



STANDARD desk version





- A/D Converter 24bit (16000000 points) 4800Hz
- Display range 999999
- Conversion rate 300 Hz

WDESKG-B Base
WDESKG-C Load
WDESKG-S Unload
WDESKG-3 3 Products
WDESKG-6 6 Products
WDESKG-14 14 Products

WDESKG-MU Multiprogram: Six different operating modes SELECTABLE

BY CUSTOMER: BASE, LOAD, UNLOAD, 3/6/14 PRODUCTS (8-relay modules NOT included)

On request: Wifi Module WiFi









back view



back type "P"
(with 6 PG9 cable glands - power supply included)

Multilingual software

On request: USB port connectable to pendrive, external keyboard, barcode reader.



European Community registered design

ABS weight Indicator (dimensions: 122x226x164 mm) with 6 PG9 cable glands, IP67 protection class. Desk standard version; optionals: panel / wall / column mounting. STN transmissive LCD graphic display, white on blue, 240x64 pixel resolution, backlit, 133x39 mm viewing area. Membrane keyboard. Real-time clock with buffer battery.

Weight reading by another instrument via serial port.

* Models 6-14 PRODUCTS include 8-relay modules.



see OPTIONS on request



Two serial ports (RS232 and RS485) for connection to:

- PC/PLC up to 32 instruments (max 99 with line repeaters) by ASCII Laumas protocol or ModBus RTU.
- Remote display.
- Printer.

Optional integrated output: Pro\(\text{Dbus DP, DeviceNet, CANopen, Pro\(\text{Nnet IO, Ethernet/IP, Ethernet TCP/IP}\) (\(\frac{\connectable to your smartphone, tablet, \)}{\(\text{etc.. via web}\)}\)), Modbus/TCP.

THEORETICAL CALIBRATION is performed via the keyboard. REAL CALIBRATION with linearization up to 5 points.

TECHNICAL FEATURES

12 - 24VDC +/-10%; 6W max 8 (350 ohm); 5VDC / 120 mA < 0.01% Full Scale; < 0.01% F.S. < 0.0005 % F.S./°C < 0.003 % F.S./°C 24 bit (16000000 points) 4.8kHz ± 999999 ± 39 mV \pm 7 mV/V 300 conversions/sec. - 999999 ; + 999999 0 - 4 / x 1 x 2 x 5 x 10 x 20 x 50 x 100 0.012 - 7 sec / 5 - 300 Hz N. 5 - max 115 VAC; 150 mA (N. 4 - Analog output versions) N. 3 - optoisolated 5 - 24 VDC PNP (N. 2 - Analog output versions) RS232, RS485 2400, 4800, 9600, 19200, 38400, 115200 85% -30°C + 80°C

-20°C + 60°C

-10°C + 40°C

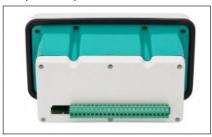
POWER SUPPLY and CONSUMPTION
NUMBER OF LOAD CELLS IN PARALLEL and SUPPLY
LINEARITY/ LINEARITY OF THE ANALOG OUTPUT
THERMAL DRIFT / THERMALDRIFT OFTHE ANALOG OUT.
A/D CONVERTER
MAX DIVISIONS (with measure range: +/- 10mV =2mV/V)
MEASURE RANGE
MAX LOAD CELL'S SENSITIVITY
MAX CONVERSIONS PER SECOND
DISPLAY RANGE
DECIMALS / DISPLAY INCREMENTS
DIGITAL FILTER / CONVERSION RATE
LOGIC OUTPUTS (relays)

LOGIC INPUTS

SERIAL PORTS
BAUD RATE
HUMIDITY (condensate free)
STORAGE TEMPERATURE
WORKING TEMPERATURE
WORKING TEMPERATURE (CE-M APPROVED)

OPTIONS ON REQUEST

"Q" (back view)



PANEL version w ith extractable terminal b oard. D imensions 122 x 226 x 152 mm (drilling template: 92 x 186 mm)

"D" (back view)



IP40 version w ith 4 D-SUB connectors. Dimensions: 122 x 226 x 189 mm (drilling template in case of p anel mounting: 9 6 x 186 mm). Power supply included.

"X" (back view)



IP67 ATEX version I I 3GD (zone 2-22) with 6 cable glands. Dimensions: 122 x 226 x 164 mm (drilling template in case of panel mounting: 96 x 186 mm).





