

USER MANUAL

WEIGHT INDICATOR MOD. SW21



TECHNICAL CHARACTERISTICS





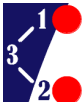
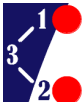
POWER SUPPLY	230Vac +/-10% , 50-60Hz with external power device 7,5Vdc/1900mA or optional rechargeable battery (6 V – 3,2 Ah).
MAXIMUM ABSORPTION	400 mA (with 8 load cell)
WORKING TEMPERATURE	From -10 to +40 °C.
READABILITY	Max 60000 divisions
LEGAL DIVISIONS	Max 10000e or 2 or 3X6000 .
DISPLAY	Red LED 6 digit display, h 20 mm .
LED	8 status LED
KEYBOARD	waterproof
LOAD CELL POWER SUPPLY	5Vdc \pm 5%, 120mA (max 8 load cell da 350 Ohm).
SERIAL OUTPUT	2 input/output RS232

1.KEYBOARD AND LED INDICATORS

The frontal panel has a red led display with digit h. 20 mm and 8 led indicators and a waterproof keyboard with 8 keys.










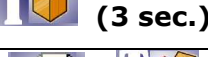







1.1 – Led indicators

-  If led is on, the weight is between $-1/4 \div +1/4$ of zero
-  If led is off , the weight is steady
-  If led is on , the SW21 is working with internal battery; if led is blinking, the battery is low and need to be recharged through the charger
-  If led is on , the weight on the display is a net weight , that is there is a tare value stored.
-  If led n° 1 is on , the scale is in the first weighing range
-  If led n° 2 is on , the scale is in the second weighing range

If both of them are on , the scale is in the third weighing range






1.2 – Keyboard

	Zero scale
	Scale selection
	Print , First Total, General Total (3 sec.)
	Escape
	Programming Menu / Decimal Point
	Enter
	Tare
	Numeric Tare Value
	Clear Tare
	Tare Locked / Unlocked
	High Resolution
	Set Point
	Battery Charge Status
	Keyboard Locked / Unlocked
	Clear weight operation

2 – GENERAL FUNCIONS


2.1 – Input Numeric value

During normal operations, the keys have the following meaning:

	Increase the value of the digit by one unit
	Decrease the value of the digit by one unit
	Move the digit to the right
	Confirm the value
	Escape without store

2.2 – Tare Function

The Tare function allows to clear the weight of a container on the plate of the scale.



Pressing key  the display will be zeroed and the Net Led will turn on.

The Tare operation can be carried out several times ; the maximum tare value is equal to the scale capacity.

If the Tare is locked, unloading the scale, the display will show a negative value while if the Tare is unlocked, the tare value will be cleared.

2.3 – Numeric Tare

The numeric Tare function allows to set a Tare value; it's possible, starting from a full container, to spin-off the Tare value and display the Net weight value



Press the key , input the numeric value of the tare and confirm with  .

2.4 – Lock Tare


It is possible to lock the Tare value stored so that it will be stored also unloading the scale.

Press the keys  and  .

The display will show "T BL" ; starting from now, the tare value is locked.



To unlock the Tare value , Press again the keys  and  ; the display will show "T SBL" starting from now, the tare value is unlocked.

2.5 – Clear a Tare value


To clear a stored tare value, Press  for 3 sec. .


2.6 – Set Point


If the optional card I/O is installed, it is possible to set four interrupt weight values .

Start the input values function pressing the keys  and  .

The display will show **rele 1** ; Press the key  for the next ones.

Confirm with  to introduce the numeric value.

Confirm again with 

Press  to exit the function.

2.7 – High Resolution function

Through this function, it's possible to show the actual weight with a resolution 10 times higher.

Press the keys  and  ; the last digit will blink.

Press  to exit the function.


2.8 – Battery charge level


The battery charge level is divided in 10 levels.

Press for 3 sec. the key  ; the display will show the actual charge level.

2.9 – Keyboard lock


It is possible to lock the access to the keyboard.

Press the keys  and **ESC** ; the display will show for 3 sec. "Lock" ; starting from now , every presson of a key will have the only effect to show the message "Lock".

To reactivate the keyboard, press again  and **ESC** .

2.10 – Scale selection

The weight indicator SW21 allows to connect two weighing platforms.

The selection between the two scales is made by pressing the key  .

