



THE GLOBAL STANDARD  
FOR LIVESTOCK DATA

# ICAR Guidelines for periodic checking of the milk meters

**LactoCorder-S**

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Network. Guidelines. Certification.

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## 1 General

**Attention** The routine testing with testing fluid must be carried out with properly cleaned equipment.

**Attention** After the test, the device must be rinsed with clear water.

## 2 Reference value

The reference value of a milk meter is determined, by dividing the value read on the display, by a correction factor. This correction factor for the LC-S meter takes into account the difference between the specific gravity, viscosity and foaming characteristics of milk and of the test fluid. According to our present settings this correction factor is 1,031. Deviations from the test equipment or test fluid recommended by the manufacturer can lead to a slight change in the correction factor. For use in the periodic tests results of previous tests can be made available.

### 2.1 Equipment needed

- a. Vacuum pump with a negative pressure of 40 to 50 kPa
- b. Hoses with 14-16mm internal diameter
- c. Flow reduction piece (flow rate about 5.5 kg/min, Art. 2506, supplier WMB AG)
- d. Intermediate piece with air inlet, Art. 2505 (supplier WMB AG)
- e. Calibrated electronic scales (resolution 10 g)
- f. Bucket with min. 15 l volume
- g. Milking pail for receiving the test liquid
- h. Thermometer

### 2.2 Test liquid

- a. Product: Neoagrar Top S Art.15566 (1 liter) supplier: WMB AG
- b. Water with a temperature of 20 ° C +/- 5 ° C
- c. Addition of 0.3% (volume %) of the Neoagrar Top S
- d. Mix test fluid well
- e. The fluid may be used for 50 measurements or one day only.

