

MilkoTest MT52



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Log printer with infrared interface



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Fully automatic air-flow meter



Complete set with case

MilkoTest MT52 originates from Bepro AG, Measuring Technology. MilkoTest MT52 is the consequent development of our reliable and well established measuring device Pulsotest, being in service worldwide for more than 20 years.

This **high-tech gauge** of the newest generation is future orientated and particularly stands out through multifunctional applications (currently 9 measuring programmes), simple handling and compact shape. The integrated protocol function considerably facilitates the inspection and service of milking machines and through its efficiency finally saves a substantial amount of time.

MilkoTest MT52 is equipped to connect additionally two external vacuum or temperature sensors. The internal and external sensors are water and milk resistant. Naturally measurements on milk-conducting sources are performed smoothly and without problems.

Technical Specification

Vakuum-Sensor:
 Vacuum 60 kPa
 Overpressure 20 kPa
 Resolution 12 bit
 Precision quality class 0.6
 Device 2 internal sensors
 External plug-in 2 sensors optical

Display:
 LCD module 128 x 64 pixel
 Screen 71 x 39 mm backlit

Memory:
 Program memory 2,5 MB flash
 Data memory 4 MB RAM

Interfaces:
 To PC USB
 To Seiko printer Infrared (IrDa 1.0)

Input voltage: 7.5 to 15 VDC
 max. 1.3A

Batteries: Ni-metal hydrid
 7.2 V 1500 mAh

Charging time: 3 hours

Operating time: 110 to 20 hours
 (depending on use of backlight)

Dimension: 225 x 107 x 40 mm
 (l-w-h)

Weight: 670 g

Multipurpose Application
 Compact | Handy | Small
 High-Performance with 9 Measuring Programmes



THE NEW FUTURE-ORIENTATED MEASURING DEVICE FOR THE COMPREHENSIVE INSPECTION OF MILKING MACHINES ACCORDING TO ISO-6690-2007 STANDARDS WITH PROTOCOL FEATURES SLV/ASMA, OPTITRAITE®, WGM



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ISO-6690 Protocol Function

This programme provides you with support when inspecting and servicing milking machines according to ISO-6690.

There are two possibilities to record operating data:

1. Primary recording by the gauge on site
2. Recurring recording by copying data to MS Excel

Protokoll-Vorbereitung: Erfassen der Betriebsdaten

Betriebsdaten:

Betrieb:	Bilgery	Kunden-Nummer:	1234	Kontrollieur:	Bepro AG
Name/Vorname:	Bernhard	Letzter Service:	29.04.03	Name:	Altnauerst. 13
Adresse:	Engelswilen	Anzahl Kühe:	35	Adresse:	CH-8594 Güttingen
PLZ, Ort:	8566	Größe:	071 898 20 50		
System:	WS				

ISO-Report → Farm → Select Farm → Farm Data → Farm Limits → Measure → Vacuum → Control Characteristic → Air Flow → Milking Units → Pulsators → Vacuum Taps → Maintenance → Print Out

