100% Made & Designed in Italy

R-PASS

Industrial

IoT Edge Gateways



SENECA

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R-PASS
Industrial IoT Edge Gateways



R-PASS is a family of Industrial IoT Edge solution computing. It includes multipurpose devices with advanced features such as gateways, dataloggers, alarm management units, Wi-Fi routers, logic function units and IEC 61131-3 softPLCs (also with IEC 61850 /60870 protocols).
R-PASS IoT Edge Gateways offer client/server connectivity solutions realizing systems with different complexity and different points of simultaneous access to the plant or single machinery. They are also expandable with the R-COMM communication module based on 4G LTEWW modem.
Integrated into the LET'S platform, R-PASS units can support connections in Point-To-Point Remote Assistance mode or Single LAN Telecontrol. Through IIoT protocols such as MQTT and OPC-UA, R-PASS also integrates seamlessly with systems for data analysis, business management, ERP and MES. R-PASS can also take advantage of the HMI SSD (Surprirse Smart Display) to manage alarms, send commands, set parameters and display graphics from HTML5 web browsers.

HIGHLIGHTS

- FLEXIBLE AND SPACE-SAVING APPLICATIONS
- I/O HIGH DENSITY
- BUILT-IN NETWORKING
- SERIAL SNIFFER
- IF-THEN-ELSE BUILTIN LOGIC
- DATALOGGER FUNCTION
- WI-FI
- OPC UA
- MQTT
- NAT 1:1 AND ADVANCED ROUTING
- VPN REMOTE ACCESS
- CLOUD SUPPORT

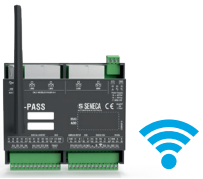
OPERATING MODE AND CONNECTIVITY

IIoT Gateway				
	R-PASS-0-2-0	R-PASS-0-4-0	R-PASS-W-2-0	R-PASS-W-4-0
OPERATING MODE				
ModBUS / Ethernet Gateway	x	x	x	x
Gateway with Tags	x	x	x	x
IIoT/Cloud-based gateway	x	x	x	x
Alarm Management	x	x	x	x
Datalogger	x	x	x	x
Serial Sniffer	x	x	x	x
Wi-Fi Router			x	x
Advanced router with NAT 1:1	x	x	x	x
Network redundancy	x	x	x	x
VPN remote assistance	x	x	x	x
Up to 2000 IF THEN ELSE logic rules	x	x	x	x
Ethernet ports	2	4	2	4
CONNECTIVITY				
Max 32 Modbus TCP-IP server connections	x	x	x	x
Max 25 Modbus TCP-IP clients	x	x	x	x
Max 2000 variables (tags)	x	x	x	x
Max 128 ModBUS RTU slave nodes (per serial)	x	x	x	x

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EDGE DEVICES / INDUSTRIAL IOT SOLUTIONS

IIoT Gateway

	R-PASS-0-2-0	R-PASS-0-4-0	R-PASS-W-2-0	R-PASS-W-4-0
				
	Compact multifunction IIoT gateway 2 Ethernet ports	**Compact multifunction IIoT gateway 4 Ethernet ports**	**Compact multifunction IIoT gateway, Wi-Fi, 2 Ethernet ports**	**Compact multifunction IIoT gateway, 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
Power consumption	Max 8 W	Max 8 W	Max 8 W	Max 8 W
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 (x2)	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 (x2)
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, FTP/FTPs Client, FTP/ sFTP Server, HTTP/HTTPS server, SMTPs client, Samba	ModBUS TCP-IP Server/Client, ModBUS RTU Master/Slave, FTP/FTPs Client, FTP/ sFTP Server, HTTP/HTTPS server, SMTPs client, Samba	ModBUS TCP-IP Server/Client, ModBUS RTU Master/Slave, FTP/FTPs Client, FTP/ sFTP Server, HTTP/HTTPS server, SMTPs client, Samba	ModBUS TCP-IP Server/Client, ModBUS RTU Master/Slave, FTP/FTPs Client, FTP/ sFTP Server, HTTP/HTTPS server, SMTPs client, Samba
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
Security / VPN protocols	OpenVPN, TLS	OpenVPN, TLS	OpenVPN, TLS	OpenVPN, TLS
Energy protocols	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, Easy Setup2	Web Server, Easy Setup2	Web Server, Easy Setup2	Web Server, Easy Setup2
IEC 61131-3 Control Logic	No	No	No	No
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), SESC (Seneca Ethernet to Serial Connection)	SDD (Seneca Discovery Device), SESC (Seneca Ethernet to Serial Connection)	SDD (Seneca Discovery Device), SESC (Seneca Ethernet to Serial Connection)	SDD (Seneca Discovery Device), SESC (Seneca Ethernet to Serial Connection)
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

