

WINOX-BGE

GRAPHIC WEIGHBRIDGE INDICATOR

LAUMAS®



ETHERNET
TCP/IP



D-SUB connectors - IP40

MULTILINGUAL
SOFTWARE



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

DESCRIPTION

- AISI 304 stainless steel desk weight indicator.
- Dimensions: 286x85x206 mm.
- Backlit LCD graphic display, resolution: 240x64 pixel, visible area: 133x39 mm.
- 52-key keyboard.
- IP40 protection rating.
- IP68 front panel protection rating.
- Real-time clock/calendar with buffer battery.
- Power supply included.
- Multilingual software (4 languages + 1 customizable).
- 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

- 1 Ethernet TCP/IP port.
- 2 USB ports for connection to external keyboard, barcode reader or pendrive (included).
- 4 serial ports (2x RS485 and 2x RS232) for communication via protocols ModBus RTU, ASCII Laumas or continuous one way transmission.
- 5 relay outputs controlled by the setpoint values or via protocols.
- 3 optoisolated 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);
 - 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;
 - upto 16 digital load cells: allow the use of advanced functions as digital equalization, load distribution analysis and automatic diagnostics;
 - 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 500 vehicles (license plates, preset tares), products, customers and operators.
- Up to 10000 weighings that can be saved in alibi memory.
- Remote display with traffic light function managed via RS485/RS232.
- Traffic light management via relay outputs.
- Totals management (loaded and unloaded products).
- Barcode reader management with printing and open weighing ID recall.
- Data transfer to USB pendrive (included).
- 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.


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).

CERTIFICATIONS

-  OIML R76:2006, class III, 3x10000 divisions, 0.2 μ V/VSI
-  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
-  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

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
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 - max 115 VAC/150 mA
Optoisolated digital inputs	3 - 5÷24 VDC PNP
Serial ports	2x RS485, 2x 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	5 - 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 IIII
Maximum number of scale verification divisions	10000 (class III); 1000 (class IIII)	10000 (class III/IIII)
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

DESCRIPTION
Alibi memory.

INTELLIGENT JUNCTION BOXES

The weight indicator displays the intelligent junction box functions.

Example:

LOAD DISTRIBUTION

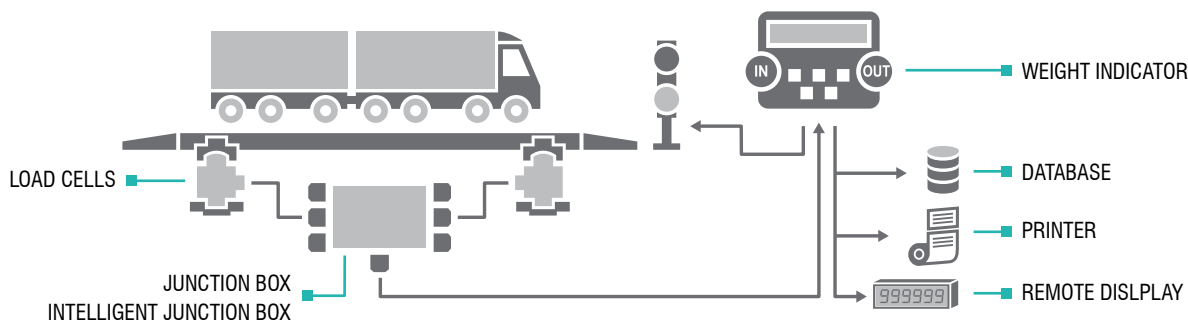
The instrument displays, in graphical form, the current load distribution on each active channel.

Gross weight	2280							
Load % on each active channel	9.7	13.8	14.9	8.7	20.3	32.5	ERROR	OFF
	1	2	3	4	5	6	7	8

Channels

ERROR: connection problem

OFF: inactive channel



DIGITAL LOAD CELLS

The weight indicator displays the intelligent junction box functions.