Vakuum- und Luftdurchflussmessungen	RE	ME	LE	Messpunkt / VH	Sollwert	Messwert	
E1.1 Vakuummeter in Anlage	ja	nein	nein	Betriebsvakuummet.		0,0 kPa	N
E1.2 Messung VH bei Vakuummeter	ja	nein	nein	Nähe Vakuummeter	0,0	0,0 kPa	
E1.3 Abweichung berechnet				E1.1-E1.2	< +1kPa	0,0 kPa	N
E1.4 Vakuumhöhe Melksystem (Abscheider)				Vm		0,0 kPa	
E1.5 Vakuumhöhe Melksystem m.laufend.ME	ja	ja	nein	Vm		0,0 kPa	
E1.6 Abweichung berechnet				E1.4-E1.5		0,0 kPa	N
E1.7 Betriebsvakuum bei Regeleinheit	ja	ja	nein	Vr		0,0 kPa	
E1.8 Betriebsvakuum bei Vakuumpumpe	ja	ja	nein	Vp		0,0 kPa	
E1.10 Kontrollvakuum im Milchabscheider	ja	ja	A1	Vm VH=E1.5-2kPa		0,0 kPa	
E1.11 Kontrollvakuum bei Regeleinheit	ja	ja	A1	Vr		0,0 kPa	
E1.12 Vakuumabfall Milchabscheider berechnet				E1.11-E1.10		0,0 kPa	N
E1.13 Kontrollvakuum Vakuumpumpe	ja	ja	A1	Vp		0,0 kPa	
E1.14 Vakuumabfall VP-Milchabscheider ber.				E1.13-E1.11		0,0 kPa	N
E1.15 max.Vakuumhöhe im Pulsraum	ja	ja	nein	Kurzer Pulschlauch		0,0 kPa	
E1.16 Vakuumdifferenz Mab-Pulsraum berech.				E1.13-E1.15		0,0 kPa	N
E2.1 Effektiver Reservedurchfluss	ja	ja	A1	Vm VH von E1.10	>= 0 l	0 l/min	N
E2.2 Luftdurchfluss mit Regeleinheit	ja	ja	A1	Vr VHE1.17-2		0 l/min	
E2.3 Manueller Reservedurchfluss	nein	ja	A1	Vm VH von E1.10		0 l/min	
E2.4 Regelverlust berechnet				E2.3-E2.1	<= 0 l	0 l/min	N
E2.5 Durchfluss ohne Regeleinheit	nein	ja	A1	Vr Vp E1.7-2kPa	= 0,0 kPa	0 l/min	
E2.6 Leckluft der Regeleinheit berechnet				E2.5-E2.2	<= 0 l	0 l/min	N
E2.7 Luftdurchfluss mit Melkleitung	nein	nein	A2	Vp VH von E1.7		0 l/min	

There are two possibilities to output the recorded and evaluated data:

1. On site through protocol printer
2. Printing from PC to A4 paper

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The 9 Measuring Programmes

1. Protocol

- Inspect and service milking machines according to ISO-6690
- Transfer of measured data to PC for further evaluation

2. Manometer

- Display of currently measured vacuum on large screen
- Display of min. and max. values

3. Pulsation

- Standard pulsation measuring
- Error evaluation according to ISO or individually defined limits
- Automatic parameter check
- Display of measured values in ms or %
- Memory for up to 230 pulsators
- Graphical display on screen or by printing
- Transfer data to PC for further evaluation

4. Fluctuation

- Analysis of complex problems
- Simultaneous measuring using up to 5 channels
- Measuring of electrical signals
- Scan Interval can be individually defined between 1 ms up to 1 s
- Measuring duration from 1 ms up to 2 ¾ hrs
- Zoom functions
- Graphical display on screen or by printing
- Transfer data to PC for further evaluation

5. Milking Time Measuring

- Record measuring values in head-piece of teat-rubber during milking process
- Special evaluation software
- Graphical display on screen or by printing
- Transfer data to PC for further evaluation

6. Air Flow Meter

- Fully automatic air-flow measuring
- Range vacuum: 30 to 50 kPa
- Range flow: 50 to 3.500 l/min.

7. Tachometer

- Contactless measuring of revolutions from 500 up to 5000 RPM

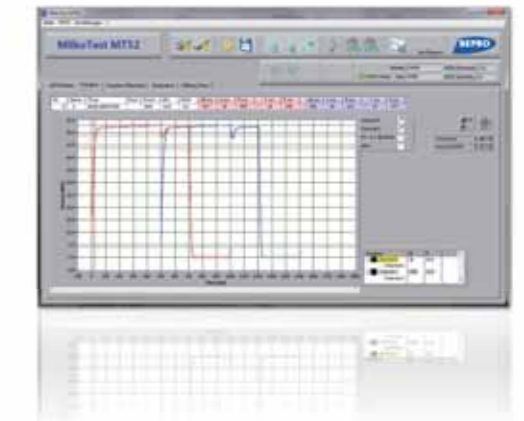
8. Thermometer

- Temperature measuring of -50 up to +150 °C
- Temperature recording up to 166 hrs.

9. Micro Air Flow Sensor

- Sensor for small airflow (0-50 l/min)
- Pressure & vacuum independent

Example: **Pulse curve** with parameter check



Example **Fluctuation**:

Red: Pulse curve CH1
Green: Puls curve CH2 with zoom



Example **Milking time measurement**:

Red: Head vacuum belt
Blue: Pulse frequency
Black: Marker

