

ATEX INSTRUMENT certified zone 1/21 and 2/22

Weight indicator

LA-900

Multifunctional instrument 24 keys



PROGRAM LA900

Version 1.01



WARNING



The instrument is covered by warranty and **MUST NOT BE OPENED BY THE USER** for any reason. Any attempt to repair or modify the unit will invalidate any warranty condition.

Do not pour liquids on the device

Do not pour solvents on the device

ATTENTION FOR THE DISPOSAL OF THE BATTERIES, OBSERVE THE PROVISIONS OF THE
EC DIRECTIVE 2007/66



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1 INDICATOR DESCRIPTION

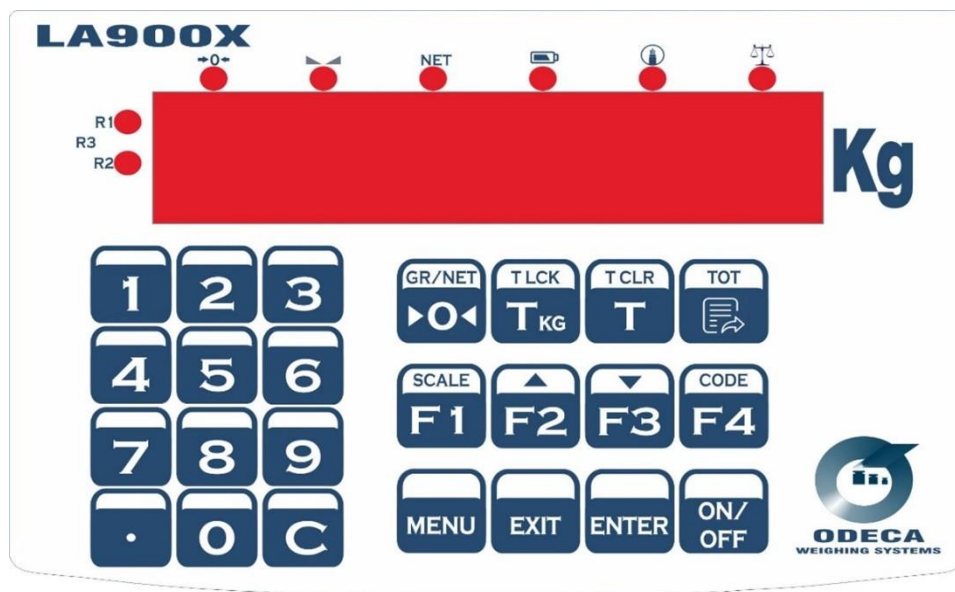
- Weight indicator suitable for use in explosion hazardous areas according to Directive 2014-34-EU ATEX, in accordance with EN 60079-0 and EN 60079-11 Ex-i (Intrinsic Safety)
- 2 load cell channels
- The zones of possible use are 1, 2, 21 and 22 (1 and 2 for gases, 21 and 22 for dust). According to the 2014-34-EU ATEX Directive
- Full-duplex Optic Fiber communication
- 2 RS-485 Channels
- 2 Opto-isolated logic inputs and 6 photorelay outputs
- The weight indicator is designed and manufactured in accordance with EN 60079-11 Ex-i Intrinsic Safety. Use in explosion-hazardous areas is safe due to the low energy used by the indicator, which is not sufficient to trigger explosions either by electrical sparks or excessive temperatures (class T4).
- AL-AX power supply with 100-250 Vac input will be put in safe zone or ADPE enclosure. The AL-BX battery version will also have to be, like the battery, in safe zone or ADPE enclosure.
- The fiber-optic connection allows the information needed to derive, via the S318 interface, the analog voltage and current output, Rs232 and Rs485 to the safe zone.
- RS-485 ports can go to either the hazardous zone or the safe zone.
- The 2 opto-isolated inputs can be connected to devices in both hazardous and safe zones.
- The 6 photorelay outputs can be connected to devices in the hazardous area.

2 TECHNICAL SPECIFICATIONS

Power supply	100 - 250 Vac da alimentatore certificato AL-AX o da batteria 6V tramite barriera AL-BX (in zona sicura)
Consumption	2W
Isolation	Class III
Working temperature	-10°C ÷ +50°C (humidity max 85% without condensation)
Storage temperature	-20°C ÷ +60°C
Surface max temperature	T4 (135°C). T6 in ADPE container
Weight display	6 digit, 7 segment red led display (h 20 mm)
Led	6 led indicators (h 5 mm)
Keyboard	24 keys membrane keyboard
Mainboard sizes	151 mm x 78 mm x 20 mm (l x h x p) terminal strips included
Installation	Inside an IP54 container prepared by the customer
Connection	Removable screw terminal blocks 3.81 mm pitch
Load cells channels	2
Number of load cells	Max 4 cells of 350 Ω in parallel. Load cell power supply short-circuit protected.
Linearity	< 0.01% of full scale.
Temperature drift	< 0.002% of full scale / C°
Internal resolution	24 bit
Measurement field	From -3.9 mV/V up to +3.9 mV/V
Digital filter	Selectable 0.25 Hz - 50 Hz
Zero and span calibration	Automatic (theoretical) or keyboard executable
Broken load cell cable check	Present
Logic outputs	6 photorelay outputs (24VDC normally open contact) Relay contact rating 100 mA
Logic inputs	2 opto-isolated 12Vdc / 24Vdc PNP
2 RS485 serial ports	Data transmission and firmware upgrade
Max RS485 cable lenght	200 m
Serial protocols	ASCII, MODBUS

1 Optic fiber Full duplex port	Data transmission to S318 card in safe zone
Max optic fiber lenght	50 m
Optic fiber cable	Duplex Cable with Plastic Optical Fiber 1 mm (e.g. COP-1002-HD)
CPU type	32 bit ARM Cortex M0+
Program code memory	256 Kbytes FLASH reprogrammable on board from RS232
Data memory	32 Kbytes
Alibi memory (optional)	1 Mbyte (fino a 170.000 pesate memorizzabili)
EN61000-6-2 EN61000-6-3 per EMC	Compliance with Regulations
EN61010-1 per Sicurezza Elettrica	
EN60079-11 Ex-i Sicurezza Intrinseca	

3 LED INDICATOR AND KEYBOARD



3.1 LED INDICATORS



Il led acceso indica che l'indicatore è alimentato tramite batteria, la condizione di led lampeggiante avvisa l'operatore di batteria scarica.



Acceso in caso di comunicazione con scheda S318 tramite fibra ottica.



Acceso in condizione di peso stabile



Accesi in condizione di multirange attivo, R1 indica che il peso si trova nel RANGE 1 e non ha ancora superato il RANGE 2, R2 indica che il peso ha superato RANGE 2 ma non ancora RANGE 3, mentre entrambi i led accesi indicano che il peso a superato il RANGE 3.



Se acceso indica che il peso visualizzato è netto quindi è stata valorizzata una tara, in caso di led lampeggiante, il valore di tara è impostato ma la visualizzazione è stata impostata su peso LORDO



Se acceso, indica che il peso si trova in prossimità dello zero ed è compreso nell'intervallo di 0,25 divisioni



Se acceso, indica che il peso visualizzato è relativo alla seconda bilancia attiva

3.2 KEYBOARD



By single press resets the scale, by prolonged press activates the gross weight display.



By prolonged pressure activates or deactivates tare lock.



Stores the predetermined tare value, by prolonged pressure deletes the current tare value.



Stores single weighing, long press prints partial and overall totals. Single press in DOSAGE and RECIPES modes pauses/stops dosing.



Single press performs the scale change if the dual platform option is active, long press activates the High Res. mode.



