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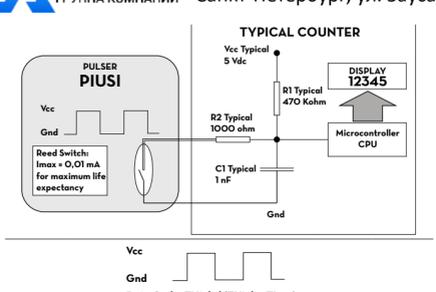


Table with columns: MODEL, FLOW RATE FIELD, PULSER, Frequency Signal Max, Square Wave Duty Cycle. Includes values for K200 model.

6 OPERATING MODES
The user can choose between two different operating modes. The meter features a non-volatile memory for storing the dispensing data...

7 INSTALLATION
K200 CAN be installed directly on the tube for fluid delivery. The body is provided with two female threads 1/8" (BSP or NPT according to the versions) on which to install the tube for fluid.

8 DAILY USE
K200 is supplied ready to use. No commissioning operations are recommended. Do not use K200 METER in conditions not described in the 'SPECIFICATIONS' section...

9 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 K200 is required to operate.

9.1 DEFINITIONS
CALIBRATION FACTOR OR 'K FACTOR'
Factory-set default factor. It is equal to 1.000. This calibration factor ensures utmost precision in the following operating conditions.

9.2 CALIBRATION MODE
WHY CALIBRATE?
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.

9.2.1 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. Two cases can occur.

9.2.2 DIRECT MODIFICATION OF K FACTOR
If normal K200 operation shows a mean percentage error, this can be corrected by applying to the currently used calibration factor a correction of the same percentage.

8.1 DISPENSING IN NORMAL MODE
Normal mode is the standard dispensing. While the count is made, the partial and resettable total are displayed at the same time (reset total).

8.2 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.

9.2.2.1 IN-FIELD CALIBRATION PROCEDURE
ACTION 1 NONE
K200 METER in Stand-by. ACTION 2 LONG CAL KEY KEYING
K200 METER enters calibration mode, and the display shows 'CAL' and the current calibration factor instead of the partial.

9.2.2.2 CALIBRATION PROCEDURE
ACTION 1 NONE
K200 METER in Stand-by. ACTION 2 LONG CAL KEY KEYING
K200 METER enters calibration mode, and the display shows 'CAL' and the current calibration factor instead of the partial.

9.2.2.3 DIRECT MODIFICATION OF K FACTOR
If normal K200 operation shows a mean percentage error, this can be corrected by applying to the currently used calibration factor a correction of the same percentage.

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:

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 1 second

5 The display screen again shows all the segments of the display followed by all the switched-off segments and finally shows the display page where the reset Reset Total is shown.

8.2 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.

9.2.2.1 IN-FIELD CALIBRATION PROCEDURE
ACTION 1 NONE
K200 METER in Stand-by. ACTION 2 LONG CAL KEY KEYING
K200 METER enters calibration mode, and the display shows 'CAL' and the current calibration factor instead of the partial.

9.2.2.2 CALIBRATION PROCEDURE
ACTION 1 NONE
K200 METER in Stand-by. ACTION 2 LONG CAL KEY KEYING
K200 METER enters calibration mode, and the display shows 'CAL' and the current calibration factor instead of the partial.

9.2.2.3 DIRECT MODIFICATION OF K FACTOR
If normal K200 operation shows a mean percentage error, this can be corrected by applying to the currently used calibration factor a correction of the same percentage.

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 K200 calibration, it is most important to:
1 When the Factory Factor 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.

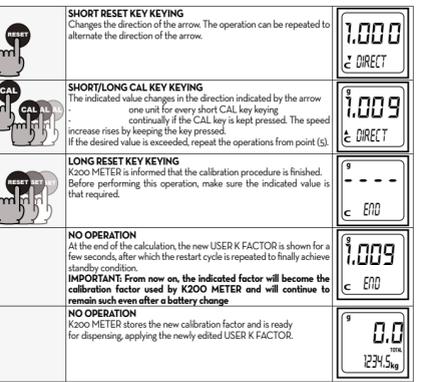
3 ensure calibration dispensing is done at a constant flow rate equivalent to that of normal use, until the container is full.
4 Not reduce the flow rate to reach the graduated area of the container during the final dispensing stage (the correct method during the final stages of sample container filling consists in making short top-ups at normal operation flow rate).

5 after dispensing, wait a few minutes to make sure any air bubbles are eliminated from the sample container; only read the Real value at the end of this stage;
6 Carefully follow the procedure indicated below.

9.2.2.1 IN-FIELD CALIBRATION PROCEDURE
ACTION 1 NONE
K200 METER in Stand-by. ACTION 2 LONG CAL KEY KEYING
K200 METER enters calibration mode, and the display shows 'CAL' and the current calibration factor instead of the partial.

9.2.2.2 CALIBRATION PROCEDURE
ACTION 1 NONE
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9.2.2.3 DIRECT MODIFICATION OF K FACTOR
If normal K200 operation shows a mean percentage error, this can be corrected by applying to the currently used calibration factor a correction of the same percentage.



TO MAINTENANCE
FOREWORD
K200 METER has been designed to require a minimum amount of maintenance. The only maintenance jobs required are:

1 Battery change - necessary when the batteries have run down.
2 Cleaning of the measuring chamber, possibly required for the particular nature of the facts.

WARNING
Maintenance should be performed only by authorised personnel who have read and understood this manual. In order to guarantee the product's functionality, always change original spare parts when replacing damaged components.

BATTERY REPLACEMENT
The 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, K200 continues to operate correctly, but the fixed icon warns the user that it is ADVISABLE to change the batteries.

2 If K200 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.

When replacing the batteries, refer to the figure opposite and to the spare parts list, and proceed as follows:
1 Press RESET to update all the totals;
2 Unreset the battery cap (pos.6);
3 Remove the old batteries;

4 Place the new batteries in the same position as the old ones, making sure the positive pole is positioned as indicated above;
5 Re-tighten the battery cap, making sure the seal and tapered spring are correctly positioned;

6 K200 METER will switch on automatically and normal operation can be resumed.

10.1 CLEANING
It is rarely necessary to clean the measuring chamber; cleaning is quick and easy and you don't need to disconnect K200 METER from the supply line.

ATTENTION
Before opening the measuring chamber, make sure the supply line is not pressurized.

ATTENTION
Unscrew the four screws that hold the cover (pos.1) and remove the respective washers.

11 MALFUNCTIONS
PROBLEM LCD: NO INDICATIONS
Battery discharged. Remedial action: Check battery and battery contact.

NOT ENOUGH MEASUREMENT PRECISION
Meter loses calibration. Remedial action: Check the calibration factor.

REDUCED OR ZERO FLOW RATE
Gears blocked. Remedial action: Clean the measurement chamber.

K200 METER DOES NOT COUNT, BUT THE FLOW RATE IS CORRECT
Incorrect installation of gears after cleaning. Remedial action: Repeat the reassembly procedure.

12 DISPOSAL
Foreword
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:

Disposing of packing materials
Metal Parts Disposal
Disposal of electronic and electronic components

Information regarding the environment for clients residing within the European Union
Any hazardous substances in the electrical and electronic appliances and/or the misuse of such appliances can have potentially serious consequences for the environment and human health.

miscellaneous parts disposal
Other components, such as pipes, rubber gaskets, plastic parts and wires, must be disposed of by companies specializing in the disposal of industrial waste.



MADE IN ITALY
Manuale di uso manutenzione e calibrazione
Use, maintenance and calibration manual

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