

# DynoWare

Type 2825A...

## Software for Data Acquisition and Evaluation

Kistler DynoWare is a universal and easy to use software, which is particularly suitable for force measurements with dynamometers or single and multi-component force sensors.

- Simple operation
- Configuration and control of Kistler measuring instruments via RS-232C or IEEE-488
- Powerful graphics functions
- Useful signal evaluation and calculation functions
- Simultaneous recording of up to 8 measuring channels
- The software is ideal for the acquisition and evaluation of physical measurands

### Description

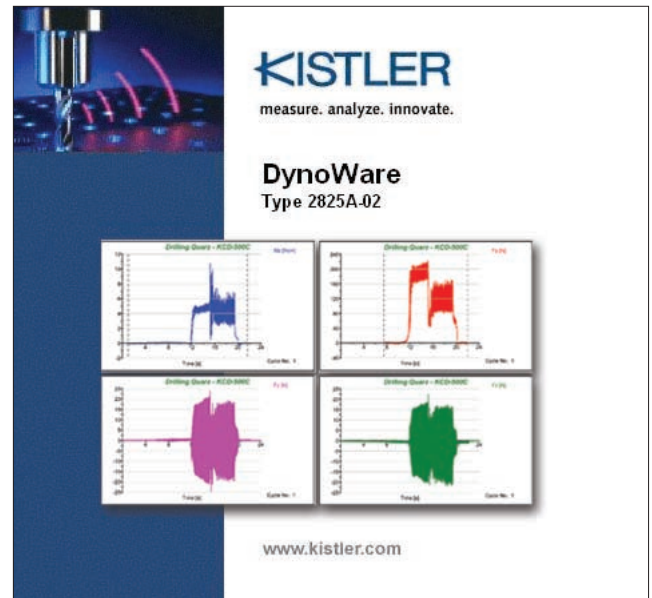
For signal analysis, DynoWare offers the technician online visualization of the measured curves together with useful calculation and graphics functions. Apart from simple configuration of the most important measuring instruments, this software supports individual documentation of the measurement, along with storage of configuration data and measured data. The signal evaluation also enables compensation of undesirable signal drift due, for example, to undue influence of temperature.

As a new feature, the signal frequency and integral of the measured curve can be determined with the powerful cursor function.

### Application

DynoWare is the data acquisition software of choice for cutting force measurement. It supports both stationary and rotary measuring systems from Kistler.

However, DynoWare can also be used for any reaction force measurements or crash measurements with Kistler multicomponent dynamometers. At the same time, the measured data from signal amplifiers of other manufacturers can also be measured and evaluated.



### Technical Data

#### Data Acquisition Cards Supported

##### Type 2855A3, CIO-DAS 1602/12

PC bus: ISA

Number of measuring channels: 8, analog, differential

Measuring range:  $\pm 1,25$  V;  $\pm 2,5$  V;  $\pm 5$  V;  $\pm 10$  V

Resolution: 12 Bit

Sampling rate, 1 measuring channel active: 160 kHz

Sampling rate, 8 measuring channels active: 20 kHz

##### Type 2855A4, PCIM-DAS 1602/16

PC bus: PCI

Number of measuring channels: 8, analog, differential

Resolution: 16 Bit

Measuring range:  $\pm 1,25$  V;  $\pm 2,5$  V;  $\pm 5$  V;  $\pm 10$  V

Sampling rate, 1 measuring channel active: 100 kHz

Sampling rate, 8 measuring channels active: 12,5 kHz

##### Type 2855A5, PC-CARD-DAS 16/16

PC bus: PCMCIA, PC-CARD

Number of measuring channels: 8, analog, differential

Resolution: 16 Bit

Measuring range:  $\pm 1,25$  V;  $\pm 2,5$  V;  $\pm 5$  V;  $\pm 10$  V

Sampling rate, 1 measuring channel active: 100 kHz

Sampling rate, 8 measuring channels active: 12,5 kHz

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**Measuring Instrument Control and Configuration via Communication Interfaces**

**RS-232C**

5011Bx2, 5015..., 5017..., 5019..., 5223..., 5237..., 5070A...

**IEEE-488**

5011Bx1, 5015Ax1xx, 5070Axxxx1

**Triggering**

Analog, digital and by Keyboard

**Measuring Time**

The measuring time is limited by the memory (RAM).  
3 measuring channels sampled for 1 minute at 3 kHz require approx. 2 MB RAM.

**Digital Signal Evaluation**

Within a measuring window

- Averaging
- Minimum and maximum values
- Integral
- Determining the signal frequency

Signal smoothing

- Moving mean value
- Moving median value
- High and low pass filters

Compensation of signal drift

**Graphics Functions**

- Measured data represented on one or more graphs
- Display as y(t) and y(x) graphs
- Display of numeric values
- Cursor function
- Zoom function

**Calculation Functions**

- Multi-component force-moment calculation
- Calculation of radial and tangential forces with rotating cutting force dynamometer Type 9123.../24...
- Mathematical functions

**Tools**

- Voltmeter function
- Oscilloscope function

**Documentation of the Measurement**

Each measurement can be individually documented.  
Storage of measurement and configuration data with or without remarks  
Import and export of measured data and ASCII format for Excel, Dia Dago, Dia Dem, LabVIEW, Math Lab etc.

