100% Made & Designed in Italy

R-PASS-S

IIoT Edge Controllers



SENECA

www.seneca.it

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

R-PASS-S
IIoT Edge Controllers



R-PASS-S represents a family of Industrial IoT Edge solutions. computing that is flexible and space-saving with multiple daisy chain connection. In addition to IEC 61131-3 sofPLC and advanced routing functions, R-PASS-S integrate 10 I/O channels and 1 Wi-Fi module (optional). They are also expandable with the R-COMM modem.
Equipped with 2 (or 4) Fast Ethernet ports (manageable in Switch and LAN/ WAN), 2 serial ports and 1 USB port, R-PASS-S support industrial/ IT protocols (ModBUS TCP-IP Server/Client, ModBUS RTU Master/ Slave, MeterBUS master, SNMP, S7 Client, OPC UA Server, FTP/ FTPs Client, FTP/sFTP Server, HTTP/HTTPS server, SMTPs client, Samba, J1939, CANopen) and optionally Energy Management protocols (IEC 60870-5-101, IEC 60870-5-104, IEC 61850). Integrated into the LET'S platform, R-PASS-S can support connections in Remote Maintenance Point-To-Point mode or Single LAN for Telecontrol. Through the use of IIoT protocols such as MQTT, OPC UA Server, https, http post, R-PASS-S also integrate seamlessly with data analysis systems, supervision and enterprise management systems, ERP and MES. R-PASS-S can take advantage of the HMI SSD (Surprirse Smart Display) graphical interface to manage alarms, send commands, set parameters and display graphics from HTML5 web browser.

MULTIFUNCTION

- Multifunction controllers (SoftPLC, Telecontrol, Gateway, Datalogger)
- Soft PLC IEC 61131-3
- SCADA and DAQ system open platform
- Ready to use technology libraries
- Datalogger
- Advanced alarm management

CONNECTIVITY

- Fieldbus (ModBUS RTU/TCP-IP; M-BUS)
- IEC 61850, IEC 60870-5-101/104 (energy protocols)
- IIoT protocols (MQTT, OPC UA, http post)
- Wi-Fi (optional)
- Advanced Routing and NAT 1:1
- Daisy Chain connection

INTEGRATION

- SENECA SSD or third party HMI integration
- VPN, Cloud, IIoT platforms
- Radio module sintegration
- Built-in I/O expandable with external modules
- Energy meter sintegration
- Third party devices integration

OPERATING MODES

	IIoT Edge Controllers Straton				IIoT Edge Controllers Straton with energy protocols			
	R-PASS-0-2-S	R-PASS-0-4-S	R-PASS-W-2-S	R-PASS-W-4-S	R-PASS-0-2-E	R-PASS-0-4-E	R-PASS-W-2-E	R-PASS-W-4-E
OPERATING MODE								
ModBUS / Ethernet Gateway	x	x	x	x	x	x	x	x
Gateway with Tags	x	x	x	x	x	x	x	x
IIoT/Cloud-based gateway	x	x	x	x	x	x	x	x
Alarm Management	x	x	x	x	x	x	x	x
Datalogger	x	x	x	x	x	x	x	x
Wi-Fi Router	-	-	x	x	-	-	x	x
Advanced router with NAT 1:1	x	x	x	x	x	x	x	x
Network redundancy	x	x	x	x	x	x	x	x
VPN remote assistance	x	x	x	x	x	x	x	x
PLC Straton	x	x	x	x	x	x	x	x
IEC 60870/61850	-	-	-	-	x	x	x	x

