

INDEX

DECLARATION OF CONFORMITY, GENERAL WARNINGS, SAFETY INSTRUCTIONS, FIRST AID RULES, BECOMING ACQUAINTED WITH NEXT/2, OPERATING MODES, CALIBRATION, PARTIAL RESET, DIRECT MODIFICATION OF K FACTOR, METER CONFIGURATION, MAINTENANCE, MALFUNCTIONS, DISPOSAL, TECHNICAL DATA, EXPLODED VIEWS AND OVERALL DIMENSIONS

DECLARATION OF CONFORMITY

The undersigned: PIUSI Sp.A via Piacinotti 16/A, z.Rangarino 46029 Suzzara - Mantova - Italy

HEREBY STATES under its own responsibility, that the equipment described below: Description: METER Model: NEXT/2 Serial number: refer to Lot Number shown on CE plate affixed to product...

The documentation is at the disposal of the competent authority following motivated request at Piusi S.p.A. or following request sent to the email address: doc_tec@piusi.com

Suzzara, 01/07/2012 Otto Varini legal representative.

GENERAL WARNINGS

Important precautions: To ensure operator safety and to protect the pump from potential damage, workers must be fully acquainted with this instruction manual before performing any operation.

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: 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.

SAFETY INSTRUCTIONS

C.1 SAFETY WARNINGS: Mains - preliminary checks before installation: Before any checks or maintenance work are carried out, disconnect the power supply.

Fire and explosion control: When flammable fluids are present in the work area, such as gasoline and windshield wiper fluid, be aware that flammable fumes can ignite or explode.

Toxic fluid or fumes hazard: Do not operate the unit when fatigued or under the influence of drugs or alcohol. Do not leave the work area while equipment is energized or under pressure.

First aid rules: In the event of problems developing following EYE/SKIN CONTACT, INHALATION or INGESTION of the treated fluid handled, please refer to the SAFETY DATA SHEET of the fluid handled.

Smoking prohibited: When operating the dispensing system and in particular during refuelling, do not smoke and do not use open flame.

Disposal: If the system needs to be disposed, the parts which make it up must be delivered to companies that specialize in the recycling and disposal of industrial waste.

GENERAL SAFETY RULES

Essential protective equipment that is suited to the operations that need to be performed, resistant to cleaning products. Wear the following personal protective equipment during handling and installation: safety shoes, close-fitting clothing, protective gloves, safety goggles, instruction manual

PACKAGING

Next comes packed in a cardboard box with a label indicating the following data: 1- contents of the package, 2- weight of the contents, 3- description of the product

PACKAGE CONTENTS/PRE-INSPECTION

To open the packaging, use a pair of scissors or a cutter, being careful not to damage the meter or its component. In the event that one or more of the components described below are missing from inside the package, please contact Piusi inc technical support.

BECOMING ACQUAINTED WITH NEXT/2

The manufacturer accepts no liability for malfunctions or damages to people or properties arising from the use of the product other than that specified in the user manual. The fluid, by flowing through the appliance, rotates the gears which, during their rotation, transfer "volume units" of fluid.

The meter features a non-volatile memory for storing the dispensing data, even in the event of a complete power break for long periods. The measurement chamber is located in the lower part of the instrument. It features a threaded inlet and outlet.

COMPATIBLE LIQUIDS

Main components: 1 LCD display, 2 Reset Button, 3 Measurement chamber, 4 Cal Button, 5 Battery housing. COMPATIBLE LIQUIDS: Diesel



DISPLAY LCD

The "LCD" of the METER features two numerical registers and various indications displayed on the user only when the applicable function so requires. Partial register (5 figures with moving comma FROM 0.1 to 99999) indicating the volume dispensed since the reset button was last pressed.



USERS BUTTONS

The METER features two buttons (RESET and CAL) which individually perform two main functions and, together, other secondary functions. MAIN FUNCTIONS PERFORMED BY THE METER: Used together, the two keys permit entering configuration mode where the desired unit of measurement can be set.

OPERATING MODES

The user can choose between two different operating modes: OPERATING MODES: The meter features a non-volatile memory for storing the dispensing data, even in the event of a complete power break for long periods.

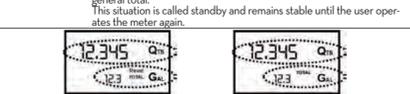
INSTALLATION

The METER features a 1/2 inch inlet and outlet, threaded and perpendicular, and has been designed to be installed in any position, both as fixed in-line installation and as moving installation on a dispensing nozzle.

DAILY USE

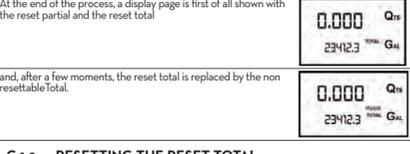
The only operations that need to be done for daily use are partial and/or resettable total register resetting. The user should use only the dispensing system of meter. Occasionally the meter may need to be configured or calibrated. To do so, please refer to the relevant chapters.

Normal mode is the standard dispensing. While the count is made, the partial and resettable total are displayed at the same time (reset total). Should one of the keys be accidentally pressed during dispensing, this will have no effect.



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".



RESETTING THE RESET TOTAL

The reset total resetting operation can only be performed after resetting the partial register. The reset total can in fact be reset by pressing the reset key at length while the display screen shows reset total as on the following display page.

