.63 years			
Warranty	5 years			





ORDERING INFORMATION

Hardware	
Model Name	Description
XGP5916A-6S	Ind. 16 Port Protocol Gateway, 10/100BASE-T(X) SFP slot, DB9, 24-48 VDC
XGP5916A-6S-TB	Ind. 16 Port Protocol Gateway, 10/100BASE-T(X) SFP slot, TB5, 24-48 VDC
XGP5916A-6S-SI	Ind. 16 Port Protocol Gateway, 10/100BASE-T(X) SFP slot, Isolation, 24-48 VDC
XGP5908A-6S	Ind. 8 Port Protocol Gateway, 10/100BASE-T(X) SFP slot, DB9, 24-48 VDC
XGP5908A-6S-TB	Ind. 8 Port Protocol Gateway, 10/100BASE-T(X) SFP slot, TB5, 24-48 VDC
XGP5908A-6S-SI	Ind. 8 Port Protocol Gateway, 10/100BASE-T(X) SFP slot, Isolation, 24-48 VDC
XGP5916A-6S-HV	Ind. 16 Port Protocol Gateway, 10/100BASE-T(X) SFP, DB9, 100-240VAC/100-370VDC
XGP5916A-6S-TB-HV	Ind. 16 Port Protocol Gateway, 10/100BASE-T(X) SFP slot, TB5, 100-240VAC/100-370VDC
XGP5916A-6S-SI-HV	Ind. 16 Port Protocol Gateway, 10/100BASE-T(X) SFP, Isolated, 100-240VAC/100-370VDC
XGP5908A-6S-HV	Ind. 8 Port Protocol Gateway, 10/100BASE-T(X) SFP slot, DB9, 100-240VAC/ 100-370VDC
XGP5908A-6S-TB-HV	Ind. 8 Port Protocol Gateway, 10/100BASE-T(X) SFP slot, TB5, 100-240VAC/ 100-370VDC
XGP5908A-6S-SI-HV	Ind. 8 Port Protocol Gateway, 10/100BASE-T(X) SFP, Isolated, 100-240VAC/ 100-370VDC
XGP5916A	Ind. 16 Port Protocol Gateway, 10/100BASE-T(X) RJ45, DB9, 24-48 VDC
XGP5916A-TB	Ind. 16 Port Protocol Gateway, 10/100BASE-T(X) RJ45, TB5, 24-48 VDC
XGP5916A-SI	Ind. 16 Port Protocol Gateway, 10/100BASE-T(X) RJ45, Isolation, 24-48 VDC
XGP5908A	Ind. 8 Port Protocol Gateway, 10/100BASE-T(X) RJ45, DB9, 24-48 VDC
XGP5908A-TB	Ind. 8 Port Protocol Gateway, 10/100BASE-T(X) RJ45, TB5, 24-48 VDC
XGP5908A-8P-SI	Ind. 8 Port Protocol Gateway, 10/100BASE-T(X) RJ45, Isolation, 24-48 VDC
XGP5916A-HV	Ind. 16 Port Protocol Gateway, 10/100BASE-T(X) RJ45, DB9, 100-240VAC/ 100-370VDC
XGP5916A-TB-HV	Ind. 16 Port Protocol Gateway, 10/100BASE-T(X) RJ45, TB5, 100-240VAC/ 100-370VDC
XGP5916A-SI-HV	Ind. 16 Port Protocol Gateway, 10/100BASE-T(X) RJ45, Isolated, 100-240VAC/100-370VDC
XGP5908A-HV	Ind. 8 Port Protocol Gateway, 10/100BASE-T(X) RJ45, DB9, 100-240VAC/ 100-370VDC
XGP5908A-TB-HV	Ind. 8 Port Protocol Gateway, 10/100BASE-T(X) RJ45, TB5, 100-240VAC/ 100-370VDC
XGP5908A-SI-HV	Ind. 8 Port Protocol Gateway, 10/100BASE-T(X) RJ45, Isolation, 100-240VAC/100-370VDC



OPTIONAL ACCESSORIES

Optional Accessories	
Model Name	Description
XDP-75-24	75W/3.2A DIN-Rail 24VDC power supply 88~264VAC / 124-370VDC input
GDC-120	120mm copper woven grounding cable
XCA-DB9-TB5	Female DB9 to Female 3.81mm TB5 Converter
XTR-38-FM-2K	SFP Transceiver, 155Mbps, 1310nmLED, Multi-mode, 2km, 3.3V, -40~85C
XTR-38-FS-30K	SFP Transceiver, 155Mbps, 1310nmFP, Single-mode, 30km, 3.3V, -40~85C