EDGE DEVICES / INDUSTRIAL IOT SOLUTIONS

IIoT Edge Controllers Straton

	R-PASS-0-2-S	R-PASS-0-4-S	R-PASS-W-2-S	R-PASS-W-4-S
				
	IIoT Edge Controller, Straton, 2 Ethernet ports	**IIoT Edge Controller, Straton, 4 Ethernet ports**	**IIoT Edge Controller, Straton, Wi-Fi, 2 Ethernet ports**	**IIoT Edge Controller, Straton, Wi-Fi, 4 Ethernet ports**
GENERAL DATA				
Power supply	10..40 Vdc; 19..28 Vac	10..40 Vdc; 19..28 Vac	10..40 Vdc; 19..28 Vac	10..40 Vdc; 19..28 Vac
Battery / UPS	With R-COMM add-on module	With R-COMM add-on module	With R-COMM add-on module	With R-COMM add-on module
LED - status indicators	Power supply Serial Communication Ethernet communication Wi-Fi communication I/O Status	Power supply Serial Communication Ethernet communication Wi-Fi communication I/O Status	Power supply Serial Communication Ethernet communication Wi-Fi communication I/O Status	Power supply Serial Communication Ethernet communication Wi-Fi communication I/O Status
Isolation	1.500 Vac @ 3 ways	1.500 Vac @ 3 ways	1.500 Vac @ 3 ways	1.500 Vac @ 3 ways
USB Host	Yes	Yes	Yes	Yes
Flash Memory (data)	>= 4 GB	>= 4 GB	>= 4 GB	>= 4 GB
Protection degree	IP20	IP20	IP20	IP20
Operating temperature	-20..+65 °C	-20..+65 °C	-20..+65 °C	-20..+65 °C
Storage temperature	-30..+80°C	-30..+80°C	-30..+80°C	-30..+80°C
Humidity	10..90% non condensing	10..90% non condensing	10..90% non condensing	10..90% non condensing
Connections	3,5 mm pitch terminals USB Type A connector Micro USB connector RJ45 connector (x2)	3,5 mm pitch terminals USB Type A connector Micro USB connector RJ45 connector (x4)	3,5 mm pitch terminals USB Type A connector Micro USB connector RJ45 connector (x2)	3,5 mm pitch terminals USB Type A connector Micro USB connector RJ45 connector (x4)
Built-in I/O	Nr.4DI, Nr.4DO (PNP/NPN), Nr.2AI (V, I)	Nr.4DI, Nr.4DO (PNP/NPN), Nr.2AI (V, I)	Nr.4DI, Nr.4DO (PNP/NPN), Nr.2AI (V, I)	Nr.4DI, Nr.4DO (PNP/NPN), Nr.2AI (V, I)
Dimension (wxhxd)	106 x 90 x 32 mm	106 x 90 x 32 mm	106 x 90 x 32 mm	106 x 90 x 32 mm
Weight	170 g	170 g	170 g	170 g
Case	PC / ABS self-extinguishing UL94-V0, color black	PC / ABS self-extinguishing UL94-V0, color black	PC / ABS self-extinguishing UL94-V0, color black	PC / ABS self-extinguishing UL94-V0, color black
Mounting	DIN-rail EN 60715, wall-mounted / panel-mounted	DIN-rail EN 60715, wall-mounted / panel-mounted	DIN-rail EN 60715, wall-mounted / panel-mounted	DIN-rail EN 60715, wall-mounted / panel-mounted
Approval	CE	CE	CE	CE
COMMUNICATION				
Ethernet ports	Nr.2 Fast Ethernet 10/100Tx ports (1 LAN, 1 WAN) with RJ45 front connector	Nr.4 Fast Ethernet 10/100Tx ports (3 LAN, 1 WAN) with RJ45 front connector	Nr.2 Fast Ethernet 10/100Tx ports (1 LAN, 1 WAN) with RJ45 front connector	Nr.4 Fast Ethernet 10/100Tx ports (3 LAN, 1 WAN) with RJ45 front connector
