

Measuring system PHYSIMETER® 906 USB

high-tensile
aluminium housing

high-quality
attractive
design



testing equipment for quality management

ERICHSEN

Technical Description

with integrated or
external force sensor

sampling rate 1 kHz

User-friendly display
instrument for
measuring mechanical
parameter "force" and
other physical values

Design

The Measuring System **PHYSIMETER® 906 USB** is used for the acquisition of mechanical parameters based on wire strain gauge sensors.

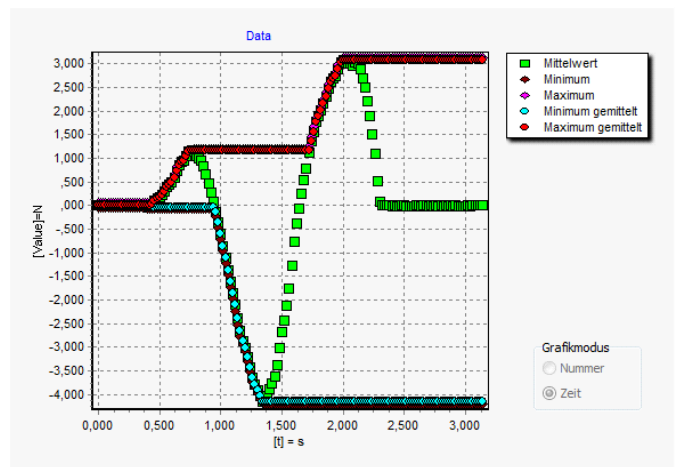
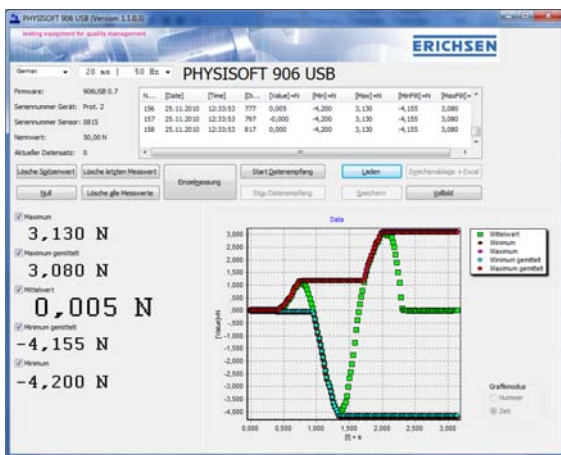
Two versions are available:

PHYSIMETER® 906 USB with an integrated force sensor and

PHYSIMETER® 906 USB to connect an external sensor.

For the power supply three micro-batteries (type LR03) or alternatively a plug-in power pack is required.

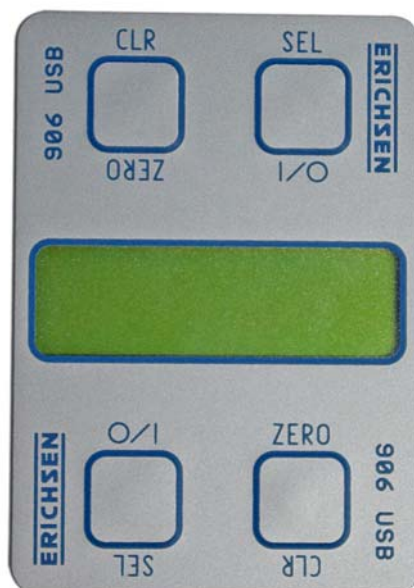
The data transmission of **PHYSIMETER®** to PC is made via USB interface (USB cable included in scope of supply). The measuring and evaluation software **PHYSISOFT 906 USB** is available free of charge at www.erichsen.de/service/downloads.



For easy handling the measuring system is provided with the functions on/off, zero setting and peak value indication (upper and lower peak value). Depending of whether the force to be measured is led into the instrument from the top or bottom, the display can show the measuring data also in an **inverted way (i. e. turned by 180°)**. The **reading direction** of the display is determined by pressing the **upper or lower I/O key**.

