

Portable Precision USB Sensor Interface

for load cells, torque sensors and pressure sensors

Series 9206

Code:	72-9206-REF EN
Delivery:	ex stock
Warranty:	24 months



- “Plug & Measure” interface for strain gauge sensors, potentiometric sensors and standard signals
- 6-wire connection technology
- Practical and convenient DigiCal calibration and data acquisition software
- 24-bit resolution
- Free LabView driver DLL for integrating in your own software environment
- Multipurpose reference measurement chain with optional factory calibration certificate or German-accredited DAkkS calibration certificate
- Pt100 as option

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Application

The 9206 USB sensor interface series is ideally suited to Notebook-based mobile use for high-precision, traceable calibration jobs that must be performed on-site for equipment such as presses, torque measurement facilities and pressure control systems.

A factory calibration certificate or German-accredited DAkkS calibration certificate can optionally be provided for the USB interface plus relevant sensors, ensuring compliance even with the stringent traceability requirements of quality assurance standards. This provides a quick, cost-effective way of assessing your system with traceable documentation of measurement results.

The device is intended for industrial use in sectors such as quality assurance, on-site service and equipment monitoring.

Further areas and examples of use:

- ▶ Test-equipment calibration
- ▶ On-site calibration of high-precision measurement instruments
- ▶ Hydraulic-press testing
- ▶ Reference measurements on/in assembly lines
- ▶ Testing of robot contact forces
- ▶ Pneumatic pressure testing

Description

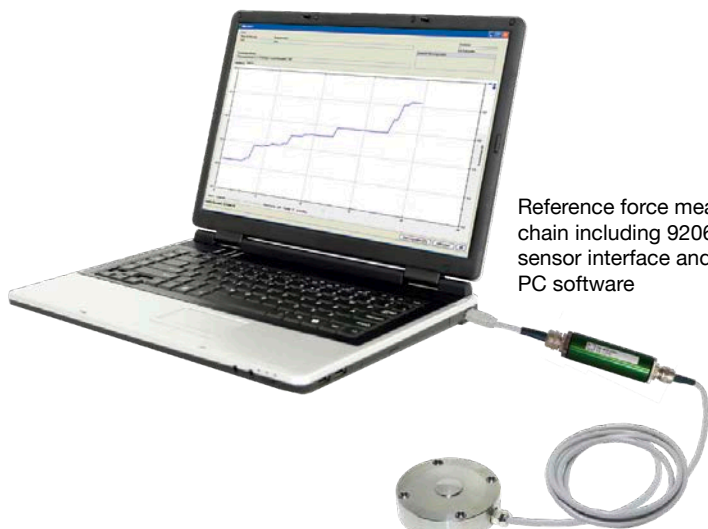
The USB sensor interface is powered from the connected PC via the USB port, and uses this power supply to generate the sensor excitation voltage. The initial settings and sensor settings are made by burster in-house and saved in the USB sensor interface. These can then be fine-tuned by the customer.

The DigiCal calibration software can display the measurement data in various forms and save it in a custom report file or Excel file. The software includes calibration-routine management for quick comparisons of existing measurement data plus rapid and reliable access to recurring calibration processes. In addition, a range of START/STOPP-triggers can be enabled.

burster can configure the interface to suit a specific sensor, although you can customize your own parameters using the basic software version supplied free of charge. The driver package, available free of charge, lets you integrate the device in LabVIEW or your own software.

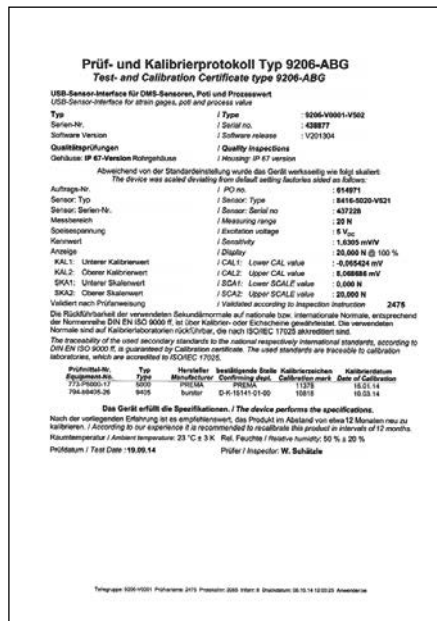
Application

Precision force check of electrical, mechanical or hydraulic presses



Reference force measurement chain including 9206 USB sensor interface and DigiCal PC software