Serial ports	Nr.1 RS232 / RS485 port on terminals , max baud rate 115k Nr.1 RS485 port on terminals , max baud rate 115kbps	Nr.1 RS232 / RS485 port on terminals , max baud rate 115k Nr.1 RS485 port on terminals , max baud rate 115kbps	Nr.1 RS232 / RS485 port on terminals , max baud rate 115k Nr.1 RS485 port on terminals , max baud rate 115kbps	Nr.1 RS232 / RS485 port on terminals , max baud rate 115k Nr.1 RS485 port on terminals , max baud rate 115kbps
USB ports	Nr.1 full host USB port Nr.1 Micro USB debug port	Nr.1 full host USB port Nr.1 Micro USB debug port	Nr.1 full host USB port Nr.1 Micro USB debug port	Nr.1 full host USB port Nr.1 Micro USB debug port
4G / UPS	With optional module	With optional module	With optional module	With optional module
Industrial / IT protocols	ModBUS TCP-IP Server/Client, ModBUS RTU Master/Slave, MeterBUS master, SNMP, S7 Client, OPCUA Client/server, FTP/FTPs Client, FTP/sFTP Server, HTTP/HTTPS server, SMTPs client, Samba, J1939, CANopen	ModBUS TCP-IP Server/Client, ModBUS RTU Master/Slave, MeterBUS master, SNMP, S7 Client, OPCUA Client/server, FTP/FTPs Client, FTP/sFTP Server, HTTP/HTTPS server, SMTPs client, Samba, J1939, CANopen	ModBUS TCP-IP Server/Client, ModBUS RTU Master/Slave, MeterBUS master, SNMP, S7 Client, OPCUA Client/server, FTP/FTPs Client, FTP/sFTP Server, HTTP/HTTPS server, SMTPs client, Samba, J1939, CANopen	ModBUS TCP-IP Server/Client, ModBUS RTU Master/Slave, MeterBUS master, SNMP, S7 Client, OPCUA Client/server, FTP/FTPs Client, FTP/sFTP Server, HTTP/HTTPS server, SMTPs client, Samba, J1939, CANopen
IoT protocols	MQTT(s), OPC UA , https, http post	MQTT(s), OPC UA , https, http post	MQTT(s), OPC UA , https, http post	MQTT(s), OPC UA , https, http post
Protocolli sicurezza / VPN	OpenVPN, TLS	OpenVPN, TLS	OpenVPN, TLS	OpenVPN, TLS
Protocolli Energia	No	No	No	No
Wi-Fi	No	No	Built-in WiFi 802.11 b/g/n, band 2.4 ÷ 2.4835GHz, max Output Power: 17dBm (50 mW), security WEP / WPA / WPA2	Built-in WiFi 802.11 b/g/n, band 2.4 ÷ 2.4835GHz, max Output Power: 17dBm (50 mW), security WEP / WPA / WPA2
SETTINGS & ADVANCED FUNCTIONS				
Configuration	Web Server, ZNET4	Web Server, ZNET4	Web Server, ZNET4	Web Server, ZNET4
IEC 61131-3 Control Logic	SoftPLC Straton IEC 61131-3	SoftPLC Straton IEC 61131-3	SoftPLC Straton IEC 61131-3	SoftPLC Straton IEC 61131-3
VPN management software	VPN BOX Manager, OpenVPN, VPN Client Communicator, VPN BOX	VPN BOX Manager, OpenVPN, VPN Client Communicator, VPN BOX	VPN BOX Manager, OpenVPN, VPN Client Communicator, VPN BOX	VPN BOX Manager, OpenVPN, VPN Client Communicator, VPN BOX
Management tools	SDD (Seneca Discovery Device)	SDD (Seneca Discovery Device)	SDD (Seneca Discovery Device)	SDD (Seneca Discovery Device)
IoT supports and third-party platforms	Cloud BOX, LET'S, MQTT(s), OPC UA	Cloud BOX, LET'S, MQTT(s), OPC UA	Cloud BOX, LET'S, MQTT(s), OPC UA	Cloud BOX, LET'S, MQTT(s), OPC UA