OPTIONS ON REQUEST

- USCITA ANALOGICA 16 bit optoisolata:

- 16 bit optoisolated ANALOG OUTPUT: 0-20 mA; 4-20 mA (max 300 Ω); 0-10 V; 0-5 V; \pm 10 V; \pm 5 V (min. 10 $k\Omega$)

- Power supply 230 VAC 50/60Hz 6VA (not available for **D** vers.) - Power supply 115 VAC 50/60Hz 6VA (not available for **D** vers.)

- PANEL version with extractable terminal board - IP40 version with 4 D-SUB connectors - D:

- IP67 ATEX version (II 3GD (zone 2-22) with 6 cable galnds - X: - Stainless steel adjustable bracket for wall mounting - STAFFAINOXWDESK: - STAFFAWDESK - ABS adjustable bracket for column mounting

- COLONNAM+STAFFAI - Indicator stainless steel stand (Ø 38 mm, h 700 mm) with

stainless steel bracket for platform mounting

- Indicator stainless steel stand (Ø 38 mm, h 700 mm) with - COLONNAM+STAFFAC

painted steel bracket for platform mounting - Initial verification (Legal Metrology)

- OPZWALIBI: - Alibi memory

- 12 formulas/setpoint selection from external contacts - E: - 12 formulas/setpoint selection from external selector switch

- ALI24SPINA1A/ALI24SPINA1AJACK: - 24VDC 1A stabilized power supply

- 24VDC 1A stabilized power supply with socket and support - ALI24SPINAPRESA:

for Omega rail

- OPZWBATTWDESK: - Eight rechargeable batteries type AA 1.2V non-removable

(16-hours operating time)

- Weight reading from 0-10 Vdc (15 $k\Omega$) input - OPZWING010: - Weight reading from 4-20 mA (120 Ω) input - OPZWING420: - OPZWINGSER8: - Weight reading via serial input of max 8 instruments

- OPZW1RADIO: - Radio module (available for D-P versions)

- Wifi module extension cable - OPZWCONWF:

- OPZW1RADIOQ: - Radio module (available for Q version)

- RS485 additional port - OPZW1RS485: - End cycle partial unloadings (2-7) - OPZWSCARP:

(2-7) - OPZWSCARI: - Unloadings between a product and the next - Unloading of more products from same scale (2) - OPZWSCA3614:

- Data transfer via serial port to PC - OPZWDATIPC:

(6-9) - OPZWUSB68: - Storage of data on USB Pen Drive (included) by USB IP68

saled port built-in

- IP68 USB panel extension cable -OPZWCONUSBIP68:

-OPZWCONETHEIP68: - IP68 ethernet panel extension cable (0.5 m) -OPZWCONETHE5MT: - IP68 ethernet extension cable (5 m)

(2) - OPZWFORPERC: - Formula setting in percentage

(5-7) - OPZWQMC: - Possibility of setting a quantity to be batched greater than the scale capacity with automatic calculation of cycles

- 2A relay module (not available for 6/14 PRODUCTS) -RELE5M: -RELE6PROD24V: - 8-Relay module for 6/14 Prod. (12-24VDC) - 8-Relay module for 6/14 Prod. (115VAC) -RELE6PROD115V: -RELE6PROD230V: -8-Relay module for 6/14 Prod. (230VAC) - Additional 8-relay module for 14 Prod. -RELE14PROD: - Assisted manual batching with remote displays

(1) - OPZWLAUMAN: - CANopen protocol *(4-8) - OPZW1CA: - DeviceNet protocol *****(4-8) - OPZW1DE: *****(8) - OPZW1PR: - ProfibusDPprotocol

- Ethernet/IP protocol (IP68 ethernet port) - OPZW1ETIP68: (4-6-10)

- Ethernet TCP/IP protocol (IP68 ethernet port) - OPZW1ETTCP68: (4-6-10)

- Modbus/TCP protocol (IP68 ethernet port) OPZW1MBTCP68: (4-6-10)

- ProfinetIOprotocol(IP68ethernetport) - OPZW1PNETIO68: (4-6-10)- OPZW1LOADCELL2: - Input for connecting a second load cell (1) not available for model BASE (2) available for models 3-6-14 PRODUCTS

(3) if analog output is present: input on terminal 2 and output on terminal 3 are not available (see wiring diagrams); E / EC options not available

(4) available for model BASE

(5) available for models 3-6-14 PRODUCTS and LOAD

(6) for version "D": USB/Ethernet connectors are not IP68

(7) not available for CE-M approved versions

(8) for version "Q": RS485 integrated serial port is not available. Also No.5 output and No.3 intput are not available.