Single press starts the display of the TARE, GROSS, NET sequence. Long press in the STANDARD, PEAK and DISCHARGE modes accesses the set-point setting menu while in the tolerance mode it accesses the tolerance parameter menu.



Accesses Date/Time settings, long press accesses tare archive.



Displays, if codes 1 and 2 are valorized



It accesses the USER MENU by single press while the SYSTEM MENU and SCALE MENU by long press.



Exit the settings menus, disables the PEAK, DISCHARGE and Second Weigh functions in the relevant PICK, DISCHARGE and WEIGHBRIDGE modes. In the DOSAGE or RECIPES modes it pauses dosing.



Enables the PEAK, DISCHARGE and Weigh-in functions in the relevant PEAK, DISCHARGE and WEIGHBRIDGE modes. In the RECIPES and DOSAGE modes it initiates dosing. Prolonged pressing performs reprinting of the last weighing.







Reset fieldbus alarm if it is as COM 4 peripheral has been set PROFINET or PROFIBUS.

0...9 +



Sets a predetermined tare value, in the WEIGHBRIDGE mode sets the tare of the container.

0...9 +		Loads the predetermined tare value from the relevant archive.
1...6 +		In the STANDARD, PEAK, DISCHARGE modes it accesses the set-point setting menu. In recipe mode accesses the recipe setting menu (under password).
0...9 +		By single press sets code value 1, by long press stores code value 2.
0...9 +		In DOSAGE mode sets the Set, PreSet and Tail values. In RECIPES mode loads the recipe, in WEIGHBRIDGE mode performs manual weighing.

3.3 WEIGHT STATUS



Weight signal absent or out of weighing range



Underload signal, displayed when the gross weight is negative by more than 9 divisions.



Overload warning, displayed when the gross weight exceeds the maximum capacity of the weighing system by more than 9 divisions.



Message displayed when the instrument is switched on while waiting for the necessary conditions for automatic zeroing of the weight; if automatic zeroing is disabled, this message is not displayed.

4 OPERATING FUNCTIONS

While the instrument is in the weight display state, it is possible to access all available operating functions according to the set operating mode.

4.1 AUTO-TARE

Self-weighted Tare function allows you to cancel the weight of an empty container placed on the scale pan.

Pressing the **T / T CLR** key resets the weight to zero and turns on the **NET** indicator light.

As of this time, any value shown by the display is intended to be Net Weight.

The self-weighted tare operation can be carried out several times, and the maximum resettable value is equal to the scale capacity.

Unloading the scale, if the tare is locked, the value in negative will be displayed; if the tare lock is disabled instead, it will be canceled and the display will show scale zero.

4.2 NUMERIC TARE

The Numerical Tare function, on the other hand, allows you to override a known Tare value, and it is therefore possible, starting from a full container placed on the scale, to unbundle its Tare and thus display the Net Weight in it.

Enter the desired numerical Tare value and press the **TKg / T LCK** key to confirm.

The value entered will automatically be rounded to the unit of the currently active division.

In case of entering a value higher than the Scale Fund, the value is not accepted.

4.3 CLEAR TARE

Long press of the **T / T CLR** key allows you to cancel any set tare value.

By clearing the tare, the display automatically returns to the gross weight display.

4.4 GROSS WEIGHT DISPLAY

If any tare value is set, the LA900 weight indicator will automatically switch to the net weight display, at any time you can toggle the display of net weight to gross weight by prolonged press of the **GR / NET** key.

4.5 TARE LOCK / UNLOCK

Long press of the **Tkg / T LCK** key enables the activation and deactivation of the tare lock, changing the state of the function temporarily shows the set state on the display.

Locked tare prevents cancellation of a set tare value if the net weight falls below zero.

4.6 HIGH RES. MODE

This function allows the current weight to be displayed with 10 times higher resolution.

High-resolution display mode is activated by long presses of the **F1 / SCALE** key; to highlight the fact that the display is in High Res mode, the last digit flashes.

After 5 seconds, the indicator returns to the of weight display in standard mode.

4.7 SET-POINT (STD, PICCO and SCARICO modes)

The weight indicator can handle (if installed) up to a maximum of 6 logic outputs driven in the standard, peak, and dump modes of operation when set weight values are reached as set-points. The maximum number of set-points that can be set is 6, and each of them is associated with the corresponding output.

Set-point values are set by directly entering the desired weight value and then pressing the **F2** button then the display shows the set value preceded by SETP for confirmation, at this stage you can confirm or delete the set value.

Prolonged pressure on the **F2** button allows the set-point to be changed, following prolonged pressure the display shows SETP 1 then it is possible to scroll by means of the **▲** and **▼** buttons until the desired value is reached therefore confirming with **ENTER** allows it to be changed. The **EXIT** button allows you to exit by canceling any changes.

4.8 NUMERIC CODES

The weight indicator mod. LA900 allows up to 2 numerical codes to be associated with each weighing as a commodity or customer identifier.

Codes are set by direct keying from the indicator keypad followed by a single press of the **CODE** button to store the value as code 1 or long press to store the value as code 2.

Single press of the **CODE** button in the absence of a value to be stored allows consultation of set codes.

Codes are automatically deselected if code blocking (BL CODE) has been disabled in the user menu.

4.9 SCALE SELECTION

The weight indicator mod. LA900 manages up to a maximum of two scales. If management of a second platform (2-BIL) has been set in the system menu, it is possible to toggle the display of one scale and the other by single press of the **SCALE** key.



In the case of an active second platform, the corresponding scale LED lights up, indicating channel B as active.

4.10 NUMERIC TARE DATABASE

The weight indicator mod. LA900 allows storage and recall of up to 10 predetermined tares. Long presses of the **F3** button allow access to the tare archive.

By logging into the tare archive, a tare can be set or changed by typing it in directly, selecting the relevant item to be set using the **▲** and **▼** buttons and confirming with **ENTER**.

Calling up a tare valued in the archive is done by direct typing of its value (0 to 9 inclusive) and confirming by single press of the **T / T CLR** button.

5 USER MENU

The user menu is accessed by single press of the menu button and provides access to settings such as:

- DATE (date and time settings)
- ECONOM (energy saving)
- HEAD (print headers)
- L-TARE (tare lock)
- L CODE (codes lock)
- PRN (print settings)
- PROTEC (menu password setting)
- FISCAL (alibi memory access)

5.1 DATE AND TIME

Accessing the DATE menu by single press of the **ENTER** button will bring up the relevant sub-menu of date and time setting.

5.1.1 DAY



Accessing the DAY sub-menu will prompt the user to set the current date. Typing is done by entry of each value.

While typing, the relevant character to be changed flashes highlighting the pointer position. When all 6 values have been entered, the current date is automatically saved and you return to the DATE menu.

While typing, it is possible to confirm with **ENTER** at any time, saving the changes made and keeping the previously set values. By single press of **EXIT** button all changes made are discarded.

The date format is dd.MM.YY

5.1.2 TIME

From the DATA menu, the **TIME** menu can be accessed by scrolling through the items using the ▲ and ▼ buttons and confirming with ENTER on the TIME item.





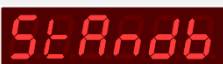
The proposed date format is 24 hours.

5.2 ECONOM (Energy saving)

The ECONOM menu accessible from the user menu allows you to set energy-saving functions.

5.2.1 SAVING (Saving mode)

It allows you to choose via the ▲ and ▼ buttons the power saving mode and confirming with choosing between:

	NONE	No power-saving function set.
	AUTO-OFF	Auto power off when the set timer expires.
	STAND-BY	Auto Standby when the set timer expires. The instrument automatically exits the standby state upon a change in weight or pressing any key

By default, power saving is disabled.

5.2.2 TIMER

From the ECONOM menu, a timer value can be set after which the set energy-saving function is activated.

