

ADVISORY NOTICE

23_2024_ Adaptation of the measured iCa values to individual environmental conditions

Dear customer,

We hereby inform you that for ionized calcium (iCa) measurements, a correction to the measured values is required to adapt them to individual environmental conditions. This correction incorporates the average of the last ten slope values to ensure precise adjustments.

Please follow the provided instructions for calculating of the correction.

1. Determining the Average of the last 10 Slope Values:
 - First, the last ten slope values are recorded. These values serve as the basis for calculating the average.
 - Ensure that the slope values range from -6 to -12 mV.
2. Calculating the Offset Value:
 - Compute the average of the last ten slope values.
 - Subtract -7.9 from this average.
 - Multiply the resulting difference by -0.11 to calculate the correction value (Offset).
 - Use the following formula:

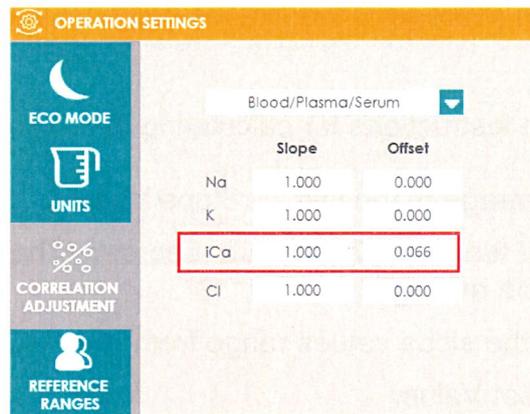
$$\text{Offset} = (\text{Average of last 10 slope values} - (-7.9)) \times (-0.11)$$

3. Entering the Offset:
 - Go to Setup and press Operation Settings.
 - Select Correlation Adjustment and enter the calculated Offset for iCa.

Note that, the slope of the correction function remains unchanged at 1, meaning only a shift (Offset) of the measured values occurs without affecting the slope of the measurement curve.

Example

1. The average of the last ten slope values: -8.5
2. Calculation of the difference: $-8.5 - (-7.9) = -0.6$
3. Multiplication of the difference: $-0.6 \times (-0.11) = 0.066$
4. Or summarized in the formula: $Offset = (-8.5 - (-7.9)) \times (-0.11) = 0.066$
5. Enter the offset value in the Correlation Adjustment screen as shown in the picture below.



	Slope	Offset
Na	1.000	0.000
K	1.000	0.000
iCa	1.000	0.066
Cl	1.000	0.000

The correction of the iCa measured values using the calculated offset ensures that the measurements are consistent and correct under individual environmental conditions.

Applied for:

INSTRUMENT:

EC 90 electrolyte analyser

cat.no.INS00079

In case you have any additional questions, please do not hesitate to contact us.

Best regards,

Erba Lachema s.r.o.



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