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12 PRELIMINARY CHECK
WARNING
Check the correct operation of the lock device, according to the following procedure:
1 - Take a graduated receiver
2 - Begin dispensing into the receiver
3 - Keeping the lever open, make
4 - Repeat the same operations with a receiver with a capacity of 20 litres
5 - Repeat the same operations with a receiver with a capacity of 5 cm (2 inches)
7 - If the shut-off device does not begin to operate, check the minimum flow rate of the system or replace the nozzle.

15.1.2 RESETTING THE RESET TOTAL
The reset total resetting operation can only be performed after resetting the partial register. The reset total can be reset by pressing the reset key at length while the display screen shows reset total as on the following display page. Schematically, the steps to be taken are:
1 - Wait for the display to show normal standby display page (with total only displayed)
2 - Press the reset key quickly
3 - The meter starts to reset the partial
4 - While the display page showing the reset total is displayed, press the reset key again for at least 2 second

16.4.2 IN FIELD CALIBRATION
FOREWORD
This procedure calls for the fluid to be dispensed into a graduated sample container in real operating conditions (flow rate, viscosity, etc.) requiring maximum precision.
ATTENTION
For correct METER calibration, it's most important to:
1 - When the Factor Factory is confirmed, the old User factor is deleted from the memory
2 - Use a precise Sample Container with a capacity of not less than 5 litres, featuring an accurate graduated indicator.
3 - Ensure calibration dispensing is done at a constant flow rate equivalent to that of normal use, until the container is full.
4 - Do not reduce the flow rate to reach the graduated area of the container during the final dispensing stage (the correct method during the final stages of sample container filling consists in making short top-ups of normal operating flow rate).

17 METER CONFIGURATION
The METER feature a menu with which the user can select the main measurement unit, Quarts (Qts), Pints (Pts), Litres (L), Gallons (Gal). The combination of the unit of measurement of the Partial register and that of the Totals is predefined according to the following table:
Combination no. Unit of Measurement partial Register Unit of Measurement Totals Register
1 Litres (L) Litres (L)
2 Gallons (Gal) Gallons (Gal)
3 Quarts (Qts) Gallons (Gal)
4 Pints (Pts) Gallons (Gal)
To choose between the 4 available combinations:
1 Wait for the METER to go to Standby
2 then press the FLOWRATE and RESET keys together. Keep these pressed until the word "UNIT" appears on the screen together with the unit of measurement set at that time (in this example Litres / Litres)

1 DECLARATION CE OF CONFORMITY

The undersigned, PIUSI S.p.A. Via Pacinotti 5/A - 20090 Sesto San Giovanni (MI) - Italy HEREBY STATES under its own responsibility, that the equipment described below: Description: Dispenser nozzle featuring integrated meter Model: SB325 X M Serial number: refer to Lot Number shown on CE plate affixed to product Year of manufacture: refer to the year of production shown on the CE plate affixed to the product is in conformity with the legal provisions indicated in the directives: • Electromagnetic Compatibility Directive 2014/53/EU The documentation is at the disposal of the competent authority following motivated request at Piusi S.p.A. and upon request sent to the email address: doc.lev@piusi.com. The person authorized to compile the technical file and draw up the declaration is Otto Varini as legal representative.

2 GENERAL WARNINGS

Warnings To ensure operator safety and to protect the dispensing system from potential damage, workers must be fully acquainted with this instruction manual before attempting to operate the dispensing system. The following symbols will be used throughout this manual to highlight safety information and precautions of particular importance. ATTENTION This symbol indicates safe working practices for operators and/or potentially exposed persons. WARNING This symbol indicates that there is a risk of damage to the equipment and/or its components. NOTE This symbol indicates useful information. Manual preservation This manual should be complete and legible throughout. It should remain available to end users and specialist installation and maintenance technicians for consultation at any time. Reproduction rights All reproduction rights are reserved by Piusi S.p.A. The text cannot be reprinted without the written permission of Piusi S.p.A. THIS MANUAL IS THE PROPERTY OF Piusi S.p.A. ANY REPRODUCTION, EVEN PARTIAL, IS FORBIDDEN. This manual belongs to Piusi S.p.A., which is the sole proprietor of all rights indicated by applicable laws, including, by way of example, laws on copyrights. All the rights deriving from such laws are reserved to Piusi S.p.A.: the reproduction, including partial, of this manual, its publication, change, transcription and notification to the public, transmission, including using remote communication media, placing at disposal of the public, distribution, marketing in any form, translation and/or processing, loan and any other activity reserved by the law to Piusi S.p.A.

