

# Z-PASS2-RT-S

## 4G IIoT Edge Controller

### Highlights

- **SoftPLC based controller StratON IEC 61131-3**
- **Nr. 2 Fast Ethernet ports 10/100Tx on front RJ45**
- **Nr.1 switchable serial port RS232 / RS485**
- **Nr.2 RS485 serial ports**
- **Nr.1 USB host 2.0 port**
- **Nr.1 4G LTE modem**
- **Nr.6 digital I/O channels , 2 analog inputs**
- **Supported protocols : ModBUS TCP Server, ModBUS RTUMaster /Slave, FTP/ SFTP Server, HTTP /HTTPS Server, OpenVPN , SSL, MQTT, OPC UA, http post, SNMP**
- **Energy Protocols: IEC60870 101, IEC 60870 104, IEC61850**
- **Cybersecurity certificate (penetration testing) OWASP, NIST 800 115, Risk Analysis, IEC 62443**

Z-PASS2-RT-S is a high performance multifunction controller combining PLC with routing and remote access functions. It is in fact based on StratON softPLC with built in web server, VPN and 4 G LTE modem/router with GPS/Glonass Equipped with 2 Fast Ethernet ports manageable in Switch and LAN/WAN mode), 3 serial ports and 1 USB host 2.0 port, Z-PASS2-RT-S supports ModBUS TCP Server, ModBUS RTU Master/ Slave, FTP/SFTP Server HTTP /HTTPS Server, SNMP, OpenVPN, SSL, IoT protocols (OPC UA http post) and the optional Energy Management protocols (IEC 60870 101 IEC 60870 104 IEC 61850). The controller has 6 digital channels and 2 configurable analog inputs. The device is configurable via Z-NET4, web server and programmable in IEC 61131 3 environment. It also makes use of 512 MB RAM, 4 GB Flash Memory and slots for Micro SD up to 32 GB. Integrated into the remote assistance and telecontrol LET'S platform, Z-PASS2-RT-S can support Point-To-Point or Single LAN connections. The device complies with the highest IT security standards starting from the compliance with penetration testing conducted according to OWASP, NIST 800 115 Risk Analysis and IEC 62443.



# Z-PASS2-RT-S



## 4G IIoT Edge Controller

### TECHNICAL DATA.

#### GENERAL DATA.

Power supply	11..40 Vdc
Power consumption	2.5..10 W @ 24 Vdc
Isolation	1,500 Vac
Status indicators (LEDs)	Ready to use; I/O status; RX/TX serial communication; Ethernet link and traffic; Modem power; Network power; Data transfer
Protection degree	IP20
Flash Memory (data)	≥4 GB
RAM	512 MB
Micro SD	Max 32 GB
I/O Channels	Nr.6 configurable DI/DO and Nr.2 AI (mA, V)
Operating temperature	-25..+65°C
Dimension (l x h x p)	52.5 x 112 x 100 mm
Weight	270 g
Case	Black PA6 glass-filled plastic
Mounting	For 35 mm rail IEC EN 60715
Approvals	CE, UKCA

#### COMMUNICATION

Ethernet ports (ETH1, ETH2)	Nr. 2 Fast Ethernet 10/100Tx on front RJ45
Serial ports (COM1, COM2, COM4)	Nr. 1 RS232 / 485 serial selectable via software, max baud rate 115kbps Nr. 1 RS485, max baud rate 115kbps on IDC10 connector and terminals Nr. 1 RS485, max baud rate 115kbps on terminals
USB ports	Nr. 1 USB host type A side connector ; No. 1 Micro USB (debug)
CAN port	Nr. 1 CAN port on terminals
Modem	Multiband M2M/IoT, 4G / LTE World Wide
Geolocation	GPS / GLONASS / BeiDou (compass) / Galileo / QZSS
Communication protocols	ModBUS TCP server, ModBUS RTU master/ slave, FTP/SFTP server, HTTP/HTTPS server, SNMP
IoT Protocols	MQTT, OPC UA, http post
Operating modes	SoftPLC ModBUS RTU/ASCII TCP-IP Gateway, Modbus Gateway shared memory (via TCP-IP), Transparent Gateway, Serial Device Server, LAN Router, LAN/WAN switch, datalogger, remote alarm unit, remote service/remote control VPN unit, LAN/WAN switch, Nat 1:1, Static Router

