

RUW100 – REMOTE UNIT

High productivity and performance for your business



Motors | Automation | Energy | Transmission & Distribution | Coatings



HIGH PRODUCTIVITY AND PERFORMANCE FOR YOUR BUSINESS

In the constant search for evolution and greater productivity, industries increasingly invest in automation. As a result, new applications and different solutions are developed, thus generating more signals to be monitored. Using the head-end structure and the possibility of implementing up to 8 expansions, the RUW100 provides the perfect solution for the dynamic ecosystem required by the industry.

The RUW100 line of remote units allows the expansion of digital, analog, thermocouple, Pt-100, Pt-1000 and load cell inputs and outputs, and relay outputs of frequency inverters, PLCs and AC/DC converters, among other lines of WEG products, using the CANopen or Modbus communication protocols.

With a modular design, **it is the ideal solution** for applications on machines or equipment that need to exchange data with supervisory systems or SCADA, **optimizing panel space** and adding I/Os as needed, enabling the **customization of automation systems**.

The RUW100 remote units receive analog signals from load cells, pressure, temperature and flow sensors, among others, as well as digital signals, such as those provided by contactors, pushbuttons, limit switches and circuit breakers. The data is transmitted to the programmable logic controller via a communication network, reducing the number of cables. In this way, it is possible for a single PLC to control dozens of machines in a factory at the same time, through multiple remote units.





Benefits



Easy Installation

Compact, it can be mounted on a surface or DIN rail and optimizes space and costs with cabling and installation.



Innovative

Free software for online setup, programming and monitoring.



Robust

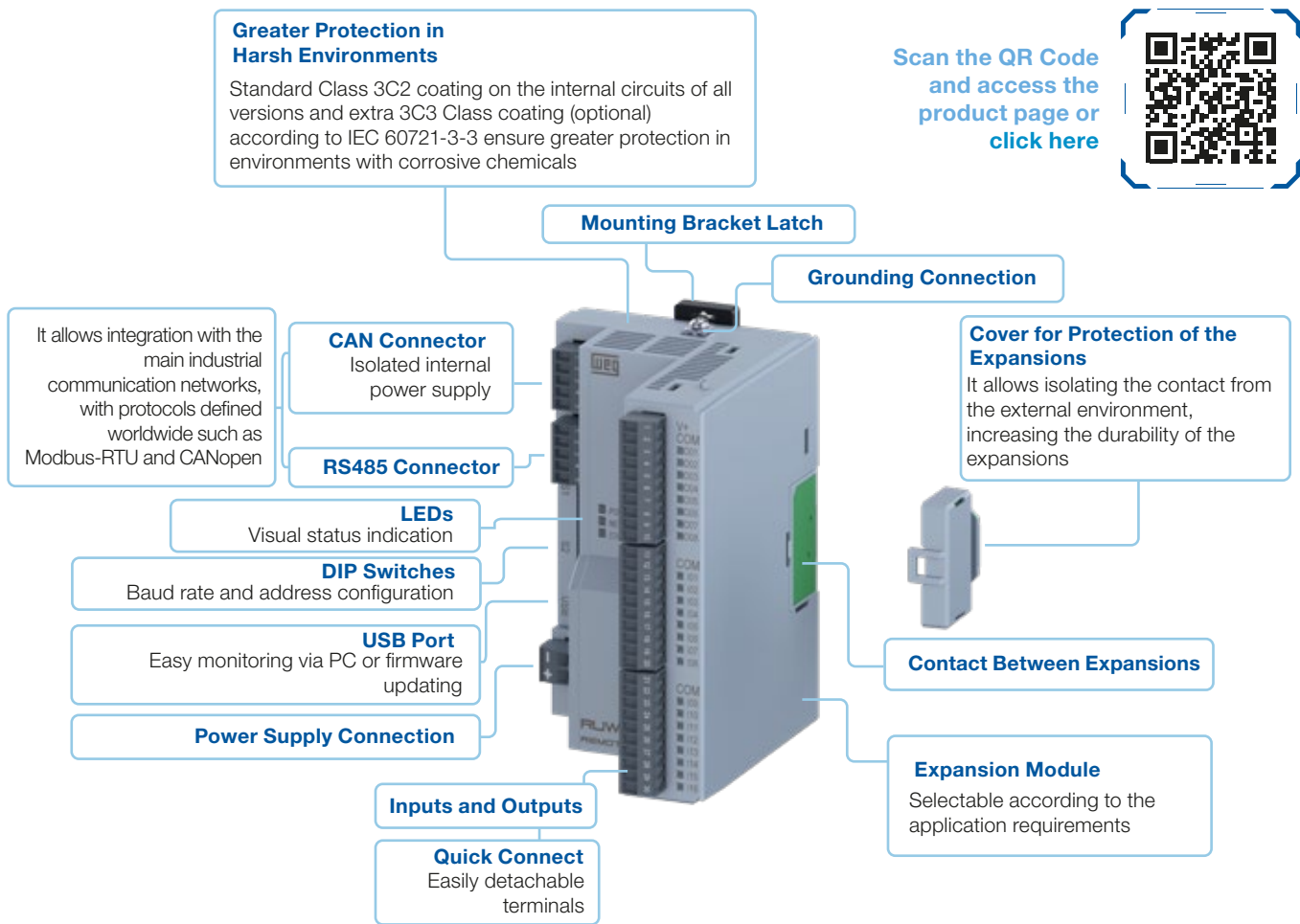
Quality, reliability and durability of a WEG solution, developed under international standards.