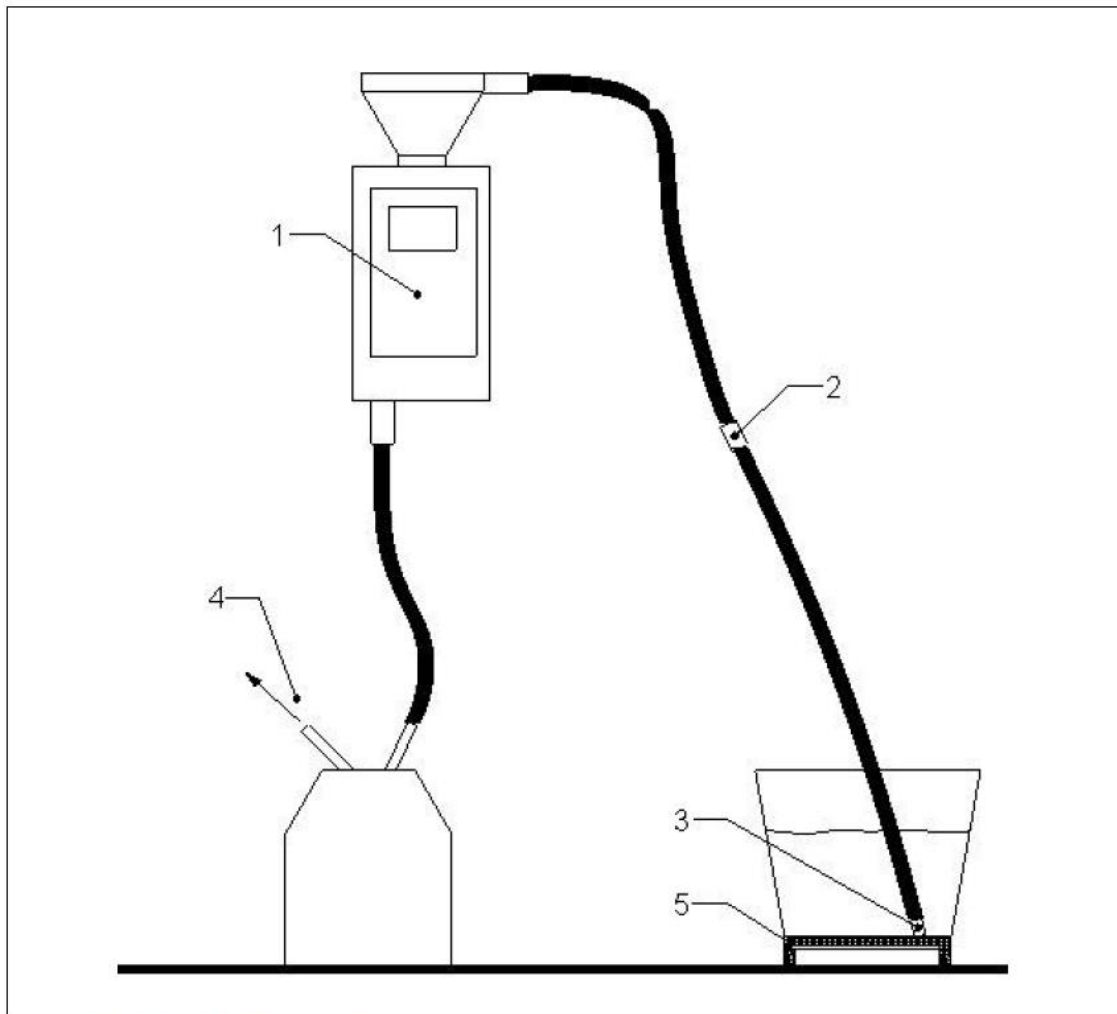


Figure 1.

Set-up for routine testing

### 3 Test procedure

1. Set bucket with about 15 l of test liquid on the scale and tare (set to zero)
2. Switch on the LC-S by pressing the button "ON/OFF"
3. Select Species: From the main menu, press the <7> (service), then key <2> (settings), then "ENTER" key, then press the <6> and then the <1> for test cows
4. Use the <C> (CLEAR) for going back to the main menu
5. In the main menu select "measurement without BD (=herd data)" by pressing <3>
6. Key in a herd number (for example 1) and confirm with <E> = "ENTER" key
7. Key in a milking place (for example 1) and confirm with the <E> = "ENTER" key
8. Select the measure without sampling
9. When you want to measure with sampling press the <1> button

10. Enter animal number: Change or Next
11. There has to be entered the expected daily amount of milk. As the measured quantity in this water test should be 10 kg, the expected daily milk amount to be entered would be the double (=20 kg). Thus key in "20" and then confirm with the button "START/STOP"
12. Now hold the hose connected to the LC-S inlet head into the bucket
13. Start the measurement by pressing the "ENTER" key
14. Turn on the vacuum
15. After the fluid quantity to be measured (=10 kg) has been sucked out of the bucket, pull the hose and hold it up, so that the liquid still in the hose can flow into the LCS. It must be ensured that all liquid flowing back from the hose is collected in the bucket.
16. Then block the end of the suction hose with your finger until the flow rate displayed on the LCS screen drops below 0.1 kg/min
17. Then exit the measurement by pressing "START/STOP"
18. Turn off the vacuum
19. Divide the amount displayed on the LC-S by the previously mentioned correction factor (at present 1,031) for determining the reference value.
20. Measure the weight of the bucket with the remaining fluid and subtract it from the starting weight.
21. Determine the difference between the reference value and the amount of fluid effectively withdrawn from the bucket.
22. For a new measurement, press the "ENTER" key and then proceed as described in section 8 in this test procedure.

#### 4 Evaluation of the measurement results (in acc. with D. Nosal)

- a. • If the first measuring value deviates 0.1 kg or less from the reference value: meter = correct.
- b. • If the first measuring value deviates more than 0.1 kg from the reference value, proceed to a second measurement.
- c. • If duplicate measurements show an average deviation of 0.2 kg or less from the reference value: meter = correct.
- d. • If two consecutive measuring values differ more than 0.2 kg from each other, proceed to a third measurement.
- e. • If a meter does not come up to this standard during the periodic checking, proceed to a fourth or even fifth measurement.
- f. • If there still is a difference of more than 0.2 kg to the reference value after 5 measurements, a correction should be applied to the meter.
- g. • Applying a correction before 5 measurements are done is not recommended by WMB AG.

## **5 Analysis of sample volume**

If the keyed-in expected daily milk amount (see point 11 in this document) is exactly the double of the fluid quantity that has been sucked out of the bucket (see point 15 in this document) the volume of fluid in the sample bottle should be between 33 and 38 ml.