By accessing the TIMER setting, a value expressed in minutes of inactivity between 1 and 999 can be entered.

The default value is 10 minutes.

5.3 HEAD (Print headers)



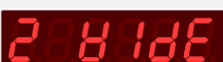


The INTEST menu accessible from the user menu allows editing and deletion of header rows printed as a result of weighing.

There are 3 header lines available.

5.3.1 WRITE

By accessing the INTEST menu you can select WRITE to edit the header lines. Confirming by single press of the **ENTER** button prompts you to select the relevant line you wish to edit. Selection is made by using the ▲ and ▼ buttons and confirming with **ENTER**.

Following the selection of the relevant row to be edited, the user is asked to select the print mode by choosing between:

	NONE	The header is not printed
	BOLD	The header is printed bold
	DOUBLE WIDTH	The header is printed in double width mode
	DOUBLE HEIGHT	The header is printed in double height mode
	NORMAL	The header is printed with the default char used by the printer

By confirming with **ENTER** the indicator enters typing mode, in this mode each character must be written in ASCII format expressed in decimal. Typing ends by confirming with **ENTER** the character 0.

5.3.2 DELETE

Confirming by single press on the DELETE item in the INTEST menu instantly erases all headings set.

The display shows the message DONE following the deletion.

5.4 L-TARE (Tare lock)

L-TARE menu allows to enable or disable tare lock, confirming with **ENTER** displays the currently set value which can be YES or NO.

By scrolling with the ▲ and ▼ keys and confirming with **ENTER**, the tare block value can be changed.

By **EXIT** text, any changes to the tare block are discarded.

5.5 L CODE (Codes lock)




The L CODE menu enables and disables the locking of numeric codes, if set to YES the codes are kept in memory following weighing otherwise if set to NO (default) any code set is deselected following weighing.

5.6 PRN (Print)

The STP menu allows you to change the card print settings.

5.6.1 TICKET (Ticket print mode)

Allows the selection of the printing mode by choosing between:

	SINGLE	Print single copy of the ticket
	DOUBLE	Print 2 copies of the ticket
	MULTIPLE	Enable multiple print

5.6.2 PR-BAR (Print barcode)

Enables and disables barcode format EAN13 valorized with data Code 1 and net weight.

5.6.3 LF-STR (Line Feed before print)

Allows the setting of the number of blank lines to be printed at the beginning of each card.

Allowed values are between 0 and 99 inclusive.

5.7 PROTEC (Supervisor password)

The PROTEC menu allows the setting of a numeric password between 1 and 99999 inclusive that will be required to gain access to the menus.

Setting 0 as the password value disables the security option and the password is no longer required to access the menus.



5.8 FISCAL (Alibi memory access)

Access to the alibi memory is allowed only if in the system menu the option is enabled and the storage hardware component (optional) is installed.

Accessing the alibi memory will prompt the user for the relevant alibi code. By entering the numeric code and confirming with **ENTER**, if a match is available, the date of the searched weighing and the corresponding gross weight will be shown in sequence.

In case of a mismatch in the alibi memory, the message MEM.ERR is shown.

5.9 RST DOS (Reset dosage) – DOSAGE and FORMULA modes

The RSTDOS menu is available if the operating mode set in the system menu is DOSAGE.

If enabled, when a dosing cycle is started, the indicator is automatically reset and the current weight value is stored as a tare.

5.10 MIN TAR (Minimum tare) – DOSAGE and FORMULA modes

This option is only present when in dosage or formula mode and allows the cycle to start only if the weight present is greater than the set value.

5.11 MAX TAR (Maximum tare) – DOSAGE and FORMULA modes

This option is present only if in dosage or formula mode and allows if valued to start the cycle only if the weight present is less than the set value.

5.12 UNLOAD (Unload function) – DOSAGE and FORMULA modes

This option is only present when in dosing or recipe mode and enables the discharge function at the end of dosing/recipe.

5.13 END DEL (End delay) – DOSAGE and FORMULA modes

This option is present only when in dosing or formula mode and allows a value expressed in seconds to be set for the end of the dosing cycle delay.

5.14 PRESET (Enable preset) – DOSAGE and FORMULA modes

This option is only present if in dosage or formula mode.

In dosing mode if enabled after confirming the Set you are prompted to enter the preset value as well.

In formula mode if enabled it allows the preset value to be entered for each recipe component.

5.15 QUEUE (Enable queue) – DOSAGE and FORMULA modes

In dosage mode if enabled after confirming the Set you are prompted to enter the tail value as well.

In formula mode if enabled it allows you to enter for each recipe component the tail value.

6 SCALE MENU

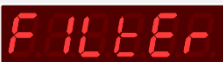



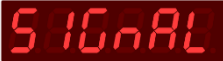



The balance menu is accessed by long press of the **ENTER** button then selection of the SCALE item by using buttons ▲ and ▼.

When accessing the balance menu you are asked to specify your user ID and PASSWORD. If you do not have this information you can still access the balance menu in restricted mode by confirming as user id 0.

6.1 RESTRICTED SCALE MENU

The balance menu in restricted mode can be accessed by confirming access with user ID 0 and provides access to settings such as:

	FILTER	Allows selection of digital weight filter level by choosing from 10 levels from F0 (null) to F9 (maximum)
	MOTION	Allows selection of weight stability factor by choosing from 5 levels from STAB 0 (immediate) to STAB 4 (accurate)
	AUTO ZERO	Allows the setting of a value by which the weight is reset to zero when the power is turned on: <ul style="list-style-type: none"> • AUTO entro 10% del fondo scala • FREE Non viene azzerato il peso • CUST consente di specificare il valore
	ZERO TRACKER	Allows selection of the zero tracking value. The zero tracking function allows for automatic zero point calibration when the weight undergoes a slow change over time
	SIGNAL	Displays the value in mV in response from the load cells
	ACCESS	Allows consultation of the last 5 accesses made to metrological parameters

6.2 ADVANCED SCALE MENU

The advanced balance menu can only be accessed by authorized users by entering their ID and a valid password.

In addition to all the settings accessible from the limited balance menu, it is possible to change advanced metrological parameters such as CAPACITY, DIVISION and MULTIRANGE and perform instrument calibration.

6.2.1 CAPACITY

The maximum flow rate of the instrument can only be accessed by authorized personnel using their valid ID and password.

Confirming with **ENTER** will prompt the operator to set the nominal range value of the instrument.

Confirming with **ENTER** will show the LEGAL message then proceed to the selection of the instrument approval indication by choosing via the ▲ and ▼ keys the OIML or FREE option.

The OIML option allows the setting of legally valid division values by range while the FREE option allows the setting of any division value.



WARNING This option does NOT, in any way, affect the actual metrological approval of the instrument

Confirming with **ENTER** will show the message NCAMP therefore proceed to the setting of the multifield scale. By ▲ and ▼ you can set the multi range by choosing between:

- MC OFF Single weighing range
- MC 2 Automatic division into 2 weighing ranges
- MC 3 Automatic division into 3 weighing ranges
- MC 2/6 Automatic division into 2 ranges of 6000 divisions
- MC 3/6 Automatic division into 2 ranges of 6000 divisions

If LEGAL FREE has been set as an option, the limits of each weighing field can be set manually.

Confirming with **ENTER** displays the message DIV and switches to division selection. By default the smallest legally valid division value is shown. Using buttons ▲ and ▼, the division value of the instrument can be selected.

If LEGAL OIML has been set as an option upon confirmation of a legally invalid value the message INVAL is shown.

Confirming with **ENTER** returns to the balance menu and displays the calibration option (CALIBR).