EDGE DEVICES / INDUSTRIAL IOT SOLUTIONS

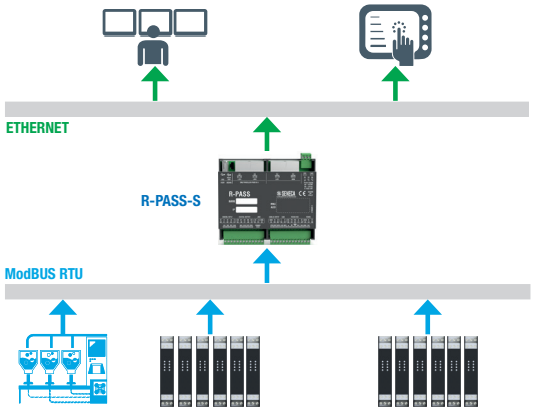
IIoT Edge Controllers Straton with energy protocols

	R-PASS-0-2-E	R-PASS-0-4-E	R-PASS-W-2-E	R-PASS-W-4-E
				
	IIoT Edge Controller, Straton, Energy protocols, 2 Ethernet ports	**IIoT Edge Controller, Straton, Energy protocols, 4 Ethernet ports**	**IIoT Edge Controller, Straton, Energy protocols, Wi-Fi, 2 Ethernet ports**	**IIoT Edge Controller, Straton, Energy protocols, Wi-Fi, 4 Ethernet ports**
GENERAL DATA				
Power supply	10..40 Vdc; 19..28 Vac	10..40 Vdc; 19..28 Vac	10..40 Vdc; 19..28 Vac	10..40 Vdc; 19..28 Vac
Battery / UPS	With R-COMM add-on module	With R-COMM add-on module	With R-COMM add-on module	With R-COMM add-on module
LED - status indicators	Power supply Serial communication Ethernet communication Wi-Fi communication I/O Status	Power supply Serial communication Ethernet communication Wi-Fi communication I/O Status	Power supply Serial communication Ethernet communication Wi-Fi communication I/O Status	Power supply Serial communication Ethernet communication Wi-Fi communication I/O Status
Isolation	1.500 Vac @ 3 ways	1.500 Vac @ 3 ways	1.500 Vac @ 3 ways	1.500 Vac @ 3 ways
USB Host	Yes	Yes	Yes	Yes
Flash Memory (data)	>= 4 GB	>= 4 GB	>= 4 GB	>= 4 GB
Protection degree	IP20	IP20	IP20	IP20
Operating temperature	-20..+65 °C	-20..+65 °C	-20..+65 °C	-20..+65 °C
Storage temperature	-30..+80°C	-30..+80°C	-30..+80°C	-30..+80°C
Humidity	10..90% non condensing	10..90% non condensing	10..90% non condensing	10..90% non condensing
Connections	3,5 mm pitch terminals USB Type A connector Micro USB connector RJ45 connector (x2)	3,5 mm pitch terminals USB Type A connector Micro USB connector RJ45 connector (x4)	3,5 mm pitch terminals USB Type A connector Micro USB connector RJ45 connector (x2)	3,5 mm pitch terminals USB Type A connector Micro USB connector RJ45 connector (x4)
Built-in I/O	Nr.4DI, Nr.4DO (PNP/NPN), Nr.2AI (V, I)	Nr.4DI, Nr.4DO (PNP/NPN), Nr.2AI (V, I)	Nr.4DI, Nr.4DO (PNP/NPN), Nr.2AI (V, I)	Nr.4DI, Nr.4DO (PNP/NPN), Nr.2AI (V, I)
Dimension (wxhxd)	106 x 90 x 32 mm	106 x 90 x 32 mm	106 x 90 x 32 mm	106 x 90 x 32 mm
Weight	170 g	170 g	170 g	170 g
Case	PC / ABS self-extinguishing UL94-V0, color black	PC / ABS self-extinguishing UL94-V0, color black	PC / ABS self-extinguishing UL94-V0, color black	PC / ABS self-extinguishing UL94-V0, color black
Mounting	DIN-rail EN 60715, wall-mounted / panel-mounted	DIN-rail EN 60715, wall-mounted / panel-mounted	DIN-rail EN 60715, wall-mounted / panel-mounted	DIN-rail EN 60715, wall-mounted / panel-mounted
Approval	CE	CE	CE	CE
COMMUNICATION				
Ethernet ports	Nr.2 Fast Ethernet 10/100Tx ports (1 LAN, 1 WAN) with RJ45 front connector	Nr.4 Fast Ethernet 10/100Tx ports (3 LAN, 1 WAN) with RJ45 front connector	Nr.2 Fast Ethernet 10/100Tx ports (1 LAN, 1 WAN) with RJ45 front connector	Nr.4 Fast Ethernet 10/100Tx ports (3 LAN, 1 WAN) with RJ45 front connector