Flexible

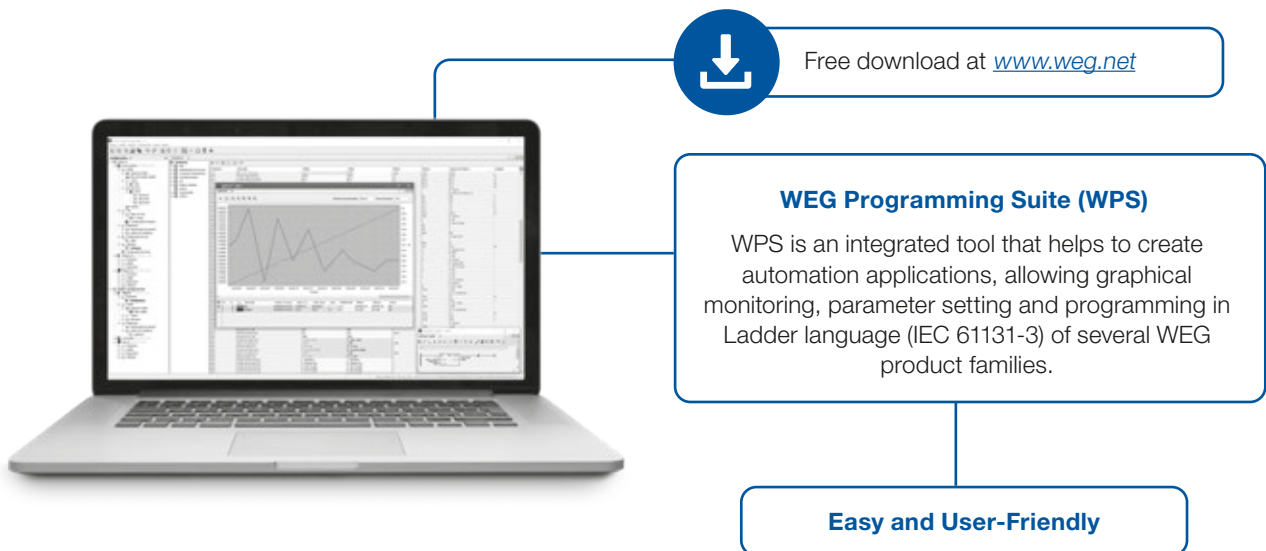
Connectivity to Modbus-RTU and CANopen networks and complete integration with the process network.

Simple to Integrate and Easy to Use



Connectivity and Easy Setup

The RUW100 has a bootloader system, an auxiliary program that allows updating the firmware by USB port using the WPS software, providing continuous improvement and security to all users.



Expansion Modules

Using the Plug & Play concept, the user can make a simple and quick installation of the expansion modules on the RUW100. When the RUW100 is powered up, the electronic circuit identifies the number¹⁾ of connected expansions, the model and the firmware version of each one. They also receive an address according to the position of each one so that it is possible to access them through the communication bus.