6 TO KNOW SB325 X M

FOREWORD Dispenser nozzle featuring integrated meter, made of non-conductive plastic and designed for use with water/area solution (AUS32/EF). The meter integrated with the SB325 X M nozzle uses a turbine measuring system and interfaces with the user by means of the LCD display. SB325 X M is also compatible with water and food liquids.

6.1 INTENDED USE Water/area solution - dEF - Aus 32, according to EN 70070, water, wind sprayer to the product technical sheets

7 PACKAGING The nozzles are supplied packed in cardboard boxes, with label showing following details: 1- Packlist contents 2- Weight 3- Product description

13 INITIAL START UP

FOREWORD Only start dispensing after making sure that assembly and installation have been correctly performed. ATTENTION It is a good practice to only operate the nozzle after making sure the sprout has been properly inserted in the mouth of the tank to be filled. NOTE When using for the first time and every time the nozzle is used, following the connection of the supply hose, gently operate the lever to enable the air to escape from the circuit, until normal operation is achieved. ATTENTION Check the correct operation of the automatic stop device once the tank is full. The faulty operation of this device could cause the spill of liquids that are hazardous for people and the environment.

14 WHAT IT LOOKS LIKE

FOREWORD The "LCD" of the METER features two numerical registers and various indications displayed to the user only when the applicable function so requires: 1- Partial register (5 figures with moving comma FROM 0.1 to 99999) indicating the volume dispensed since the reset button was last pressed 2- Indication of battery charge 3- Indication of calibration mode 4- Totals register (6 figures with moving comma FROM 0.01 to 999999) that can indicate two types of Total: 41. General Total that cannot be reset (TOTAL) 42. Resettable total (Reset TOTAL) 5- Indication of total multiplication factor (x10 / x100) 6- Indication of type of total (TOTAL / Reset TOTAL) 7- Indication of unit of measurement of Totals: L-Litres Gal-Gallons 8- Indication of Flow Rate mode 9- Indication of unit of measurement of Partial: Qts-Quarts Pts-Pints L-Litres Gal-Gallons

14.1 USER BUTTONS

FOREWORD The METER features two buttons (RESET and FLOWRATE) which individually perform two main functions and, together, other secondary functions. MAIN FUNCTIONS PERFORMED SECONDARY FUNCTIONS LEGEND

14.2 BATTERY HOUSING

NOTE METER is powered by two 15V standard type batteries (size AAA). The battery housing is easily accessible and is closed by a cover with seal. Everything is easily removable by taking off the rubber protection around the nozzle and loosening the screws which secure the cover.

15 DAILY USE

FOREWORD The only operations that need to be done for daily use are partial and/or resettable total register resetting. The user should use only the dispensing system of METER. Occasionally the meter may need to be configured or calibrated. To do so, please refer to the relevant chapters. NOTE 6 digits are available for Totals, plus two icons x10 / x100. The increment sequence is the following: 0.0 - 99999.9 - 999999.9 - 100000.0 - 999999.9 - 10 - 100000.0 - 100 - 999999.9 - 1000

15.1 DISPENSING IN NORMAL MODE

FOREWORD Normal mode is the standard dispensing. While the count is made, the partial and resettable total are displayed at the same time (reset total). WARNING Should one of the keys be accidentally pressed during dispensing, this will have no effect. STAND BY A few seconds after dispensing has ended, on the lower register, the display switches from resettable total to general total: the word reset above the word total disappears, and the reset total is replaced by the general total. This situation is called standby and remains stable until the user operates the METER again.