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USB ports	Nr.1 full host USB port Nr.1 Micro USB debug port	Nr.1 full host USB port Nr.1 Micro USB debug port	Nr.1 full host USB port Nr.1 Micro USB debug port	Nr.1 full host USB port Nr.1 Micro USB debug port
4G / UPS	With optional module	With optional module	With optional module	With optional module
Industrial / IT protocols	ModBUS TCP-IP Server/Client, ModBUS RTU Master/Slave, MeterBUS master, SNMP, S7 Client, OPCUA Client/server, FTP/FTPs Client, FTP/sFTP Server, HTTP/HTTPS server, SMTPs client, Samba, J1939, CANopen	ModBUS TCP-IP Server/Client, ModBUS RTU Master/Slave, MeterBUS master, SNMP, S7 Client, OPCUA Client/server, FTP/FTPs Client, FTP/sFTP Server, HTTP/HTTPS server, SMTPs client, Samba, J1939, CANopen	ModBUS TCP-IP Server/Client, ModBUS RTU Master/Slave, MeterBUS master, SNMP, S7 Client, OPCUA Client/server, FTP/FTPs Client, FTP/sFTP Server, HTTP/HTTPS server, SMTPs client, Samba, J1939, CANopen	ModBUS TCP-IP Server/Client, ModBUS RTU Master/Slave, MeterBUS master, SNMP, S7 Client, OPCUA Client/server, FTP/FTPs Client, FTP/sFTP Server, HTTP/HTTPS server, SMTPs client, Samba, J1939, CANopen
IoT protocols	MQTT(s), OPC UA, https, http post	MQTT(s), OPC UA, https, http post	MQTT(s), OPC UA, https, http post	MQTT(s), OPC UA, https, http post
VPN / security protocols	OpenVPN, TLS	OpenVPN, TLS	OpenVPN, TLS	OpenVPN, TLS
Energy protocols	IEC60870-101 Master / Slave IEC60870-104 Client / Server IEC61850 Client/Server	IEC60870-101 Master / Slave IEC60870-104 Client / Server IEC61850 Client/Server	IEC60870-101 Master / Slave IEC60870-104 Client / Server IEC61850 Client/Server	IEC60870-101 Master / Slave IEC60870-104 Client / Server IEC61850 Client/Server
Wi-Fi	No	No	Built-in WiFi 802.11 b/g/n, band 2.4 ÷ 2.4835GHz, max Output Power: 17dBm (50 mW), security WEP / WPA / WPA2	Built-in WiFi 802.11 b/g/n, band 2.4 ÷ 2.4835GHz, max Output Power: 17dBm (50 mW), security WEP / WPA / WPA2
SETTINGS & ADVANCED FUNCTIONS				
Configuration	Web Server, ZNET4	Web Server, ZNET4	Web Server, ZNET4	Web Server, ZNET4
IEC 61131-3 Control Logic	SoftPLC Straton IEC 61131-3	SoftPLC Straton IEC 61131-3	SoftPLC Straton IEC 61131-3	SoftPLC Straton IEC 61131-3
VPN management software	VPN BOX Manager, OpenVPN, VPN Client Communicator, VPN BOX	VPN BOX Manager, OpenVPN, VPN Client Communicator, VPN BOX	VPN BOX Manager, OpenVPN, VPN Client Communicator, VPN BOX	VPN BOX Manager, OpenVPN, VPN Client Communicator, VPN BOX
Management tools	SDD (Seneca Discovery Device)	SDD (Seneca Discovery Device)	SDD (Seneca Discovery Device)	SDD (Seneca Discovery Device)
IoT supports and third-party platforms	Cloud BOX, LET'S, MQTT(s), OPC UA	Cloud BOX, LET'S, MQTT(s), OPC UA	Cloud BOX, LET'S, MQTT(s), OPC UA	Cloud BOX, LET'S, MQTT(s), OPC UA