(9) not available for ATEX versions

(10) for ATEX version the connectors are not IP68

) you can only choose one option from those marked with asterisk.



▼ OPZWUSB68



Data storage (weighed values, batchings, alarms) on Pen Drive USB. These data can be imported and processed on PC using the PROG-DB software included in the supply. Connectable to external keyboard and

Note: for version "D" the USB connector is not IP68.



▼ OPZWDATIPC



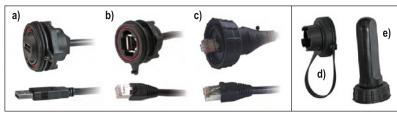
Data transfer (weighed values, batchings, alarms) from the weight indicator to the PC via serial port. These data can be imported and processed on PC using the PROG-DB software included in the supply.
We suggest to use this option when the indicator is always connected to the PC.

▼ OPZWLAUMAN



Manual batching with remote displays (example of application with 3 remote display side by side). This option allows to display on different remote displays, connected in parallel to the instrument via RS485 serial port, the following batching information: formula and product number, instrument status, the remaining quantity to be batched, gross weight.

▼ OPZWCONUSBIP68 - OPZWCONETHEIP68 - OPZWCONETHE5MT



- a) OPZWCONUSBIP68: IP68 USB extension cable (male/female) for panel mounting, sealed connector, 50 cm long cable, sealing cap (d) and cover (e) included.
 b) OPZWCONETHEIP68: IP68 ETHERNET extension cable (male/female) for panel mounting, sealed
- connector, 50 cm long cable, sealing cap (d) included.
 c) OPZWCONETHE5MT: IP68 ETHERNET extension cable (male/male) combined with
- OPZWCONETHEIP68, sealed connector, 5 m long cable.

▼ OPZW1ETIP68 - OPZW1ETTCP68 - OPZW1MBTCP68 - OPZW1PNETIO68



IP68 ETHERNET for the following optional protocols: Ethernet/IP, Ethernet TPC/IP, Modbus/TCP, ProfinetIO.

Note: for version "D" the Ethernet connector is not IP68.

▼ RELE6PROD -24V/-115V /-230V



External 8-relay module to manage from 1 to 6 products; 8 relays up to max 115VAC/2A. **Module already included** for mod. 6/14 PRODUCTS.

▼ RELE14PROD



External 8-relay module to manage from 7 to 14 product; to be added to RELE6PROD module; 8 relays up to max. 115VAC/2A. Module already included for mod. 14 PRODUCTS.

▼ RELE5M



External 5-relay module to to increase the capacity of SPDT contacts to 2A/115Vac. Option not available for mod. 6/14 PRODUCTS.

▼ FC



For Load, Unload, 3/6/14 Products: Selector switch for 12 formulas selection. For Base: Selector switch for 12 groups selection by 5 setpoint.

▼ ALI24SPINA1A ALI24SPINA1AJACK



24VDC stabilized power supply input 100-240VAC, 3 m long cable.

▼ ALI24SPINAPRESA



supply, input 100-240 VAC, 3 m long cable, with socket and support for Omega rail.

▼ COLONNAM+STAFFA



Indicator stainless steel stand (Ø 38 mm, h 700 mm) with bracket for platform mounting.

▼ STAFFAINOXWDESK



Stainless steel adjustable bracket for wall mounting (overall dimensions with bracket: 122 x 230 x 250 mm)

