

RI-EX-PRO Series



128 Device - Ethernet Communication Gateway

- Compact size - 2 module (35mm width) DIN Rail mounting
- RS485 Modbus RTU TCP master
- Connect up to 128 x Modbus devices
- 10/100Mbps Ethernet connection
- 1 x Relay Output
- 5VDC Auxiliary Supply
- USB-C port for device configuration, diagnostics and firmware update
- DHCP or Static IP address
- 1MB Built-in flash memory (8Mbit) for settings and data storage

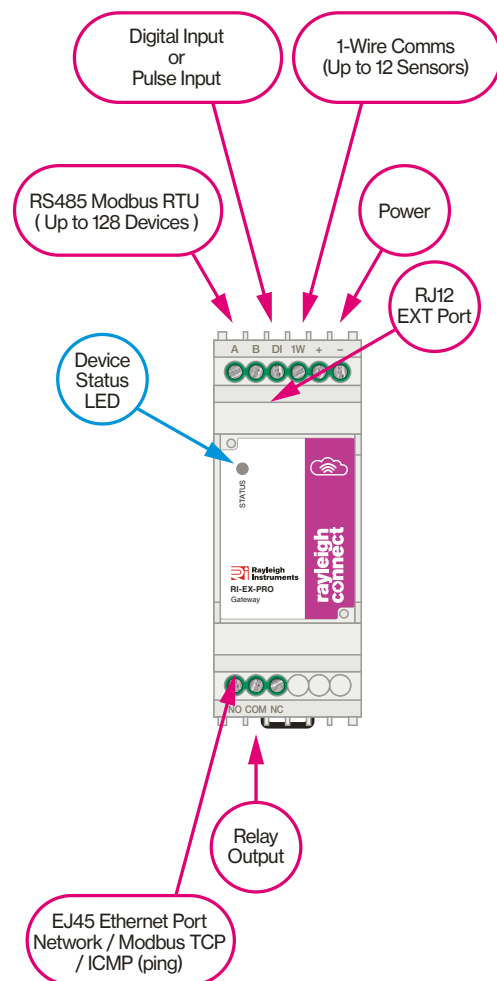
Product Description

The RI-EX-PRO Series are robust and easy to use DIN rail mounted data acquisition communication gateways.

The RI-EX-PRO Series form part of a growing family of gateway devices designed to be used with the **rayleighconnect™** cloud based software platform.

The RI-EX128 Pro accepts inputs from up to one hundred and twenty eight Modbus devices via RS485 Modbus RTU.

The data from all devices is transmitted to the **rayleighconnect™** cloud software platform via the built-in RJ45 Ethernet port to your router. If Modbus TCP devices are required to be connected via the RJ45 Ethernet port then a separate network switch is required.



Display

Display Type	1 x LEDs
LED indicators	STATUS LED GREEN - flashing = Connected to the cloud system YELLOW - flashing = Not connected to the cloud system Green/YELLOW - fast flashing = Started/restarted within last 10 seconds RED = Used only in recovery mode

Connection

Ethernet	10/100Mbps (10 Base T/100 Base TX)
IP address	DHCP (default) or Static
Modbus (RTU)	RS485
Modbus (TCP)	RJ45

Auxiliary Supply

Voltage range	5VDC ($\pm 10\%$)
Operating frequency	47...50...63Hz
Power consumption	<18VA

Outputs

Communication type	RS485
Communication protocol	Modbus
Number of bits	8bits (default) or 7bits
Stop bits	1bits (default) or 2bits
Parity	None (default), odd, even
Baud rate	2400, 4800, 9600 (default), 19200, 38400, 57600, 115200
Number of Modbus devices connected on the bus	Up to 128 (Note: requires a booster every 31 devices)
Max. distance from Slave device	1200M (longer with booster)
1 Wire Interface	For up to 12 Temperature Sensors
Modbus Interface	RTU and TCP
Flash Memory	1MB Built-in, 8Mbit (up to 2 million values)

Insulation

Installation category	III
Pollution degree	2
Insulation voltage rating	300V L-N

Environmental Conditions

Reference temperature	23°C
Specified temperature operating range	-10°C...+55°C
Storage temperature	-20°C...+70°C
Relative humidity	0...85%, non condensing

