

ENGLISH



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Installation and User Manual

version 1.01

REPEATER

RIP6100N



SYMBOLS

Here are the symbols used in the manual to draw the reader's attention:



Caution! Risk of electric shock.



Caution! This operation must be performed by skilled personnel.



Pay particular attention to the following instructions.



Further information.

WARRANTY

24 months from the date of the delivery note. Warranty covers only failures of defective components (due to construction defects or defects in materials) and includes replacement or repair of the components and related labor costs.

Warranty is automatically forfeited in the event of:

- tampering, deletion, removal of the identification label and/or serial number of the product
- misuse, transformation, alteration, repair of products not carried out by Laumas personnel

Laumas provides a 1-year warranty from the date of the delivery note on defects in material or manufacture of the battery.

GUIDELINES FOR PROPER DISPOSAL



**Sealed Lead Acid
Battery
Must be recycled
Properly**

This symbol on the product or packaging indicates that:

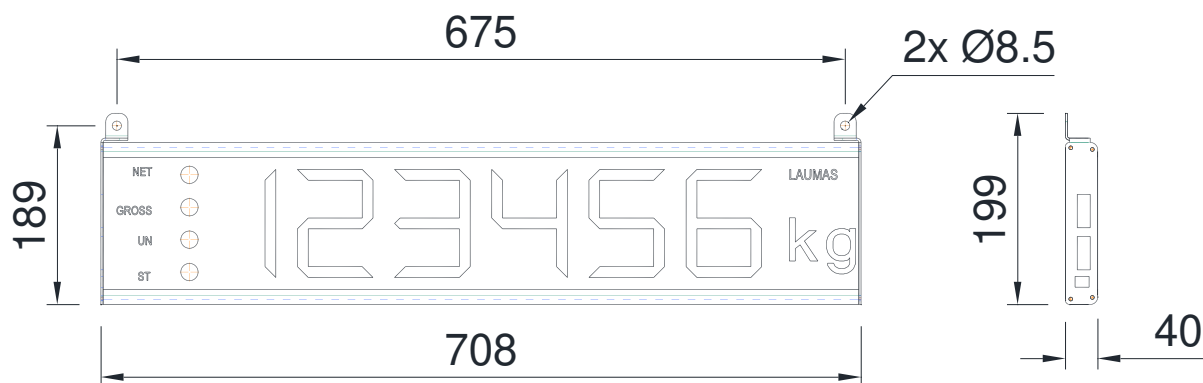
- This is electrical/electronic equipment and cannot be disposed of as municipal solid waste, but must be delivered to a recycling center
- Improper use or disposal can pollute the environment or damage human health
- Non-compliance with these guidelines will be penalized in accordance with the regulations in force in the country of destination
- It is recommended to dispose of the packing and packaging as required by local regulations

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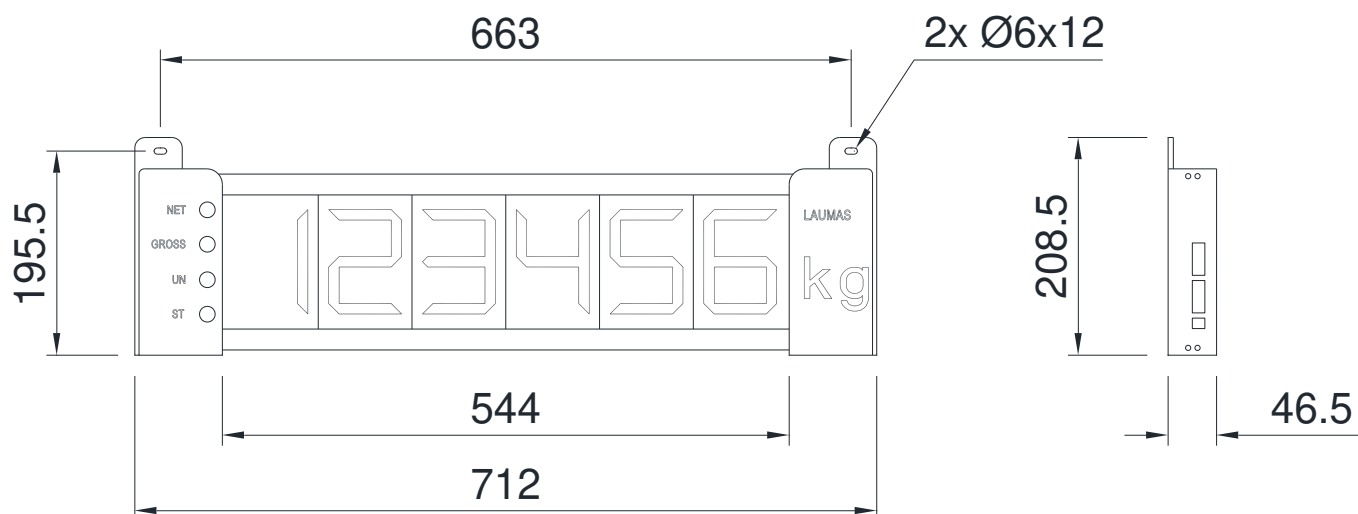
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DIMENSIONS