▼ STAFFAWDESK

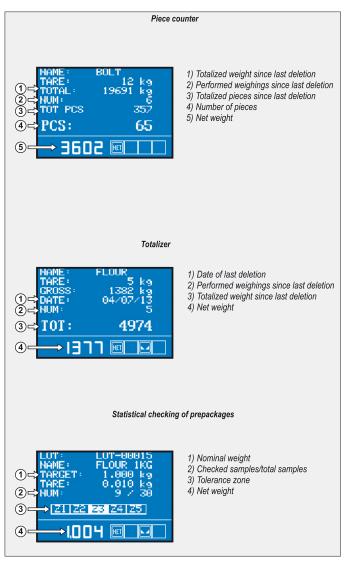


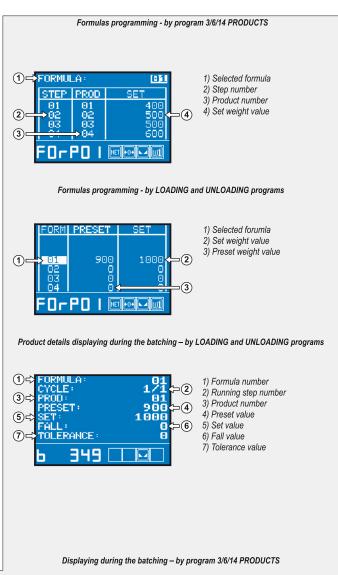
ABS adjustable bracket for column mounting.

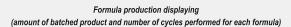
ALTHEN SENSORS & CONTROLS

Examples of screens for: BASE

Examples of screens for: LOAD - UNLOAD - 3/6/14 PRODUCTS









- 1) Date and time of last deletion
- 2) Formulas list
- 3) Selected formula
- A) Batched quantity and number of executed cycles



- Product number and arrow indicating the loading of product
 Product level on the scale
- 3) Formula number
- 4) Running cycle number
- 5) Product number or name
- 6) Gross weight value
- 7) Batching product weight

Consumptions displaying for each product- by program 3/6/14 PRODUCTS



- 1) Date and time of last deletion
- 2) Products list
- 3) Selected product
- 4) Consumption





- 1) Current date and time
- 2) Products list
- 3) Selected product
- 4) Available quantity



5/4 OUTPUT (SETPOINT) - 3/2 INPUT

WDESKG-B Base

Main functions

- 5 setpoints (4 setpoints if Analog Output is present) configurable as normally open or normally closed. The operator can decide the setpoints activation for the net weight value, gross weight value, otherwise for positive weights or for positive and negative weights.
- Setting of hysteresis value for each setpoint.
- 12 groups selection by 5 setpoint from selector switch or contacts (EC/E options).
- Peak holder displaying by closing the Peak contact.
- Net/Gross function by keyboard or external contact.
- Manual adjustment of zero value in case of zero-setting not possible.
- Auto zero function.
- Auto zero-tracking function.
- Manual or automatic totalization
- Piece counter with totalization.
- Statistical checking of prepackages.
- High/low checkweigher display.
- Item database (max 99) with presetted tare and setpoint.
- Settable production lot name.
- USB barcode scanner support to select current item or set lot name.
- Weighings progressive number resettable by user.
- Barcode printing of lot name, item name and progressive number.
- Print of the weight via keyboard or external contact with date and time.

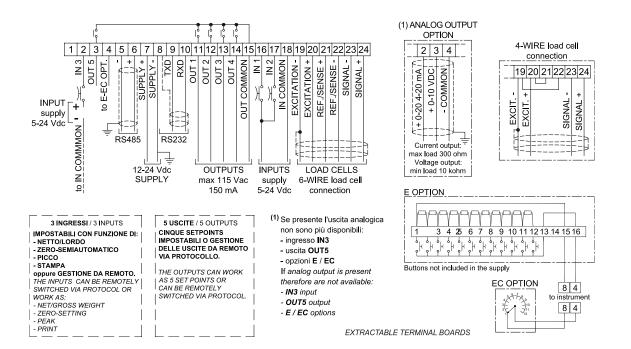
Operation: The inputs can work as: net/gross weight, zero-setting, peak, print or can be remotely read via protocol.

The outputs can works as setpoints or can be remotely switched via protocol.

Weight transmitter approved OIML R61 (Automatic Gravimetric Filling Instruments) according to WELMEC Guide 8.8:2011 (MID).

