USB Sensor Interface

For strain gauge, potentiometric, DC/DC and Pt100 sensors
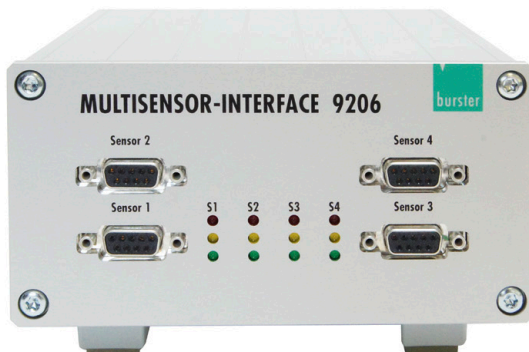
Model 9206

NEW
Accuracy 0.01 % F.S.
with DAkkS certificate
for strain gauge input

NEW
Evaluation software
DigiVision administrates
up to 32 measuring channels
with mathematical functions

1 channel In-Line IP67

USB multi sensor interface in housing

- ■ **Inexpensive "Plug & Measure" design**
- ■ **Simple connection via PC USB port**
- ■ **24 bit resolution**
- ■ **High-speed measurement of up to 1200 readings/sec.**
- ■ **Convenient configuration and analysis software DigiVision**
- ■ **Pt100 as option**
- ■ **LabVIEW and DLL drivers free of charge**
- ■ **Integration in customer-owned software**
- ■ **6 wire technology for the highest precision**

Application

In the field there is a frequent need to measure sensor readings rapidly and easily right at the sensor and to transfer them directly to a PC without additional amplifiers or converters. The 9206 USB sensor interface can satisfy this requirement admirably, thanks to its „plug & measure" design. The USB connection means installation could not be simpler.

Typical applications:

- ► Mobile test measurements via laptop
- ► Laboratory test set-ups
- ► Instrumentation and control
- ► Diagnostic measurements in the chemical industry
- ► PC-based recording of expansion figures in bio engineering

Description

The USB sensor interface takes its supply from the connected PC via the USB port, and uses it to generate the power supply for the sensors. 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.

Software provides display and archiving functions. But a license key enables an open-end expansion. 32 interfaces output curves may be displayed at the same time. One USB sensor interface can be connected as standard. Each sensor can be tared individually, and measurement curves can be displayed jointly or separately in a graph. We can configure the interface to suit a specific sensor, although customer-specific parameters can be changed using the free analysis software supplied.

The connection to LabVIEW or the integration into customers' software is enabled by a free driver package.

9206 EN

Technical changes reserved. All data sheets at www.burster.com

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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:	± 0.05 % F.S.

Potentiometer

Connection system:	3 wire
Resistance:	1 kΩ ... 5 kΩ
Measurement signal:	5 V
Sensor excitation:	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.

Temperature Pt100

Sensors:	Pt100
Range:	- 200 ... + 600 °C
Accuracy:	0.1 K
Measuring rate:	max. 2 meas./s

General amplifier data

Resolution:	24 bit

Measuring rate ecxept Pt100:

up to 1200 readings per second	only with software 9206-P100 or 9206-P200
up to 200 readings per second	and 1 measuring channel with 9206-P001

Input resistance:	> 1 GΩ
Temperature coefficient:	20 ppm/K
Environmental temperature range:	0 ... + 60 °C
Storage temperature:	- 40 ... + 70 °C
Zero drift:	< 0.1 µV/K

In-Line housing

Material:	Aluminium
Dimensions:	115 x 25 [mm]
Weight:	200 g
Protection class:	IP67
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 9205:	2.8 m
Sensor connection:	terminal block PG 7 connection
USB connection on 9206:	PG 7 connection

Desktop housing

Material:	Aluminium
Dimensions:	210 x 150 x 90 mm
Protection class:	IP20
Power supply:	90 ... 230 VAC / 11 ... 30 VDC
Cable length from PC to 9205:	1 m
Sensor connection:	9 pole Sub min D
Isolation:	yes / rated voltage 50 V
Display:	status LED
Energy input:	max. 30 VA

Software DigiVision

System requirement:	Windows XP, Vista, Win7

Order Code

USB-Sensor-Interface 9206-V [X] [0] [0] [X]

IP67 tube housing	0
IP40 tube housing with 12 pin connector for sensors	2
Strain gauge, Poti, DC/DC	1
Pt100	2

including measurement and analysis software 9206-P001

USB multi sensor interface - in housing

9206-V3   Sensor1 Sensor2 Sensor3 Sensor4 –

unoccupied	0
Strain gauge, Poti, DC/DC	1
Pt100	2
Option increased measurement accuracy for strain gauge input only 0.01 % F.S. incl. DAkkS certificate –	H

9206-V3xxxx including measurement and analysis software 9206-P100

Order Information

An example for ordering a desktop case version
Desktop case version with 2 USB sensor interfaces for strain gauge sensors and 2 USB sensor interfaces for Pt100 sensors.
The software DigiVision 9206-P100 is included **Model 9206-V31122**

Adjustment of a measurement chain   Model 92-ABG
Consisting of sensor and USB sensor interface