Protocols	
SKU	Description
X1SS-03SM	IEC 60870-5-101 Serial Slave to IEC 60870-5-103 Serial Master
X1SS-X4EC	IEC 60870-5-101 Serial Slave to IEC 60870-5-104 Ethernet Client
X1SS-X5EC	IEC 60870-5-101 Serial Slave to IEC 61850 Client
X1SS-X3EC	IEC 60870-5-101 Serial Slave to DNP3 Ethernet Client
X1SS-X3SM	IEC 60870-5-101 Serial Slave to DNP3 Serial Master
X1SS-X2EC	IEC 60870-5-101 Serial Slave to Modbus Ethernet Client
X1SS-X2SM	IEC 60870-5-101 Serial Slave to Modbus Serial Master
X4ES-X1SM	IEC 60870-5-104 Ethernet Server to IEC 60870-5-101 Serial Master
X4ES-03SM	IEC 60870-5-104 Ethernet Server to IEC 60870-5-103 Serial Master
X4ES-X5EC	IEC 60870-5-104 Ethernet Server to IEC 61850 Ethernet Client
X4ES-X3EC	IEC 60870-5-104 Ethernet Server to DNP3 Ethernet Client
X4ES-X3SM	IEC 60870-5-104 Ethernet Server to DNP3 Serial Master
X4ES-X2EC	IEC 60870-5-104 Ethernet Server to Modbus Ethernet Client
X4ES-X2SM	IEC 60870-5-104 Ethernet Server to Modbus Serial Master
X5ES-X1SM	IEC 61850 Ethernet Server to IEC 60870-5-101 Serial Master
X5ES-03SM	IEC 61850 Ethernet Server to IEC 60870-5-103 Serial Master
X5ES-X4EC	IEC 61850 Ethernet Server to IEC 60870-5-104 Ethernet Client
X5ES-X3EC	IEC 61850 Ethernet Server to DNP3 Ethernet Client
X5ES-X3SM	IEC 61850 Ethernet Server to DNP3 Serial Master
X5ES-X2EC	IEC 61850 Ethernet Server to Modbus Ethernet Client
X5ES-X2SM	IEC 61850 Ethernet Server to Modbus Serial Master
X3ES-X1SM	DNP3 Ethernet Server to IEC 60870-5-101 Serial Master
X3ES-03SM	DNP3 Ethernet Server to IEC 60870-5-103 Serial Master
X3ES-X4EC	DNP3 Ethernet Server to IEC 60870-5-104 Ethernet Client
X3ES-X5EC	DNP3 Ethernet Server to IEC 61850 Ethernet Client
X3ES-X3SM	DNP3 Ethernet Server to DNP3 Serial Master
X3ES-X2EC	DNP3 Ethernet Server to Modbus Ethernet Client
X3ES-X2SM	DNP3 Ethernet Server to Modbus Serial Master
X3SS-X1SM	DNP3 Serial Slave to IEC 60870-5-101 Serial Master
X3SS -03SM	DNP3 Serial Slave to IEC 60870-5-103 Serial Master
X3SS-X4EC	DNP3 Serial Slave to IEC 60870-5-104 Ethernet Client
X3SS-X5EC	DNP3 Serial Slave to IEC 61850 Ethernet Client
X3SS-X3EC	DNP3 Serial Slave to DNP3 Ethernet Client
X3SS-X2EC	DNP3 Serial Slave to Modbus Ethernet Client
X3SS-X2SM	DNP3 Serial Slave to Modbus Serial Master
X2ES-X1SM	Modbus Ethernet Server to IEC 60870-5-101 Serial Master
X2ES-03SM	Modbus Ethernet Server to IEC 60870-5-103 Serial Master
X2ES-X4EC	Modbus Ethernet Server to IEC 60870-5-104 Ethernet Client
X2ES-X5EC	Modbus Ethernet Server to IEC 61850 Ethernet Client
X2ES-X3EC	Modbus Ethernet Server to DNP3 Ethernet Client
X2ES-X3SM	Modbus Ethernet Server to DNP3 Serial Master
X2ES-X2SM	Modbus Ethernet Server to Modbus Serial Master
X2SS-X1SM	Modbus Serial Slave to IEC 60870-5-101 Serial Master
X2SS-03SM	Modbus Serial Slave to IEC 60870-5-103 Serial Master
X2SS-X4EC	Modbus Serial Slave to IEC 60870-5-104 Ethernet Client
X2SS-X5EC	Modbus Serial Slave to IEC 61850 Client
X2SS-X3EC	Modbus Serial Slave to DNP3 Ethernet Client
X2SS-X3SM	Modbus Serial Slave to DNP3 Serial Master
X2SS-X2EC	Modbus Serial Slave to Modbus Ethernet Client





WHO WE ARE

Built on 20 years of experience in designing and manufacturing industrial networking products, **Agatel** was established from the UK to serve the infrastructure and industrial sectors in EMEA markets with reliable connectivity for mission-critical systems in demanding environments.

Experienced in hardware and software design and integration, we produce high-quality yet cost-effective industrial networking and communication products with great customization capabilities and robust implementations, equipping our customers for reliable secure industrial networks.



WHAT WE OFFER

The needs of our customers' industry are different from those of corporate IT environments – industrial operating environments are tough and the impact of failure in the field can lead to business threatening situations, hence our products will have lifetimes in excess of 20 years.

From entry-level to high-performance industry-certified hardware, **Agatel** offers a full solution spectrum to suit our customers' budgets and application requirements, with features such as industrial-grade reliability, integrated security, network redundancy, and advanced performance.

Our product solution profile includes industrial Ethernet switches, network time servers, media converters, industrial wireless devices, and serial device servers, covering a wide array of mission-critical applications such as automation, security, transport, water, oil and gas, and power grids.



WHY CHOOSE US

We help our customers reduce downtime and operational costs of their industrial applications in harsh environments. Leading system integrators in EMEA rely on our niche technical expertise and product quality to increase their applications' robustness, revenues, and competitive differentiation.

Agatel ruggedized high-quality solutions are designed to deliver zero-network-downtime for harsh project demands, allowing for reliable connectivity to keep people and assets safe and secure in harsh and hazardous environments, and allowing customers to focus on growing their business.

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