6.2.2 CALIBR (Scale calibration)

Instrument calibration should be performed only by authorized personnel, the relevant menu is accessible only by valid ID and password, and allows zero and full scale calibration of the instrument.

Zero calibration does not bind to full scale calibration and vice versa.

Acceding to the CALIBR menu displays the weight alternating with the selected menu (CAL-0- or CAL-FS).



Confirming with **ENTER** while CAL-0- is displayed performs zero point calibration.



Full scale calibration requires loading the scale with one or more samples of known weight. Confirming with **ENTER** prompts you to enter the current value of the loaded sample weight.

The weight indicator mod. LA900 allows a linearization on 3 separate sample weights. Upon confirmation with **ENTER** after entering the first sample you are asked to load and specify a second sample and then the third, if you do not wish to perform a linearization simply exit via the **EXIT** button during the request for the first unused sample.

6.2.3 GREVITY CORRECTION

The values of G-CAL and G-USE allow the gravitational acceleration value to be specified by compensating for errors due to the difference between the zone of use and the calibration zone.

ZONE A	Emilia Romagna, Friuli Venezia Giulia, Liguria, Lombardia, Marche, Piemonte, Toscana, Trentino Alto Adige, Umbria, Veneto	9,80149
ZONE B	Abruzzo, Campania, Lazio, Molise, Puglia	9,80655
ZONE C	Basilicata, Calabria, Sardegna, Sicilia 1 (Messina, Palermo, Trapani)	9,80237
SICILY 2	Agrigento, Caltanissetta, Catania, Enna, Ragusa, Siracusa	9,79819

7 SYSTEM MENU



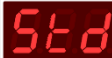

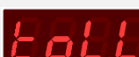




The system menu can be accessed by long-pressing the **MENU** button then selecting SYSTEM and confirming with **ENTER**.

The system menu allows the setting of:

- Program mode
- Serial devices
- Totalization
- Hardware options
- Display language
- Enabling alibi memory
- Progressive
- Stand by and auto turn-off
- Enabling second scale (channel B)
- Enabling battery

7.1 MODE (Working mode)

Allows selection of the operation mode of the instrument, the available modes are:

	STANDARD	Standard working mode
	WEIGHBRIDGE	In and out vehicles weighing
	TOLLERANCE	Tolerance control with absolute or percentage limits
	PEAK	Display of the maximum value achieved
	DISCHARGE	Unloading weighing
	FORMULA	Multi-component dosing in load
	DOSAGE	Single component dosage in load

7.1.1 WEIGHBRIDGE

The weighbridge operation mode calculates the difference of two weights acquired at the input and output.

By loading the weight onto the scale, an input weighing can be performed by single press of the **ENTER** button following which the relevant tag is printed and the ID associated with the weighing is shown on the display.



The mod. LA900 weight indicator can store up to a maximum of 100 input weighings for which output has not yet been made.

To make an output weighing, it is necessary to load the weight on the platform and start the procedure by prolonged pressure on the **EXIT** button following which you are prompted to enter the ID of the relevant input weighing. By default, the indicator proposes the most recent weighing ID.

7.1.2 TOLLERANCE

In tolerance check mode, it is possible to verify that the loaded weight is within the limits set according to the check to be made.

The lower and upper limits can be specified in two modes: PERCENTAGE or ABSOLUTE VALUE.

The tolerance value in percent can be set by prolonged pressure of the **F2** key, following which TARGET relative to the nominal weight of the weighed item can be chosen, followed by the percentage (PERCEN.)

The lower and upper absolute values can be set by prolonged pressing of the **F2** button following which the LIMIT item can be selected using the **▲** and **▼** buttons. Confirming with **ENTER** first prompts the lower limit, then the upper limit.

When loading a weight, the display alternately with the current weight also shows the result of the comparison with the limits placed:



In tolerance mode, the logic outputs on the instrument are automatically set as:

OUT 1	POOR
OUT 2	GOOD
OUT 3	OVER
OUT 4	OUT OF TOLLERANCE

7.1.3 PEAK

By selecting this operation mode, the maximum weight value (PEAK) detected during weighing can be displayed. (Positive or negative peak)

This function is particularly useful for measuring, for example, the breaking load of materials.

Pressing **ENTER** enables the peak display mode; the display will show the words PEAK, every 5 seconds, alternating with the maximum weight (net positive or negative) reached up to that moment.

Pressing **ENTER** again resets the peak value to zero.

Pressing **EXIT** returns to the standard display of the weight present in the scale.

7.1.4 DISCHARGE

Selecting this mode will make it possible, starting with a full container, to display the weight taken from it.

To start displaying the unloaded weight, starting with a load placed on the scale, press the **ENTER** key.

The display is reset to zero, and by removing weight from the scale pan, its value is shown in positive on the display.

To display the weight still on the scale press the **>0<** key for 3 seconds, press the **>0<** key again for 3 seconds to return to displaying the unloaded weight.

7.1.5 FORMULA

The FORMULA mode of operation allows dosing composed of up to 6 components.

The LA900 weight indicator can store up to 50 different recipes.

To perform recipe programming, it is necessary to type in the number of the recipe you wish to set or change and confirm by single press of the **F2** button.

By accessing the recipe setting menu, you can select the component to be changed by scrolling through the **▲** and **▼** buttons and confirming with **ENTER**. For each component, the values of SET, PRESET and QUEUE can be specified.



A dosage is initiated by direct entry of the relevant recipe code and subsequent confirmation with **ENTER**.

At the end of dosing one component, dosing of the next one is automatically started for each component having a set SET value.

If the discharge function has been enabled in the user menu at the end of recipe dosing, it is prompted to discharge the indicator before a new dosing can be started.

Dosing of a component can be paused by single presses of the **PRINT / TOT** or **EXIT** buttons. If pressed again after dosing has been paused it is interrupted and a new dosing can then be started.

Single press of the **ENTER** button returns the indicator to the dosing state thus exiting the paused state.

7.1.6 DOSAGE

In dosage mode allows dosing of a single component by specifying the SET value by direct typing followed by confirmation by **ENTER** button. PRESET and QUEUE values are requested following SET confirmation if the relevant settings are enabled in the user menu.

Dosing stops automatically when the weight stabilizes after SET is reached.

If the discharge function has been enabled in the user menu at the end of dosing, you are prompted to unload the scale before you can start a new cycle.

7.2 SER (Serial peripherals)

The serial peripheral menu allows the setting of the instrument's serial peripherals, the USB connection output to the PC, the SLAVE address used by ODECA and MODBUS protocols, and the PROFIBUS address.

The LA900 indicator has two on-board RS-485 serial channels. RS-232, RS-485 and USB channels are only available via optional S318 card via fiber optic.

7.2.1 COM-1 AND COM-2 (RS-485)

The SER-1 and SER-2 setting menus allow you to set, for each RS-485 on-board channel the values of frame format (by default N-8-1), baud rate (by default 9600 bps) and the selection of the protocol related to the port.

NONE

PLUS	Connection to Custom PLUS printer
KUBE	Connection to Custom KUBE printer
TM295	Connection to EPSON TMU295 printer
LH300	Connection to Zebra LH300 printer
LABEL	Connection to EPL labeler
DISP-1,2,3	Connection to Odeca and Lectron weight repeaters
MODBUS	Modbus RTU transmission protocol
PC-ENQ	Odeca enquest protocol
PC-CON	Odeca continuous protocol
PC-OLD	Old Odeca protocol
PC-WGT	On-Weigh Odeca protocol
CONT-W	Continuos weight transmission
K-EMUL	OK Emulator software protocol

USB	Weighs file storage on USB pendrive
SCAN	Connection to optical barcode reader

7.2.2 COM-3 (RS-232 on S318 board)

Serial SER-3 port is available only through the optional S318 board communicating with the LA900 indicator via optic fiber.