- ▶ Maximum precision and traceability even under on-site conditions
- ▶ System has high IP 67 degree of protection
- ▶ DigiCal software provides OK/NOK evaluation of measurement values, retrieval of measurement data, export of evaluation results plus report generation
- ▶ Reference load cell in line with the force path ensures optimum comparative measurements in difficult-to-access locations



Application

Torque wrench calibration using torque sensor and 9206 USB sensor interface



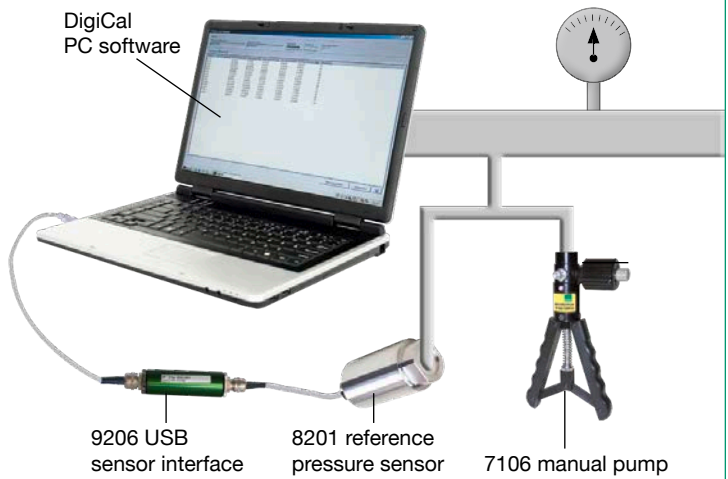
Torque sensors can be connected directly to a PC using the 9206 USB sensor interface. This measurement chain allows quick and easy measurement of torques typical in any tools used for screw-connection tasks. On-site calibration can include, for instance, checking that the torque wrench meets the set scale value or releases accurately at the correct torque. An optional factory calibration certificate or German-accredited DAkkS calibration certificate can be supplied to ensure traceability of the torque measurement chain.

Pressure-line testing

A pressure measurement chain comprising pressure sensor and USB sensor interface can be connected directly to the PC.

The DigiCal software can then be used to read the sensor data, which is then available for printing as a report or exporting into Excel.

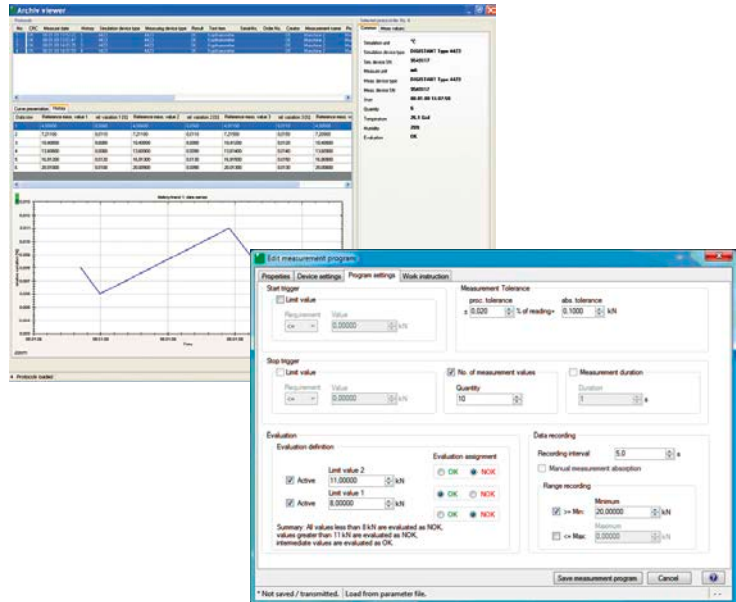
On-site calibration uses a reference pressure sensor, a USB sensor interface and a manual pump to check the indicator on a pressure line. An optional factory calibration certificate or German-accredited DAkkS calibration certificate can be supplied to ensure traceability of the pressure measurement chain.



Range of functions offered by the DigiCal calibration and data acquisition software

