TLK
WEIGHT TRANSMITTER

LAUMAS®

MODBUS RTU

DESCRIPTION

- Weight transmitter in IP67 polycarbonate box with 2 M16x1.5 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

- RS485/RS232 serial ports for communication via protocols ModBus RTU, ASCII Laumas or continuous one way transmission.
- 4 relay outputs controlled by the setpoint values or via protocols.
- 2 PNP digital inputs: status reading via serial communication protocols.
- 1 load cell dedicated input.

MAIN FUNCTIONS

- Connections to:
  - PC/PLC via RS485/RS232 (up to 99 instruments with line repeaters, up to 32 without line repeaters);
  - up to 8 load cells in parallel by junction box;
  - W series weight indicator via RS485.
- 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 (excluding instruments with graphic display).

Approved versions for legal for trade use

- System parameters management protected by qualified access via software (password), hardware or fieldbus.
- Weight subdivisions displaying (1/10 e).
- Three operation mode: single interval or multiple ranges or multi-interval.
- Net weight zero tracking.
- Calibration.
- Alibi memory (option on request).

CERTIFICATIONS

OIML	OIML R76:2006, class III, 3x10000 divisions, 0.6 μV/VSI
c UL us	UL Recognized component - Complies with United States and Canada regulations
EAC	Complies with the Eurasian Customs Union regulations
UK CA	Equivalent of the CE marking for the United Kingdom
	CERTIFICATIONS ON REQUEST
M	Conformity assessment (initial verification) in combination with Laumas weighing module

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ISO 9001
ISO 14001

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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
Conversion rate	5÷300 Hz
Display range	±999999
Decimals • Display increments	0÷4 • x1 x2 x5 x10 x20 x50 x100
Digital filter	10 levels
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)
Humidity (condensate free)	85%
Storage temperature	-30 °C +80 °C
Working temperature	-20 °C +60 °C

c UL us	Relay outputs	4 - max 30 VAC, 60 VDC/150 mA
	Working temperature	-20 °C +60 °C
	Equipment to be powered by 12-24 VDC LPS or Class 2 power source	

METROLOGICAL SPECIFICATIONS OF TYPE-APPROVED INSTRUMENTS	OIML
Applied standards by region	EU: 2014/31/UE - OIML R76:2006 - EN45501:2015 United Kingdom: Non-automatic Weighing Instrument Regulations 2016
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
	Alibi memory.
	**Rechargeable external lead battery.** ▪ 12 V - 2800 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*.
	**Rechargeable internal NiMH battery.** ▪ 8 elements - 1.2 V - AA type - 2450 mAh capacity. ▪ Supplied already installed in the instrument, with external dedicated switch; overall box dimensions: 190x80x65 mm. ▪ Battery charger. ▪ 24 hours operating time*.

** 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.

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