DISPENSING WITH FLOW RATE MODE DISPLAY

It is possible to dispense fluids, displaying at the same time: 1 the dispensed partial, 2 the flow rate in (Partial Unit / minute) as shown on the following display page.

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.

The word "Gal" 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.

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.

CALIBRATION

When operating close to minimum use or flow rate conditions (close to minimum or maximum acceptable values), an on-the-spot calibration may be required to suit the real conditions in which the Meter is required to operate.

DISPLAY OF CURRENT CALIBRATION FACTOR AND RESTORING FACTORY FACTOR

By pressing the CAL key while the appliance 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 flow chart alongside shows the switchover logic from one display page to another. In this condition, the Reset key permits switching from User factor to Factory factor.

IN FIELD CALIBRATION

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.

IN-FIELD CALIBRATION PROCEDURE

1 NONE METER in Standby. 2 LONG CAL key keying: The Meter enters calibration mode, shows "CAL" and displays the calibration factor in use instead of partial. The words "Fact" and "User" indicate which of the two factors (factory or user) is currently being used.

3 DISPENSING INTO SAMPLE CONTAINER: Without pressing any key, start dispensing into the sample container.

4 SHORT/RESET key keying: The Meter is informed that the calibration dispensing operation is finished. Before performing this operation, make sure the INDICATED value is the same as the REAL value.

5 SHORT/RESET key keying: The Meter stores the new work calibration factor and is ready to begin dispensing using the USER K FACTOR that has just been calculated.

6 LONG RESET key keying: The Meter calculates the new USER K FACTOR; this calculation could require a few seconds, depending on the correction to be made.

7 NO OPERATION: At the end of the calculation, the new USER K FACTOR is shown for a few seconds, after which the rest cycle is repeated to finally achieve standby condition.

8 NO OPERATION: The Meter stores the new work calibration factor and is ready to begin dispensing using the USER K FACTOR that has just been calculated.

DIRECT MODIFICATION OF K FACTOR

If normal operation shows a mean percentage error, this can be corrected by applying to the currently used calibration factor a correction of the same percentage. In this case, the percentage correction of the USER K FACTOR must be calculated by the operator in the following way:

New cal. Factor = Old Cal Factor * (100 - %E) / 100

Example: Error percentage found: -6% -0.9% CURRENT calibration factor: 1.000 New USER K FACTOR: 1.000 * [(100 - (-0.9))/100] = 1.000 * [(100 + 0.9)/100] = 1.000 * 1.009 = 1.009

1 NONE METER in Standby. 2 LONG CAL KEY KEYING: Meter enters calibration mode, shows "CAL" and displays the calibration factor being used instead of the partial. The words "Fact" and "User" indicate which of the two factors (factory or user) is currently being used.

3 LONG RESET KEY KEYING: The Meter shows "CAL" and the zero partial total. Meter is ready to perform in-field calibration by dispensing - see previous paragraph.

4 LONG RESET KEY KEYING: We now go on to Direct change of the calibration factor: the word "Direct" appears together with the Currently Used calibration factor. In the bottom left part of the display, an arrow appears (upwards or downwards) defining the direction (increase or decrease) of change of the displayed value when subsequent operations 5 or 6 are performed.

5 SHORT/RESET KEY KEYING: Changes the direction of the arrow. The operation can be repeated to alternate the direction of the arrow.

6 NO OPERATION: At the end of the calculation, the new USER K FACTOR is shown for a few seconds, after which the rest cycle is repeated to finally achieve standby condition.

METER CONFIGURATION

The METER features a menu with which the user can select the main measurement unit, Quarts (Qts), Pints (Pnts), Litres (Ltr), 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:

Table with 3 columns: Combination no., Unit of Measurement Partial Register, Unit of Measurement Total Register. Rows include combinations like Litres (L), Gallons (Gal), Quarts (Qts), Pints (Pts).

To choose between the 4 available combinations: Wait for the METER to go to Standby. Then press the CAL 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).

By pressing the CAL key at length, the new cycle will be stored; the METER will pass through the start settings and will then be ready to dispense in the set units.

MAINTENANCE

BATTERY REPLACEMENT WARNING: Use 2x1.5 V alkaline batteries size AAA. 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. In this condition, Meter continues to operate correctly, but the fixed icon warns the user that it is ADVISABLE to change the batteries.

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.

CLEANING

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 and substituting, every time there is a power break, the METER will start again and use the same calibration factor used when the break occurred. The meter does not then need recalibrating again.

Always make sure the liquid has been drained from the meter before cleaning. Do not discard the old batteries in the environment. Refer to local disposal regulations.

Only one of the two gears features magnets. This must be fitted to the meter before closing the cover (see drawing). Once the gear has been fitted, the magnets must be visible before closing the cover.

MALFUNCTIONS

Table with 3 columns: Problem, Possible cause, Remedial Action. Rows include LCD indications dull, Wrong K FACTOR, Meter works out of flow rate nominal range, Incorrect installation of gears.

DISPOSAL

If the system needs to be disposed, the parts which make it up must be delivered to companies that specialize in the recycling and disposal of industrial waste. The packaging consists of biodegradable cardboard which can be delivered to companies for normal recycling of cellulose.

Disposing of electric and electronic components: European Directive 2002/96/EC requires that all equipment marked with this symbol on the product and/or packaging not be disposed of together with non-differentiated urban waste.



Use, maintenance and calibration manual. Manuale di uso, manutenzione e calibrazione. BULLETIN MOT138 ITEN_00