Easy, reliable creation of measurement programs and calibration routines

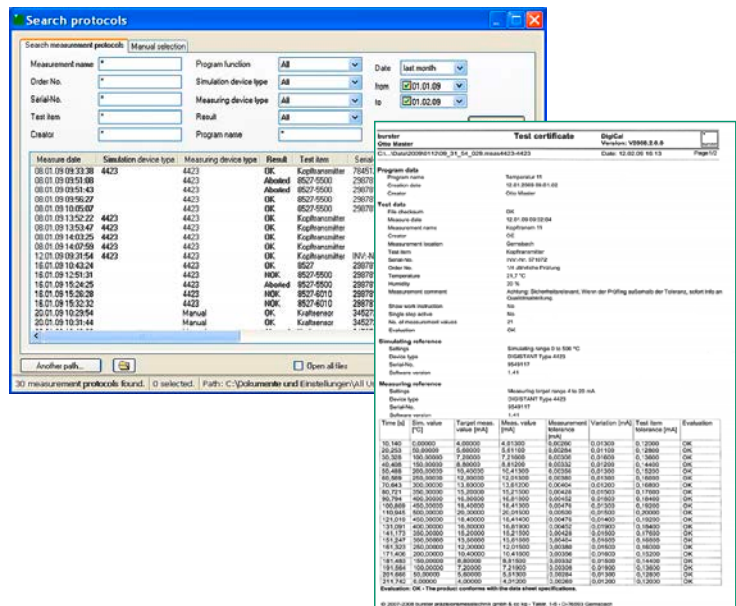
- ▶ DigiCal is a user-friendly tool for creating calibration routines and test reports
- ▶ Evaluation/checking functions check compliance of object under test with its technical specification
- ▶ A measurement program once created can be reused to save time
- ▶ Easy-to-select pop-ups provide fast access to relevant input parameters
- ▶ With up to four measurement values in view and under evaluation, DigiCal provides a quick overview of the tolerance-compliance of the object under test



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Traceable measurement documentation

- ▶ In times when quality management is constantly growing in importance, it is vital to provide quality-relevant material in test reports. DigiCal meets this requirement
- ▶ With a straightforward report retrieval facility, a preview option plus print and save-as-PDF functions, the documentation tool represents excellent value for money



Technical Data

Connectable sensors

Strain gauge

Bridge resistance:	350 Ω ... 5 kΩ
Connection system:	6 wire
Sensitivity:	0 ... 50 mV/V
Sensor excitation::	2.5 V / 5 V
Excitation current:	max. 45 mA
Measurement error:	± 0.05 % F.S.

Transmitter and DC/DC sensors

Sensor excitation:	12 V
Excitation current:	80 mA
Measurement signal:	± 10 V
Measurement error:	± 0.05% F.S.

General amplifier data

Resolution:	24 Bit
Measuring rate except Pt100:	up to 1200 readings per second only with software 9206-P100-REF
	up to 200 readings per second and 1 measuring channel with 9206-P001-REF
Input resistance:	> 1 GΩ
Temperature coefficient:	20 ppm/K
Range of operation temperature:	-20 ... + 60 °C
Storage temperature:	- 40 ... + 70 °C
Zero drift:	< 0,1 μV/K

In-Line housing

Material:	Aluminium
Dimensions (L x B):	115 x 25 mm
Weight:	200 g
Protection class:	IP67 tube housing IP40 tube housing with 12 pin connector
Mounting method:	screw clamp
Power supply:	via USB-plug 4 V ... 6 V
Cable length from sensor to 9206:	max. 3 m
Cable length from PC to 9206:	2.8 m
Sensor connection:	terminal block PG 7 connection
USB connection on 9206:	PG 7 connection

Ordering example

USB sensor interface with 8527 pressure sensor including factory calibration certificate and software

USB sensor interface for strain gauge sensors	Model 9206-V2001
High-precision load cell, 5 kN measurement range	Model 8527-6005
12-pin connecting plug	Model 9941
Connector fitting	Model 99004
Calibration of a measurement chain comprising one sensor and one USB sensor interface	Model 92-ABG
Factory calibration certificate for a complete measurement chain	Model 85WKS-85DXM
Configuration and analysis software for 9206	Model 9206-P100-REF

DigiCal software

Operating system requirements:

Windows XP, Vista, Win7, Win8

Order code

USB sensor interface 9206-V X 0 0 X-REF

IP40 tube housing with 12 pin connector	2
Strain gauge, potentiometer, DC/DC	1
Pt100	2

(including measurement and analysis software **9206-P001-REF**)

Accessories

DigiCal calibration and data logging software (included with device, up to 200 measurements/s in data-logger mode) **Model 9206-P001-REF**

DigiCal calibration and data logging software (up to 1200 measurements/in data-logger mode, reporting and history management) **Model 9206-P100-REF**

Connecting lead, 12-pin female connector, one end open, for 9206-V000x **Model 99540-000A-0150002**

Mating connector 12 pins **Model 9941**

Aluminum case for USB sensor interface and accessories **Model 7200-Koffer**



German-accredited DAkkS calibration

DAkkS calibration certificate for max. force of 200 kN, max. pressure of 5000 bar and max. torque of 5 kNm

Factory calibration

Factory calibration for max. force of 200 kN, max. pressure of 5000 bar, max. torque of 5 kNm and max, displacement of 300 mm