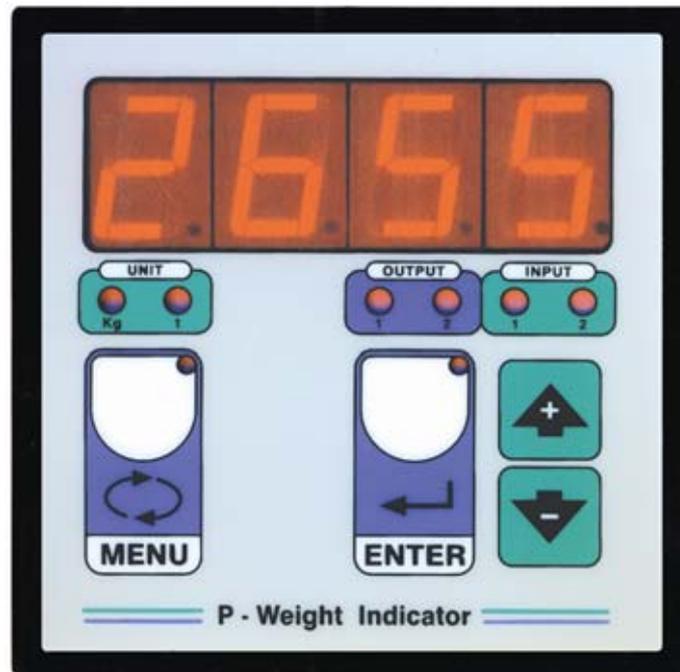


Installation user's manual

version 5.1

Warning!
electrical scheme
modified

P-WI 2 SET-POINT 12Vdc



 2004/108/EC (EMC) - 2006/95/EC (LVD)

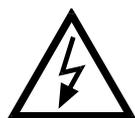
SYSTEM IDENTIFICATION

RECOMMENDATIONS FOR CORRECT INSTALLATION OF WEIGHT INDICATORS

- The entry into the cable board of cells must be independent (on one side or the other of the board) and directly connected to the terminal board of the device without breaking by bearing terminal boards or passing through troughs containing other cables.
- Use the " RC " filters on the instrument-driven coils of the remote control switches.
- Avoid inverter, if inevitable, use filters and separate with sheets.
- In case of 230VAC supply, use a 380/230VAC transformer avoiding to use the 380VAC phase and the neutral.
- The installer of the board is responsible for securing the electrical safety of the indicators.
- It is a good norm to let the indicators always switch on to prevent the formation of condensation.

LEGENDA

Below are shown the simbologies used in the manual in order to warn the reader:



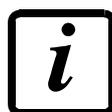
Caution! High Voltage.



Caution! This operation has to be carried out only by specialized personnel.



Pay particular attention to the following indications.



Further information.

GUARANTEE

24 months from the delivery document date. The guarantee covers only defected parts and includes the replacement parts and labour. All shipping and packing costs are paid by the customer. It is possible to have the repair in guarantee on condition that the returned product has not been transformed, damaged or repaired without authorization. No guarantee is applicable on returned products without the original label and/or serial number. No guarantee against misuse.

Batteries: Laumas provides 1 year guarantee from the date of delivery note, against material defects or battery manufacturing faults.

Disposal of Waste Equipment by Users in Private Household in the European Union



This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at this time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the reseller.

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OPERATION

Weight indicator with 2 set points that can be set by means of the keyboard (max value 9999), output on two voltage free contacts.

For weight equal or higher than the set-point values programmed the instrument will close the relevant contacts. The exchange for decreasing weights carried out taking in consideration the hysteresis values set for this constants ("diF 1", "diF 2").

The instrument is equipped with one input for setting the tare to zero and one input for displaying the net and gross weight.

TECHNICAL FEATURES

Weight indicator installed in a DIN container (dimensions: 96 x 96 mm, depth 65 mm ; drilling template 91 x 91 mm).



The instrument is able to read up to 19.999 divisions, when the 9.999 value is reached the visualized weight will restart again from zero and will start blinking in order to inform that the above mentioned value has been passed.

POWER SUPPLY 12 VDC

CONSUMPTION 5 VA

2 SET-POINT settable by means keyboard, output on two voltage free contacts max115Vca 2A

FRONT PANEL PROTECTION IP64

DISPLAY semi-alphanumeric display 4 digits, 20 mm in seven segments

DECIMAL POINT (selectable) xxxx ; xxx.x ; xx.xx ; x.xxx

LOAD CELL CONNECTIONS maximum 4 load cells 350 ohm

LOAD CELL SUPPLY 5 VDC / 60 mA

INTERNAL DIVISIONS 20000

DISPLAY RANGE -999 ; +19999

MEASURE RANGE - 4 mV + 16.5 mV

READING RESOLUTION x 1 x 2 x 5

CONVERSION RATE 10 readings / sec.

