



**MODBUS RTU**

### DESCRIPTION

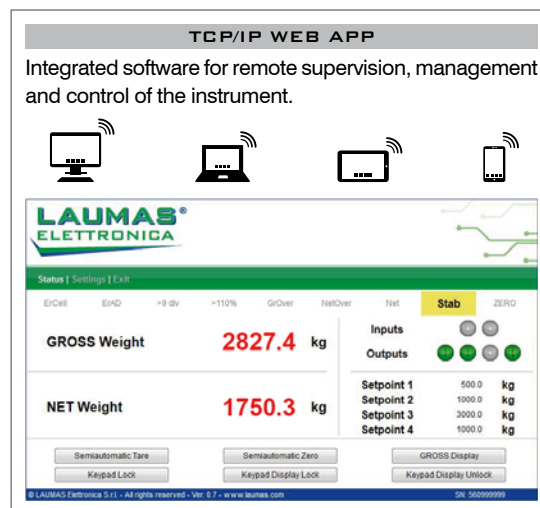
- WiFi weight transmitter in IP65 polycarbonate box with 3 PG9 cable glands (on request IP67 version).
- Dimensions: 170x80x65 mm (four fixing holes Ø4 mm; centre distance: 120x60 mm).
- Backlit alphanumeric LCD display, two-line by 8-digit (5 mm height), visible area: 38x16 mm.
- 6 signalling LED.
- 4-key membrane keyboard.

### INPUTS/OUTPUTS AND COMMUNICATION

- WiFi module for wireless connection via integrated web server (for remote supervision, management and control of the instrument) or via ModBus RTU, ASCII Laumas protocols.
- RS485/RS232 serial ports for communication via protocols ModBus RTU, ASCII Laumas bidirectional or continuous one way transmission.
- 4 relay outputs controlled by the setpoint values or via protocols or web.
- 2 PNP digital inputs: status reading via serial communication protocols or web.
- 1 load cell dedicated input.

### MAIN FUNCTIONS

- Connections to:
  - PC via WiFi/virtual Ethernet port;
  - PC/PLC via RS485/RS232 (up to 99 instruments with line repeaters, up to 32 without line repeaters);
  - others TLKWF devices and Laumas W series instruments (equipped with OPZW1RADIO optional module) via WiFi;
  - PC/smartphone/tablet via web browser (point-to-point direct connection);
  - up to 8 load cells in parallel by junction box;
  - W series instruments via RS485.
- Communication with existing WiFi networks.
- Digital filter to reduce the effects of weight oscillation.
- Theoretical calibration (via keyboard) and real calibration (with sample weights and the possibility of weight linearization up to 5 points).
- Tare weight zero setting.
- Automatic zero setting at power-on.
- Gross weight zero tracking.
- Semi-automatic tare (net/gross weight) and preset tare.
- Semi-automatic zero.
- Displaying of the maximum weight value reached (peak).
- Hysteresis and setpoint value setting.
- Energy saving mode.
- All functions can be managed by a W series instrument connected via RS485 serial port or WiFi (excluding instruments with graphic display).



### CERTIFICATIONS



OIML R76:2006, class III, 3x10000 divisions, 0.6  $\mu$ V/VS1

#### CERTIFICATIONS ON REQUEST



Initial verification in combination with Laumas weighing module




UL Recognized component - Complies with the United States and Canada standards



Complies with the Eurasian Custom Union standards




### TECHNICAL FEATURES

Power supply and consumption	12÷24 VDC ±10%; 2 W	
Number of load cells • Load cells supply	up to 8 (350 Ω) - 4/6 wires • 5 VDC/120 mA	
Linearity	<0.01% full scale	
Thermal drift	<0.0005% full scale/°C	
A/D Converter	24 bit (16000000 points) - 4.8 kHz	
Divisions (with measurement range ±10 mV and sensitivity 2 mV/V)	±999999 • 0.01 μV/d	
Measurement range	±39 mV	
Usable load cells sensitivity	±7 mV/V	
Conversions per second	300/s	
Display range	±999999	
Decimals • Display increments	0 ÷ 4 • x1 x2 x5 x10 x20 x50 x100	
Digital filter • Readings per second	10 levels • 5 ÷ 300 Hz	
Relay outputs	4 - max 115 VAC/150 mA	
Optoisolated digital inputs	2 - 5 ÷ 24 VDC PNP	
Serial ports	RS485, RS232	
Baud rate	2400, 4800, 9600, 19200, 38400, 115200 (bit/s)	
Wireless	WiFi module with serial protocols in tunnel mode and integrated web server. Radio range up to 100 m line of sight.	
Humidity (condensate free)	85%	
Storage temperature	-30°C +80°C	
Working temperature	-20°C +60°C	
	Relay outputs	4 - max 30 VAC, 60 VDC/150 mA
	Working temperature	-20°C +60°C
	Power supply device marked "LPS" (limited power source) or "Class 2"	

### METROLOGICAL SPECIFICATIONS OF TYPE-APPROVED INSTRUMENTS

Applied standards	2014/31/UE - EN45501:2015 - OIML R76:2006
Operation modes	single interval, multi-interval, multiple range
Accuracy class	III or IIII
Maximum number of scale verification divisions	10000 (class III); 1000 (class IIII)
Minimum input signal for scale verification division	0.6 μV/VS1
Working temperature	-10°C +40°C

### OPTIONS ON REQUEST

	DESCRIPTION	CODE
	<b>IP67 polycarbonate waterproof box</b> 170x80x65 mm (4 fixing holes Ø4 mm; centre distance: 120x60 mm). <ul style="list-style-type: none"> <li>2 PG9 cable glands.</li> <li>Extractable power connector.</li> </ul> → <i>instrument not included.</i>	OPZWFIP67
	<b>Rechargeable external lead battery.</b> <ul style="list-style-type: none"> <li>12 V - 2200 mAh capacity</li> <li>IP67 polycarbonate waterproof box 160x80x85 mm with transparent cover (4 fixing holes Ø4 mm; centre distance: 152x122 mm).</li> <li>Battery charger.</li> <li>26 hours operating time*.</li> </ul>	BATEXT
	<b>Rechargeable internal NiMH battery.</b> <ul style="list-style-type: none"> <li>8 elements - 1.2 V - AA type - 2450 mAh capacity.</li> <li>Supplied already installed in the instrument, with external dedicated switch: 190x80x65 mm overall box dimensions.</li> <li>24 hours operating time*.</li> </ul>	OPZBATTWF

\* Approx. maximum operating time for typical use with fully charged battery, with 4 load cells (350 ohm) and energy saving mode enabled.

The Company reserves the right to make changes to the technical data, drawings and images without notice.