The status led will show the platform in use :

- Led off : Platform n° 1 in use
- Led on : Platform n° 2 in use

3 – OPERATING MODE

3.1 Weighing with totalization

(Rif. MODE : STD)


3.2 Weighing with partial zeroing

(Rif. MODE : AZZER)

3.5 Animal weighing


(Rif. MODE : PES-AN)


3.1 – Weighing with totalization

In this operating mode, pressing the key  it is possible to add the value of every single weight to the actual stored value.

If a printer is connected to the indicator, a ticket will be printed according to the programmed parameters.


3.1.1 – Clearing stored weight values

Pressing the keys **ESC** e  the operator has the possibility to clear a weighing operation already done.

The display will show 00000,0 ; input the weight value to be cleared from the total an confirm with .


The condition to make this operation is that a total operation should be open.


3.1.3 – Partial Total Printing Function

Pressing for 3 sec. the key  will be showed the actual value reached by the total and this value will be added to the General Total.

After this operation, the value of the partial Total will be cleared.


3.1.4 – General Total Printing Function

After a Partial Total operation pressing again the key  for 3 sec the display will show the actual value of the General Total in memory .

The operator will be asked to clear this value or keep it in memory. Press  to clear the value or press **ESC** to exit without clearing.

3.2 – Weight mode with partial zeroing

In this operating mode, all the operation will be realized as in the standard mode ; after every weighing operation, the value on the display will be zeroed and put on Tare.

Press the key  for 3 sec. to close the sequence and print the total sum of the weighing operations.

After that, the display will show the gross weight on the platform.



3.3 – Animal weighing mode

This weighing mode is useful to avoid that the movement of the animal will have an effect on the stability of the indication.

4 SYSTEM USER MENU

Press the key "i" to enter the Menu.

4.1 DATA: Set Time and Date

Press the key  to enter in this menu; the display will show "Day" ; press  to modify the date and then enter in "time" to modify the actual value of time.

4.2 ECONOM : Energy saving mode

In order to save the charge of the battery, it is possible to select the auto-off option after an inactivity time.

The possible choices are :

<RISPAR> select one of these :

<NESSUNO> Auto-off disabled

<A-OFF> Auto-off after "x" inactivity minutes

<STDBY> **Standby function** : after x inactivity minutes, the display will show two blinking dashes. Move the scale platform to reactivate the normal use.
Set 0 to disable the function.

<TIMER> Set the x inactivity minutes

4.3 C-TOT : Clearing Total Mode

<NUMPES>

<TUTTI>

<T-ART>

<GNP2PE>

<PZ - PES>

4.4 TICKET : Ticket selection

<SINGLE> Single ticket; for every weighing operation will be printed a single ticket with these data :

- Header
- n° weighing operation
- Date , Time
- Gross weight, Tare , Net weight

<MULTIP> Multiple ticket; for every weighing operation will be printed only a line with these data :

- n° weighing operation
- Gross weight, Tare, Net weight

The header will be printed only at the beginning of the ticket

<DOUBLE> This option allows to obtain a double copy of a ticket

4.5 HEADER: Ticket Header

It is possible to store three header lines that will be printed at the beginning of the ticket.

It is possible also to choose the kind of the character : normal , double height, bold.

The number of characters depends on the kind of character : 24 chrs for normal type and 12 chrs for the other types.

<WRITE> Input mode. Every character will be input with the ASCII code.
At the end , insert the code "004".

<CANCEL> Clear stored data.

4.6 BL COD : Code locked

It is possible to lock the numeric code for all the operations till the next change :

<ON> : Locked code

<OFF>: Unlocked code

4.7 SICUR : Administrator Password

The administrator password allows to limit the access to the programming menu.

Input the old password and then the new password
The supervisor password 14556 allows the access in every condition.

4.8 ST-BAR : Bar code printing

It is possible to print an EAN-13 bar code on a single ticket
<ON> : Barcode printing on
<OFF>: Barcode printing off