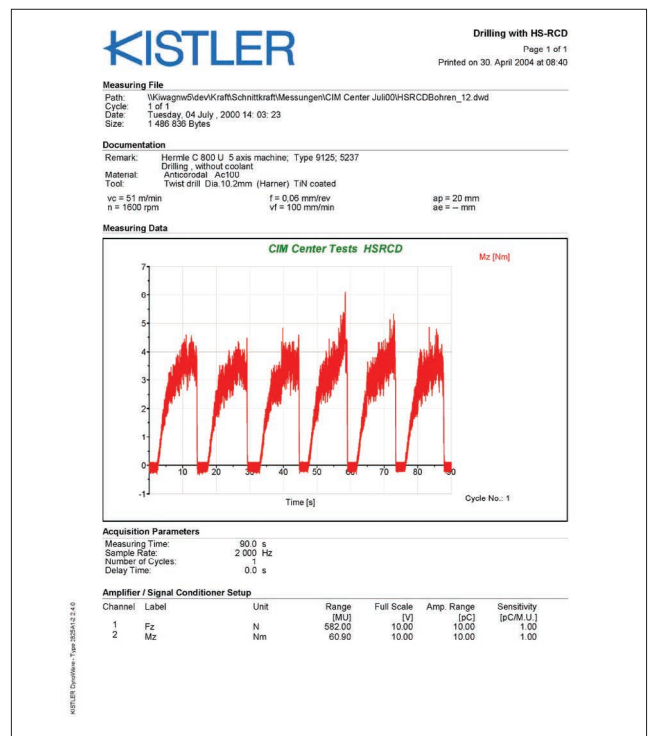
**Printer**

Printing of test records and configuration data is supported by Windows

**Help Functions**

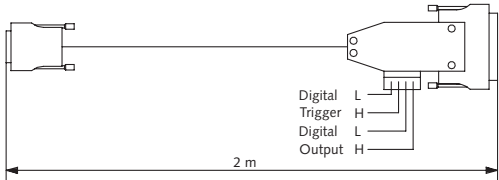
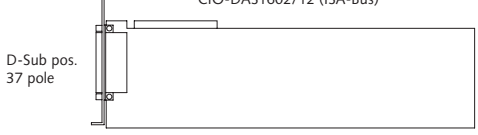
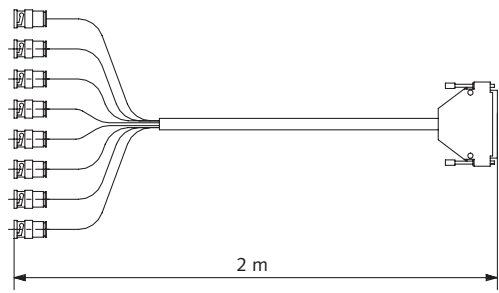
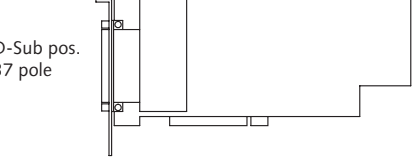
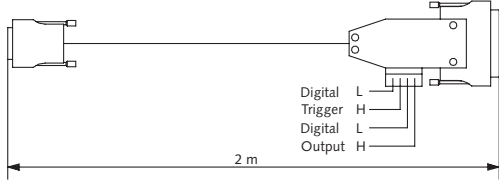
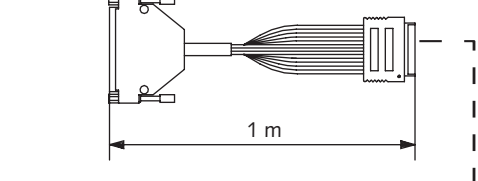
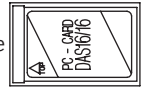
With tutorial program

**Example of a Test Record**



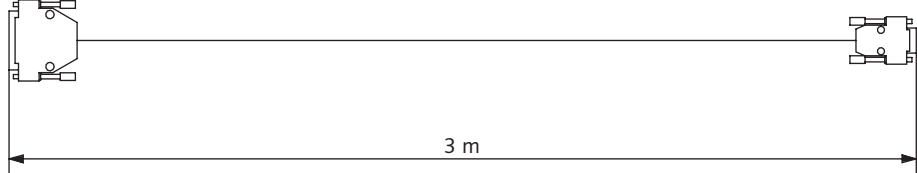
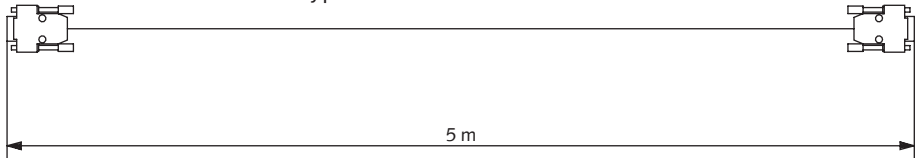
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## Cable Concept and A/D Acquisition Cards for DynoWare Type 2825A...

