

# DataFlow

Type 2805A...

## Quality Monitoring System

DataFlow is a universal system for process visualization, analysis, monitoring and documentation. Different hardware components can be used to adapt this system to specific application requirements.

The DataFlow package consists of two software products. DataFlow is a data acquisition tool, and DataFlow Statistics a statistics program for producing quality reports and carrying out statistical analyses. The two programs can be installed and run on separate systems, although DataFlow Statistics must have access to the DataFlow data.

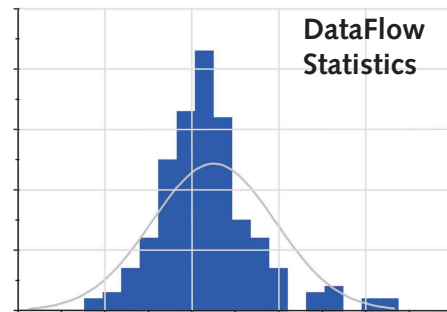
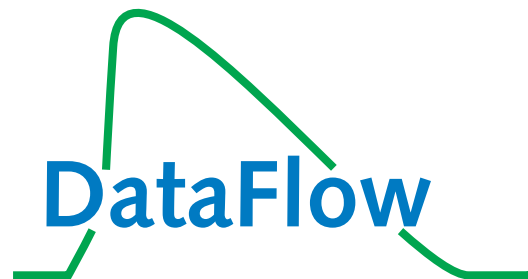
- Process visualization
- Process monitoring (100 %)
- Production documentation of each cycle and all moldings
- Up to 64 input channels
- Wizards for ease of use
- To us with Laptop, Desktop-PC or industrial computer
- Runs under Microsoft Windows® XP, Windows® Vista

### Description

DataFlow was developed for the injection molding process, but its universal functionality also makes it suitable for use in other cyclical industrial production processes requiring documentation.

The software can be installed on a desktop PC in a fixed location or on a laptop for mobile use. In conjunction with the signal conditioner it provides a powerful system for acquiring, processing and documenting an extremely wide variety of process data.

The family of signal conditioner platforms Types 2853A... and 2865B... forms the basis for both mobile and stationary systems. They can be individually equipped with plug-in cards depending on the measuring task and customer requirements. The multi-cavity system Type 6829A... is also supported.



Software module for statistics and documentation

### Application

The wizards provided make the software user-friendly.

### DataFlow Provides the Following Functionality

- Data acquisition including communication with connected hardware (signal conditioner)
- Graphical display functions (time-dependent, value-dependent, numerical & bar)
- File handling, including import and export of data and files
- Monitoring functions
- Data processing functions (filter, mathematical functions & signal conversion)
- Voltmeter and oscilloscope functions
- Offline data analysis for optimization and evaluation of production
- Static process evaluation
- Quality documentation for internal and external use
- Online Process reporting
- Cycle note function

### System Requirements

- Operating System Windows® XP, Windows® Vista
- >512 MB RAM
- CPU speed >2,5 GHz
- CD-ROM drive
- USB or parallel interface

### Important DataFlow Functions

- y(t) view: several curves on single view, or one curve per view in parallel
- y(x) view: several force, pressure or other curves can be plotted against, for example, a single displacement (force against displacement, pressure against displacement, etc)
- Superimpose recorded curves, e.g. the last 5 or 50 curves are retained in the display
- Zoom on specific sections
- Scale axes or freeze scale
- View digital outputs
- Test digital outputs before data acquisition
- Trend view: trend exhibited by the actual value
- Tabular view of measurements
- Set digital outputs through monitoring functions (up to 28 digital outputs depending on configuration)
- Data acquisition on up to 64 channels
- Complete monitoring functions: Maximum and minimum values, average, Box, Level, diverse integrals, tolerance band relatively and absolute positioned
- Copy views or rows of figures into Word or Excel with ease
- Evaluation of (Overmolding) Multi component molding for injection molding process
- Process description online and offline
- Measuring of the cycle time

### The Following Additional Functions are Available for Data Analysis and Diagnostics

- Search for bad cycles
- Extended superimposition
- Additional definition of monitoring functions
- Export data directly into Excel or as .txt file
- Parallel opening of different data files

### Operating of DataFlow

- Easy Set up of Measurement configuration and start of Measurement
- Adjustment Configurations "on the fly"
- Traceability of measurement values down to single cycle

### Important DataFlow Statistics Functions

- Quality report, fully configurable as document with company logo
- Cp
- Cpk
- Gauss
- Trend
- Actual value view
- Fault summary
- Table with values and time mark for traceability down to single cycles

**Just a View of the Graphical Display Possibilities**



**Top left:** Status display of the digital outputs (alarm outputs and function fulfillment).

**Top right:** y(t) display with selectively taken curves.

**Top left:** Cursor position values, with actual value for positions of cursor 1 and 2, as well as integral, maximum, minimum and difference between the cursors.

