

# LactoStar

(article no. 3510)



## THE NEW GENERATION OF INSTRUMENTS

### Chemical milk analysis device with fully automatic cleaning and rinsing system and zero point calibration for the fast and accurate testing of milk

Countless installations in institutes and laboratories all over the world attest to the outstanding quality, reliability and accuracy of this chemical analysis device.

The following parameters can be determined quickly and reliably with just one measurement:

Contents	Measuring range	Reproducibility (r)
Fat:	0.00 % to 40.00 %	± 0.02 %*
Protein:	0.00 % to 10.00 %	± 0.03 %
Lactose:	0.00 % to 10.00 %	± 0.03 %
SNF:(fat free dry matter)	0.00 % to 15.00 %	± 0.04 %
Minerals/conductance	0.01 % to 5.00 %	± 0.02 %

\* The reproducibility equals +0.02 % in the 0% to 8 % fat range.  
In the higher ranges of 8 % to 40 % fat, the reproducibility equals 0.2 %

The measurement resolution is 0.01 %.  
The accuracy depends on the respective calibration.

Further parameters are determined based on calculational algorithms:

- Density (calculated value)
- Freezing point (calculated value)

The software is continually improved with the aim of obtaining additional interesting parameters. The updates are quickly and easily transmitted over the interfaces. In this way, the instrument is kept up-to-date over a long period of time.

#### High matrix tolerance

The device is characterised by a high matrix tolerance which it owes to the multi-sensor measurements systems used. This means different kinds of milk can be measured with the same calibration (product profile).



#### Operation

The operation is clear and simple.  
5-key menu-driven handling: 4 arrow keys and one "enter" key.  
By pressing the "enter" key, the function or action, which has been selected with the help of the arrow keys, is started.

# LactoStar



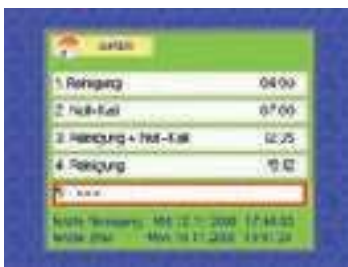
## Language selection

You can select your preferred language from a number of menu languages. Currently, German, English, French, Spanish, among others, are available. The number of languages is continuously being expanded with help from our partners in different countries. The language is selected in the same way as with the previous settings.



## Calibration

For customer-specific calibration, the already existing basic calibrations are merely adjusted. This is done with a simple two point calibration (A calibration and B calibration). Each parameter is calibrated in only one step. A clear calibration menu simplifies the entry of reference values. Up to 20 different calibration data sets can be saved. Therefore, you can switch from one product to another (e.g. from milk to cream) without having to re-calibrate.



## Automatic maintenance

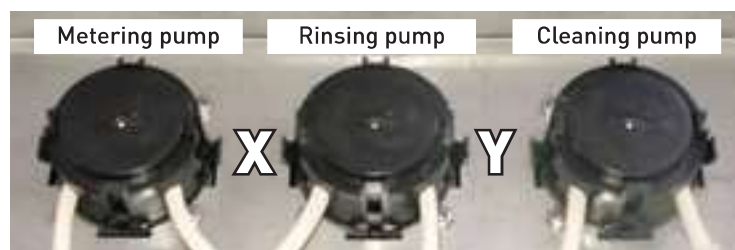
The instrument has three pumps, namely the measuring pump, the rinsing pump, and the cleaning pump, all of which are connected to the corresponding canisters.

Up to five different times can be entered for various maintenance activities: rinsing, cleaning, and zero point calibration. Thus routine tasks are completed automatically.

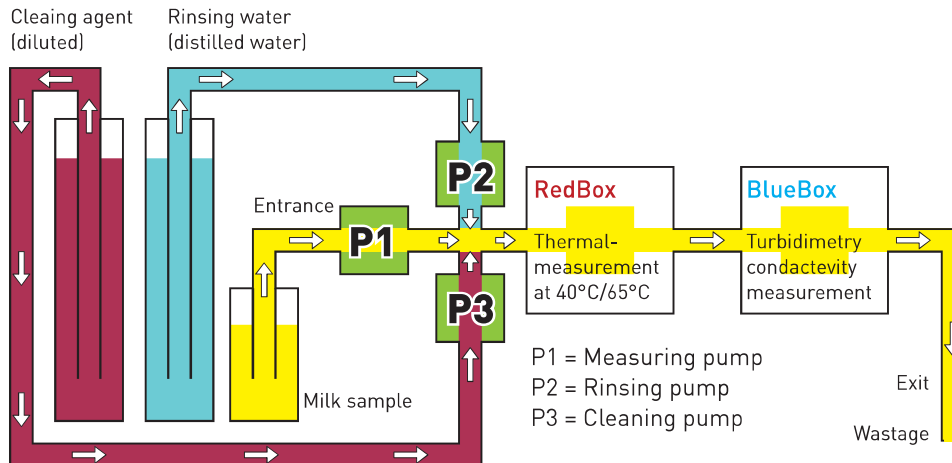
## Replacing the pump heads

The pumps are located under the stainless steel cover sheet on the left side of the instrument. The pump heads can be replaced easily without the use of tools.

The old pump heads can be pulled off by pushing in on both tabs (see Fig. "X" and "Y") simultaneously. The new pump heads are set on the motor axis and pressed down until both tabs snap into place.



## Principle design



### Technical specifications:

Sample capacity:	up to 90/h
Sample volume:	from 12 ml to 20 ml
Interfaces:	1 x parallel, 1 x serial (RS 232 / 9.600 baud), USB 6 volt electrical power supply for thermal printer (order no. 7151)
Connection values:	230V / 115V AC (50...60 Hz) 180 W
Dimensions:	43 x 20 x 43 cm (B x H x T)
Weight:	approx. 15.7 kg (net)

### Ordering data

Article no.	Description
<b>3510</b>	LactoStar
<b>7151 *</b>	Thermal printer, incl. 1 thermal paper roll
<b>3511 *</b>	Each canister 5 L, for rinsing water and cleaning agent
<b>3516 *</b>	Hardware standardisation, 250 ml
<b>3563 *</b>	Cleaning agent, 500 ml

*[articles marked with \* are included in the 3510 scope of delivery]*

### Accessories (optional)

<b>3040</b>	Milk sample bottle without metal bottom, 80 ml / PE
<b>3041</b>	Milk sample bottle with metal bottom, 50 ml / PP
<b>7157</b>	Thermal paper roll for thermal printer

### Spare and wear parts

<b>3510-023</b>	Hose pump, complete
<b>3510-023 A</b>	Pump head (attachment for hose pump)