LOGICAL OUTPUTS n. 2 (115Vca / 2A)

LOGICAL INPUTS n. 2

HUMIDITY (condensate free) max 90 %

STORAGE TEMPERATURE -20° + 70° C

OPERATING TEMPERATURE -10° + 50° C

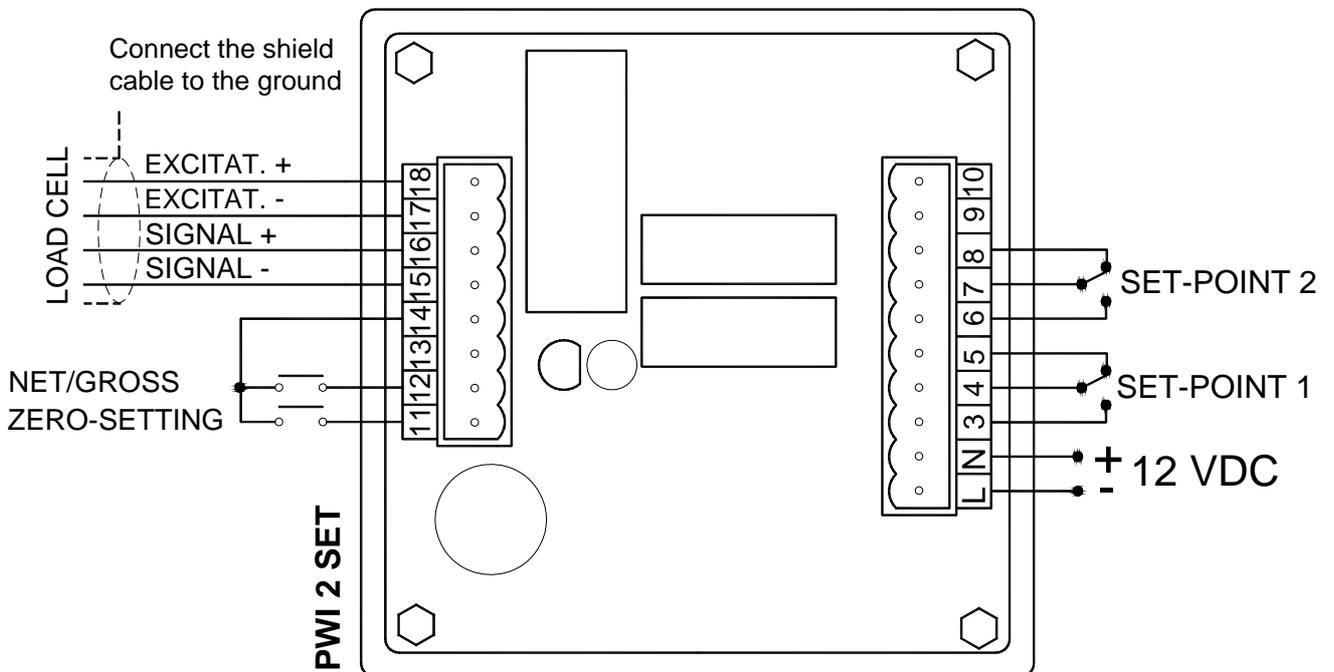
UNIT OF MEASURE kg or t

ELECTRICAL CONNECTIONS



WARNING: The procedures here below described have to be carried out by specialized personnel only. Be sure to switch off the instrument before carrying out any connections at all.

Connect the load cells by means of a terminal board in a water-proof junction box connecting the leads having the same colour; perform the same operation for the shields keeping them isolated from the ground or metallic parts connected with the ground. By means of a shielded cable with a section not lower than 0,5 mmq connect the terminal board to the P-WI instrument. The cable routing shall be far away from the power cables and possibly protected by a metal pipe.



INSTRUMENT THAT HAS NOT YET BEEN CALIBRATED



In this case the instrument has not yet been calibrated, proceed to the theoretical calibration; tare zero-setting and Calibration check.



THEORETICAL CALIBRATION :

Procedure subject to entry of access password (see "PASS" on page 7).

