agatel
iga connect®

RELIABLE SECURE CONNECTIVITY

XPLC110 Series

Programmable Logic Controller (PLC)



agatel
iga connect®



XPLC110 Series

Programmable Logic Controller (PLC)

FEATURE HIGHLIGHTS

- IEC 61131-3 Standard Instructions
- Real-time Monitoring/Controlling of Process Data
- Offline Simulation
- Programming with USB Cable
- Software Protection with Password Definition
- Axis Control Blocks Library
- PID and ON-OFF Control Blocks Library
- Math Floating Points Blocks Library
- HVAC Control Systems Blocks Library
- Astronomical Timer Blocks Library
- Creating Custom Macro Blocks
- Real-time Monitoring of Process Data via WEB Server
- Upload/Download Programs over TCP/IP
- Remote Firmware Upgrade
- IP Filtering Feature
- IoT Facility
- MODBUS Gateway Mode

PRODUCT SPECIFICATIONS

Programming	
Programming Editor	Programming Software
Programming Language	Function Block Diagram (FBD), Ladder
Input / Output	
Digital Input	4 Channel (4 Fast Counter Inputs)
Digital Output	4 Channel, 2A@30VDC, PNP (4 PWM or PTO Outputs)
Analog Input	2 Channel, 4-20mA, 0-20mA, Accuracy 1%
Expansion Capability	
Total I/O	Up to 512 Points
Motion Control Functions	
Fast Counter Input	4 Channel, Max 200 kHz
Pulse Width Modulation Output	4 Channel PWM, Max 65 kHz
Pulse Train Output	4 Channel PTO, Max 50 kHz
Integrated Communication Ports	
XPLC110-E1N	
Ethernet	1 Port, 10/100 Mbps
RS485	1 Port, 3 kV ESD Protection, Galvanic Isolation
USB	1 Port, Mini USB Type B
XPLC110-E1G	
Ethernet	1 Port, 10/100 Mbps
Integrated 2G/GPRS Modem	1 Port, Quad-Band B5(850), B8(900), B3(1800), B2(1900) MHz
RS485	1 Port, 3 kV ESD Protection, Galvanic Isolation
USB	1 Port, Mini USB Type B
XPLC110-E1L	
Ethernet	1 Port, 10/100 Mbps
Integrated LTE/4G Modem	1 Port, LTE-FDD: B1(2100), B3(1800), B7(2600), B8(900), B20(800), B28A(700), LTE-TDD: B38(2600), B40(2300), B41(2500) MHz
RS485	1 Port, 3 kV ESD Protection, Galvanic Isolation
USB	1 Port, Mini USB Type B
Communication Protocols	
Master Communication Protocols	MODBUS RTU, MODBUS TCP
Slave Communication Protocols	MODBUS RTU, MODBUS TCP
IoT Protocols	MQTT

Maximum Connection Count	
Number of TCP Server Socket	1
Number of Client Socket per TCP Server Socket	2

PRODUCT SPECIFICATIONS

Special Cellular Functions	
Receiving and Parsing SMS Messages	
SMS Composition and Sending Functions	
Accepting DTMF Calls and Code Parsing Functions	
DTMF Call Generation and Code Sending Functions	

Real Time Clock and Calendar	
Real-time Clock	Integrated
RTC Battery	CR2032 Lithium, Battery Life: 3 years
Battery Status/Level Reading Functions	Yes
Time Keeping Period	3 Year @ 25 °C
Hour Shift	60 Seconds / Month @ 25 °C

Retentivity	
Protecting the Last Values of Process Data in case of Power Cut	Yes
Retentive Memory Capacity	128 Blocks/Register Type

LED Signals	
Power	1 LED Green
Running Status	1 LED Green
Communication Tx	1 LED Green
Communication Rx	1 LED Green
Digital Inputs	4 LED Blue
Digital Outputs	4 LED Blue

Environmental Conditions	
Operating Temperature	-20 / +60 C
Storing Temperature	-25 / +70 C
Humidity	5..95 RH
Protection Standard	IP20
Operating Altitude	0..2000 m

Electrical Wiring	
Inputs and Outputs	Demountable Terminal Block with Screw, (pitch 3.81 mm)
Power Supply Input	Demountable Terminal Block with Screw, (pitch 3.81 mm)

Supply	
Supply Voltage	12..36 VDC
Supply Current	50 mA @ 24 VDC

Warranty	
Duration	24 Months
Certificates	CE

Applications [All Models]