15.1.1 PARTIAL RESET (NORMAL MODE)

The partial register can be reset by pressing the reset key when the meter is in standby, meaning when the display screen shows the word "TOTAL". After pressing the reset key during reset, the display screen first of all shows the lit-up digits and then all the digits that are not lit up.

At the end of the process, a display page is first of all shown with the reset partial and the reset total. and, after a few moments, the reset total is replaced by the non resettable Total.

15.2 DISPENSING WITH FLOW RATE MODE DISPLAY

It is possible to dispense fluid, displaying at the same time: 1 - the dispensed partial 2 - the Flow Rate in [Partial Unit / minute] as shown on the following display page. Procedure for entering this mode: 1 - wait for the Remote Display to go to Standby, meaning the display screen shows Total only 2 - quickly press the FLOWRATE key. 3 - Start dispensing The flow rate is updated every 0.7 seconds. Consequently, the display could be relatively unstable at lower flow rates. The higher the flow rate, the more stable the displayed value.

ATTENTION The flow rate is measured with reference to the unit of measurement of the Partial. For this reason, in case of the unit of measurement of the Partial and Total being different, as in the example shown below, it should be remembered that the indicated flow rate relates to the unit of measurement of the partial. In the example shown, the flow rate is expressed in Qts/min.

ATTENTION The word "Cal" remaining alongside the flow rate refers to the register of the Totals (Reset or NON Reset) which are again displayed when exiting from the flow rate reading mode. To return to "Normal" mode, press the FLOWRATE key again. If one of the two keys RESET or FLOWRATE is accidentally pressed during the count, this will have no effect. Even though in this mode they are not displayed, both the Reset Total and the General Total (Total) increase. Their value can be checked after dispensing has terminated, returning to "Normal" mode, by quickly pressing FLOWRATE.

15.2.1 PARTIAL RESET (FLOW RATE MODE)

To reset the Partial Register, finish dispensing and wait for the Remote Display to show a Flow Rate of 0.0 as indicated in the illustration, then quickly press RESET

16 CALIBRATION

16.1 WHY CALIBRATE? When working in extreme operating or flow conditions, (close to minimum or maximum acceptable range values), it may be a good idea to calibrate in the field, in real conditions in which the SB325 X M has to work. 16.2 DEFINITIONS Multiplication factor applied by the system to the electrical pulses received, to transform these into measured fluid units.

16.3 KEY

LEGEND LONG PRES-SURE OF FLOW-RATE KEY short pressure of reset key long pressure of reset key

16.4 CALIBRATION MODE

Why calibrate? 1 - Display the currently used calibration factor. 2 - Return to factory calibration (Factory K Factor) after a previous calibration by the user. 3 - Change the calibration factor using one of the two previously indicated procedures. FOREWORD Two procedures are available for changing the Calibration Factor: In-Field Calibration, performed by means of a dispensing operation Direct Calibration, performed by directly changing the calibration factor

16.4.1 DISPLAY OF CURRENT CALIBRATION FACTOR AND RESTORING FACTOR FACTOR

By pressing the FLOWRATE key while the operator is in Standby, the display page appears showing the current calibration factor used. If no calibration has ever been performed, or the factory setting has been restored after previous calibrations, the following display page will appear: The word "Fact" abbreviating for "factory" shows that the factory calibration factor is being used. If on the other hand, calibrations have been made by the user, the display page will appear showing the currently used calibration factor (in our example 0.998). The word "User" indicates a calibration factor set by the user is being used.

