WTAB-L/R
WEIGHT INDICATOR

LAUMAS®

CE · OIML · M · c UL us · EAC · NMI TRADE APPROVED · G · RS485 RS232 · ANALOG OUTPUT · ALIBI · RECHARGEABLE BATTERY · WiFi

4 D-SUB connectors - IP40

Integrated thermal printer (on request)

Stabilized power supply included
24 VDC/1 A - 100÷240 VAC input
3 m cable length

CERTIFICATIONS

OIML	OIML R76:2006, class III, 3x10000 divisions, 0.2 μV/VSI / OIML R61 - WELMEC Guide 8.8:2011 (MID)

CERTIFICATIONS ON REQUEST

M	Conformity assessment (initial verification) in combination with Laumas weighing module
c UL us	UL Recognized component - Complies with the United States and Canada standards
EAC	Complies with the Eurasian Custom Union standards
NMI	NMI Trade Approved - Complies with the Australian standards for legal use with third parties
G	Complies with the regulations of the Russian Federation for legal use with third parties

FIELDBUSES

MODBUS RTU MODBUS/TCP · **CANopen** · **PROFIBUS** · **DeviceNet** · **EtherNet/IP** · **ETHERNET TCP/IP** · **PI CERTIFIED PROFIBUS · PROFINET**

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DESCRIPTION

- ABS desk weight indicator.
- Dimensions: 315x170x315 mm.
- *L version*: 6-digit semi-alphanumeric backlit LCD display (20 mm height) - 46 signalling symbols.
- *R version*: 6-digit semi-alphanumeric red LED display (20 mm height) - 16 signaling LED.
- 8-key keyboard.
- IP40 protection rating.
- Real-time clock/calendar with buffer battery.
- Power supply included.
- D-SUB connectors.

INPUTS/OUTPUTS AND COMMUNICATION

- RS485/RS232 serial ports for communication via protocols ModBus RTU, ASCII Laumas bidirectional or continuous one way transmission.
- 5 relay outputs controlled by the setpoint values or via protocols (4 outputs if analog output is present).
- 3 optoisolated PNP digital inputs: status reading via serial communication protocols (2 inputs if analog output is present).
- 1 load cell dedicated input.
- Current or voltage 16 bit optoisolated analog output (option on request).
- WiFi module (option on request).

MAIN FUNCTIONS

- Connections to:
  - PLC via analog output (on request);
  - PC/PLC via RS485/RS232 (up to 99 instruments with line repeaters, up to 32 without line repeaters);
  - remote display and printer via RS485/RS232;
  - up to 8 load cells in parallel by junction box;
  - intelligent junction box or other multichannel instruments: allow the use of advanced functions as digital equalization, load distribution analysis and automatic diagnostics.
- Piece counting.
- Weight totalizing.
- 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).
- 9 preset tare values that can be stored.
- Semi-automatic zero.
- Displaying of the maximum weight value reached (peak).
- Direct connection between RS485 and RS232 without converter.
- Hysteresis and setpoint value setting.
- 12 groups selection by 5 setpoint via external selector switch or contact (option on request).
- Weight value printing with date and time via keyboard or external contact.
- The indicator can be used as a remote display with setpoints.
- **TCP/IP WEB APP**
  Integrated software in combination with the WiFi module and Ethernet TCP/IP options for remote supervision, management and control of the instrument.

CE-M version: 2014/31/EU-EN45501:2015-OIML R76:2006
- 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).
- The following values can be printed via keyboard or external contact: gross weight, net weight, tare, preset tare, date, time, ID code (aliby memory).