Rev 1



Rev 2



TECHNICAL SPECIFICATIONS

- Box made of aluminum profile.
- IP30 protection rating.
- 6 digits, SMD LED display, 90 mm height.
- 4 signalling LEDs.
- 110° viewing angle from all directions.
- Power supply 12 VDC, 1.5 A.
- Working temperature from -10 °C to +50 °C.
- Storage temperature from -10 °C to +60 °C.
- Humidity: max 80%, non condensing.
- 9600 fixed baud rate, 1 start bit, 1 stop bit, no parity.
- 15 available addresses.
- RS232/RS485 serial ports.
- PC programming via RS232 serial port (it is not necessary to open the box for configuration).

SEGNALLING LEDs	
NET	Net weight
GROSS	Gross weight
UN	Weight not stable
ST	Weight stable

SERIAL INTERFACES MANAGEMENT

The repeater is equipped with an RS232 port and an RS485 port: both can be used for data reception.



RS232	1	
	2	RS232: TXD
	3	RS232: RXD
	4	
	5	RS232: SHIELD, GND
	6	
	7	
	8	
	9	
RS485	1	
	2	
	3	RS485: +
	4	
	5	RS485: SHIELD, GND
	6	
	7	
	8	RS485: -
	9	

REPEATER CONFIGURATION VIA PC

The RS232 port is used for the repeater configuration.

- Set the following communication parameters:
baud rate: 9600; start bit: 1; stop bit: 1; parity: none.
- Disconnect any devices from the repeater RS485 port.
- Connect to the repeater RS232 port.
- Turn on the repeater, the following message is received:

```
Laumas Elettronica SRL.  
43022 Montechiarugolo  
  
Version: 1.01L --- EEP: CRC OK  
--- Protocol : TLU  
--- Protocol address : N  
Enter command line interface with +++  
Type '*help' for command set
```

- Send the command [+++] to enter the configuration mode; the repeater display shows "MENU" and the following message is received:

```
+++  
Command mode entered.  
OK
```

- To set the repeater address, send the command [*protocol X], where X can assume one of the following values: A, B, C, D, E, F, G, H, I, L, M, N, O, P, T; the following message is received:

```
TLU selected.  
Current protocol address is: L  
Changes will take effect after reset.  
OK
```

- Send the command [*exit] to exit the configuration mode; the repeater display goes off and the following message is received:

```
Leaving command mode  
OK
```

- Turn off the repeater, wait a few seconds and switch it on again to apply the change.

SERIAL COMMUNICATION PROTOCOL

Set the communication parameters as follows:

baud rate: 9600; start bit: 1; stop bit: 1; parity: none.

The format of the strings that can be sent to the repeater is as follows:

&AxxxxxxByyyyyy\ckckCR

- **&** = ASCII string start character (ASCII code 38)
- **A** = character corresponding to the address of the first part of the string: can have the values A, B, C, D, E, F, G, H, I, L, M, N, O, P, T
- **xxxxxx** = 6 ASCII characters to be shown on the display: can be numbers, letters or the minus "-" character, and can include the character "." representing the decimal point
- **B** = character corresponding to the address of the first part of the string: can have the values A, B, C, D, E, F, G, H, I, L, M, N, O, P, T
- **yyyyyy** = 6 ASCII characters to be shown on the display: can be numbers, letters or the minus "-" character, and can include the character "." representing the decimal point
- **** = ASCII separation character used as string end (ASCII code 92)
- **ckck** = 2 ASCII control characters: corresponds to the two hexadecimal digits obtained by performing the character by character logical XOR operation on characters "AxxxxxxByyyyyy". If there is an error in these characters, the string is ignored
Example: if the byte by byte logical XOR operation carried out on the ASCII codes of the characters of the "AxxxxxxByyyyyy" string returns the hexadecimal value 0x2A, the control characters ckck are "2" and "A".
- **CR** = ASCII string end character (ASCII code 13)

If a string containing two different messages is sent to a pair of appropriately configured remote displays, these will correctly display the two different messages.