ATTENTION When the Factory Factor is confirmed, the old User Factor is deleted from the memory

3 SAFETY INSTRUCTIONS

ATTENTION Mains - preliminary checks before use You must avoid any contact between the electrical power supply and the fluid that needs to be FILTERED. Maintenance control Before any checks or maintenance work are carried out, disconnect the power source. Use equipment only in well ventilated area. FIRE AND EXPLOSION When flammable fluids are present in the work area, do not plug or unplug power cords or turn lights on or off when flammable gases are present. Ground all equipment in the work area. Stop operation immediately if static sparking occurs or if you feel a shock. Do not use equipment until you identify and correct the problem. Keep a working fire extinguisher in the work area. ELECTRIC SHOCK This equipment must be grounded. Improper grounding, setup or usage of the power can cause electric shock. Turn off and disconnect power cord before servicing equipment. Connect only to a grounded electrical outlet. Use only 3 wire extension cords in accordance with local electrical codes. Extension cords should have a ground lead. Never touch the electric plug of socket with wet hands. Do not plug the dispensing system or of the power connection cord or other important parts of the apparatus are damaged, such as the inlet outlet plumbing, dispensing nozzle or safety devices. Replace damaged components before operation. Before each use check that the power connection cord and power plug are not damaged. If damaged, have power connection cord replaced before use by a qualified electrician. The electrical connection between the plug and socket must be kept well away from water. Unsuitable extension leads can be hazardous, in accordance with current regulations only extension cords that are labelled for outdoor use and have a sufficient conduction path should be used outdoors. For safety reasons, we recommend that, in principle, the equipment be used only with a earth-leakage circuit breaker (max. 30 mA).

10 USE MODALITY

10.1 MECHANICAL CHARACTERISTICS The main feature of these nozzles is that they are easy to use. Two operating modes are available: Dispense by operating the nozzle lever. To interrupt dispensing manually, release the lever.

1 - Normal Mode 2 - Flow rate Mode Note The meter features a non-volatile memory for storing the dispensing data. Do not link or core bond hoses or use hoses to pull equipment. Keep children and animals away from work area. Comply with all applicable safety regulations. Equipment surfaces and fluid that is heated can become very hot during operation. To avoid severe burns do not touch hot fluid or equipment.

10.2 ELECTRONIC CHARACTERISTICS The user can choose between two different operating modes: Normal Mode. Mode with display of Partial and Total dispensed quantities - Flow Rate Mode. Mode with display of Flow Rate, as well as Partial dispensed quantity. The meter features a non-volatile memory for storing the dispensing data. Do not link or core bond hoses or use hoses to pull equipment. Keep children and animals away from work area. Comply with all applicable safety regulations. Equipment surfaces and fluid that is heated can become very hot during operation. To avoid severe burns do not touch hot fluid or equipment.

11 MISFILLING (optional)

PREMISE Refuelling with the nozzle equipped with "magnet switch" is only possible in combination with the "magnet adapter", so misfilling into tanks is made impossible. OPERATION The "magnet switch" is a fixed magnetic field within the filler necks of the nozzle. This opens the magnet switch in the spout, so it is only possible to dispense from the tank where the magnet adapter is installed. Nozzles equipped with "magnet switch" work only in combination with the "magnet adapter". The "magnet adapter" is an optional to be bought separately.

4 GENERAL SAFETY RULES

Essential protective equipment characteristics ATTENTION Wear protective equipment that is suited to the operations that need to be performed; resistant to cleaning products. It is a good practice to consider the instructions manual as an integral part of the purchased product. Always keep the instructions manual nearby for protection.

PIUSI Fluid Handling Innovation SUZZARABLU AUTOMATIC NOZZLE METER

SB325\_X M
The METER feature a menu with which the user can select the main measurement unit, Quarts (Qts), Pints (Pts), Litres (L), Gallons (Gal). The combination of the unit of measurement of the Partial register and that of the Totals is predefined according to the following table:
Combination no. Unit of Measurement partial Register Unit of Measurement Totals Register
1 Litres (L) Litres (L)
2 Gallons (Gal) Gallons (Gal)
3 Quarts (Qts) Gallons (Gal)
4 Pints (Pts) Gallons (Gal)

To choose between the 4 available combinations:
1 Wait for the METER to go to Standby
2 then press the FLOWRATE and RESET keys together. Keep these pressed until the word "UNIT" appears on the screen together with the unit of measurement set at that time (in this example Litres / Litres)



ATTENTION The Reset Total and Total registers will be automatically changed to the new unit of measurement. NO new calibration is required after changing the Unit of Measurement.