- By configuring a serial peripheral on the SER-3 port, the indicator automatically initiates communication with the S318 board via fiber optics then the fiber-related led turns on.

In the condition of no communication with the S318 board via optical fiber, E.FIBER error (fiber error) is shown alternately to the weight, the error state automatically reenters the condition of communication with the corresponding S318 board.

The protocols available on serial 3 are the same as those that can be set on serial 1 and 2.

7.2.3 COM-4

Serial 4 (SER-4) is used for communication via fieldbus or with the protocols available on the other serial ports via RS-485.

Confirming on SER-4 with ENTER allows you to set the fieldbus protocol to be used by choosing from RS485 (protocols in common with SER-1,2,3), PROFINET, PROFIBUS, ETH.-IP, ETH.CAT, and ETHERN.

Selecting PROFIBUS or PROFINET protocol as the fieldbus peripheral will enable the EN.FBUS (enable fieldbus), INP.REG (input registers) and OUT.REG (output registers) options.

EN.FBUS

Enables or disables the fieldbus module (Profinet or Profibus) on board the S318 board, if disabled, RS-485 serial communication with the relevant Profinet or Profibus modules is required

INP.REG

Allows you to specify the size of the area of input registers writable by PLC

OUT.REG

Allows you to specify the size of the register area in PLC readable output

7.2.4 NOCOM (Absence of communication)

The NOCOM setting is available on any serial port and allows an error message to be displayed if there is a lack of communication with the computer or PLC.



The setting of NOCOM can be set as.

- NONE No message is displayed
- BLINK The message is alternated with the weight display
- FIXED The message is fixed and prevents the weight from being displayed

The NOCOM error condition is triggered when the instrument does not receive any communication from the PC or PLC for 5 consecutive seconds, the alarm automatically re-enters following a received communication.

7.2.5 USB-PC

Connection with PC via USB port is available only via optional S318 board.

NONE

K-EMUL OK Emulator software protocol

CONT-W Continuous weight transmission

PC-WGT On-Weigh Odeca protocol

PC-OLD Old Odeca protocol

PC-CON Continuous Odeca protocol

PC-ENQ Enquest Odeca protocol

7.2.6 ADDRES (Device address)

Allows setting the numeric address of the instrument used by Odeca and Modbus RTU protocols.

The default address is 0.

7.2.7 ADDR.PR. (Profibus address)

Allows setting the address for communication with the PROFIBUS module.

The default address is 1.

7.3 TOTAL (Totalization settings)



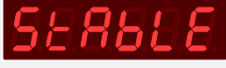
The TOTAL menu allows you to change the totalization settings of the LA900 instrument..

7.3.1 AB-TOT (Enable totalization)

Enables or disables totalization.




7.3.2 M-TOT (Totalization mode)

Allows you to change the weighing acquisition mode by choosing between:

	KEY	Weighing is acquired by single press of the PRINT / TOT button
	SCANNER	Weighing is acquired as a result of reading a bar code
	STABILITY	Weighing is acquired automatically when the weight stabilizes above the minimum weight

7.3.3 ABIL-P (Enable new weigh)

Sets the condition after which weighing is rehabilitated following a weighing performed.

	EVER	Weighing is always enabled
	PASSAGE FROM ZERO	Weighing is re-enabled after passing from scale zero
	INSTABILITY	Weighing is re-enabled after weight goes unstable

7.3.4 MINIM 1 (Minimum weight)

In questa fase è possibile impostare un valore di peso inteso come soglia minima al di sotto della quale non verrà effettuata una operazione di totalizzazione e stampa e al di sotto della quale anche i relè non saranno attivi.

Impostando un valore pari a 0 la totalizzazione e stampa verrà sempre eseguita.

7.4 OPTION (Hardware options)

At this stage it is possible to set a weight value intended as the minimum threshold below which a totaling and printing operation will not be performed and below which the relays will also not be active.

By setting a value of 0, the totalization and printing will always be performed.

7.4.1 OUTPUT (Logic outputs)

The OUTPUT menu allows 6 logical outputs to be set up and tested by manually activating each output.

Logic outputs 1 to 4 are available on the instrument itself, outputs 5 and 6 are optional and available via S318 card with fiber optics.

For each output, the TYPE of operation can be selected by choosing from:

STD, PEAK, DISCHARGE	<ul style="list-style-type: none"> • NONE Output disabled • WEIGHT Output enabled on weighing • GROSS Output enabled on gross weight reaching the set-point • NET Output enabled on net weight reaching the set-point
DOSAGE, FORMULA	<ul style="list-style-type: none"> • NONE Output disabled • ZERO Output enabled on scale zero • DOSING Output enabled while dosing • PRESET Output enabled on net weight reaching preset • SCAR Output enabled while unloading • ERRORE Output enabled if error occurred • COMPON Output enabled on reaching set of component (DOSAGGIO) • COMP-1/6 output enabled on component reaching its set
TOLLERANCE	Assigned automatically by setting the mode

The STATE of each output identifies the normal state of the output and can be set as:

- N.OPEN. Normally open (default)
- N.CLOSE. Normally close

STABILITY (STD, PEAK and DISCHARGE)

Activates by choosing between OFF and ON the control limited to stable weight, if set to OFF the control is always performed.

RE-ENABLE CONTROL (STD, PEAK and DISCHARGE)

Reactivation of R-ATT control allows control to be stopped on the set until the scale goes from zero.

- D-RET Control always active
- D-ZERO Reactivation of control on transition from zero

TIME AND DELAY (STD, PEAK and DISCHARGE)

MAX-ON and DEL.DIS. allow you to set a value expressed in seconds and between 0 and 999 respectively assigned to the output activation delay and output deactivation delay

DELAY (DOSAGE and FORMULA)

The value DEL.ENA. (Delay Enable) allows you to set time expressed in seconds and between 0 and 60 indicating the waiting time before the output is activated.

The value DEL.DIS (Deactivation Delay) allows you to set time expressed in seconds and between 0 and 60 indicating the waiting time before the output is deactivated.

7.4.2 INPUT (Logic inputs)

The INPUT menu allows you to change the settings inherent in the instrument's logic inputs.

The weighing instrument mod. LA900 has two logic inputs.

STD, PEAK, DISCHARGE and TOLLERANCE	<ul style="list-style-type: none"> • ZERO Semiautomatic zero • TARE execute predetermined tare • PRINT perform weighing • SUBTOT Close subtotal • C-TARA Clear tare • SEL-SC Select scale • NONE Input disabled
DOSAGE and FORMULA	<p>INPUT 1 – Start dosing</p> <p>INPUT 2 – Pause / Stop dosing</p>

7.4.3 ANALOG (Analog output)

The ANALOG menu allows you to change the settings inherent in the analog output. The analog output is optional and mounted via S318 board with fiber optics.

ANA.OUT (Analog output) allows you to select the operation of the analog output based on the hardware configuration of the S318 interface by choosing between:

- NONE Analog output disabled
- UNIPOL Analog output having only positive weight values
- BIPOLE Analog output having both positive and negative weight values

SET-AN (analog settings) provides access to range settings and adjustment of the analog output. The available ranges are:

- 0-10V
- 0-5V
- 4-20mA
- 0-20mA

AN 0 A allows the analog output offset to be set to zero

AN FSA allows you to set the weight value corresponding to the full scale of the analog output

MODE (Control mode) allows you to choose between NET and GROSS the weight on which to control the analog output.

0 ADJ and FS ADJ allow you to set the relative analog output adjustment values correspondingly to the zero and full scale condition.

