

ENGLISH (Translated from Italian)

INDEX

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DECLARATION OF CONFORMITY

The undersigned: PIUSI S.p.A. Via Piacentini 16/A 21, Rangavino 46029 Suzara - (MN) - Italy. Hereby states under its own responsibility that the equipment described below...

GENERAL WARNINGS

Attention: 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. Symbols used in the manual: Attention, Warning, Prohibited, Reproduction rights.

SAFETY INSTRUCTIONS

3.1 SAFETY WARNINGS: Main components: K24 Meter, K24 Pulsar. 3.2 FIRST AID RULES: Please refer to the safety data sheet for the product. 3.3 GENERAL SAFETY RULES: Wear protective equipment that is suited to the operations that need to be performed.

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3.3 GENERAL SAFETY RULES: Wear protective equipment that is suited to the operations that need to be performed. Personal protective equipment that must be worn: Safety shoes, Close-fitting clothing, Protective gloves, Safety goggles, Instruction manual.

3.4 PACKAGING: K24 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

FOREWORD: To open the packaging, use a pair of scissors or a cutter, being careful not to damage the dispensing system or its components. NOTE: In the event that one or more of the components described below are missing from inside the package, please contact Plusi in technical support.

BECOMING ACQUAINTED WITH K24

4.1 COMPATIBLE LIQUIDS: The turbine is placed inside a hole through the body of k24, fitted with M-M threaded inlet and outlet. The supplied F-F bushing enables several combinations of the k24 HAS 2 RUBBER PROTECTIONS, DESIGNED TO ACT AS GASKETS TOO.

4.2 DISPLAY LCD: The "LCD" of the METER features two numerical registers and various indications displayed to the user only when the applicable function is required. 4.3 DISPLAY POSITIONING (METER VERSION ONLY): The square shape of the K24 body allows the card to be rotated in its housing, thus ensuring great versatility in positioning.

4.4 USERS BUTTONS: The METER features two buttons (RESET and CAL) which individually perform two main functions and, together, other secondary functions. 4.5 OPERATING MODES: The user can choose between two different operating modes: 1-Normal Mode, 2- Flow rate Mode.

4.6 CALIBRATION: When operating close to extreme 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 K24 is required to operate.

4.7 MAINTENANCE: Use 2x1.5 V alkaline batteries size AAA. K24 should be installed in a position allowing the batteries to be replaced without removing it from the system.

4.8 MALFUNCTIONS: Problem: LCD no indication. Possible cause: Bad battery contact, Wrong K FACTOR. Remedial Action: Check battery contacts, Check the K FACTOR.

4.9 DEMOLITION AND 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 and, in particular: 10.1 MAINTENANCE: Use 2x1.5 V alkaline batteries size AAA.

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5.1 SAFETY WARNINGS: Attention: When metering flammable liquids, observe precautions against fire or explosion. Do not meter in the presence of any source of ignition including running or hot engines, lighted cigarettes, gas or electric heaters.

5.2 FIRST AID RULES: Please refer to the safety data sheet for the product. 5.3 GENERAL SAFETY RULES: Wear protective equipment that is suited to the operations that need to be performed.

5.4 PACKAGING: K24 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.

5.5 PACKAGE CONTENTS/PRE-INSPECTION: To open the packaging, use a pair of scissors or a cutter, being careful not to damage the dispensing system or its components. NOTE: In the event that one or more of the components described below are missing from inside the package, please contact Plusi in technical support.

5.6 BECOMING ACQUAINTED WITH K24: Electronic digital meter featuring a turbine measurement system, designed for precise measurement of low viscosity fluids. K24 is available in 2 versions: 1- METER - with LCD display and calibration buttons, 2- PULSER - single-channel impulse, connectable with a remote display.

5.7 COMPATIBLE LIQUIDS: The turbine is placed inside a hole through the body of k24, fitted with M-M threaded inlet and outlet. The supplied F-F bushing enables several combinations of the k24 HAS 2 RUBBER PROTECTIONS, DESIGNED TO ACT AS GASKETS TOO.

5.8 DISPLAY LCD: The "LCD" of the METER features two numerical registers and various indications displayed to the user only when the applicable function is required. 5.9 DISPLAY POSITIONING (METER VERSION ONLY): The square shape of the K24 body allows the card to be rotated in its housing, thus ensuring great versatility in positioning.

5.10 USERS BUTTONS: The METER features two buttons (RESET and CAL) which individually perform two main functions and, together, other secondary functions. 5.11 OPERATING MODES: The user can choose between two different operating modes: 1-Normal Mode, 2- Flow rate Mode.

5.12 CALIBRATION: When operating close to extreme 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 K24 is required to operate.