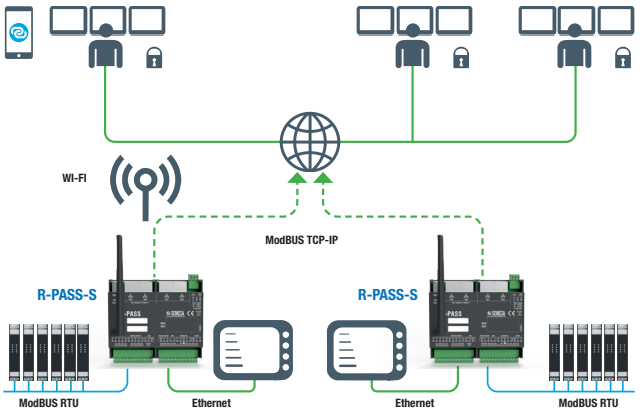
R-PASS-S - IIoT Edge Controllers

APPLICATION SCHEMES

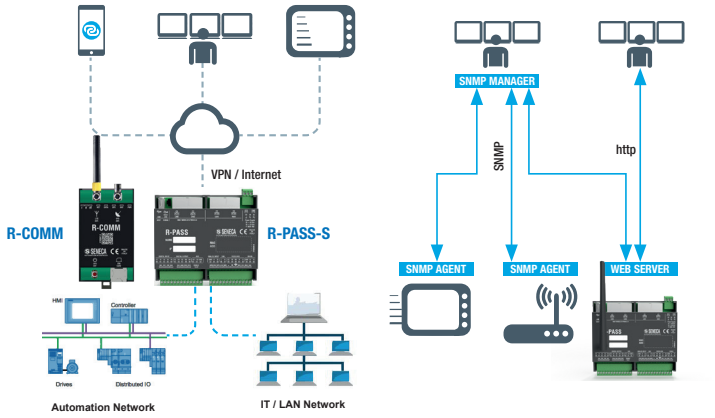
Distributed Automation



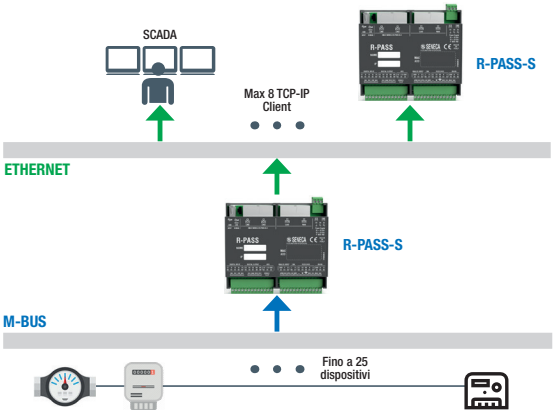
Telecontrol/ Remote Assistance



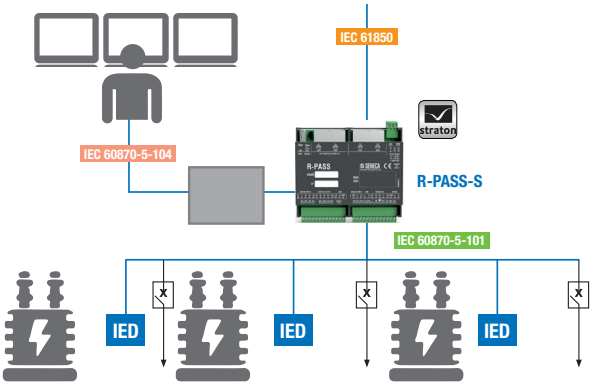
Networking



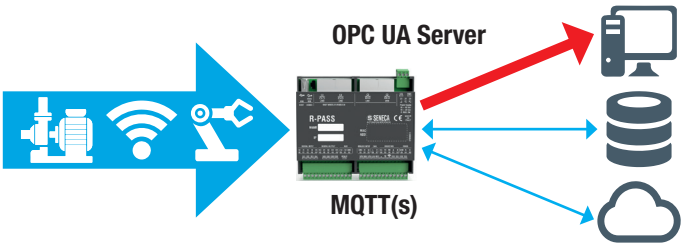
Smart Metering



Energy Moniitoring

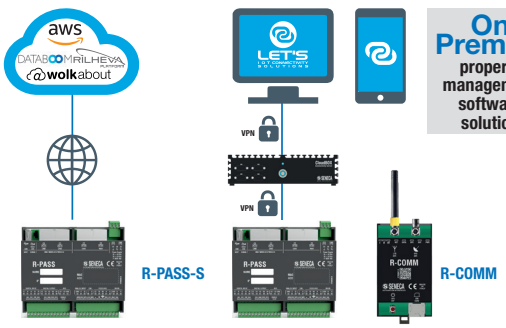


MQTT – OPC UA/DA Control



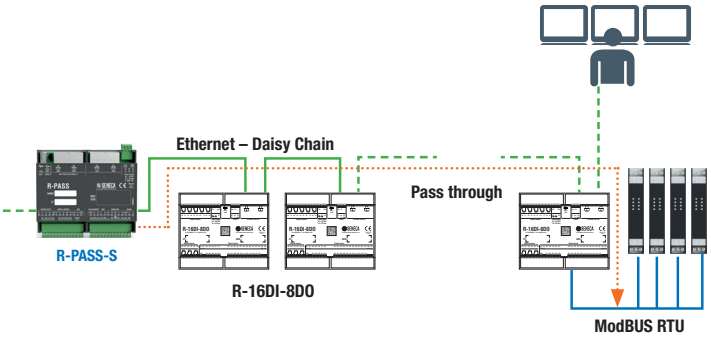
Cloud platforms integration

SaaS
Thirdy part Cloud integration



On Premise
property management software solution

ModBUS Pass Through support



R-PASS-S - IIoT Edge Controllers

SOFTWARE

SENECA controllers management software includes the Z-NET4 configuration environment, OPC UA for i data exchange implementation, Straton softPLC (IEC 61131-3) for automation logic programming, and the IEC 60870 / IEC 61850 communication protocols for applications in electrical grids and infrastructure.



Z-NET4
Projects configuration environment, variables management, integrated libraries

OPC UA/DA
Interface for creating and exchange variables in OPC environments

STRATON
IEC61131-3soft PLC programming languages

IEC 60870 / IEC 61850
Communication protocols for equipment, power grids and smart grids

ORDER CODE

Code	Description
EDGE IIoT CONTROLLERS	
R-PASS-0-2-E	Edge IIoT Controller Straton, energy protocols, 2 Ethernet ports
R-PASS-0-2-S	Edge IIoT Controller Straton, 2 Ethernet ports
R-PASS-0-4-E	Edge IIoT Controller Straton, energy protocols, 4 Ethernet ports
R-PASS-0-4-S	Edge IIoT Controller Straton, 4 Ethernet ports
R-PASS-W-2-E	Edge IIoT Controller Straton, energy protocols, Wi-Fi, 2 Ethernet ports
R-PASS-W-2-S	Edge IIoT Controller Straton, Wi-Fi, 2 Ethernet ports
R-PASS-W-4-E	Edge IIoT Controller Straton, energy protocols, Wi-Fi, 4 Ethernet ports
R-PASS-W-4-S	Edge IIoT Controller Straton, Wi-Fi, 4 Ethernet ports