7.5 LANG. (Display Language selection)

Allows you to change the message language shown on the display by choosing from:


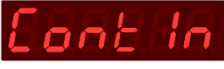
- ITALIA
- ENCLIS

7.6 ALIBI (Enable alibi memory)

Enables or disables fiscal memory (optional)

7.7 NPROG (Weighing progressive)

Allows you to change the settings inherent in the management of the progressive associated with each weighing by choosing between:

	ON TOTAL	Zeroing after totalization. The progressive weighing No. will reset to zero after each subtotal
	CONTINUOUS	The progressive weighing No. will never reset to zero.

Following the selection of the continuous progressive, you are asked to set the sequence from which the enumeration starts.

7.8 NO-OFF

Allows disabling of the power off button, if set to ON the LA900 indicator cannot be turned off via the appropriate **ON/OFF** button.

7.9 2-BIL (Second scale)

Enables and disables the second platform. If set to ON, it is possible to change the weight display from one scale to the other by single press of the **F1 / SCALE** button.

Weight management is not simultaneous, the LA900 indicator manages the weight of only the active scale.



By activating the weight display of the second scale (Channel B), the corresponding LED turns on.

Each scale (channel A and channel B) enjoy its own range and calibration, the settings and calibration made are relative to the active scale displayed.

7.10 SUPPLY (Device power supply)

Identify the type of power supply for the LA900 instrument by choosing from:

- PSUPPL
- BATT power supply from battery



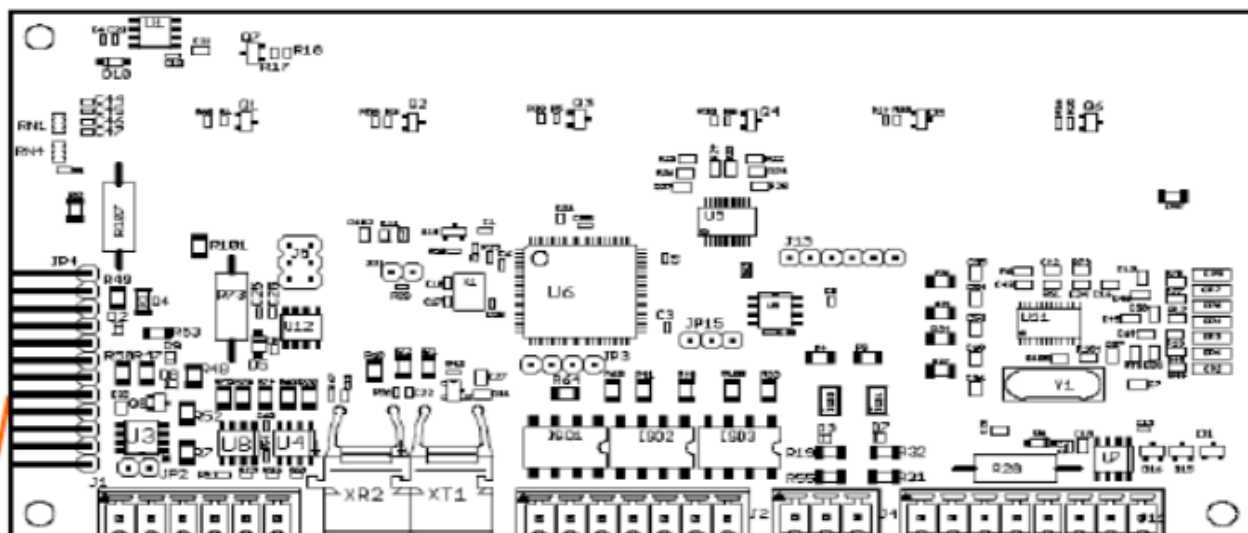
By choosing battery power, the LA900 indicator automatically checks the remaining battery charge and alerts the operator, by lighting the corresponding LED, of the battery charge status.

8 DEVICE INSTALLATION



The following installation procedures should be carried out by trained personnel.

All connections must be made with the instrument turned off.



J1:	
1	+Vin
2	GND
3	+ Rs485_1
4	- Rs485_1
5	+ Rs485_2
6	- Rs485_2

Collegamenti
Fibre Ottiche

J2: Uscite	
1	Out 1
2	Out 2
3	Out 3
4	Out 4
5	Out 5
6	Out 6
7	Comune Out

J4: Ingressi	
1	Input 1
2	Input 2
3	Comune Input

J11: Celle di carico	
1	- Alim.
2	+ Alim.
3	+ Ref.
4	- Ref.
5	- Segnale A
6	+ Segnale A
7	+ Segnale B
8	- Segnale B

JP4: Tastiera	
1	Riga 1
2	Riga 2
3	Riga 3
4	Riga 4
5	Colonna 1
6	Colonna 2
7	Colonna 3
8	Colonna 4
9	Colonna 5
10	Colonna 6
11	ON/OFF
12	ON/OFF

8.1 DEVICE POWER SUPPLY

The instrument must be powered through terminals 1 and 2 of terminal block J1 located on the board.

The power cable must be channeled separately from other power cables with different voltages, load cell connection cables, and logic inputs and outputs.

1	6Vdc
2	GND

8.2 LOAD CELLS CONNECTION

The cable connecting with the load cells should not be channelized with other cables but should follow its own path.

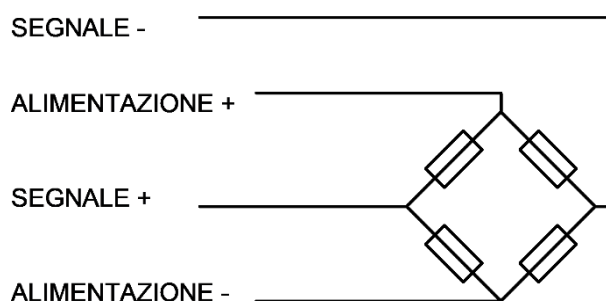
Any extension connections of the load cell cable must be carefully shielded. Extension connections must be properly soldered or connected through support terminal blocks or through a separately supplied junction box.

A maximum of eight 350-ohm cells can be connected to the instrument. The supply voltage of the cells is 3.3 VDC and is protected against temporary short circuit. The measuring range of the instrument includes load cells with sensitivities from -3.9 mV/V to 3.9 mV/V.

The load cells must be connected to the indicator via terminal block J11.

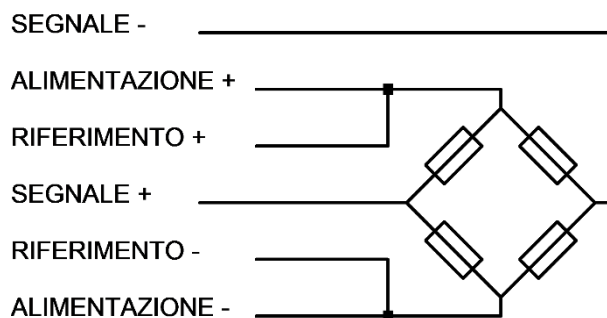
8.2.1 4 WIRES CONNECTION

1	Exc -	Excitation -
2	Exc +	Excitation +
3	Sense +	Short-circuit with 2
4	Sense -	Short-circuit with 1
5	Sign -	Signal - (1a ptf)
6	Sign +	Signal + (1a ptf)
7	Sign -	Signal - (2a ptf)
8	Sign +	Signal + (2a ptf)