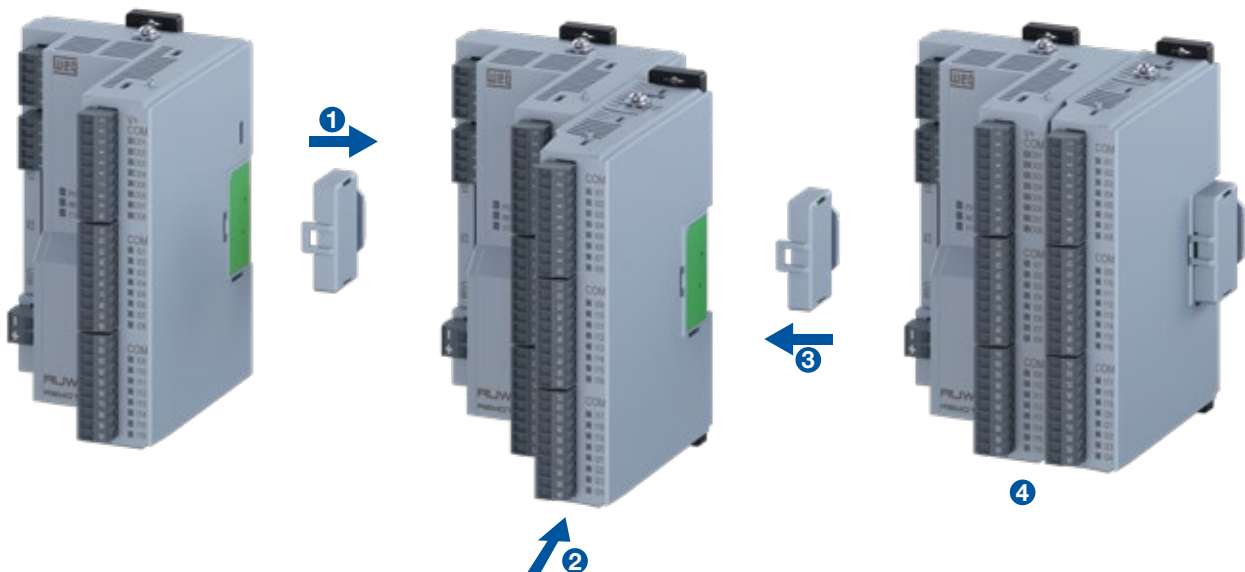


Note: 1) The RUW100 allows the connection of up to 8 expansion modules. However, depending on the model of the required expansion, some quantity limits must be respected. Please refer to the product user manual for further information.

Connecting the Expansion Modules

Connecting the expansion modules is quick and simple:

- 1 Remove the module cover
- 2 Add the new expansion by moving it in the direction indicated in the image below
- 3 Finally, attach the cover on the last expansion



Quick and Simple Installation

The RUW100 and its expansion modules can be installed on a 35 mm DIN rail. Its fastening structure and pre-assembled system offer faster and lower-cost installation, operation and cabling, in addition to saving space.

The DIN rail mounting requires only three steps:

- 1 Move the latches away
- 2 Position the remote unit on the DIN rail
- 3 Close the latches again

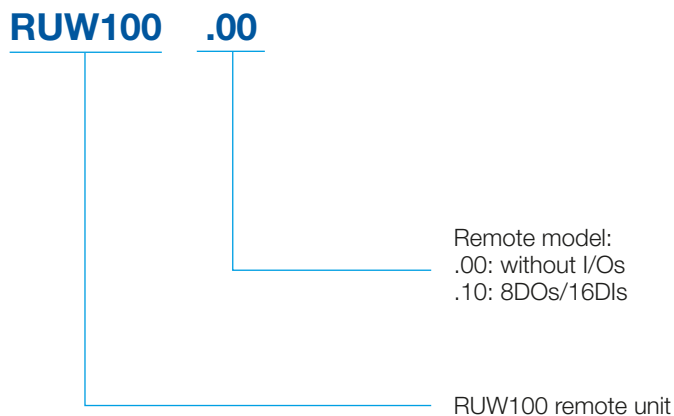


In addition to the possibility of DIN rail mounting, the RUW100 can be installed on flat structures, such as walls and back panels using M3 screws; to do so:

- 1 Move the latches away
- 2 Screw the remote in the desired location



Coding



Specification

Basic Units

Reference	Supply voltage (V dc)	Inputs	Outputs	CAN (CANopen - server)	RS485 (Modbus-RTU - server)
		Bidirectional digital	Isolated digital PNP Protected (500 mA)		
RUW100.0	24	-	-	1	1
RUW100.1		16	8		

