



Z-TWS4

IEC 61131-3 MULTIFUNCTION CONTROL UNIT, STRATON / LINUX EMBEDDED

AXIS™

Highlights

- **Electrical communication standards: IEC 60870-5-101 and IEC 60870-5-104 Slave, IEC 61850**
- **IEC 61131-3 SoftPLC Straton Integration**
- **4-CH built-in I/O**
- **RTU / Gateway interface, ModBUS RTU – ModBUS TCP protocol conversion**
- **Virtual network connection and point-to-point tunnelling**
- **Redundant Configuration for plant automations**
- **Configurable as web server and TCP-IP node**
- **SCADA / EMS / Web-based platforms compatibility**

Z-TWS4 is a high performance control unit with 4 I/O built-in channels, 1GB Flash memory, 64GB RAM, nr.1 CAN port, nr.4 serial ports, nr.2 USB ports, nr. 2 Ethernet ports and 1 Micro SD card slot up to 32GB. Suitable for energy application (IEC 60870-5-101, IEC 60870-5-104, IEC 61850) and plant automation (Straton - Soft PLC IEC 61131-3). Z-TWS4 is also a CPU Linux-based for data acquisition and control application. Through to the integration with IDE Straton environment, Z-TWS4 supports specific communication protocols in the energy applications such as IEC 60870, IEC 61850.

About remote management applications, Straton can be integrated with IEC 60870-5-101 and IEC 60870-5-104 Slave. Moreover with Straton, Z-TWS4 can be an IEC 61850 Server as well as Client so it's able to support functions as RTU /Gateway, ModBUS RTU – ModBUS TCP conversion, virtual network creation via internet and point-to-point tunnelling.



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IEC 61131-3 MULTIFUNCTION CONTROL UNIT, STRATON / LINUX EMBEDDED



TECHNICAL DATA

GENERAL DATA

Power Supply	11..40 Vdc; 19..28 Vac
Power Consumption	Max 6 W
Isolation	Max 1.500 V
LED Status indicators	Power Supply Ethernet Communication Ethernet Data Transmission Serial Data Transmission
Protection Degree	IP20
Operating Temperature	-20...+55°C
Dimension	100 x 112 x 35 mm
Weight	250 g
Enclosure	Nylon 6, 30% fiberglass filled, self extinguishing class V0
Hot swapping	Yes
Connection	Removable 3-way screw terminals, 5.08 mm pitch Rear IDC10 connector for DIN rail RJ45 - 4/54, RJ45, USB, Micro USB Plug-in Micro SD Card
Mounting	35 mm DIN rail (IEC EN 60715)

I/O

Digital Input	Nr.1 DI, max current 20mA, current consumption 3(6) mA @12(34)Vdc
Digital Output	Nr.2 DO, Vext 10-24Vdcm max current 200mA, outputs protection against short circuit and overtemperature
Digital Input/Output	Nr.1 DI/DO

COMMUNICATION

Ethernet ports	Nr. 2 Ethernet 10/100 Mbps (RJ45) ports
Serial ports	Nr. 1 RS232/RS485 Nr.2 RS485
USB ports	Nr. 1 Micro USB Nr 1 USB host
Protocols	ModBUS TCP-IP, ModBUS RTU, Siemens S7 Protocol, IEC 60870-101/104 Slave (opt.), IEC 61850 Client / Server (opt.) PPP, HTTP/HTTPS Server, FTP Client, FTP/SFTP Server, SMTP/SMTPS email Client, OpenVPN

CPU / MEMORY

SofPLC	IEC 61131-3 Straton
Processor	ARM9 32-bit @ 400 Mhz
Flash Memory (data)	1 GB
RAM	64 MB
FeRAM	8 kB
Slot Micro SD	SD Card up to a 32 GB

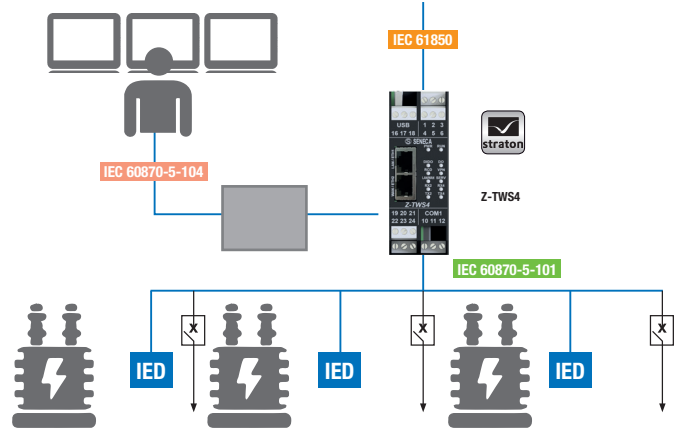
SETTING

System Software	Z-NET4 / StratON / OPC Server
Build-in Web Editor	Yes
Build-in datalogger	Yes, up to 4 log groups, 1.000 variables
PLC programming	IEC 61131 (Straton) with specific libraries

STANDARD

Approvals	CE
Norms	EN 61000-6-4, EN 61000-6-2, EN 60950, IEC 61131

APPLICATION EXAMPLE



ORDER CODES

Code	Description
CONTROLLERS	
Z-TWS4-L-I0	IEC 61131 multifunction controller, built-in I/O, Linux based, OEM version
Z-TWS4-S-I0	IEC 61131 multifunction controller, built-in I/O, workbench Straton, OEM version
Z-TWS4-E-I0	IEC 61131 multi-function controller, built-in I/O, workbench Straton, OEM version, energy protocols
SOFTWARE	
Z-NET4	IEC 61131 controllers and I/O system SENECA configurator
OPC-DA-SERVER	OPC Server I/O DA unlimited tags
OPC-UA-SERVER	OPC Server I/O UA unlimited tags
STRATON-D-USB	Straton activation key for IEC 61131 controllers
STRATON-IDE256	Straton development environment, 256 tags, USB activation key
STRATON-IDE512	Straton development environment, 512 tags, USB activation key
STRATON-IDEUN	Straton development environment, unlimited tags, USB activation key
STRATON-870S	IEC 60870-5-101/104 Slave activation license
STRATON-870S-850	IEC 60870-5-101/104 Slave activation license+ IEC 61850 Client / Server
SSP	SENECA Straton Package - CPU Seneca Installer suite
STRATON-UPGRADE1	Straton upgrade from 256 To 512 tag
STRATON-UPGRADE2	Straton upgrade from 512 To Unlimited tags
STRATON-UPGRADE3	Straton upgrade from 256 To Unlimited tags
STRATON-WB	Straton workbench IEC 61131 free editor
ACCESSORIES	
MSD	Micro SD memory card with adapter
USB-SW-KEY	USB-key with software, libraries, platforms and development environments, manuals for Multifunction controllers
Z-PC-DIN1-35	DIN rail bus system 1 slot 35 mm
Z-PC-DINAL1-35	DIN rail bus system head terminal + 1 slot 35 mm
Z-SUPPLY	Single-phase switching power supply 24V @ 1.5A

Technical data, diagrams and drawings in this catalog are indicative only and not binding.