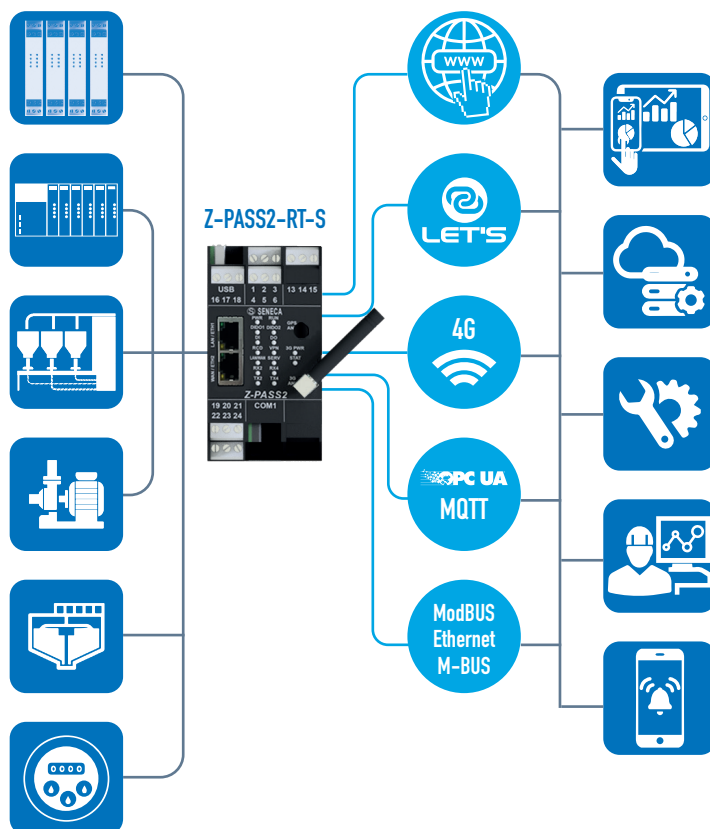
#### SECURITY

Remote access blocking	Mechanical, digital input
LAN/WAN separation	Yes
Authentication	2-factor (Google Authenticator)
Permission management	Supervisor / Users / Groups
Encryption algorithm (data encryption)	OpenVPN AES-256bit-CBC + Auth SHA256 bit or user selectable
Fixed TCP-IP ports for remote assistance	Yes
Security protocols	OpenVPN, SSL, HTTPS Server, MQTT over SSL/TLS, TLS 1..2 or higher
SSL/TLS certificates	Automated TLS certificate management for HTTPS
Cybersecurity certificate (penetration testing)	Yes, OWASP, NIST 800-115, Risk Analysis, IEC62443

#### SETTINGS AND SOFTPLC

Configuration environment	Z-NET4, Web Server
PLC programming	IEC 61131-3 (Straton)
Max variables/tags	1000
Program size	2048 kB
Diagnostics	Web Server
Data logging and display	Data Recorder, Trend Viewer, Web Factory
VPN management software	Open VPN, VPN Client Communicator
Management tool	SDD, SESC
LET'S teleservice/telecontrol support	Yes

### CONNECTIVITY



### ORDER CODES

Code	Description
<b>CONTROL UNIT</b>	
Z-PASS2-RT-4G-S	IIoT Edge controller, 4G, GPS and built-in I/O
Z-PASS2-RT-4G-E	IIoT Edge controller, 4G, Energy protocols, GPS and built-in I/O
<b>VPN SERVERS</b>	
VPN-BOX-2	PC Box - VPN Server for simultaneous connections and low latency Point-To-Point / Single LAN
VPN-BOX-2-VM	VPN-BOX-2 Virtual Machine
VPN-CC-2	VPN Client Communicator, remote access software VPN-BOX-2
<b>SOFTWARE TOOLS</b>	
SDD	SENECA Discovery Device
SESC	SENECA Ethernet to Serial Connection
STRATON-870-850	Lic. IEC 60870-5-101/104 Master / Slave + IEC 61850 Client / Server
STRATON-870M	IEC 60870-5-101/104 Master Activation License
STRATON-870S	Activation license IEC 60870-5-101/104 Slave
STRATON-870S-850	IEC 60870-5-101/104 Slave+IEC 61850 Client/Server activation license
STRATON-D-USB	Straton USB dongle
STRATON-IDE256	Straton environment 256 tags with USB activation key
STRATON-IDE512	Straton 512 tag environment with USB activation key
STRATON-IDEUN	Straton IDE unlimited tag - IEC 61131 development environment
<b>ACCESSORIES</b>	
CS-TIP-MEF-PH	Serial communication cable (Tips / 4-way female connector)
CS-DB9M-MEF-PH	Serial communication cable (DB9M connector / 4-way female connector)
CE-RJ45-RJ45-R	Straight ethernet cable (RJ45 / RJ45)
MSD	Micro SD memory card with adapter
Z-PC-DIN1-35	DIN rail quick mounting bracket 1 slot 35 mm pitch
Z-PC-DIN4-35	DIN rail quick mounting bracket 4 slots 35mm pitch
Z-PC-DINAL1-35	DIN rail quick mounting bracket - head + 1 slot 35 mm pitch
Z-PC-DINAL2-52.5	DIN rail quick mounting bracket - head + 2 slots p=52.5mm
<b>ANTENNAS</b>	
A-GPS	External GPS antenna with MMCX magnetic base, 3 m cable
A-GPS-SMA	GPS antenna with SMA mount
A-GSM	External GSM dual band swing antenna cable 3.2 m
A-GSM-DIR-5M	GSM-DECT-UMTS triband directional antenna SMA-M, cable 5 mt
A-GSM-MG	External magnetic dual band antenna SMA cable 2.5 mt
A-GSM-OMNIDIR	Omnidir antenna GSM-UMTS-WIFI, 5.1 dB, SMA-M cable 5 mt
A-GSM-OMNIDIR-10	Omnidir antenna GSM-UMTS-WIFI, 5.1 dB, SMA-M cable 10 mt
A-GSM-QUAD-N	Omnidirectional external antenna 4G/WI-FI, FME, 5 mt cable
A-GPS-SMA	Antenna GPS con attacco SMA