C € M approvable EN45501-2014/31/UE-OIML R76:2006

- Maximum number of verification scale intervals n=10000
- Minimum input-voltage per VSI 0.2 μV
- Weighing range single range or multi range (max 3) or multi interval (max 3)
- Calibration via keyboard is protected through seals for the access to a setting jumper or installer password
- Semi-automatic zero and tare, predetermined tare funcions.
- Weight subdivisions displaying (1/10 e)
- The following values can be printed from external contact: net/gross weight; tare; predetermined tare; date; time; ID code (if alibi memory is present)





LOADING MONOPRODUCT BATCHING

WDESKG-C Load - 99 Formulas

Main functions

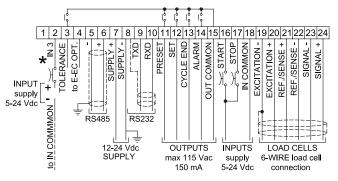
- Memorization of 99 different formulas with name and SET and PRESET values.
- Setting of a only Slow value for all 99 formulas.
- Automatic fall calculation after one or more batching cycles.
- Tolerance value setting for each formula.
- "Tapping" function: It is possible to select the slow-on and slow-off times.
- 12 formula selection from selector switch or external contacts (EC/E options).
- Autotare function after one or more batching cycles.
- It is possible to utilize the Tolerance and Alarm contacts as signals of maximum and minimum.
- Batching start from external contact for only one cycle.
- Batching start via keyboard: it is possible to program the desired batching cycles (max. 9999).
- Calculation of total consumption and consumption of each formula.
- The following values can be printed via the keyboard: constants, formulas, consumption. Automatic printout of batching data.
- In the event of a power failure during batching, the microprocessor can resume batching from the point of interruption.
- Pause of the batching by the keyboard.

Operation: By closing the START contact or by pressing the Start key, the operator or external logic (EC/E options) selects the formula and starts the batching. The instrument verifies that approval contact is closed (if available) the weight is lower than the minimum one; executes the autotare (if enabled). After the delay tare time has elapsed (max 99.9 sec.) it closes the set and preset contacts. When the weight has reached the preset value the relative contact is opened, once it has reached the set value minus the fall value the set contact is opened and after the waiting time (max 999.9 sec.) after the start contact is closed and the weight is stable (if enabled), it memorizes the consumption value and closes the cycle end contact, sending the batching data to the printer. When the weight has reached the minimum weight (unloading phase) and after the safe emptying time has elapsed (max 999.9 sec.) the instrument opens the cycle end contact. If more than one cycle has been programmed, the instrument will continue automatically.

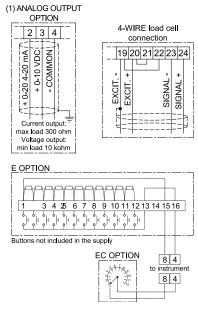
Weight transmitter approved OIML R61 (Automatic Gravimetric Filling Instruments) according to WELMEC Guide 8.8:2011 (MID).

CEM approvable EN45501-2014/31/UE-OIML R76:2006 FOR NON-AUTOMATIC BATCHING

Operation: During the start phase at the stable weight, with weight lower than the minimum weight set, there are two possible operation modes: the storage of the removable container's tare weight or the scale zero-setting within 2% of the maximum weight with \(\mathbb{Z}\) xed container. Once started the batching and reached the Set value, the instrument stops the batching. To move on the unloading phase and to store the weight in the alibi memory with the identification code ID (if presents OPZWALIBI option) the weight must be steady the operator must close the start input or press the Menu button. The instrument closes the end cycle contact to realize the unloading, increases the consumption (if enabled) and performs the printing, if enabled. Once it has reached the minimum weight and has \(\mathbb{Z}\) nished the safe emptying time, it opens the end cycle. At the steady weight condition, wait until the closing of the start input or press the Start button to repeat the batching cycle.



- *
- IN3 input has the following functions:
 SEMI-AUTOMATIC ZERO (default)
- APPROVAL
- NET / GROSS WEIGHT
- (1) If analog output is present therefore are not available:
 - IN3 input
 - TOLERANCE output
 - E / EC options





UN

UNLOADING MONOPRODUCT BATCHING

WDESKG-S Unload - 99 Formulas

Main functions

- Memorization of 99 different formulas with name and SET and PRESET values.
- Setting of a only Slow value for all 99 formulas.
- Automatic fall calculation after one or more batching cycles.
- Tolerance value setting for each formula.
- "Tapping" function: It is possible to select the slow-on and slow-off times.
- 12 formula selection from selector switch or external contacts (EC/E options).
- It is possible to utilize the Alarm/Tolerance contact as signals of maximum or minimum.
- Batching start from external contact for only one cycle.
- Batching start via keyboard: it is possible to program the desired batching cycles (max. 9999).
- Calculation of total consumption and consumption of each formula.
- The following values can be printed via the keyboard: constants, formulas, consumption. Automatic printout of batching data.
- In the event of a power failure during batching, the microprocessor can resume batching from the point of interruption.
- Pause of the batching by the keyboard.
- Automatic loading option if weight is below minimum value after batching.
- Possibility of unloading "big bag" by finishing the batching on next big bag in case of product lower than the programmed quantity.

