USB Sensor Interface

For strain gauge, potentiometric and DC/DC sensors

Model 9205

burster

CAD data 2D/3D for this device:
Download directly at www.traceparts.com
Info: refer to data sheet 80-CAD-EN

NEW
Evaluation software
DigiVision administrates
up to 16 measuring channels.

1 channel In-Line IP65

USB multi sensor interface in housing

- New inexpensive "plug & measure" design
- Simple connection via PC USB port
- 16 bit resolution
- High-speed measurement of up to 2500 readings/sec.
- Convenient configuration and analysis software DigiVision
- Pt100 as option
- LabVIEW Drivers
- DLL drivers free of charge
- Integration in customer-owned software

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 9205 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 4 V supply voltage 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. 16 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 customer´s software programs is enabled by a free driver package.

9205 EN

Technical changes reserved -
Latest updates of data sheet always under www.burster.com

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Technical Data
Connectable sensors
Strain gauge
Bridge resistance:	350 Ω ... 5 kΩ
Connection system:	4 wire
Sensitivity:	0 ... ± 3 mV/V
Sensor excitation:	4 V
Excitation current:	max. 20 mA
Measurement:	< ± 0.05 % F.S.

Potentiometer
Connection system:	3 wire
Resistance:	1 kΩ ... 5 kΩ
Measurement signal:	± 5 V
Sensor excitation:	4 V
Excitation current:	max. 20 mA
Measurement error:	< ± 0.05 % F.S.

Transmitter
Sensor excitation:	4 V / 12 V
Excitation current:	max. 20 / 80 mA
Measurement signal:	± 5 V
Measurement error:	< ± 0.05 % F.S.

Temperature*
Sensors:	Pt 100
Range:	0 ... 300 °C
Dimensions (W x H x D):	70 X 60 X 35 [mm]
Output:	0 ... 5 V
Accuracy:	0.1 K
	*on request

General amplifier data
Resolution:	16 bit
Measuring rate:	up to 2500 readings per seconds only with software 9205-P100
Input resistance:	> 1 MΩ
Temperature coefficient:	10 ppm/K
Environmental temperature range:	0 ... + 50 °C
Storage temperature:	- 10 ... + 70 °C

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 9205:	max. 3 m
Cable length from PC to 9205:	2 m
Sensor connection:	PG 7 connection
USB connection on 9205:	PG 7 connection

Desktop housing
Material:	Plastic
Dimensions:	290 x 210 x 80 [mm]
Protection class:	IP20
Power supply:	5 V with external power supply unit
Cable length from PC to 9205:	1 m
Sensor connection:	9 pole Sub min D

Software DigiVision
System requirement:

Windows 2000, XP, Vista (with restriction)
at polling mode up to:	500 measurement/channel
Windows 7 at polling mode up to:	1000 measurement/channel
All operating systems at streaming mode:	2500 measurement/channel

Order Information
In-Line Version
USB sensor interface for strain gauge sensors,
including DigiVision 9205-P001 (max. 200 measurements
per second) and 2 m cable to PC   **Model 9205-V001**

In-Line Version
USB sensor interface for potentiometric or DC/DC sensors,
including DigiVision 9205-P001 (max. 200 measurements
per second) and 2 m cable to PC   **Model 9205-V002**

Order Code
Sensor for tension and compression load, range 1 KN   **Model 8435-6001**
with USB sensor interface   **Model 9205-V001**

When ordering, you have to specify the sensor separately.
Adjustment from the sensor to 9205   **Model 9205-ABG**

Order Information
Desktop version   **Model 9205-V3xxxx**
9205 in desktop case version, for every channel is possible to use
9205-V003 or 9205-V004. The maximum is 4 channels.

USB sensor interface for strain gauge sensors
Additional board for desktop case version   **Model 9205-V003**

USB sensor interface for potentiometric or transmitter sensors
Additional board for desktop case version   **Model 9205-V004**

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 potentiometric and DC/DC
sensors.
The software DigiVision 9205-P100 is included. **Model 9205-V33344**

Adjustment of a measurement chain   **Model 9205-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 9205-P001**

Configuration and evaluation software DigiVision for multi-channel
(displays up to 16 measurement curves at the same time) and mea-
surement, up to 2500 meas./sec. possible   **Model 9205-P100**

Connecting cable, 12 pin female connector one end open
          Model 99540-000C-0090005
Connecting cable, 9 pin Sub-D female connector
          Model 99609-000C-0090005

**The CAD drawing (3D/2D) for this device can be imported online
directly into your CAD system.**
Download via www.burster.com or directly at www.traceparts.com.
For further information about the burster traceparts cooperation refer
to data sheet 80-CAD-EN.

Configuration and Evaluation Software DigiVision 9205-P100

► Intuitive operation

► Easy-go-configuration
   the interfaces

► Measurement rate
   up to 2500 meas./sec.
   (with 9205-P100)
   for every channel

► Up to 16 measurements
   at the same time

► Storage of measurement
   protocols

► Data export in Excel

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