Accessories
Configuration and evaluation software DigiVision for 1 channel measurement and 200 measurements/sec.
(included in scope of delivery)   **Model 9206-P001**

Configuration and evaluation software DigiVision for multi-channel measurement. The software can display up to 16 USB Sensor Interfaces parallely. Up to 1200 meas./sec. are possible, no mathematic functions or calculation   **Model 9206-P100**

Configuration and evaluation software DigiVision for multi-channel (displays up to 32 measurement curves at the same time) and measurement, up to 1200 meas./sec. possible. Measurement results can be offset against each other via freely programmable mathematic measuring channels.   **Model 9206-P200**

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

Connecting cable, 9 pin Sub-D female connector
one end open for 9206-V000x   **Model 99609-000E-0150002**

DAkkS certificate for the DMS measurement range of the 9206-V03xxxx-H, for 1 measuring channel, for the option of the accuracy of 0.01% F.S.   **Model 92DKD-9206-V3H**

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DigiVision Configuration and Analysis Software

General Software Data

- ► Convenient device finder
- ► Instrument parameterization
- ► Instrument data adopted automatically, e.g. scaling, limit settings
- ► Back-up function for instrument data
- ► Simultaneous display of up to 16 measurement channels
- ► Different measurement rates can be combined
- ► Different triggers can be set: global or channel-specific
- ► Creation of instrument groups
- ► Report finder for locating group reports and individual reports
- ► Documenting individual measurement curves with various options e.g. serial number, batch counter, day counter

- ► Export function to Excel
- ► Communication with a controller unit (PLC etc.) via RS232 or Ethernet
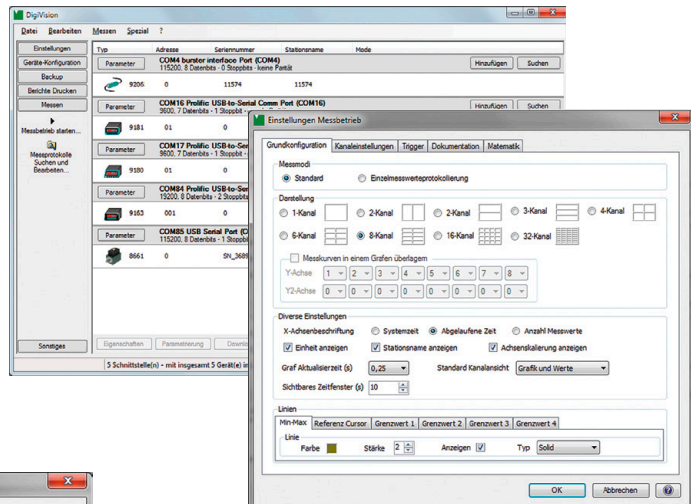
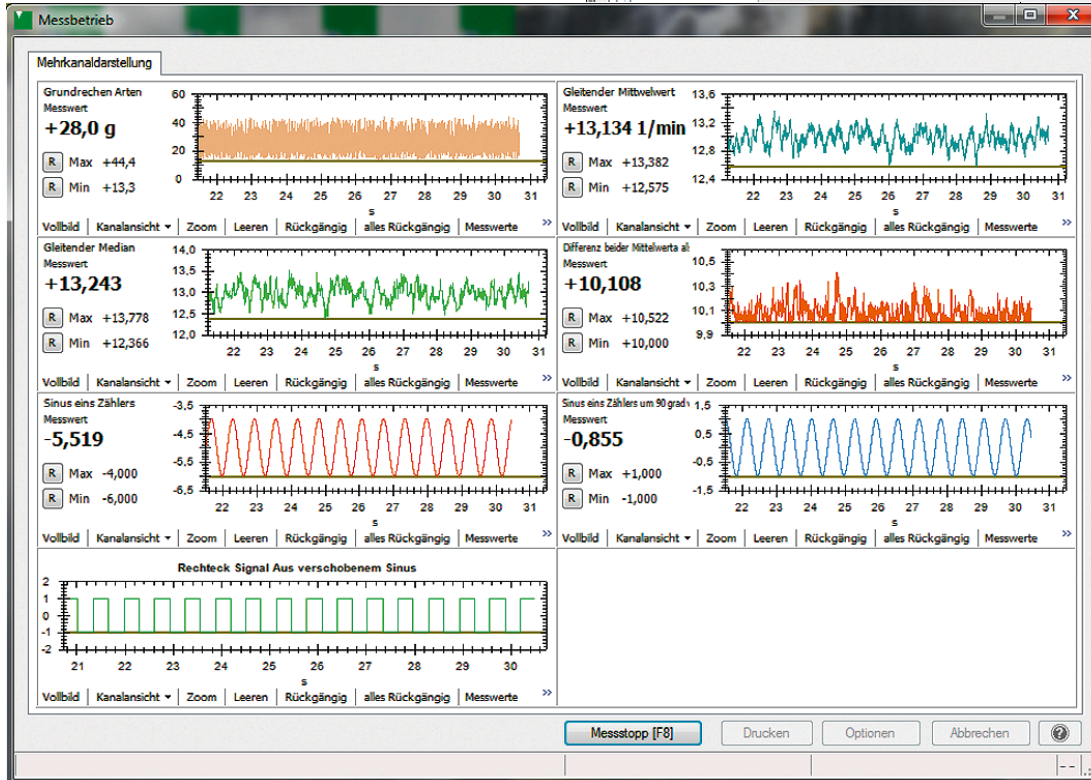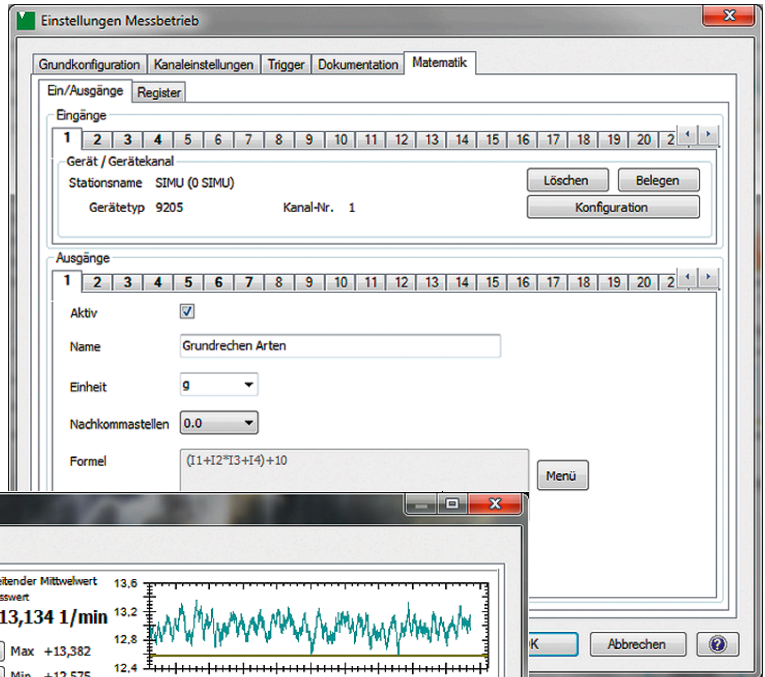## Software DigiVision P001

