TLKWF
Weight Transmitter – WiFi

LAUMAS®
ELETTRONICA

DESCRIPTION

- WiFi weight transmitter in IP67 polycarbonate box with 3 PG9 cable glands.
- Dimensions: 80x170x65 mm (four fixing holes Ø4 mm; centre distance: 60x120 mm).
- Backlit alphanumeric LCD display, two-line by 8-digit (5 mm height), visible area: 38x16 mm.
- 6 signalling LED.
- 4-key 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 weight indicator 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 weight indicator connected via RS485 serial port or WiFi (excluding instruments with graphic display).

CE · OIML · M · c U L us · EAC

IP67 · WiFi · RS485 RS232 · eSAVING

MODBUS RTU

TCP/IP WEB APP

Integrated software for remote supervision, management and control of the instrument

CERTIFICATIONS

OIML	OIML R76:2006, class III, 3x10000 divisions, 0.6 µV/VSI

CERTIFICATIONS ON REQUEST

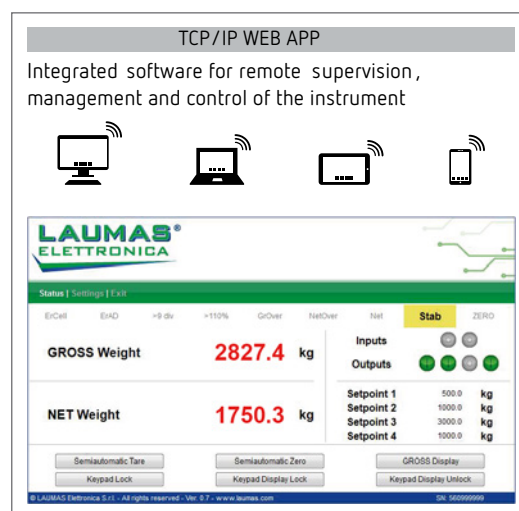|	
M	Initial verification in combination with Laumas weighing module
c U L us	UL Recognized component - Complies with the United States and Canada standards
EAC	Complies with the Eurasian Custom Union standards

Version 02.2020

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

c**ᴙᴜ**us	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/VSI
Working temperature	-10°C +40°C

OPTIONS ON REQUEST

DESCRIPTION	CODE
Rechargeable external lead battery. ▪ 12 V – 2200 mAh capacity ▪ IP67 polycarbonate box 160x80x85 mm with transparent cover (4 fixing holes Ø4 mm; centre distance: 152x122 mm). ▪ Battery charger. ▪ 26 hours operating time*.	BATEXT
Rechargeable internal NiMH battery. ▪ 8 elements – 1.2 V – AA type – 2450 mAh capacity. ▪ Supplied already installed in the instrument, with external dedicated switch: 190x80x65 mm overall box dimensions. ▪ 24 hours operating time*.	OPZBATTWF

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

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