Building Automation
- HVAC Systems Blocks Library
- Timer Blocks

Process Automation
- Maximum 512 I/O Points
- Communication Protocol Supporting Master and Slave Mode
- Simultaneous Multi-Socket Connection

Temperature Control Applications
- PID and Auto-tuning Functionality
- Hysteresis and ON/OFF Control with Time Counter
- Analog (Float) Math Operations

Lighting Automation
- Real Time Clock and Calendar Blocks
- Astronomical Timer Relay

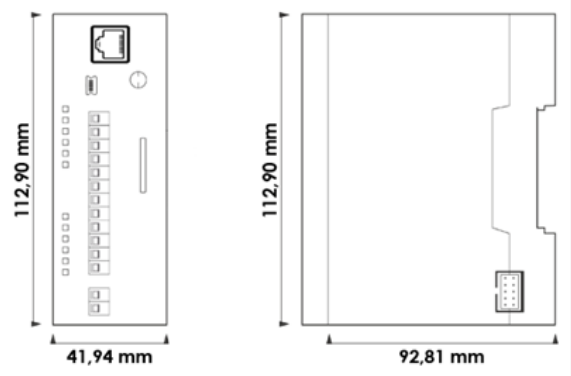
Machine Automation
- Aging Control Blocks
- Axis Control Blocks
- Fast Counter Inputs
- Integrated Pulse Width Modulation and Pulse Train Outputs (PWM, PTO)

Telemetry
- Master Protocols: MODBUS RTU
- Slave Protocols: MODBUS RTU

IoT Based Applications
- IoT Applications Support
- MQTT Protocol Support

Cellular Control Applications
- Integrated GSM/GPRS/LTE/4G Modem
- Receiving and Parsing SMS Messages
- Accepting DTMF Calls and Code Parsing Functions

Drawing



ORDER INFORMATION

Product Code	Ethernet	GSM	RS485	DI	DO	AI
XPLC110-E1N-GB0-B6000	1	.	1	4 / PNP	4 / PNP	2 / 0-20 ma
XPLC110-E1N-GB1-B6000	1	.	1	8 / PNP	2 / PNP	
XPLC110-E1G-GB0-B6000	1	2G	1	4 / PNP	4 / PNP	2 / 0-20 ma
XPLC110-E1G-GB1-B6000	1	2G	1	8 / PNP	2 / PNP	
XPLC110-E1L-GB0-B6000	1	LTE/4G	1	4 / PNP	4 / PNP	2 / 0-20 ma
XPLC110-E1L-GB1-B6000	1	LTE/4G	1	8 / PNP	2 / PNP	

* For RS485 Isolation use product code -B6009.

EXPANSION MODULES [ALL MODELS]

Product Code	DI	DO	AI	AO	RTD	DALI
XPEM110-E0N-GD0-B2000	16 PNP	.	.	.	.	.
XPEM110-E0N-GD1-B4000	.	16 PNP	.	.	.	.
XPEM110-E0N-GD2-B0001	.	.	8 0-20 m	.	.	.
XPEM110-E0N-GD2-B0101	.	.	8 0-10 v	.	.	.
XPEM110-E0N-GD3-B0000	.	.	.	8 0-20 m	.	.
XPEM110-E0N-GD3-B0800	.	.	.	8 0-10 v	.	.
XPEM110-E0N-GD4-B0000	.	.	.	.	6 PT1000	.
XPEM110-E0N-GD4-B0010	.	.	.	.	6 PT100	.
XPEM110-E0N-GD6-B2000	8 PNP	.	.	.	.	.
XPEM110-E0N-GD7-B4000	.	8 PNP	.	.	.	.
XPEM110-E0N-GD8-B6000	8 PNP	8 PNP	.	.	.	.
XPEM110-E0N-GD9-B0000	.	.	4 0-20 m	4 0-20 m	.	.
XPEM110-E0N-GD9-B0900	.	.	4 0-10 v	4 0-10 v	.	.
XPEM110-E0N-GDA-B0000	.	.	.	.	.	1

agatel
iga connect®

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.

Agatel Ltd

1st Floor, Apex House
Calthorpe Road, Edgbaston
Birmingham B15 1TR
United Kingdom

Tel: +44 121 809 8855
E-mail: info@agatel.co.uk
Website: www.agatel.co.uk