8.2.2 6 WIRES CONNECTION

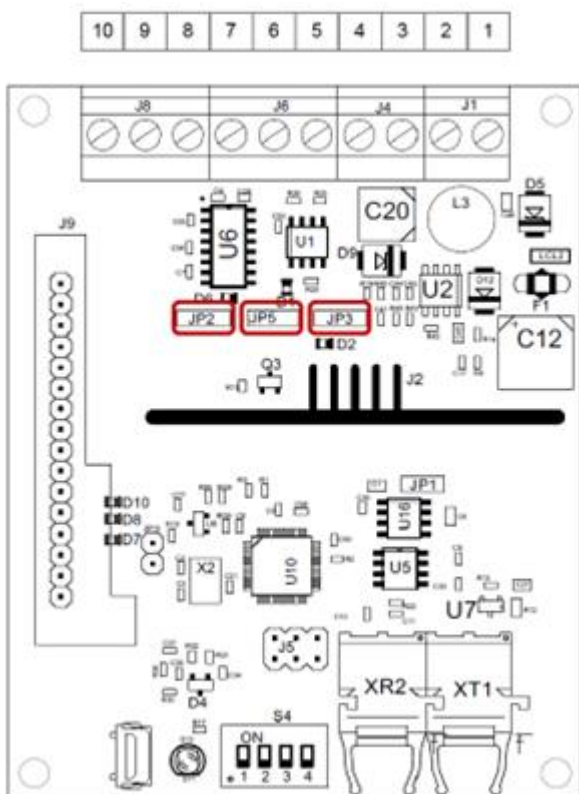
1	Exc -	Excitation -
2	Exc +	Excitation +
3	Sense +	Sense +
4	Sense -	Sense -
5	Sign -	Signal - (1a ptf)
6	Sign +	Signal + (1a ptf)
7	Sign -	Signal - (2a ptf)
8	Sign +	Signal + (2a ptf)



8.2.3 SUB-D 9-POLE FEMALE CELL CONNECTOR

1. Shield
2. Excitation +
3. Signal +
4. Signal -
5. Sense +
6. Sense -
7. Excitation -

8.3 S318 BOARD (Optic fiber)



Jumpers JP2, JP5 and JP3 are used to enable the on-board fieldbus option.

Closing jumpers JP2, JP5 and JP3 to the right disables the fieldbus option.

By closing jumpers JP2, JP5 and JP3 to the left, the fieldbus option is activated.



I dip-switch presenti sulla scheda sono ad uso interno e devono essere lasciati su OFF.

8.3.1 S318 CLAMPS

1	7 – 30 Vdc +
2	GND
3	RS485 +
4	RS485 -
5	RS232 TX
6	RS232 RX
7	GND
8	I_OUT
9	V_OUT
10	AGND

9 LABELER VARIABLE LIST

The list of variables to the labeling machine varies depending on whether the header is enabled or disabled.

Var	Descrizione	Char
V00	Header 1	24
V01	Header 2	24
V02	Header 3	24
V03	Date	8
V04	Date Barcode	6
V05	Time	5
V06	Weighing	6
V07	Weighing Barcode	6
V08	Net	7/9
V09	Net Barcode	5
V10	Gross	7/9
V11	Gross Barcode	5
V12	Tare	7/9
V13	Tare Barcode	5
V14	Code	6
V15	Code 2	6/24
V16	PMU	10
V17	Pieces	5
V18	Pieces Barcode	5
V19	Alibi memory	6

Var	Descrizione	Char
V00	Date	8
V01	Date Barcode	6
V02	Time	5
V03	Weighing	6
V04	Weighing Barcode	6
V05	Net	7/9
V06	Net Barcode	5
V07	Gross	7/9
V08	Gross Barcode	5
V09	Tare	7/9
V10	Tare Barcode	5
V11	Code	6
V12	Code 2	6/24
V13	PMU	10
V14	Pieces	5
V15	Pieces Barcode	5
V16	Alibi memory	6

10 MODBUS HOLDING REGISTERS

Address	Holding register	R/W	Type / Notes
0001	Status register	R	Vedi tabella relativa
0002	Decimals	R	INT
0003	Gross (MSW)	R	INT
0004	Gross (LSW)	R	INT
0005	Tare (MSW)	R	INT
0006	Tare (LSW)	R	INT
0007	Net (MSW)	R	INT
0008	Net (LSW)	R	INT
0009	PMU (MSW)	R	INT
0010	PMU (LSW)	R	INT
0011	Pieces (MSW)	R	INT
0012	Pieces (LSW)	R	INT
0013	Last weigh net (MSW)	R	INT
0014	Last weigh net (LSW)	R	INT
0015	Logic inputs	R	Vedi tabella relativa
0016	Logic outputs		
0103	Last weigh Alibi code (MSW)	R	INT
0104	Last weigh Alibi code (LSW)		
0105	Last weigh scale	R	INT (0 = canale A, 1 = B)
0201	Set-point 1, channel A (MSW)	R/W	INT
0202	Set-point 1, channel A (LSW)	R/W	INT
0203	Set-point 2, channel A (MSW)	R/W	INT
0204	Set-point 2, channel A (LSW)	R/W	INT
0205	Set-point 3, channel A (MSW)	R/W	INT
0206	Set-point 3, channel A (LSW)	R/W	INT
0207	Set-point 4, channel A (MSW)	R/W	INT
0208	Set-point 4, channel A (LSW)	R/W	INT
0209	Set-point 5, channel A (MSW)	R/W	INT
0210	Set-point 5, channel A (LSW)	R/W	INT
0211	Set-point 6, channel A (MSW)	R/W	INT
0212	Set-point 6, channel A (LSW)	R/W	INT
0251	Set-point 1, channel B (MSW)	R/W	INT
0252	Set-point 1, channel B (LSW)	R/W	INT
0253	Set-point 2, channel B (MSW)	R/W	INT
0254	Set-point 2, channel B (LSW)	R/W	INT
0255	Set-point 3, channel B (MSW)	R/W	INT
0256	Set-point 3, channel B (LSW)	R/W	INT
0257	Set-point 4, channel B (MSW)	R/W	INT

0258	Set-point 4, channel B (LSW)	R/W	INT
0259	Set-point 5, channel B (MSW)	R/W	INT
0260	Set-point 5, channel B (LSW)	R/W	INT
0261	Set-point 6, channel B (MSW)	R/W	INT
0262	Set-point 6, channel B (LSW)	R/W	INT
0300	Min tollerance, channel A (MSW)	R/W	INT
0301	Min tollerance, channel A (LSW)	R/W	INT
0302	Max tollerance, channel A (MSW)	R/W	INT
0303	Max tollerance, channel A (LSW)	R/W	INT
0304	Min tollerance, channel B (MSW)	R/W	INT
0305	Min tollerance, channel B (LSW)	R/W	INT
0306	Max tollerance, channel B (MSW)	R/W	INT
0307	Max tollerance, channel B (LSW)	R/W	INT
0308	Target tollerance, channel A (MSW)	R/W	INT
0309	Target tollerance, channel A (LSW)	R/W	INT
0310	Percent tollerance, channel A	R/W	INT da 0 a 1000 (0.0% – 100.0%)
0311	Target tollerance, channel B (MSW)	R/W	INT
0312	Target tollerance, channel B (LSW)	R/W	INT
0313	Percent tollerance, channel B	R/W	INT
0320	Predetermined tare 0 (MSW)	R/W	INT
0321	Predetermined tare 0 (LSW)	R/W	INT
0322	Predetermined tare 1 (MSW)	R/W	INT
0323	Predetermined tare 1 (LSW)	R/W	INT
0324	Predetermined tare 2 (MSW)	R/W	INT
0325	Predetermined tare 2 (LSW)	R/W	INT
0326	Predetermined tare 3 (MSW)	R/W	INT
0327	Predetermined tare 3 (LSW)	R/W	INT
0328	Predetermined tare 4 (MSW)	R/W	INT
0329	Predetermined tare 4 (LSW)	R/W	INT
0330	Predetermined tare 5 (MSW)	R/W	INT
0331	Predetermined tare 5 (LSW)	R/W	INT
0332	Predetermined tare 6 (MSW)	R/W	INT
0333	Predetermined tare 6 (LSW)	R/W	INT
0334	Predetermined tare 7 (MSW)	R/W	INT
0335	Predetermined tare 7 (LSW)	R/W	INT
0336	Predetermined tare 8 (MSW)	R/W	INT
0337	Predetermined tare 8 (LSW)	R/W	INT
0338	Predetermined tare 9 (MSW)	R/W	INT
0339	Predetermined tare 9 (LSW)	R/W	INT
0501	Data register (MSW)	W	INT
0502	Data register (LSW)	W	INT