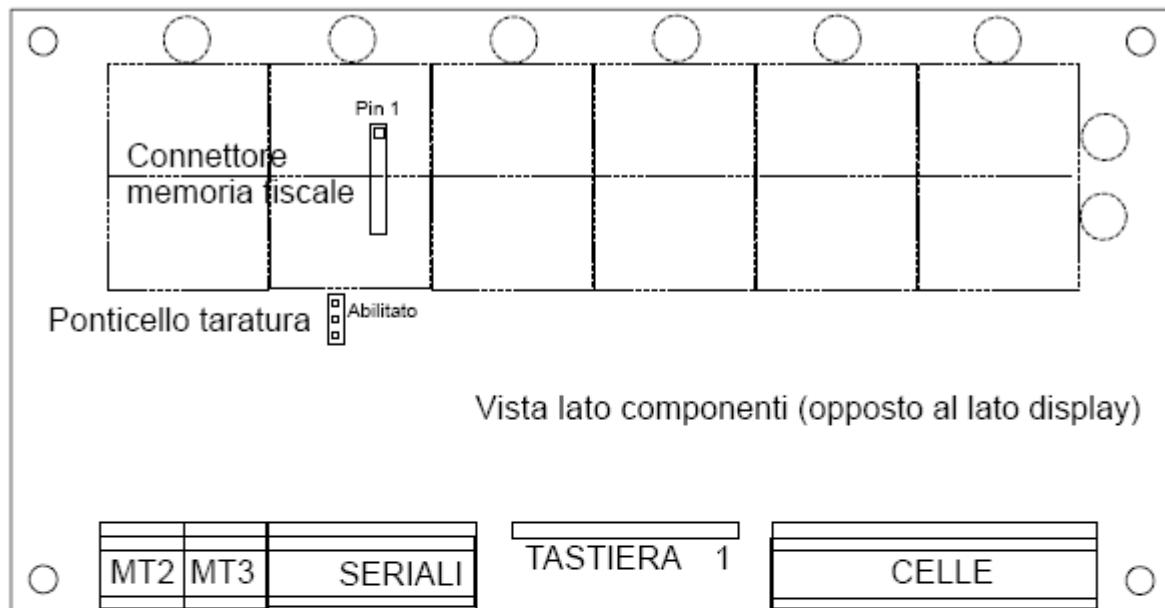
The EAN-13 code contains:

- N° 1 digit for identification variable weight (fix char);
- N° 6 digit for identification product code
- N° 5 digit for identification net weight
- N° 1 digit for check-digit

5 SERIAL COMMUNICATION PROTOCOL

See attached

6 CONNECTIONS



MT2 1 +Alimentazione 7.5Vdc
2 -Alimentazione

MT3 3 +Batteria 6V ext.
4 -Batteria

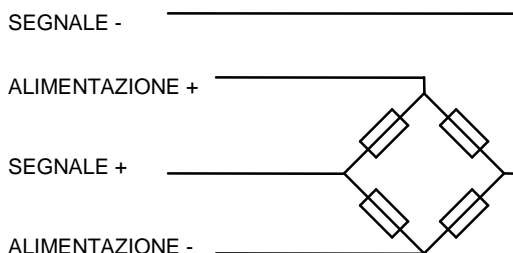
SERIALI
5 TX1 RS232
6 RX1 RS232
7 TX0 RS232
8 RX0 RS232
9 GND

CELLE
10 -Alimentazione
11 +Alimentazione
12 +Reference
13 -Reference
14 -Segnale1
15 +Segnale1
16 +Segnale2
17 -Segnale2

6.1 – Platform connections (Max. 2)

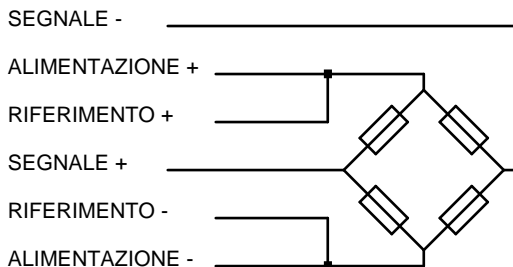
CONNESSIONE A 4 FILI

- 10 : EXC- ALIMENTAZIONE -
- 11 : EXC+ ALIMENTAZIONE +
- 12 : REF+ Cortocircuitare con morsetto 11.
- 13 : REF- Cortocircuitare con morsetto 10.
- 14 : SIG- SEGNALE - (ptf. N° 1)
- 15 : SIG+ SEGNALE + (ptf N° 1)
- 16 : SIG + SEGNALE + (ptf. N° 2)
- 17 : SIG - SEGNALE - (PTF. N° 2)

