



## ULTRASONIC MILK ANALYZERS ALU-020 ALU-030 ALU-090

This Ultrasonic Milk Analyzers is designed for a fast and cost effective analysis of milk. The instrument is able to analyze the fat content, milk solids not fat (SNF), protein, milk density and added water. The various models are distinguished by the sample velocity. Equipped with two channels for measuring the following types of milk (to be defined at order):

- raw cow or goat milk
- raw sheep milk
- raw buffala milk
- pasteurized cow milk
- fat % in cream (see specific option)

### Measuring Parameters:

Fat:  $0,5 \div 12\% \pm 0,1\%$   
Solids non fat (SNF):  $6 \div 12\% \pm 0,2\%$   
Milk density:  $1,026 - 1,033 \text{ g/cm}^3 \pm 0,0005 \text{ g/cm}^3$   
Protein:  $2 \div 6\% \pm 0,2\%$   
Added water:  $0 \div 60\% \pm 5\%$

### Optional Parameters (with external probe):

PH + Temperature:  $0 - 14\text{pH} \pm 0,002\text{pH} / 0 - 50\text{ }^\circ\text{C} \pm 0,1\text{ }^\circ\text{C}$   
Conductivity:  $2 \div 20 \text{ mS/cm} \pm 0,5\% (@ 18\text{ }^\circ\text{C})$

### Characteristics:

- Quick response
- Simple calibration
- Power supply: DC & AC voltage
- Low running costs:
  - Very low power consumption
  - Very small quantity of milk required;
  - No acid or other chemicals are used;
- Automatic washing
- RS-232 interface for the connection to PC or printer (serial).
- Data collection system (storage of up to 120 samples)

### Technical Data:

- AC Power Supply voltage 110 or 220V  $\pm 5\%$
- Battery Power Supply:  $12 \div 14,2 \text{ V}$
- Max. Power Consumption: 30W
- Dimension: (WxLxH):  $95 \times 300 \times 250 \text{ mm}$
- Weight: 4 kg

### Environmental Conditions:

- Ambient air temperature  $15^\circ - 30^\circ\text{C}$
- Milk temperature  $15^\circ - 30^\circ\text{C}$
- Relative humidity 30% - 80%



Models:	Sample time	Samples per hour
ALU-020	120 sec.	$20 \div 25$
ALU-030	90 sec.	$30 \div 35$
ALU-090	30 sec.	$90 \div 95$

### Included in all models:

- Car power adapter
- N. 2 milk samplers
- PC Software
- RS232 serial cable
- User Manual (in English)
- Cleaning products

### Options:

- ALU-xxx/ph: pH + temperature probe + pH calibration kit
- ALU-xxx/T: Titratable measurement
- ALU-xxx/L: Lactose measurement
- ALU-xxx/C: conductivity probe
- ALU-xxx/S: external Serial Printer
- ALU-xxx/USB: RS-232 / USB converter
- ALU-xxx/P: kit of cleaning products
- ALU-xxx/tpH: buffer kits pH 4, 7, 9.
- ALU-xxx/CC: fat measurement on cream