CLR
(delete the peak value)

I/O
(ON/OFF)



SEL
(selection for current measured value, upper and lower peak value)

ZERO
(zero setting)

The ergonomically designed housing made of anodised, high-strength aluminium, is provided with threaded bores at the front side so that an unproblematic connection to the **ERICHSEN testing machines** is guaranteed - as it was also the case with the preceding models of tensile and pressure measuring devices.

Reference Class

All versions of Measuring System **PHYSIMETER® 906 USB** with **integrated force sensor** are supplied with a **Manufacturer's Certificate M** in accordance with DIN 55 350-18.

As an option a calibration according to VDI/VDE 2624 sheet 2.1 - Measurement of mechanical quantities – Instructions for calibration of mobile force measurement systems – is available.

The **PHYSIMETER® 906 USB** will be delivered with accessories in a plastic case and is suitable for mobile and stationary applications.



For a variety of test purposes several **Sets** are available:

For External Force Transducers:



Set A / Handle

consisting of: handle, fixing plate, screws and hexagon-socket offset screw



Set B / Test Tool

consisting of: drawhook, extension piece flat thrust piece and conical thrust piece

For External Displacement Transducers:



Set C (for 10 Nm, 20 Nm and 50 Nm)



Set D (20 - 500 Ncm)

Technical Data

Nominal force:	20 N/50 N/100 N/ 200 N/500 N/1 kN (PHYSIMETER® with integrated force sensor)
	Depending on the measuring range of the external force transducer (PHYSIMETER® with external force sensor)
Overload capacity:	<10% of nominal force
Accuracy class:	0.5 % for mean value
Peak memory:	max. and min. values
Sampling rate for peak value:	approx. 1 kHz
Display rate for mean value:	approx. 2 Hz
Interface:	USB
Battery operation: ¹⁾ (alkaline battery type LR03, 1400 mA)	approx. 8 h (sensor with measuring bridge of 1000 ohms) approx. 5 h (sensor with measuring bridge of 350 ohms)
Running amps:	approx. 130 mA (sensor with measuring bridge of 1000 ohms) approx. 150 mA (sensor with measuring bridge 350 ohms)
External supply:	plug-in power pack 115 V/230 V; 50/60 Hz, alternatively PC with USB cable
Reference temperature:	(21 ± 2) °C
Operating temperature:	+5 °C bis +35 °C
Display resolution:	≥1000 pieces (from 10% of measuring range)
Digit height:	10 mm
Dimensions (L x W x H):	150 x 69 x 33 mm (without load introduction pivot of the sensor)
Fixing bore in the housing:	2 x M6 (distance 35 mm)
Load introduction:	female thread M6
Weight:	approx. 500 g

¹⁾ If rechargeable batteries are used, please note that these must be charged using an external charging unit, because there is no charging function integrated in the PHYSIMETER®.

Ordering Information

Ord.-No.	Product-Description
0297.01.31	Measuring System PHYSIMETER® 906 USB - 20 N with an integrated force transducer of 20 N and USB interface, incl. Manufacturer's Test Certificate M
0297.02.31	Measuring System PHYSIMETER® 906 USB - 50 N with an integrated force transducer of 50 N and USB interface, incl. Manufacturer's Test Certificate M
0297.03.31	Measuring System PHYSIMETER® 906 USB - 100 N with an integrated force transducer of 100 N and USB interface, incl. Manufacturer's Test Certificate M
0297.04.31	Measuring System PHYSIMETER® 906 USB - 200 N with an integrated force transducer of 200 N and USB interface, incl. Manufacturer's Test Certificate M
0297.05.31	Measuring System PHYSIMETER® 906 USB - 500 N with an integrated force transducer of 500 N and USB interface, incl. Manufacturer's Test Certificate M
0297.06.31	Measuring System PHYSIMETER® 906 USB - 1000 N with an integrated force transducer of 1000 N and USB interface, incl. Manufacturer's Test Certificate M
0291.01.31	Measuring System PHYSIMETER® 906 USB for connecting an external sensor based on wire strain gauge, with USB interface
<p><i>The scope of supply includes:</i></p> <ul style="list-style-type: none"> 1 USB cable (1.5 m) 1 power supply with 4 adapters 1 set of batteries 1 plastic case 1 operating manual 	

Further ordering informations about external sensors and other accessories, please see our price list No. 906 USB.

Subject to technical modifications.
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