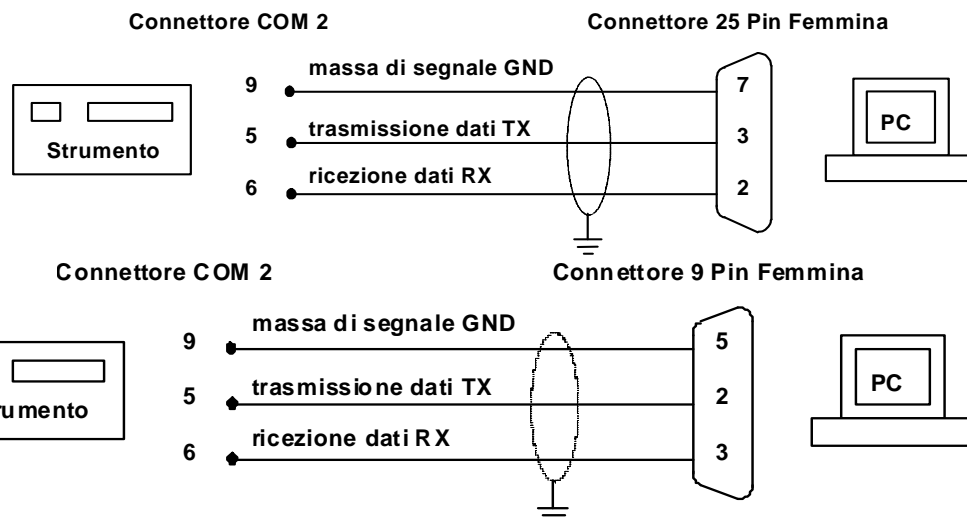


CONNESSIONE A 6 FILI

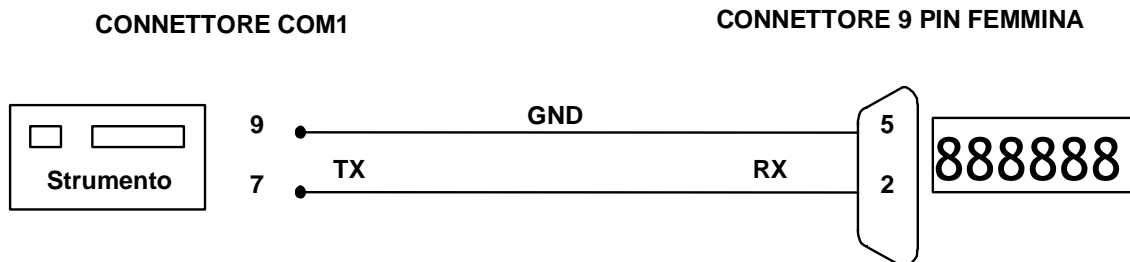
- 10 : EXC- ALIMENTAZIONE -
- 11 : EXC+ ALIMENTAZIONE +
- 12 : REF+ REFERENCE +
- 13 : REF- REFERENCE -
- 14 : SIG- SEGNALE - (ptf. N° 1)
- 15 : SIG+ SEGNALE + (ptf N° 1)
- 16 : SIG + SEGNALE + (ptf. N° 2)
- 17 : SIG - SEGNALE - (PTF. N° 2)