ACCESSORIES	
MSD	Micro SD memory card
Z-PC-DIN1-35	DIN rail quick mounting bracket 1 slot P=35 mm
Z-PC-DIN2-17.5	DIN rail quick mounting bracket 2 slots P=17.5 mm
Z-PC-DIN4-35	DIN rail quick mounting bracket 4 slots P=35 mm
Z-PC-DIN8-17.5	DIN rail quick mounting bracket 8 slots P=17.5 mm
Z-PC-DINAL1-35	DIN rail quick mounting bracket head+1 slot P=35 mm
Z-PC-DINAL2-17.5	DIN rail quick mounting bracket head+2 slots P=17.5 mm
Z-PC-DINAL2-52.5	DIN rail quick mounting bracket head+3 slots P=17.5 mm
Z-SUPPLY	Single-phase switching power supply 24V @ 1.5 A

Code	Description
SOFTWARE	
OPC-DA-SERVER	OPC Server DA software unlimited I/O tags
OPC-UA-SERVER	OPC Server UA software unlimited I/O tags
STRATON-256-UPD	STRATON IDE 256 Tags UPGRADE from V8 to V9
STRATON-512-UPD	STRATON IDE 512 Tags UPGRADE from V8 to V9
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	IEC 60870-5-101/104 Slave activation license
STRATON-870S-850	IEC 60870-5-101/104 Slave+IEC 61850 Client/Server activation license
STRATON-D-USB	Straton USB dongle
STRATON-FULL01	Lic. IEC 60870-5-101/104 Master / Slave + IEC 61850 Client / Server + SNMP
STRATON-IDE256	Straton 256 tag environment with USB activation key
STRATON-IDE512	Straton 512 tag environment with USB activation key
STRATON-IDEUN	Straton IDE unlimited tag - IEC 61131 development environment
STRATON-SNMP	Straton SNMP agent driver extension
STRATON-UN-UPD	STRATON IDE Unlimited Tags UPGRADE from V8 to V9
STRATON-UPGRADE1	Straton upgrade from 256 to 512 tags
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
Z-NET4	Z-PC Line I/O Systems and Controllers Configurator

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LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

SENECA

Headquarters:
Via Austria, 26 - 35127 Padova (I)
T. +39 049 8705.359 - F. +39 049 8706.287
info@seneca.it - www.seneca.it

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