5.13 MAINTENANCE: Use 2x1.5 V alkaline batteries size AAA. K24 should be installed in a position allowing the batteries to be replaced without removing it from the system.

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6.1 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.

6.2 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".

6.3 CALIBRATION: Multiplication factor applied by the system to the electrical pulses received to transform these into measured fluid units. Factory-set default factor: It is equal to 1.000. This calibration factor ensures utmost precision in the following operating conditions: Fluid Temperature: 20°C, Flow rate: 10 - 30 ltr/min.

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

6.5 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.

6.6 LONG CAL KEY KEVING: 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.

6.7 LONG 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.

6.8 SHORT/LONG CAL KEY KEVING: The indicated value changes in the direction indicated by the arrow: - one unit for every short CAL key keying, - continually if the CAL key is kept pressed. The speed increase rises by keeping the key pressed. If the desired value is exceeded, repeat the operations from point (5).

6.9 NO OPERATION: At the end of the calculation, the new USER K FACTOR is shown for a few seconds, after which the restart cycle is repeated to finally achieve standby condition. IMPORTANT: From now on, the indicated factor will become the calibration factor used by the Meter and will continue to remain such even after a battery change.

6.10 DEMOLITION AND 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 and, in particular: 10.1 MAINTENANCE: Use 2x1.5 V alkaline batteries size AAA.

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7.1 IN-FIELD CALIBRATION PROCEDURE: 1- ACTION: NONE Meter in Standby. 2- ACTION: LONG CAL KEY KEYING. 3- ACTION: LONG RESET KEY KEYING. 4- ACTION: DISPENSING INTO SAMPLE CONTAINER. 5- ACTION: SHORT RESET KEY KEYING. 6- ACTION: SHORT/LONG CAL KEY KEYING.

7.2 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.

7.3 CALIBRATION: Multiplication factor applied by the system to the electrical pulses received to transform these into measured fluid units. Factory-set default factor: It is equal to 1.000. This calibration factor ensures utmost precision in the following operating conditions: Fluid Temperature: 20°C, Flow rate: 10 - 30 ltr/min.

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

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7.7 LONG 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.

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8.1 METER CONFIGURATION: The METER features 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.

8.2 CALIBRATION: Multiplication factor applied by the system to the electrical pulses received to transform these into measured fluid units. Factory-set default factor: It is equal to 1.000. This calibration factor ensures utmost precision in the following operating conditions: Fluid Temperature: 20°C, Flow rate: 10 - 30 ltr/min.

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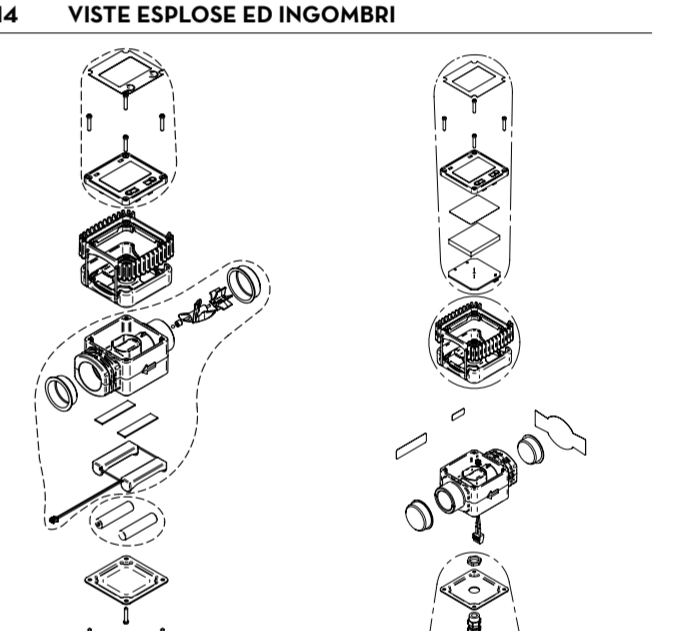
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PIUSI Fluid Handling Innovation K24 ELECTRONIC TURBINE METER



MADE IN ITALY. Manuale d'uso, manutenzione e calibrazione. Use, maintenance and calibration manual. BULLETIN M017E ITEM 00.

14 EXPLODED VIEWS AND OVERALL DIMENSIONS. VISTE ESPLOSE ED INGOMBRI. Dimensions: 75mm diameter, 100mm height, 1" NPT inlet, 1" NPT outlet.



10.1 MAINTENANCE: Use 2x1.5 V alkaline batteries size AAA. K24 should be installed in a position allowing the batteries to be replaced without removing it from the system.

11 MALFUNCTIONS: Problem: LCD no indication. Possible cause: Bad battery contact, Wrong K FACTOR. Remedial Action: Check battery contacts, Check the K FACTOR.

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