0503	Command register	W	Vedi tabella relativa
1001	Menu password	R/W	INT
1201	Stability, channel A	R/W	INT
1202	AutoZero, channel A	R/W	INT
1203	AutoZero turn-on, channel A (MSW)	R/W	INT
1204	AutoZero turn-on, channel A (LSW)	R/W	INT
1205	Zero-tracking, channel A (MSW)	R/W	INT
1206	Weight filter, channel A	R/W	INT
1251	Stability, channel B	R/W	INT
1252	AutoZero, channel B	R/W	INT
1253	AutoZero turn-on, channel B (MSW)	R/W	INT
1254	AutoZero turn-on, channel B (LSW)	R/W	INT
1255	Zero-tracking, channel B (MSW)	R/W	INT
1256	Weight filter, channel B	R/W	INT
1301	Function input 1	R/W	INT
1302	Function input 2	R/W	INT
1303	Function output 1	R/W	INT
1304	Logic output 1	R/W	INT
1305	Stabiliy output 1	R/W	INT
1306	Re-enable output 1	R/W	INT
1307	Max-fun output 1	R/W	INT
1308	Delay enable output 1	R/W	INT
1309	Delay disable output 1	R/W	INT
1310	Function output 2	R/W	INT
1311	Logic output 2	R/W	INT
1312	Stabiliy output 2	R/W	INT
1313	Re-enable output 2	R/W	INT
1314	Max-fun output 2	R/W	INT
1315	Delay enable output 2	R/W	INT
1316	Delay disable output 2	R/W	INT
1317	Function output 3	R/W	INT
1318	Logic output 3	R/W	INT
1319	Stabiliy output 3	R/W	INT
1320	Re-enable output 3	R/W	INT
1321	Max-fun output 3	R/W	INT
1322	Delay enable output 3	R/W	INT
1323	Delay disable output 3	R/W	INT
1324	Function output 4	R/W	INT
1325	Logic output 4	R/W	INT
1326	Stabiliy output 4	R/W	INT
1327	Re-enable output 4	R/W	INT

1328	Max-fun output 4	R/W	INT
1329	Delay enable output 4	R/W	INT
1330	Delay disable output 4	R/W	INT
1331	Function output 4	R/W	INT
1332	Logic output 5	R/W	INT
1333	Stabiliy output 5	R/W	INT
1334	Re-enable output 5	R/W	INT
1335	Max-fun output 5	R/W	INT
1336	Delay enable output 5	R/W	INT
1337	Delay disable output 5	R/W	INT
1338	Function output 6	R/W	INT
1339	Logic output 6	R/W	INT
1340	Stabiliy output 6	R/W	INT
1341	Re-enable output 6	R/W	INT
1342	Max-fun output 6	R/W	INT
1343	Delay enable output 6	R/W	INT
1344	Delay disable output 6	R/W	INT

STATUS REGISTER ENCODING TABLE

BIT	Description
15	Unused
14	Unused
13	Unused
12	Unused
11	Current channel
10	Multirange
9	00 = OFF, 01 = RANGE 1, 10 = RANGE 2, 11 = RANGE 3
8	Device not calibrated
7	Weight delta
6	Weight error
5	Overload
4	Underload
3	Tare present
2	Scale zero range
1	Stable weight
0	Zero scale

LOGIC INPUTS ENCODING TABLE

BIT	Description
15-2	Unused
1	Logic input 2 active
0	Logic input 1 active

LOGIC OUTPUT ENCODING TABLE

BIT	Descrizione
15-6	Unused
5	Output 6 active
4	Output 5 active
3	Output 4 active
2	Output 3 active
1	Output 2 active
0	Output 1 active

TABELLA CODIFICA COMMAND REGISTER / DATA REGISTERS

Command value	Command function	Data register MSB-LSB
0x0001	Semiautomatic zero	
0x0002	Auto tare	
0x0003	Numeric tare	Tare value
0x0004	Clear tare	
0x0005	Zero calibration (**)	
0x0006	Full scale calibration (**)	Sample weight value
0x0007	Execute backup	
0x0008	Change channel	Channel number 0 - 1
0x0009	Last weight	Last weight index
0x0090	Execute weigh	
0x0091	Execute weigh and print	
0x0092	Set output status	
0x3FFF	Enable output data area reading (*)	

(*) This command must be sent whenever registers in the Fieldbus Output Data Area are changed, in order to make the changes made effective in the instrument.

Caution: when the instrument is turned on, the Output Data Area is completely reset to zero; the Fieldbus master must read the parameter values from the Input Data Area and copy them to the relevant registers in the Output Data Area, before sending the read enable command 0x3FFF in the Command Register.

Otherwise, all parameters handled in the Output Data Area would be reset to zero. Do not use in case of CANopen fieldbus

() Function available only in case of FREE operation or in case of METRIC operation with calibration jumper enabled.**

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DICHIARAZIONE DI CONFORMITA'
Declaration of conformity

Lo strumento per pesare a funzionamento non automatico
Non-automatic weighing instrument

Fabbricante <i>Manufacturer</i>	ODECA srl
Tipo / Modello <i>Type / Model</i>	LA900x

al quale si riferisce la presente dichiarazione,
è conforme alla/e seguente/i norma/e o documento/i normativo/i
to which this declaration refers to,
conforms with the following standard(s) or other regulation document(s)

Conformità CE / CE Conformity

- Direttiva CEE 89/336 sulla Compatibilità Elettromagnetica Norme Europee EN 55011, EN 50082-1
89/336 EU EMC Directive adopted European Standard EN 55011, EN 50082-1
- Direttive CEE 73/23 e 93/68 sulla sicurezza elettrica in bassa tensione. Norma Europea EN 61010-1
73/23 and 93/68 EU Directives regarding low voltage electrical safety. Adopted European Standard EN 61010-1

Altre Norme e Direttive / Other Directives and Standards

- Direttiva CEE 90/384, requisiti metrologici per strumenti per pesare a funzionamento non automatico. Norma Europea EN 45501
90/384 EU Directive, metrological aspects of non-automatic weighing instruments.
- Solo se è presente il marchio "M"
Only if "M" mark is applied

Odeca s.r.l.

GUARANTEE

The guarantee last ONE YEAR from the delivery of the device and it consists of a free deposit for labour and spare parts for INSTRUMENTS THAT HAS BEEN RETURNED FREE EX-WORKS of the seller. The guarantee is valid for breakdowns that are NOT ascribable to the Customer (for example. Not suitable use) and that are NOT ascribable to the transport

If, for any reason, an intervention is desired (or needed) at the use place, the costs of the technician's transfer will be in charge of the Customer: time and costs of the travel and, in case, room and board.

The GUARANTEE FALLS in case of breakdowns caused by interference of non-authorized people or by connections to devices that has been applied by others or because of wrong insertion in the power net.

It is EXCLUDED each compensation for damages, both direct and indirect, that has been done to the customer by absent or partial operation of the devices or sold installations, even if during the period of guarantee.

CE CONFORMITY CERTIFICATE

The devices are pursuant to the technical Norms and to the CEE Directives in force.

The Conformity Certificate is attached to this handbook as an apart page.

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