| Signal Conditioner  | Measuring Signal Connecting Cable  | A/D Acquisition Card   |
|---|--|--|
| <p>Type<br/>5017...<br/>5019...<br/>5070...<br/>5223...<br/>5237...</p>   | <p style="text-align: center;"><b>Type 1500B15</b></p> <p>D-Sub pos. 15 pole                      D-Sub neg. 37 pole</p>  <p style="text-align: center;">2 m</p>  | <p style="text-align: center;"><b>Type 2855A3</b></p> <p style="text-align: center;">CIO-DAS1602/12 (ISA-Bus)</p>  <p>D-Sub pos. 37 pole</p>   |
| <p>Type<br/>5011...<br/>5015...<br/>5017...<br/>5019...<br/>5223...<br/>5237...<br/>other products</p>          | <p style="text-align: center;"><b>Type 1500A67</b></p> <p>8x BNC pos.                      D-Sub neg. 37 pole</p>  <p style="text-align: center;">2 m</p>        | <p style="text-align: center;"><b>Type 2855A4</b></p> <p style="text-align: center;">PCIM-DAS1602/16 (PCI-Bus)</p>  <p>D-Sub pos. 37 pole</p>   |
| <p><b>Only for signals from the 6-component summing calculator</b></p> <p>Type<br/>5017Bxxx1<br/>5070Ax2xxx</p> | <p style="text-align: center;"><b>Type 1500A7</b></p> <p>D-Sub pos. 15 pole                      D-Sub neg. 37 pole</p>  <p style="text-align: center;">2 m</p> | <p style="text-align: center;"><b>Type 1500B69</b></p> <p>D-Sub pos. 37 pole                      MERITEC 50 pole</p>  <p style="text-align: center;">1 m</p> <div style="border: 1px dashed black; padding: 10px; margin-top: 20px;"> <p style="text-align: center;"><b>Type 2855A5</b></p> <p style="text-align: center;">PC-CARD-DAS16/16 (PC-CARD-Bus)</p>  <p>50 pole</p> </div> |

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**Interface Cables**

| Signal Conditioner                               | RS-232C Interface Cable (Null Modem)  |
|--|---|
| Type<br>5011Bx2<br>5017...<br>5019...<br>5223... | <p style="text-align: center;">Type 1475A3</p> <p style="text-align: center;">D-Sub pos. 25 pole <span style="float: right;">D-Sub neg. 9 pole</span></p>  <p style="text-align: center;">3 m</p> |
| Type<br>5015...<br>5070...<br>5237...            | <p style="text-align: center;">Type 1200A27</p>  <p style="text-align: center;">5 m</p>   |

**Requirements for the PC**

- Operating System: Windows NT4.0 (SP4), 2000, XP
- Pentium PC 500 MHz or higher
- Hard disc: 100 MB free space for data storage and software installation
- Memory: at least 64 MB RAM, (128 MB recommended)
- Super VGA monitor, screen resolution set to at least 800x600
- Vacant port (ISA, PCI or PC-CARD) for data acquisition board
- Parallel interface Centronics (LPT1) or USB for license key
- Microsoft compatible mouse
- CD-ROM drive
- A color printer is recommended for creating hard copies of graphs
- Acrobat Reader for reading the PDF Instruction Manual

**Optional Accessories**

- Data acquisition card
- Data acquisition card
- Data acquisition card
- Connecting cable
- Connecting cable
- Connecting cable
- Interface cable
- Interface cable
- USB/RS-232C converter

**Type**

- 2855A3, CIO-DAS 1602/12
- 2855A4, PCIM-DAS 1602/16
- 2855A5, PC-CARD-DAS 16/16
- 1500B15
- 1500A67
- 1500B69
- 1200A27
- 1475A3
- 2867

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| <b>Ordering Key</b>  | <b>Type</b>       |
|--|-------------------|
| <b>Scope of Delivery Including Accessories</b>   |                   |
| <b>DynoWare Complete Version</b>   | <b>2825A-02-1</b> |
| <ul style="list-style-type: none"> <li>• Runtime license key for parallel interface</li> <li>• CD-ROM</li> <li>• Instruction manual</li> </ul> |                   |
| <b>DynoWare Complete Version</b>   | <b>2825A-02-2</b> |
| <ul style="list-style-type: none"> <li>• Runtime license key for USB interface</li> <li>• CD-ROM</li> <li>• Instruction manual</li> </ul>      |                   |
| <b>DynoWare Update Version</b>   | <b>2825E-02-0</b> |
| <ul style="list-style-type: none"> <li>• CD-ROM</li> <li>• Instruction manual</li> </ul>   |                   |
| <b>DynoWare Demo Version</b>   | <b>2825D-02-0</b> |
| <ul style="list-style-type: none"> <li>• CD-ROM</li> </ul>   |                   |

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