

Datasheet

ENRCA00 Series

Industrial Receivers

ExRemote's industrial receivers are fully programmable to perform a variety of tasks using most communication protocols in the industry standard. Safety outputs can be wired to a safety relay or directly to safety inputs of e.g. motor controllers. Two built-in relays can be used to switch higher AC or DC currents.

With a range of over 200 meters the receiver can be placed somewhere accessible. Automatic pairing makes it easy to link a remote. Simply put the remote in "PAIR" mode and power cycle the receiver. It features "Listen Before Talk" and "Channel Hopping" for a robust wireless connection. Optionally, a wired connection can be used in places where radio equipment is not allowed (e.g. offshore environments).

Environmental Specifications

Parameter	Recommended	Min	Max
Temperature:			
Operating		-20 °C [-4 °F]	60 °C [140 °F]
Relative Humidity:		0 %	65 %
Protection:	Optional water repelling coating.		

Mechanical specifications

Parameter	Value
Weight:	250 +/- 50 g
Dimensions:	85 x 69 x 30 mm +/- 0.4 mm

Electrical specifications

Parameter	Typical	Min	Max
Power Supply (U _{in}):	24 VDC	20 VDC	28 VDC
Consumption:	Typical 50 mA or 80 mA when redundant		
Bus operation voltage:	5 VDC		
RS485 bitrate	19200 bps	9600 bps	250 kbps
CAN bus bitrate	1 Mbps	10 kbps	1 Mbps
Digital Output:	U _{in} - 0.7V (Opto-coupler output)		
Digital Output Current ¹ :			80 mA
Switching Capacity ¹ :			
Resistive 30 VDC			8 A
Resistive 230 VAC			5 A
Inductive 230 VAC			2 A
Lifetime	100 000 Operations minimum		

¹ Absolute maximum rating per channel, not limited / fused.

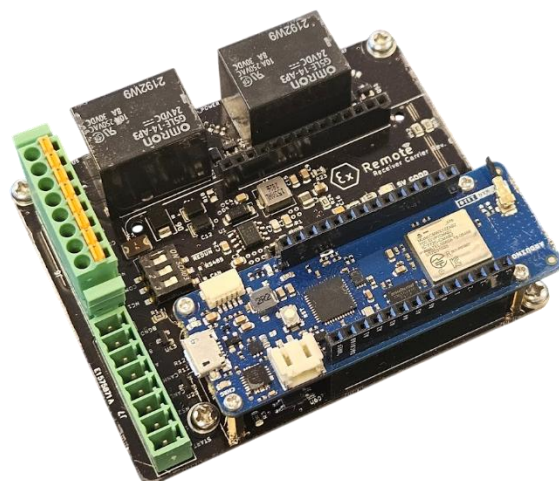
Wireless specifications

Parameter	Typical	Min	Max
Frequency bands:	869 MHz, 915 MHz, 925 MHz		
Output power:		2 dBm [1.6 mW]	20 dBm [100 mW]
Range ¹ :			
Line of sight:			220 m
With obstacles:	50		

¹ Subject to atmospheric circumstances and the size and material of obstacles and surroundings.

Features

- Compact in size.
- Lightweight.
- Fully programmable.
- Most industrial buses supported: CANBUS (CANopen), MODBUS (RS-485/RTU), ProfiNET (DB).
- Low signal warning indicator.
- Micro-USB firmware and diagnostics port.
- Two-way communication: status feedback from receiver application.



Programming options

A full application can be programmed into a receiver from ExRemote. It can directly communicate with motor controllers, sensors and actuators using one or more bus systems. This removes the need for a PLC / IPC, simplifies the system and can be cost-effective. Programming is done in C++. ExRemote can program the application for the customer or can provide libraries and sample software code.

Alternatively, the receiver can be programmed to communicate the position of all controls to a PLC / IPC.

Antenna options

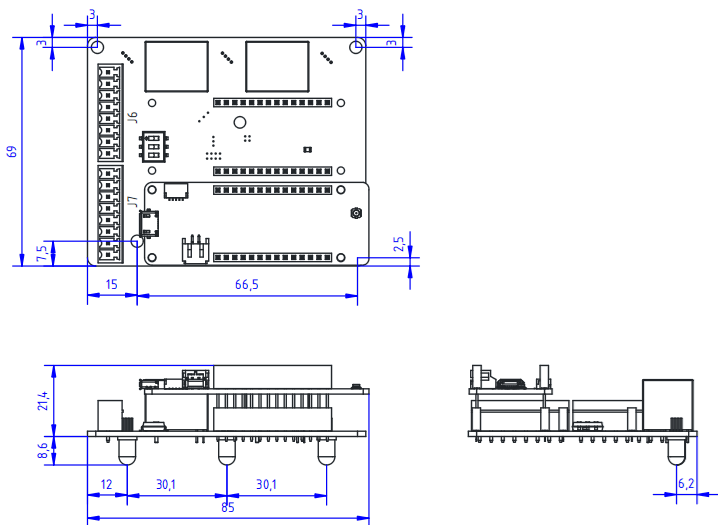
A variety of antennas, cables, mountings and connectors are available. The default connector on the receiver is SMA-Female. A converter cable to the robust PL259 connector or to the N-Type connector. Further antennas specifically tuned for the 868 MHz band can be provided. A vandal proof PUK antenna is available for applications where the antenna should be smaller.

Pinout

J6 and J7 are 3.5 mm pitch headers and come with mating connectors (Phoenix Contact 1939963). These fit wires from 0.14 to 1.5 mm² thickness (26 to 16 AWG) stripped at 9 mm length. For more options check the specifications from Phoenix Contact.

Pin	Connector J6	Connector J7
1	GND	MODBUS GND
2	24V DC-IN	MODBUS B
3	RELAY 2 NO	MODBUS A
4	RELAY 2 COM	CANBUS L
5	RELAY 2 NC	CANBUS H
6	RELAY 1 NO	DO2 (SAFE2)
7	RELAY 1 COM	DO1 (SAFE1)
8	RELAY 1 NC	DO0 (START)

Dimensions



Revision history

Version	Description	Date	Author
1.0	Initial release	20-7-2026	PvG

Legal Disclaimer

Damage due to misuse of the product, operators' input or omission thereof are the customer's responsibility. The product is not intended to be used in applications where operational failure would result in injury or death. Refer to the operator's manual for application specific details and maintenance.

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