Switch off the instrument, then switch it back on again while holding down the **MENU** key. The display will show "C.O.S.c.", press **ENTER** twice and the display will show:

"dECP2, press **ENTER** and set the number of decimals (max. 3 decimals) using the  and  keys. Press **ENTER** to confirm and the display will show:

"nU-U" , press **ENTER** and set the load cell sensitivity (expressed in mV/V) using the  and  keys. Press **ENTER** to confirm. The display will now show:

"unit", press **ENTER** and set the unit of measurement using the  and  keys: 0 = kg; 1 = t. Press **ENTER** to confirm. The display will now show "PASS".

Press **MENU** to exit.

Press **MENU** and then press  several times until the display will show:

"CELL" , press **ENTER** and set 10% of the system's full scale using the  and  keys (for example with 3 load cells of 100 kg , full scale = 100 x 3 = 300.0 kg ; 10% of 300.0 kg = 30.0 kg). Press **ENTER** to confirm. The display will show:

"rISO", press **ENTER** and set the system resolution:

1 = resolution 1

2 = resolution 2 (the last digit of the weight moves in steps of two: 0, 2, 4, 6).

3 = resolution 5 (the last digit of the weight moves in steps of five: 0, 5, 10, 15).

Press **ENTER** to confirm and press **MENU** to return to the weight reading.

After the theoretical calibration, proceed as follows:

- Set the tare to zero (see paragraph **TARE ZERO-SETTING**).
- Check the instrument calibration (see paragraph **INSTRUMENT CALIBRATION CHECK**).
- If necessary, correct the displayed weight (see paragraph **CORRECTING DISPLAYED WEIGHT FROM KEYBOARD**).



If the display shows "ErrO" (error), this means that incorrect values have been set for the parameters "CELL" and "nU-U". Check them and if necessary, repeat the Calibration.



SET POINT, ISTHERESYS AND CONSTANTS PROGRAMMING

During the weight displaying phase press the **MENU** key and the following will appear:

"Set.1" , weight of the first set-point (max 9.999).

Press **ENTER**, set the value by using the  and the  keys and confirm with the **ENTER** key, the following will appear:

"diF.1" , istheresys of the first set-point.

Press **ENTER**, set the value using the  and the  keys, the relay condition will change for decreasing weight, it will be equal to the value programmed as **Set.1** minus the value programmed in this constant.

Confirm by pressing the **ENTER** key and the following will appear:

"Set.2" , weight of the second set-point (max 9.999).

Press **ENTER**, set the value by using the  and the  keys, then confirm with the **ENTER** key, and the following will appear:

"diF.2" , istheresys of the second set-point.

Press **ENTER**, set the value using the  and the  keys, the relay condition will change for decreasing weight, it will be equal to the value programmed as **Set.2** minus the value programmed in this constant.

Confirm by pressing the **ENTER**.



If the password is enabled ("**PASS**" = 0), access will be denied to the next constants programming. When the you have finished to programme **"diF. 2"**, confirm with **ENTER** to return to the weight reading.



If the password is disabled ("**PASS**" = 1), you will enter next constants programming and the display will show:

"StA" , print. Press **ENTER** and the following will appear:

0 = disabled print.

1= enabled print.

Set the value by using the  and the  keys, then confirm with the **ENTER** key, and the following will appear:

"FiLt" , filter (weight oscillations filter).

Press **ENTER** and set a value included between 0 and 9 seconds by using the  and the  keys.

PROTECTION PASSWORD

Switch off the instrument, then switch it back on again while holding down the **MENU** key. The display will show "C.O.S.c.", press  and the display will show:

"**PASS**" (access protection password). When the password is enabled, access can be restricted/denied to parameters programming and calibration functions.

Press **ENTER** to confirm and use the  and  keys to select:

0 = password enabled (access will be denied to parameters programming and calibration).

1 = password disabled.

Press **ENTER**, the message "dECP" will appear, press **MENU** to return to the weight reading.

ALARMS

"AL_ _ _ _": this alarm appears when excitation wires are disconnected, or no load cell is connected.

"SEGN" : this alarm appears when signal wires are disconnected or signal is higher than 15 mV.



WARNING: During the alarms displaying the relays are un-excited.

PRINT



THE PRINTER HAS TO BE SWITCH ON TOGETHER TO THE P-WI TO ALLOW THE INSTRUMENT RECOGNIZE THE PRINTER (SUPPLY THEM FROM THE SAME LINE).

If the printer is enabled (see the Constants programming) by pressing the  key the weight value will be printed with date and time.

Examples of printout:

```
LAU0 PESO = kg 1240  
08:53      05-04-05
```