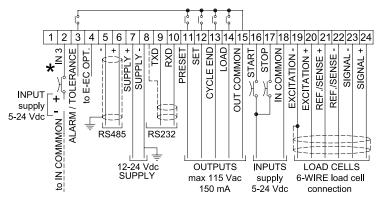
Operation: By closing the START contact or by pressing the Start key, the operator or external logic (EC/E options) selects the formula and starts the batching. The instrument verifies that the approval contact is closed (if enabled), that there is enough weight on scale to perform the batching, displays "0" and then closes the set and preset contacts. The net weight increase is displayed while the weight is extracted. When the weight reaches the preset value the relative contact is opened, and when the set value minus the fall value is reached, the set contact is opened. Once elapsed the waiting time (max 999.9 sec., if enabled in the constants), after the start contact was closed and the weight is stable, the indicator memorizes the consumption a closes the cycle-end contact sending data for printing. The instrument opens the end cycle contact, after the safe emptying time has elapsed, then the instrument prepares to receive a new start or restart automatically if more cycles were programmed from the keyboard.

Weight transmitter approved OIML R61 (Automatic Gravimetric Filling Instruments) according to WELMEC Guide 8.8:2011 (MID).

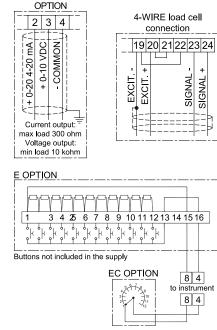
C € M approvable EN45501-2014/31/UE-OIML R76:2006 FOR NON-AUTOMATIC BATCHING

(1) ANALOG OUTPUT

Operation: By closing the START contact or by pressing the Start key, the operator or external logic (EC/E options) selects the formula and starts the batching. The instrument starts the batching and checks that the approval is closed (if enable), that the weight on scale is enough to perform the batching, then closes the set and preset contacts; (the display shows the gross weight decreases). Once reached the Set value, the instrument stops the batching. To stop the batching and to store the weight in the alibi memory with the identification code ID (if presents OPZWALIBI option) the weight must be steady and the operator must close the start input or press the Menu/Enter button. The instrument closes the end cycle contact for the set time, increases the consumption (if enable) and prints if any. At the steady weight condition, wait until the closing of the start input or press the Start button to repeat the batching cycle.



- * IN3 input has the following functions:
 - SEMI-AUTOMATIC ZERO (default)
 - APPROVAL
 - NET / GROSS WEIGHT
 - AUTOMATIC LOADING during batching
- (1) If analog output is present therefore are not available:
 - IN3 input
 - ALARM / TOLERANCE output
 - E / EC options









BATCHING 3 / 6 / 14 PRODUCTS

WDESKG-3-6-14

WDESKG-3 3 Prodcucts - 99 Formulas
WDESKG-6 6 Prodcucts - 99 Formulas
WDESKG-14 14 Prodcucts - 99 Formulas

Mod. 6 PRODUCT includes:

- one 8-relay module mod. RELE6PROD (80 x $160 \times h$ 60 mm), supplied with 12-24VDC supply or 115 VAC or 230 VAC.

Mod. 14 PRODUCT includes:

- one 8-relay module mod. RELE6PROD (80 x 160 x h 60 mm), supplied with 12-24VDC supply or 115 VAC or 230 VAC.
- one 8-relay module mod. RELE14PROD (80 x 120 x h 60 mm).

Main functions

- Memorization of 99 different formulas with name.
- Programming products in a fixed increasing order or to steps 3/6/14, recalling the product in the desired order, repeating several times the same product (if possible).
- Setting of Fall, Slow and Tolerance values for each product.
- Automatic fall value calculation for each product.
- "Tapping" function: It is possible to select the slow-on and slow-off times.
- 12 formula selection from selector switch or external contacts (EC/E options).
- Batching in net weight for each product.
- It is possible to use the Alarm contact as signals of maximum and minimum.
- Batching start from external contact for only one cycle.
- Batching start via keyboard: it is possible to program the desired batching cycles (max. 9999).
- Calculation of total consumption for each product.
- The following values can be printed via the keyboard: constants, formulas, consumption. Automatic printout of batching data.
- In the event of a power failure during batching, the microprocessor can resume batching from the point of interruption.
- Pause of the batching by the keyboard.