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AUXILIARY MODULE

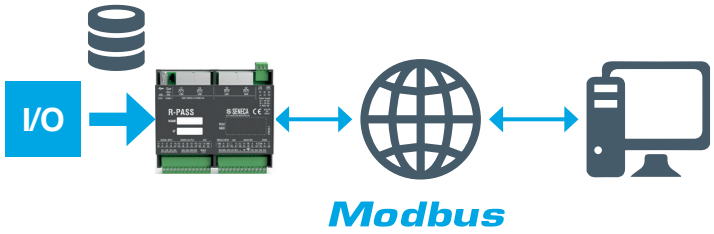
R-COMM is an auxiliary module that interfaces directly with R-PASS modules by providing modem functionality and mini UPS. Available in 2 versions.



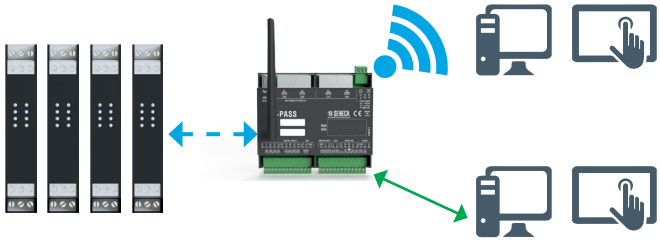
	R-COMM-0-4GWW	R-COMM-B-4GWW
Runtime backup battery / UPS	-	Please see instruction manual
Operating temperature	-20..+55°C	-20..+55°C
Mounting	For DIN rail (IEC EN 60715)	For DIN rail (IEC EN 60715)
Modem	4G/LTE Model Global LTE-FDD/TDD/CAT1 UMTS/HSDPA/HSUPA/HSPA+ GSM/GPRS/EDGE	4G/LTE Model Global LTE-FDD/TDD/CAT1 UMTS/HSDPA/HSUPA/HSPA+ GSM/GPRS/EDGE
GNSS	GPS, GNSS, GLONASS, BEIDOU, GALILEO, QZSS	GPS, GNSS, GLONASS, BEIDOU, GALILEO, QZSS

APPLICATION SCHEMES

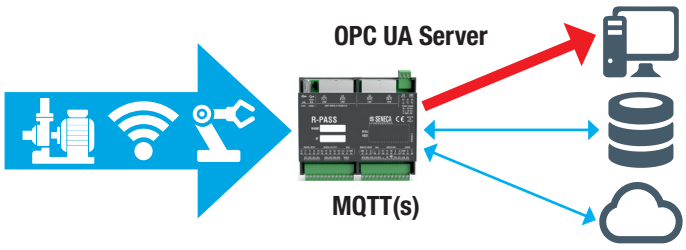
GATEWAY CON TAG



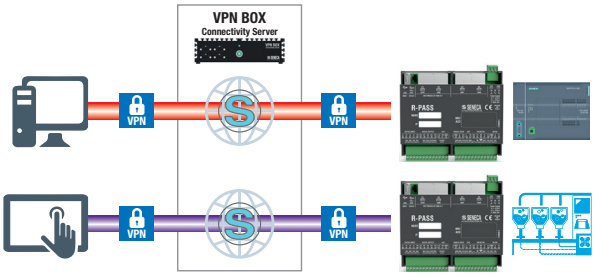
GATEWAY Wi-FI



OPC UA / MQTT GATEWAY



TELEASSISTENZA VPN



ORDER CODE

Code	Description
R-PASS-0-2-0	Multifunctional compact IIoT gateway 2 LAN ports
R-PASS-0-4-0	Multifunctional Compact IIoT Gateway 4 LAN Ports
R-PASS-W-2-0	Multifunctional Compact IIoT Gateway, Wi-Fi, 2 LAN Ports
R-PASS-W-4-0	Multifunction Compact IIoT Gateway, Wi-Fi, 4 LAN Ports

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