

# WP500

## Control System

WP500 is a next generation, secure and modular Industrial controller that serves as a PLC/RTU/ Edge Programmable controller for IIOT and industrial remote monitoring & controls. It is one of the few RTU's with 62443-4-2 cyber security accreditation, ensuring top-tier cyber security for your critical Infrastructure.



### Quad-Core 1.6GHz Processor

Built on the IMX 8M Plus platform for high-performance edge computing.



### Multi-Protocol Ready

Seamless communication with PLC & OT systems.



### Edge Gateway with AI Capabilities

Run containers for custom AI/ML models and IoT apps at the edge.



### Built for Smart Systems

Built for modern systems. Flexible, powerful, future-ready.



### Versatile Interfaces

Features 3x Gigabit Ethernet and 2x serial ports for scalable deployment.

## Features & Functions



Linux-based operating system with support for high-level programming languages



3 independent Ethernet interfaces for network flexibility



Hot redundant system for critical application support



62443-4-2 Cybersecurity Compliant



Rugged system to work in harsh Environment, -40°C to +70°C



Cloud connectivity with AWS, Azure and Google Cloud



Wireless options via add-on modules: RF, WiFi, Bluetooth, LoRa, Zigbee; expandable with side-mounted I/O modules

# Technical Datasheet

## Technical Specifications

### Potentials

Supply Voltage	Redundant 24V DC
Current Draw	Max 0.22 mA @ 24V DC
Protective Circuit	Surge protection; electronic
	Reverse polarity protection; electronic

### Ethernet

Bus System	RJ45
Number of Interfaces	3 No
Connection Method	RJ45 Jack

Note on the Connection Method	Auto negotiation and auto crossing
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Transmission Speed	10/100/1000Mbps
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Protocols Supported	SFTP, SNTP, SNMO, IPsec(Phase -1)
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OPCUA

MODBUS, DNP3, PROFIBUS, PROFINET, MQTT

### System Properties

Processor	Quad Core Processor
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Flash Memory	8GB Flash Storage
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NVRAM	128K
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DRAM	4GB
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### Redundant & IO Capability

Number of Supported Devices	max. 256 I/O modules supported
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Diagnostics Display	Internal through web interface
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Controller Redundancy	Yes
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### Dimensions

Width	42 mm
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Height	130 mm
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Depth	86 mm
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## Environmental & Real Life Conditions

### Insulation Characteristics

Degree of Protection	IP30
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Ambient Temperature (Operation)	-40 °C ... 70 °C
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Ambient Temperature (Storage/ Transport)	-40 °C ... 85 °C
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Permissible Humidity (Operation)	5 % ... 95 % Non Condensing (according to DIN EN 61131-2)
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Permissible Humidity (Storage/ Transport)	5 % ... 95 % Non Condensing (according to DIN EN 61131-2)
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Shock (Operation)	IEC60068-2-27
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Vibration (Operation)	IEC60068-2-6
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## CE Compliance

### Functionality

Identification	Electrical Safety: IEC61010-1
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Electromagnetic Compatibility Directive(EMC):  
EN 61000-6-2:2016  
EN 61000-6-4:2018

Restriction of Hazardous Substances (RoHS):  
EN 50581:2012

Environmental Tests:  
IEC 60068-2-1:2007  
IEC 60068-2-2:2007  
IEC 60068-2-30:2005  
IEC 60068-2-6:2007  
IEC 60068-2-27:2008

## Software

### Functionality

Programming Language Supported	Instruction list (IL)
	Symbolic flowchart (SFC)
	Ladder diagram (LD)
	Function block diagram (FBD)
	Structured text (ST)
	C/ C++/ Java/ Python

### System Requirements

Engineering Tool	WP Connex IEC 61131 Programming Dev. Tool
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Application Interface	Web Interface
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## IOT Capabilities

### Platform

Supports Cloud Computing	Connectivity with AWS, Azure and Google Cloud
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