

# WDESK-BL/BR

## WEIGHBRIDGE INDICATOR

LAUMAS®



D-SUB connectors - IP40



Stainless steel bracket for wall mounting  
(on request)



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

### DESCRIPTION

- ABS weight indicator.
- Dimensions: 226x122x189 mm.
- *BL version*: 6-digit semi-alphanumeric backlit LCD display (20 mm height) - 46 signalling symbols.
- *BR version*: 6-digit semi-alphanumeric red LED display (20 mm height) - 16 signaling LED.
- 19-key keyboard.
- IP40 protection rating.
- IP67 front panel 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](http://www.laumas.com).

### INPUTS/OUTPUTS AND COMMUNICATION

- 3 serial ports (2x RS485 and 1x RS232) 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 optoisolated PNP digital inputs: status reading via serial communication protocols.
- 1 load cell dedicated input.

### CERTIFICATIONS


- OIML R76:2006, class III, 3x10000 divisions, 0.2  $\mu$ V/VS1
- UL Recognized component - Complies with United States and Canada standards
- Complies with the Eurasian Customs Union standards
- 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
- Complies with United Kingdom 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

- Complies with the regulations of the Russian Federation for legal for trade use

Rev. 0.0

### TECHNICAL FEATURES

Power supply and consumption	12÷24 VDC ±10%; 6 W	
Number of load cells • Load cells supply	up to 8 (350 Ω) or 16 (700 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	2x RS485, 1x 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	
	Relay outputs	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	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 IIIL	III or IIIL
Maximum number of scale verification divisions	10000 (class III); 1000 (class IIIL)	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)

### MAIN FUNCTIONS





- Connections to:
  - 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, 350 Ω, (or 16 load cells, 700 Ω) 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.
- Double weighing (entry and exit), single weighing (entry or exit), double weighing with trailer, single weighing with trailer, multiple weighing (weighing of multi-compartment trucks).
- Simultaneous management of 254 trucks.
- Open input weighings archive (max 254).
- Database with 999 preset tares.
- Up to 10000 weighings that can be saved in alibi memory.
- Traffic light management via relay outputs.
- Totals management (loaded and unloaded products).
- Printing of displayed weight, open weighings, totals, and last weighing done.
- Customizable printouts (header and footer) via PC software.
- 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) and preset tare.
- Semi-automatic zero.
- Direct connection between RS485 and RS232 without converter.
- Hysteresis and setpoint value setting.

### 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: double weighing (entry and exit), single weighing (entry or exit), double weighing with trailer, single weighing with trailer, multiple weighing (weighing of multi-compartment trucks), ID code (alibi memory).

### OPTIONS ON REQUEST

	DESCRIPTION	CODE
	Stainless steel adjustable bracket for wall and table mounting. Dimensions with bracket: 230x122x250 mm.	STAFFAINOXWDESK
	Supports for front panel mounting.	STAFFEWINOX
	Battery pack made up of 8 NiMH rechargeable elements, 1.2 V, AA type. - Non-removable. - Operating time: 11 hours.	OPZWBATTWDESK
	Alibi memory.	OPZWALIBI

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

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## WEIGHBRIDGE INDICATOR

### INTELLIGENT JUNCTION BOXES

The weight indicator displays the intelligent junction box functions.

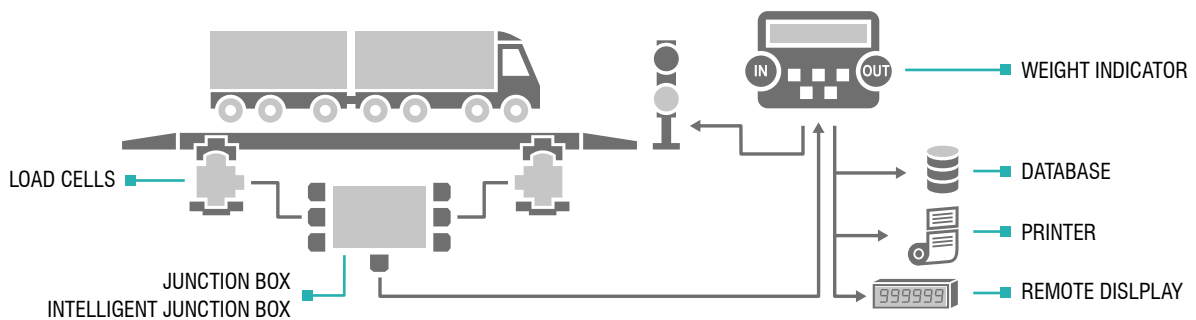
Example:

LOAD DISTRIBUTION ON THE 8 INDEPENDENT CHANNELS	
1C	9.7
2C	13.8
3C	14.9
4C	8.7
5C	20.3
6C	32.5
7C	Err
8C	OFF

Load percentage on each active channel

ERROR: connection problem

OFF: channel not active



### PRINTER

Supported external printers:  
Epson TM-U295  
Epson LX300  
Custom Kube II  
**Laumas STAVT II**  
*Other models on request.*

CUSTOMIZABLE PRINTOUT

Printout example refers to the integrated printer.

CUSTOMIZABLE HEADER AND FOOTER VIA PC

24/01/13 10:37:03  
PRINTOUT NUMBER 21  
CODE 4  
ENTRY A: 26000 kg

Epson name is the exclusive property of Seiko Epson Corporation; "Custom" name is the exclusive property of Custom Group SpA.

### DATABASE

The database allows you to associate a preset tare value to an identification code (ID).

### REMOTE DISPLAY

Suitable for weight remote displaying.

RIP6100N

113150 kg