- ► 1 interface with up to 200 meas/s
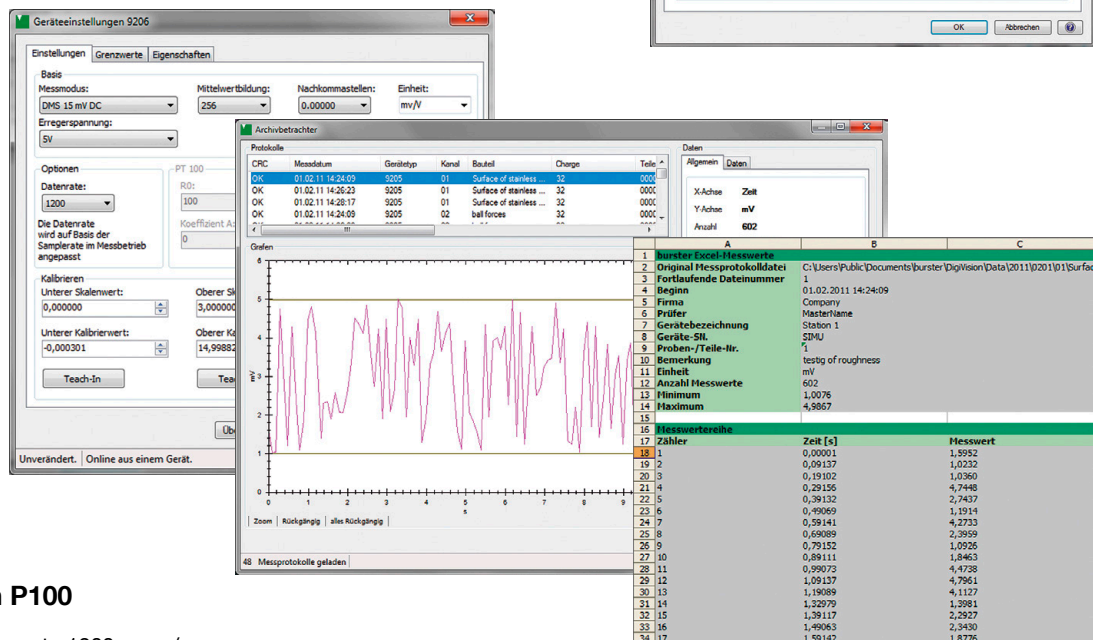
Software DigiVision P100

- ► max. 16 channels with up to 1200 meas/s

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Software DigiVision 9206-P200

► Intuitive operation

► Easy-going configuration the interfaces

► Measurement rate up to 1200 meas./sec. for every channel

► Up to 32 measurements at the same time

► Storage of measurement protocols

► Data export in Excel

► Free mathematical measuring channels

Typical Applications

► Differential measurements

► Averaging of the measurement results

► Determination of efficiency in engine test

► Determine mass moment of inertia

► Determine the frictional force

► Comparison of different measurement readings