Example:

LOAD DISTRIBUTION

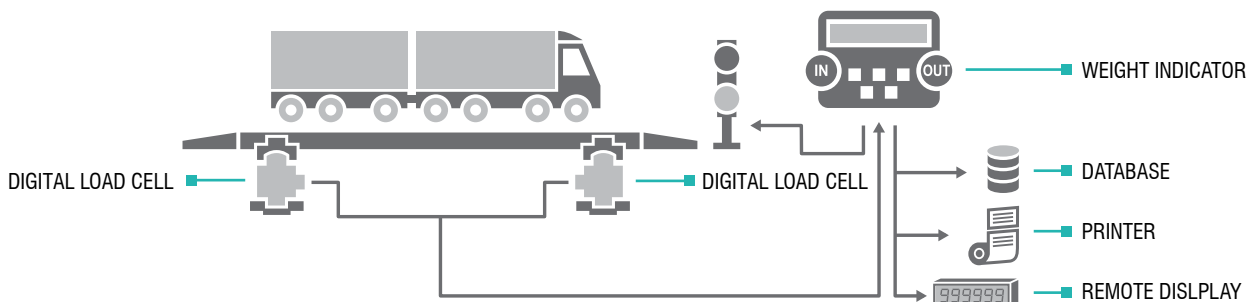
The instrument displays, in graphical form, the current load distribution on each digital load cell connected to the instrument.

Gross weight	2280 NOW							
Load % on each load cell	9.7	13.8	14.9	8.7	20.3	32.5	ERROR	OFF
	1	2	3	4	5	6	7	8

Load cell

ERROR: connection problem

OFF: inactive load cell

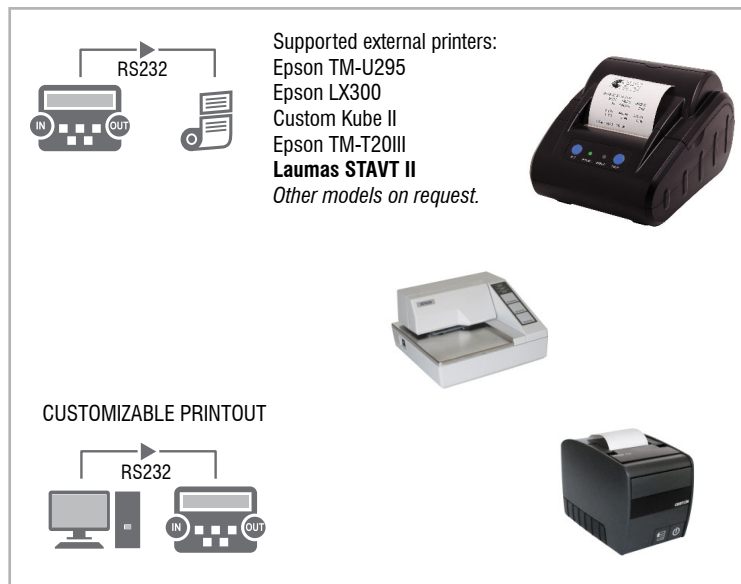


WINOX-BGE

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LAUMAS®

■ PRINTER



Supported external printers:
Epson TM-U295
Epson LX300
Custom Kube II
Epson TM-T20III
Laumas STAVT II
Other models on request.

CUSTOMIZABLE PRINTOUT

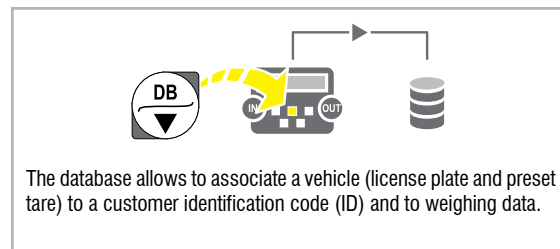
RS232

RS232

The diagram illustrates the printer options for the Winox-BGE indicator. It shows three printer models: a black receipt printer (Epson TM-U295), a white desktop printer (Epson LX300), and a black dot-matrix printer (Epson TM-T20III). A separate diagram shows a computer monitor connected to the indicator via an RS232 cable, labeled 'CUSTOMIZABLE PRINTOUT'. Another diagram shows the indicator connected to a printer via an RS232 cable.

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■ DATABASE



The database allows to associate a vehicle (license plate and preset tare) to a customer identification code (ID) and to weighing data.

The diagram shows a database icon (DB) connected to the indicator via a yellow arrow, which is then connected to a server icon representing the weighing data.

■ REMOTE DISPLAY



Remote display with traffic light function managed via serial port.

RIP6100IP65

The diagram shows the indicator connected to a remote display (RIP6100IP65) via an RS232/RS485 cable. The remote display shows a weight of 999999.9 kg.