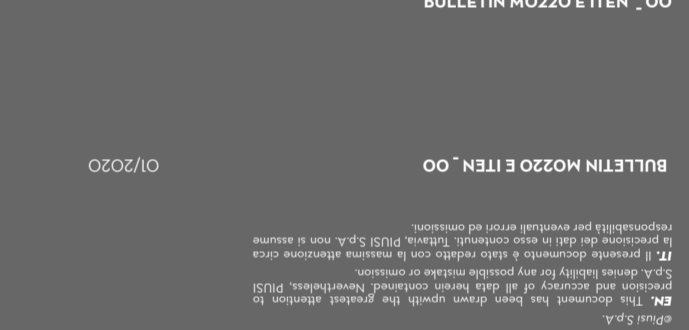
18 MAINTENANCE BATTERY REPLACEMENT WARNING METER should be installed in a position allowing the batteries to be replaced without removing it from the system.

METER features two low-battery alarm levels. 1 - When the battery charge falls below the first level on the LCD, the fixed battery symbol appears. 2 - If METER operation continues without changing the batteries, the second battery alarm level will be reached which will prevent operation. In this condition the battery icon starts to flash and is the only one to remain visible on the LCD.

To change the batteries, with reference to the exploded diagram positions, proceed as follows: 1 - Unscrew the nut. 2 - Loosen the screw (1). 3 - Remove the cover (2) right side. 4 - Change the batteries. Assemble everything back on the seal around the cover housing and take care to place it.

ATTENTION DO NOT OVERTIGHTEN THE SCREW

Manuale d'uso, manutenzione e IT calibrazione. Use, calibration and maintenance EN manual. BULLETIN M0220 E ITEM 00



The METER will display the same Reset Total, the same Total and the same Partial indicated before the batteries were changed. After changing the batteries, the meter does not need calibrating again. Only one operation is necessary to clean the METER. After removing METER from the plant where it was built in, any residual elements can be removed by washing or mechanically handling. If this operation does not restore a smooth rotation of the turbine, it will have to be replaced. Do not discard the old batteries in the environment. Refer to local disposal regulations. Do not use compressed air onto the turbine in order to avoid its damage because of an excessive rotation. Periodically check the correct operation of the automatic stop device if fitted, it is best to periodically check the filter and clean it every 1000 litres of transfer.

Maintenance control ATTENTION Do not discard the old batteries in the environment. Refer to local disposal regulations. Do not use compressed air onto the turbine in order to avoid its damage because of an excessive rotation. Periodically check the correct operation of the automatic stop device if fitted, it is best to periodically check the filter and clean it every 1000 litres of transfer. Before any checks or maintenance work are carried out, disconnect the power source. In the event of damage to air channel or spout, see diagram in chapter 23 for replacement.

19.1 MECHANICAL MALFUNCTIONS

FOREWORD The possible causes of malfunction are mainly attributable to three factors: Nozzle dirty in inner hole of lip and tip of spout. Corrective action: submerge spout in A2-B Blue or demineralised water to eliminate the crystallisation. Operating pressure of liquid to be dispensed below 0.5 Bar or above 3.5 Bar. Flow rate too low or too high. Correct and regular maintenance of the nozzle and of the system to which it is connected prevents malfunctions and possible accidental spills of hazardous liquids.

19.2 ELECTRONIC MALFUNCTIONS

Table with 3 columns: Problem, Possible cause, Remedial Action. Includes rows for LCD no indication, Not enough measurement precision, and Reduced or zero flow rate.

20 TECHNICAL DATA

Table with 3 columns: Measurement System, Flow Rate (Range), Low Flow. Lists technical specifications for the meter.