Expansion Units

Reference	Inputs					Outputs			
	Bidirectional digital	Voltage or current analog	Thermocouple type J, K and T	Thermistor type Pt-100 and Pt-1000	Load cells	Isolated digital PNP (500 mA)	Analog voltage (0 - 10 V) or current (0 - 20 mA)	Analog voltage (0 - 10 V)	Relay output
MOD1.00	24	-	-	-	-	-	-	-	-
MOD1.10	-	-	-	-	-	24	-	-	-
MOD1.20	8	-	-	-	-	16	-	-	-
MOD1.30	16	-	-	-	-	8	-	-	-
MOD2.00	-	7	-	-	-	-	-	-	-
MOD3.00	-	-	-	-	-	-	4	4	-
MOD4.00	-	-	7	-	-	-	-	-	-
MOD5.00	-	-	-	4	-	-	-	-	-
MOD6.00	-	-	-	-	2	-	-	-	-
MOD7.00	-	-	-	-	-	-	-	-	6
MOD8.00	Smart Connection controller module - Controls up to 04 motor starters per module								

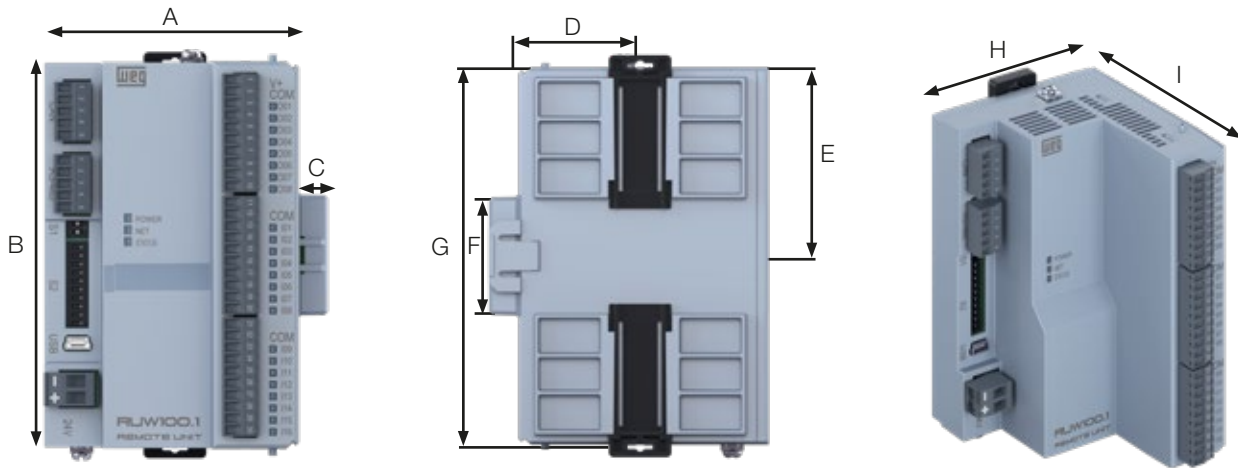
Technical Data

	RUW100.0	RUW100.1
Power supply	The RUW100 must be powered by an external 24 V dc power supply with a current capacity of at least 1 A. The minimum input voltage is 20.4 V, and the maximum is 28.8 V	
Digital outputs	-	PNP outputs Recommended voltage V+: 24 V Maximum voltage V+: 28.8 V Maximum current of each output: 500 mA
Digital inputs	-	Bidirectional digital inputs Maximum input voltage: 28.8 V High level: Vin ≥ 10 V Low level: Vin ≤ 3 V Consumption at 24 V: 10 mA Insulation voltage: 500 V
Operating temperature	0 °C to 50 °C with air relative humidity from 5% to 90% non-condensing	
Protection rating	IP20	
Pollution degree	2 (according to EN 50178 and UL 508C), with non-conductive pollution	
Altitude	1,000 m to 4,000 m (3,280 ft to 13,123 ft)	
Memory	Ladder: 16,368 bytes, volatile variables 4,096 bytes and retentive variables 256 bytes, 2 k programming steps	
Scan cycle	2.4 µs by step	
Shock and vibration tests	Vibration (IEC 60068-2-6) 5 - 150 Hz - 1 g (10 m/s²), maximum amplitude 7 mm Shock (IEC 60068-2-27) 15 g / 11ms	
Certification	CE	
Communication port	1 x CAN Port (cables until 5 wires) - CANopen (server) 1 x RS485 Port (cables until 5 wires) - Modbus-RTU (server)	
Communication protocols	CANopen server and Modbus-RTU server	