6.2 – Serial RS232 Connection for PC

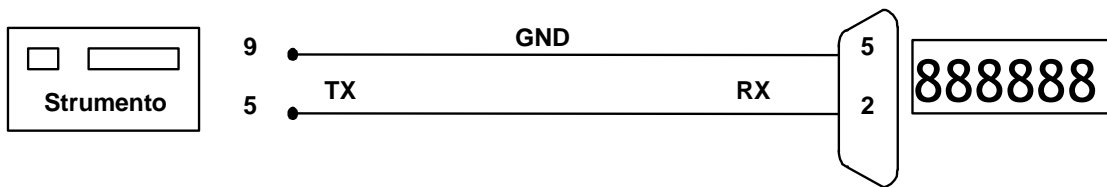


6.3 – Serial RS232 Connection for weight repeater R60 - R20



CONNETTORE COM2

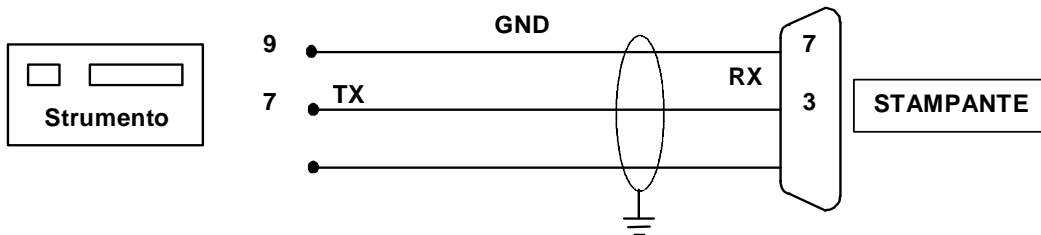
CONNETTORE 9 PIN FEMMINA



6.4 – Serial RS232 Connection for printer EPSON TMU295 and LX300

Connettore COM 1

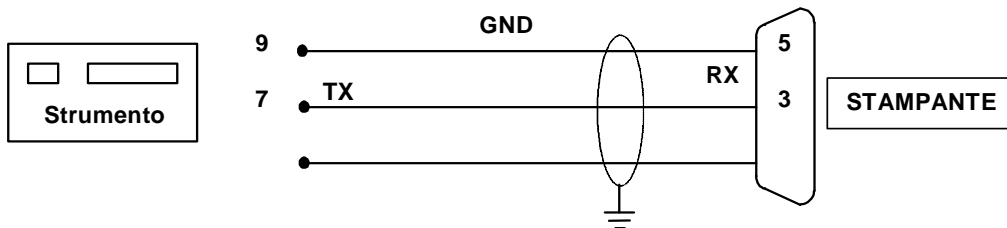
Connettore 25 Pin Maschio



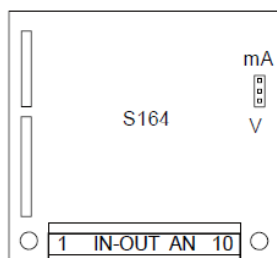
6.5 – Serial RS232 Connection for label printer Zebra GK420 and printer PLUS SA

Connettore COM 1

Connettore 9 Pin Maschio

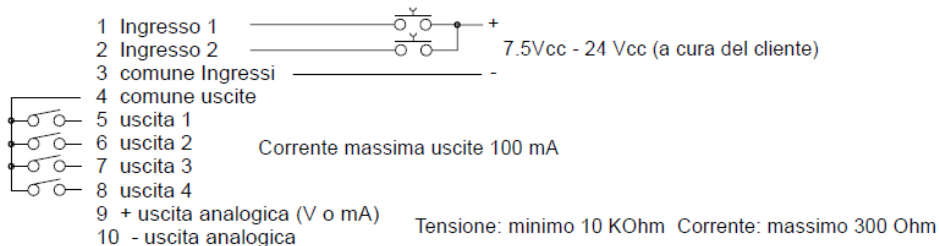


6.6 – Option card I/O



Ponticello di selezione tra V e mA dell'uscita analogica

MORSETTIERA



Per l'uscita analogica utilizzare cavo schermato (schermo a terra).

8 – ASCII CODE TABLE

32 = SPACE	33 = !	34 = "	35 = #	36 = \$
37 = %	38 = &	39 = '	40 = (41 =)
42 = *	43 = +	44 = ,	45 = -	46 = .
47 = /	48 = 0	49 = 1	50 = 2	51 = 3
52 = 4	53 = 5	54 = 6	55 = 7	56 = 8
57 = 9	58 = :	59 = ;	60 = <	61 = =
62 = >	63 = ?	64 = @	65 = A	66 = B
67 = C	68 = D	69 = E	70 = F	71 = G
72 = H	73 = I	74 = J	75 = K	76 = L
77 = M	78 = N	79 = O	80 = P	81 = Q
82 = R	83 = S	84 = T	85 = U	86 = V
87 = W	88 = X	89 = Y	90 = Z	91 = [
92 = \	93 =]	94 = ^	95 = _	96 = `
97 = a	98 = b	99 = c	100 = d	101 = e
102 = f	103 = g	104 = h	105 = i	106 = j
107 = k	108 = l	109 = m	110 = n	111 = o
112 = p	113 = q	114 = r	115 = s	116 = t
117 = u	118 = v	119 = w	120 = x	121 = y
122 = z	123 = {	124 =	125 = }	126 = ~

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DICHIARAZIONE DI CONFORMITA'
Declaration of conformity

Lo strumento per pesare a funzionamento non automatico

The non-automatic Weighing instrument

Fabbricante: Manufacturer:	ODECA srl
Tipo/Modello: Type/Model:	SW21

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 regulations 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 , EN50082-1
 * 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.
 Adopted European Standard EN45501:1992
 (°) Solo se è presente il marchio "M" / Only if "M" mark is applied

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