Operation: By closing the START contact or by pressing the Start key, the operator or external logic (EC/E options) selects the formula and starts the batching. The instrument verifies that the approval contact is closed (if enabled), the weight is lower than the minimum one, executes the autotare (if enabled), then closes the contact of the first product set. Once reached the set value minus the Fall value, minus the Slow value, it closes its Slow contatct. Once reached the set value minus the fall value, it opens the product contact and Slow contact and when the waiting time has elapsed (max 999,9 sec.), after the start contact has been closed (if enabled) and the weight is stable(if enabled), memorizes the consumption (if available) and closes the contact of another product if set in formula. Otherwise it closes the end cycle contact sending the data to the printer. When the weight has reached the minimum weight (unloading phase) and after the safe emptying time has elapsed (max 999.9 sec.) the instrument reopens the cycle end contact. If more than one cycle has been programmed, the instrument will continue automatically or getting ready to receive a new start.

Weight transmitter approved OIML R61 (Automatic Gravimetric Filling Instruments) according to WELMEC Guide 8.8:2011 (MID).

C € M approvable EN45501-2014/31/UE-OIML R76:2006

FOR NON-AUTOMATIC BATCHING

Operation: During the start phase at the stable weight, with weight lower than the minimum weight set, there are two possible operation modes: the storage of the removable container's tare weight or the scale zero-setting within 2% of the maximum weight with fixed container. Once started the batching and reached the Set value about the first product, the instrument stops the batching. To move to the following product, to increase the consumption, to store the value in the alibi memory with the identification code ID (if presents OPZWALIBI option) and to send data to the printer (if enable), the weight must be steady and the operator must close the start input or press the Menu/Enter button. This sequence is repeated for all the products by order of the operator, through the closure of the start input or the Menu/Enter button, until the final product. The instrument closes the end cycle to realize the unloading. Once it has reached the minimum weight and has finished the safe emptying time, it opens the end cycle. At the steady weight condition, wait until the closing of the start input or press the Start button to repeat the batching cycle.



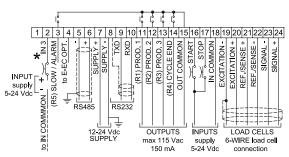
BATCHING 3 / 6 / 14 PRODUCTS

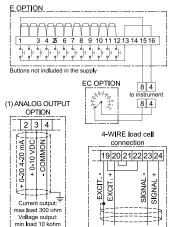
3 PRODOTTI / PRODUCTS

- * IN3 input has the following functions:
 - SEMI-AUTOMATIC ZERO
 - APPROVAL (default) - NET / GROSS WEIGHT

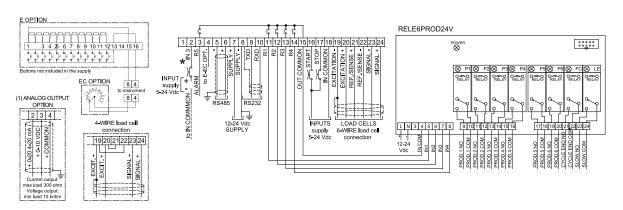
(1) If analog output is present therefore

- are not available.
- IN3 input SLOW / ALARM output
- E / EC options

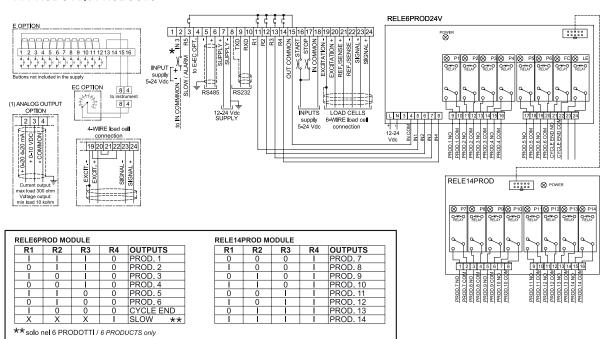




6 PRODOTTI / PRODUCTS



14 PRODOTTI / PRODUCTS



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The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification.

Althen stands for pioneering measurement and custom sensor solutions. In addition we offer services such as calibration, design & engineering, training and renting of measurement equipment.