1. *Example: **&L-00123N-12345\03CR**
the remote display with address L displays "-123"
the remote display with address N displays "-12345"*
2. *Example: **&A00.023D1.2345\05CR**
the remote display with address A displays "0.023"
the remote display with address D displays "1.2345"*

ATTENZIONE: a string can contain two equal address letters; in this case, the message in the second part of the string will be displayed.

*Example: **&C000123C000546\...**
the remote display with address C displays "546"*

DECLARATION OF CONFORMITY – EU

LAUMAS*Innovation in Weighing*

SISTEMI DI PESATURA INDUSTRIALE - CELLE DI CARICO - BALANCE

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N. IT09060P00000982 - Registro A.E.E. N. IT08020000002494 - N. Mecc. PR 008385 - Cap. Sociale € 100.000 int. vers.

SISTEMA QUALITÀ CERTIFICATO UNI EN ISO 9001 - SISTEMA GESTIONE AMBIENTALE ISO 14001 - MODULO D: GARANZIA DELLA QUALITÀ DEL PROCESSO DI PRODUZIONE

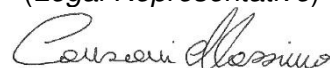
I	Dichiarazione di conformità	Dichiariamo che il prodotto al quale la presente dichiarazione si riferisce è conforme alle norme di seguito citate.
GB	Declaration of conformity	We hereby declare that the product to which this declaration refers conforms with the following standards.
E	Declaración de conformidad	Manifestamos en la presente que el producto al que se refiere esta declaración está de acuerdo con las siguientes normas
D	Konformitäts-erklärung	Wir erklären hiermit, dass das Produkt, auf das sich diese Erklärung bezieht, mit den nachstehenden Normen übereinstimmt.
F	Déclaration de conformité	Nous déclarons avec cela responsabilité que le produit, auquel se rapporte la présente déclaration, est conforme aux normes citées ci-après.
CZ	Prohlášení o shode	Tímto prohlašujeme, že výrobek, kterého se toto prohlášení týká, je v souladu s níže uvedenými normami.
NL	Conformiteit-verklaring	Wij verklaren hiermede dat het product, waarop deze verklaring betrekking heeft, met de hierna vermelde normen overeenstemt.
P	Declaração de conformidade	Declaramos por meio da presente que o produto no qual se refere esta declaração, corresponde às normas seguintes.
PL	Deklaracja zgodności	Niniejszym oświadczamy, że produkt, którego niniejsze oświadczenie dotyczy, jest zgodny z poniższymi normami.
RUS	Заявление о соответствии	Мы заявляем, что продукт, к которому относится данная декларация, соответствует перечисленным ниже нормам.

Models: RIP6100N

Mark Applied	EU Directive	Standards
CE	2014/30/EU EMC Directive	EN 55011:2016+A1+A11:2020 EN 61000-6-2:2019 EN 61000-6-4:2019

Montechiarugolo (PR), 14/08/2025

LAUMAS Elettronica s.r.l.
M. Consonni
(Legal Representative)



DECLARATION OF CONFORMITY - UKCA

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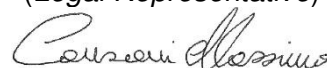
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Models: RIP6100N

Mark Applied	UK legislation	Standards
UK CA	Electromagnetic Compatibility Regulations 2016	BS EN 55011:2016+A1+A11:2020 BS EN 61000-6-2:2019 BS EN 61000-6-4:2019

Montechiarugolo (PR), 14/08/2025

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M. Consonni
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On our website www.laumas.com there are videos on the guidelines for correct installation of weighing systems and video tutorials on configuring our transmitters and weight indicators.

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