WTAB-R

WEIGHT INDICATOR

LAUMAS®

D-SUB connectors - IP40

Integrated thermal printer (on request)

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

CERTIFICATIONS

- OIML R76:2006, class III, 3x10000 divisions, 0.2 μV/VSI / OIML R61 - WELMEC Guide 8.8:2011 (MID)
- UL Recognized component - Complies with United States and Canada regulations
- Complies with the Eurasian Customs Union regulations
- Equivalent of the CE marking for the United Kingdom
- NMI Trade Approved - Complies with Australian market regulations for legal for trade use
- Complies with New Zealand regulations for legal for trade use
- NTEP - n_{max} 10000 - Class III/IIIL - Complies with United States regulations for legal for trade use
- Complies with Chinese market regulations for legal for trade use

CERTIFICATIONS ON REQUEST

- M — Conformity assessment (initial verification) in combination with Laumas weighing module
- Complies with the regulations of the Russian Federation for legal for trade use

FIELDBUSES

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

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ISO 9001
ISO 14001

www.laumas.com

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DESCRIPTION

- ABS desk weight indicator.
- Dimensions: 315x170x315 mm.
- 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.
- The instrument can be configured and managed using the free “Instrument Manager” PC software, which you can download from www.laumas.com.

INPUTS/OUTPUTS AND COMMUNICATION

- RS485/RS232 serial ports for communication via protocols ModBus RTU, ASCII Laumas 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.
  - IoT gateway for cloud connection via RS485.
- 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.
- 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 8 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.
- Printing (header) can be customized using the free “JollyPrint” PC software, available at www.laumas.com.
- The indicator can be used as a remote display with setpoints.
- Labeling machine management.

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).
- The following values can be printed via keyboard or external contact: gross weight, net weight, tare, preset tare, date, time, ID code (alibi memory).

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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
Display range	±999999
Decimals • Display increments	0÷4 • x1 x2 x5 x10 x20 x50 x100
Digital filter • Readings per second	10 levels • 5÷300
Relay outputs	5/4 - max 115 VAC/150 mA
Optoisolated digital inputs	3/2 - 5÷24 VDC PNP
Serial ports	RS485, RS232
Baud rate	1200, 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 UL 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	OIML	NTEP
Applied standards by region	EU: 2014/31/UE; OIML R76:2006; EN45501:2015 Russian Federation: GOST OIML R76-1-2011 United Kingdom: Non-automatic Weighing Instrument Regulations 2016 Australia: National Measurement Regulations 1999 New Zealand: Weights and Measures Regulations 1999 China: Law on Metrology of the People's Republic of China	USA: NIST HANDBOOK 44, 2020; NCWM PUB 14, 2021
Operation modes	single interval, multi-interval, multiple range	single interval, multi-interval, multiple range
Accuracy class	III or IIII	III or IIIL
Maximum number of scale verification divisions	10000 (class III); 1000 (class IIII)	10000 (class III/IIIL)
Minimum input signal for scale verification division	0.2 μV/VSI	
Working temperature	-10 °C +40 °C	-10 °C +40 °C (+14 °F +104 °F)

OPTIONS ON REQUEST

POWER SUPPLY

12.2 V rechargeable lead battery, 2.8 Ah capacity, supplied already installed in the instrument.
Operating time: 16 hours.

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.*

Thermal paper roll.

Adhesive thermal paper roll.

INTERFACES AND FIELDBUSES

WiFi

✶ **WiFi module** (2.4 GHz) for wireless connection via integrated web server (for remote supervision, management and control of the instrument) or via ModBus RTU, ASCII Laumas protocols.

✶ Optoisolated 16 bit **analog output**.
➔ *One input and one output not available.*

✶ **Additional RS485** port.
➔ *One input and one output not available.*

✶ **CANopen** protocol.

✶ **DeviceNet** protocol.

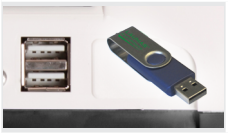
✶ **Profibus DP** protocol.

✶ **Ethernet/IP** protocol - Ethernet port.

✶ **Ethernet TCP/IP** protocol - Ethernet port.
Integrated software for remote supervision, management and control of the instrument.

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

OPTIONS ON REQUEST

	✶ **Modbus/TCP** protocol - Ethernet port.
	✶ **PROFINET IO** protocol - Ethernet port.
	DATAUSB **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.
	Weight reading from 0-10 VDC input (15 kΩ).
	Weight reading from 4-20 mA input (120 Ω).

APPLICATIONS - SOFTWARE

	Alibi memory.
	DATAPC 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.

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