TECHNICAL FEATURES

Power supply and consumption	12÷24 VDC ±10%; 6 W
Number of load cells • Load cells supply	up to 8 (350 Ω) - 4/6 wires • 5 VDC/120 mA
Linearity • Analog output linearity	<0.01% full scale • <0.01% full scale
Thermal drift • Analog output thermal drift	<0.0005% full scale/°C • <0.003% 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	5/4 - max 115 VAC/150 mA
Optoisolated digital inputs	3/2 - 5÷24 VDC PNP
Serial ports	RS485, RS232
Baud rate	2400, 4800, 9600, 19200, 38400, 115200 (bit/s)
Optoisolated analog output (option on request)	16 bit = 65535 divisions. 0÷20 mA; 4÷20 mA (up to 300 Ω) 0÷10 V; 0÷5 V; ±10 V; ±5 V (min 10 kΩ)
Humidity (condensate free)	85%
Storage temperature	-30 °C +80 °C
Working temperature	-20 °C +60 °C

c**RU**us	Relay digital outputs	5/4 - max 30 VAC, 60 VDC/150 mA
	Working temperature	-20 °C +50 °C
	Equipment to be powered by 12-24 VDC LPS or Class 2 power source	

METROLOGICAL SPECIFICATIONS OF TYPE-APPROVED INSTRUMENTS
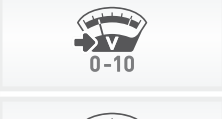
Applied standards	2014/31/UE - EN45501:2015 - OIML R76:2006
Operation modes	single interval, multi-interval, multiple range
Accuracy class	III or IIII
Maximum number of scale verification divisions	10000 (class III); 1000 (class IIII)
Minimum input signal for scale verification division	0.2 μV/VSI
Working temperature	-10 °C +40 °C

OPTIONS ON REQUEST

	POWER SUPPLY	CODE
	12.2 V rechargeable lead battery, 2.2 Ah capacity, supplied already installed in the instrument. Operating time: 16 hours.	OPZWBATTWTAB

	ACCESSORIES	
	Integrated thermal printer: 24 column, paper end sensor, working temperature: 0÷50 °C, humidity: 20%÷80%, paper roll included (width: 57 ±0.5 mm - outside diameter: 50 mm). ➡ *RS485 port not available.*	OPZWTABSTA
	Thermal paper roll.	CARTASTAVT
	Adhesive thermal paper roll.	CARTAFISCADEN

	INTERFACES AND FIELDBUSES	
WiFi	**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.	✴ OPZW1RADIO
ANALOG OUTPUT	Optoisolated 16 bit **analog output**. ➡ *One input and one output not available.*	✴ OPZW1ANALOGICA
RS485⁺	**Additional RS485** port. ➡ *One input and one output not available.*	✴ OPZW1RS485
CANopen	**CANopen** protocol.	✴ OPZW1CADB9
DeviceNet	**DeviceNet** protocol.	✴ OPZW1DEDB9
PROFIBUS	**Profibus DP** protocol.	✴ OPZW1PRDB9
EtherNet/IP	**Ethernet/IP** protocol - Ethernet port.	✴ OPZW1ETIPDB9
ETHERNET TCP/IP	**Ethernet TCP/IP** protocol - Ethernet port. Integrated software for remote supervision, management and control of the instrument.	✴ OPZW1ETTCPDB9

✴ *Select one option among those marked with an asterisk.*

Rev. 0.0

OPTIONS ON REQUEST

		CODE
MODBUS/TCP	**Modbus/TCP** protocol - Ethernet port.	✳ OPZW1MBTCPDB9
PI CERTIFIED PROFIBUS · PROFINET	**Profinet IO** protocol - Ethernet port.	✳ OPZW1PNETIODB9
	USB port for data storage to pen drive (included). These data (weighed values, alarms) can be imported and processed on the PC using the PROG-DB software included in the supply.	OPZWUSBDB9
0-10	Weight reading from 0-10 VDC input (15 kΩ).	OPZWING010
4-20	Weight reading from 4-20 mA input (120 Ω).	OPZWING420

APPLICATIONS - SOFTWARE

	Alibi memory.	OPZWALIBI
	Data transfer from the instrument to the PC, via RS232 (directly) or RS485 (by converter) serial port. These data (weighed values, alarms) can be imported and processed on the PC using the PROG-DB software included. We suggest to use this option when the indicator is always connected to the PC.	OPZWDATIPC

✳ *Select one option among those marked with an asterisk.*

Rev. 0.0