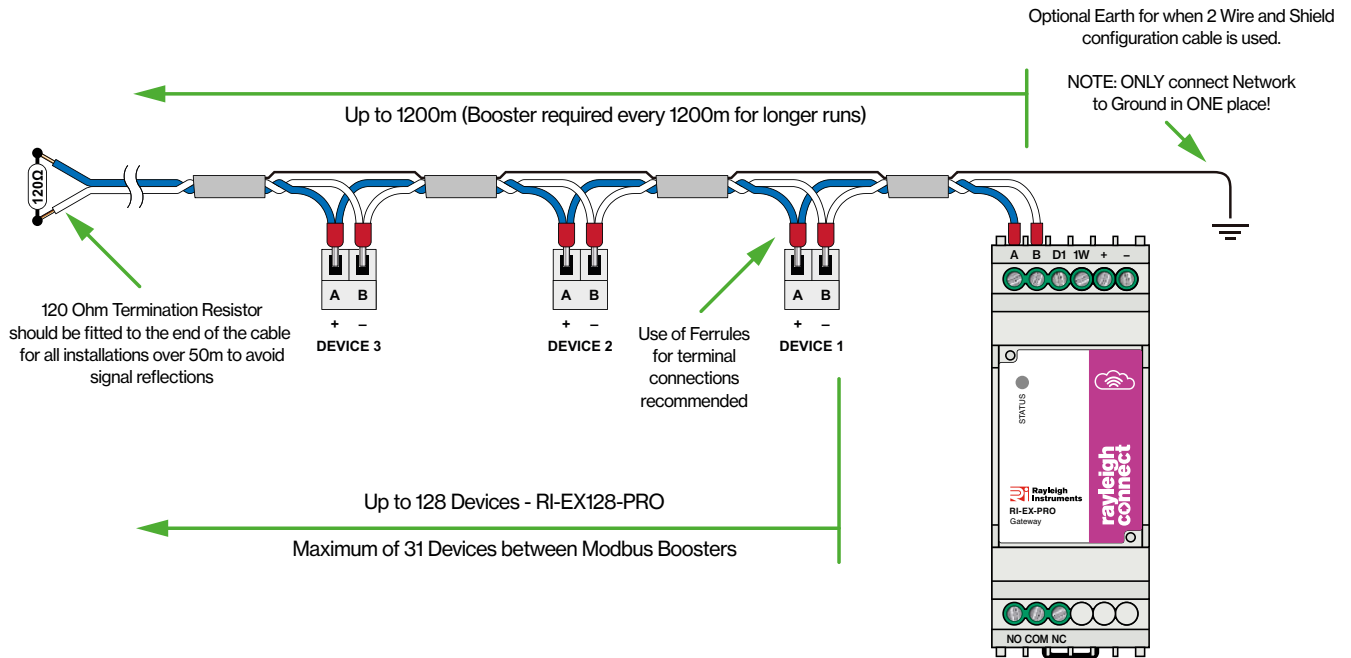
Mechanical

Housing	2 module DIN 43880
Mounting	Snap-on 35mm DIN rail
Housing material	Self-extinguishing polycarbonate (UL94 V-0)
Weight	<116g

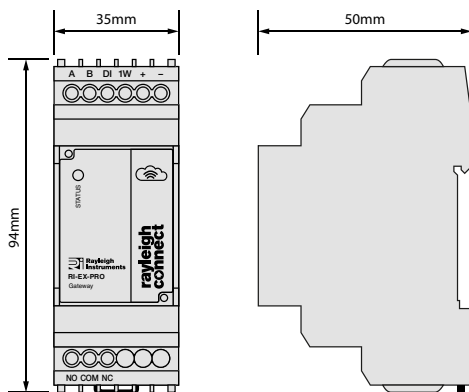
Conformity

Electromagnetic compatibility	IEC/EN55032, IEC/EN55016-2-3 Class B, IEC/EN61000-4-2, IEC/EN61000-4-3, IEC/EN61000-4-4, IEC/EN61000-4-5, IEC/EN61000-4-6, IEC/EN61000-4-11
Safety	IEC/EN61010

Wiring Diagram



Dimensions (mm)



Model Selection Table

Communications	Model
Connect up to 128 Modbus RTU and TCP devices	RI-EX128-PRO