Dimensions

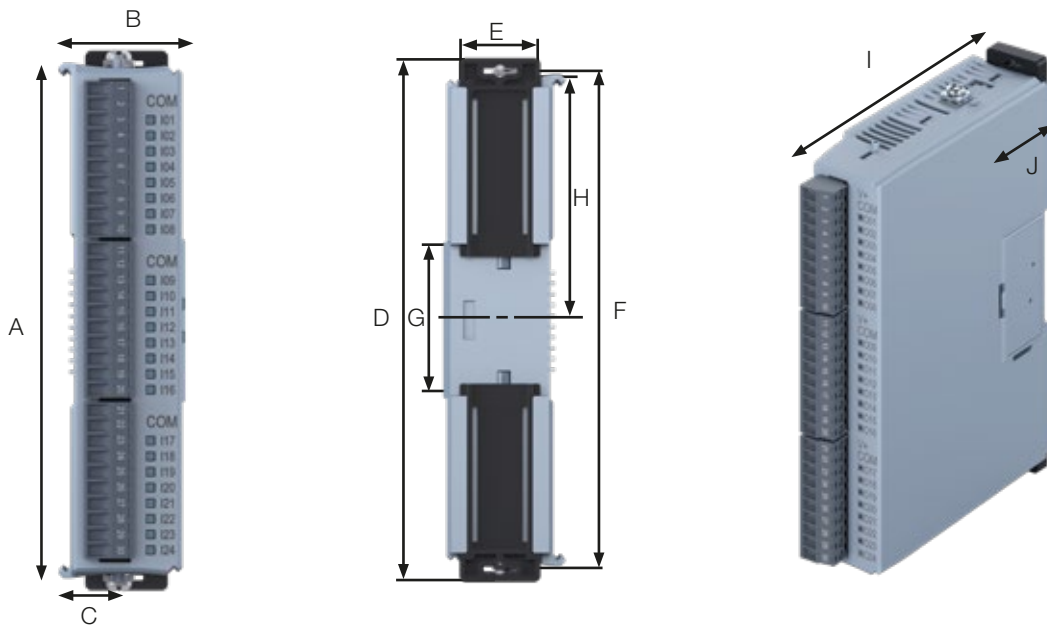
Basic Units

Dimension reference	A	B	C	D	E	F	G	H	I
Dimension in mm (in)	76 (2.992)	115 (4.528)	9 (0.354)	38 (1.495)	57.5 (2.264)	35 (1.378)	116.2 (4.576)	85 (3.346)	89.5 (3.524)
Mounting screw	M3 Ø 3.1 (0.122)								



Expansions

Dimension reference	A	B	C	D	E	F	G	H	I	J
Dimension in mm (in)	115.7 (4.56)	25 (0.98)	15.25 (0.60)	123.1 (4.85)	18.75 (0.74)	117.1 (4.61)	35.5 (1.4)	57.9 (2.28)	89.4 (3.52)	31.6 (1.25)
Mounting screw	M3 Ø 3.1 (0.122)									



Global presence is essential, as much as understanding your needs.

Global Presence

With more than 30,000 employees worldwide, WEG is one of the largest electric motors, electronic equipments and systems manufacturers. We are constantly expanding our portfolio of products and services with expertise and market knowledge. We create integrated and customized solutions ranging from innovative products to complete after-sales service.

WEG's know-how guarantees the ***RUW100 Remote Units*** are the right choice for your application and business, assuring safety, efficiency and reliability.



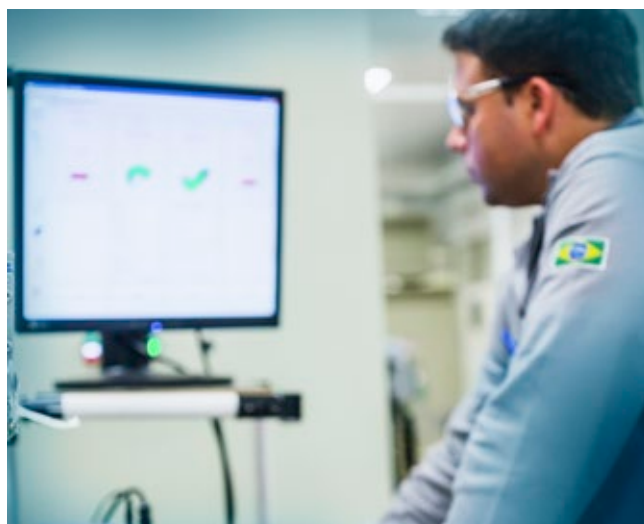
Availability is to have a global support network



Partnership is to create solutions that suit your needs



Competitive edge is to unite technology and innovation



Know More



High performance and reliable products to improve your production process.



Excellence is to provide a whole solution in industrial automation that improves our customers productivity.

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The values shown are subject to change without prior notice.
The information contained is reference values.