

# WTAB-BGE

## GRAPHIC WEIGHBRIDGE INDICATOR

LAUMAS®



ETHERNET  
TCP/IP



MULTILINGUE  
SOFTWARE



Integrated thermal printer  
(on request)



D-SUB connectors - IP40

### DESCRIPTION

- ABS desk weight indicator.
- Dimensions: 315x170x315 mm.
- Backlit LCD graphic display, resolution: 240x64 pixel, visible area: 133x39 mm.
- 52-key keyboard.
- IP40 protection rating.
- Real-time clock/calendar with buffer battery.
- Power supply included.
- Multilanguage 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](http://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.



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

Rev. 0.0

### 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  $\Omega$ , (or 16 load cells, 700  $\Omega$ ) 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.
- Printing (header and footer) and language can be customized using the free "Instrument Manager" PC software, available at [www.laumas.com](http://www.laumas.com).
- 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  $\mu$ 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
- 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<br>Russian Federation: GOST OIML R76-1-2011<br>United Kingdom: Non-automatic Weighing Instrument Regulations 2016<br>Australia: National Measurement Regulations 1999<br>New Zealand: Weights and Measures Regulations 1999<br>China: Law on Metrology of the People's Republic of China | USA: NIST HANDBOOK 44, 2020;<br>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/VS1   |   |
| Working temperature                                      | -10 °C +40 °C  | -10 °C +40 °C (+14 °F +104 °F)                    |

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## GRAPHIC WEIGHBRIDGE INDICATOR

### INTELLIGENT JUNCTION BOXES

The weight indicator displays the intelligent junction box functions.

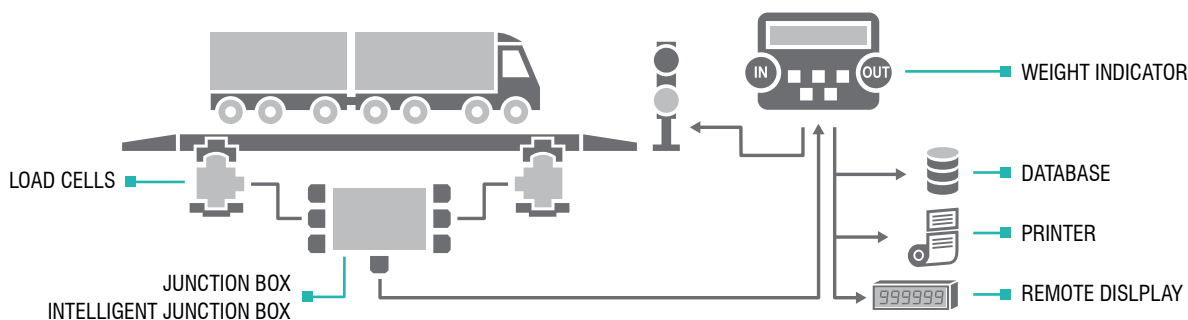
Example:

**LOAD DISTRIBUTION**

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

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

ERROR: connection problem      OFF: inactive channel



### PRINTER

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

Integrated thermal printer

CUSTOMIZABLE PRINTOUT

Printout example refers to the integrated printer.

CUSTOMIZABLE HEADER AND FOOTER

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

### DATABASE

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

### REMOTE DISPLAY

Remote display with traffic light function managed via serial port.

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

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## GRAPHIC WEIGHBRIDGE INDICATOR

DIGITAL LOAD CELLS

The weight indicator displays the intelligent junction box functions.



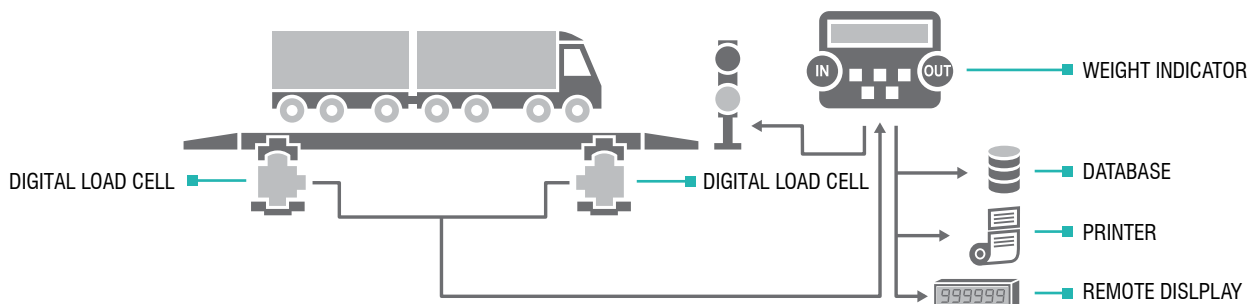
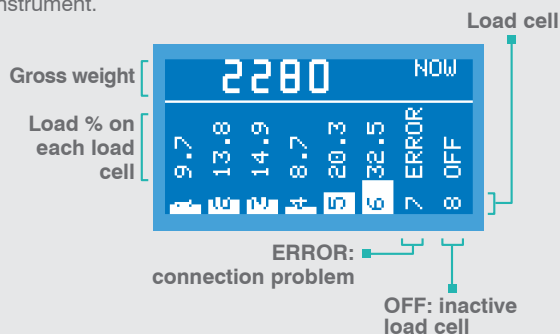
COD



Example:

### LOAD DISTRIBUTION

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



### OPTIONS ON REQUEST

|  | DESCRIPTION   | CODE          |
|--|---|---------------|
|  | 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).<br>→ One RS485 port not available. | OPZWATABSTA   |
|  | Thermal paper roll.   | CARTASTAVP    |
|  | Adhesive thermal paper roll.  | CARTAFISCADEN |
|  | Alibi memory.   | OPZWALIBI     |
|  | 12.2 V rechargeable lead battery, 2.8 Ah capacity, supplied already installed in the instrument. Operating time: 6 hours.   | OPZWBATTWTAB  |

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