**Center right:** y(t) display with selectively taken curves.

**Center left:** Numerical display of the channels with measurands and good/bad result.

**Bottom right:** Bar display with evaluation functions.

**Bottom left:** Curves with defined monitoring functions.

All of the graphics and tables can be readily copied into other documents and reused.

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Graphical Display Possibilities (cont.)

DataFlow Statistics

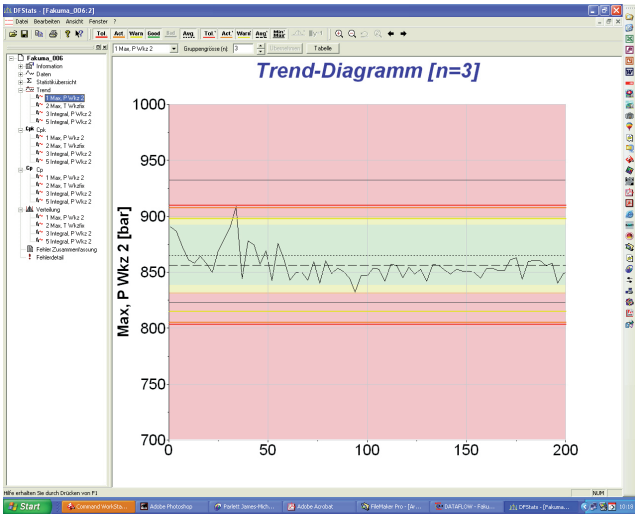


Fig. 1: Trend graph

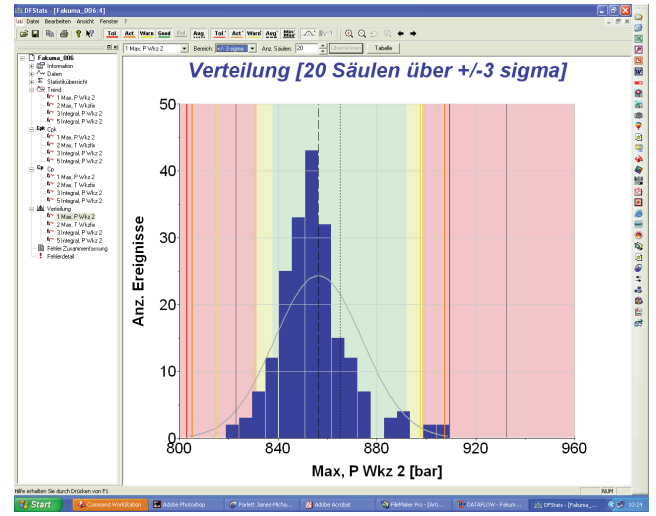


Fig. 3: Gaussian distribution

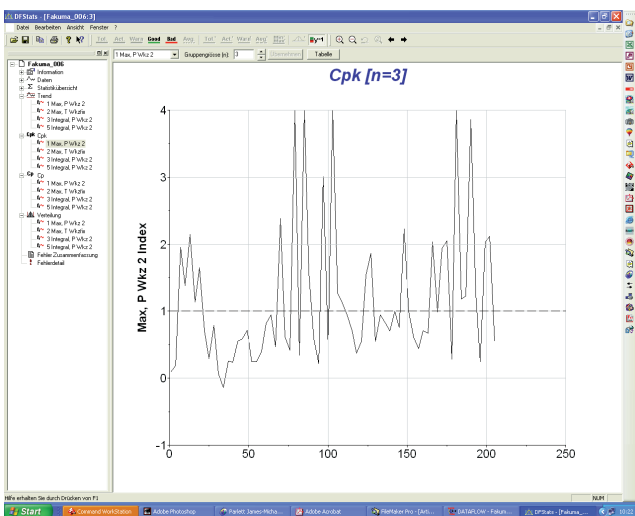


Fig. 2: Trend graph "CPK"

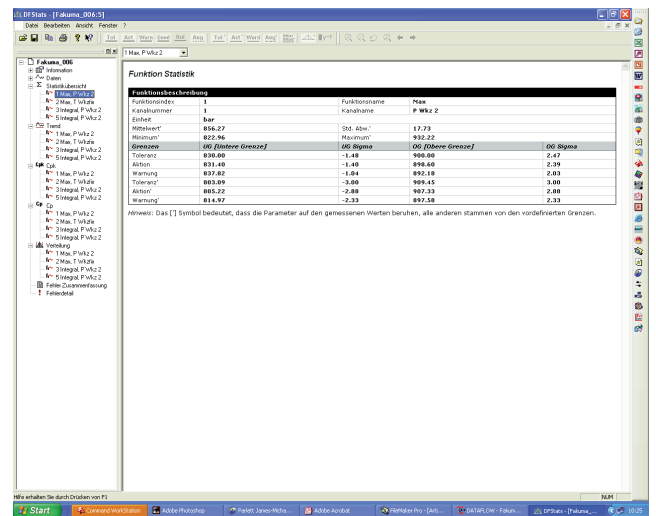


Fig. 4: Statistical analysis

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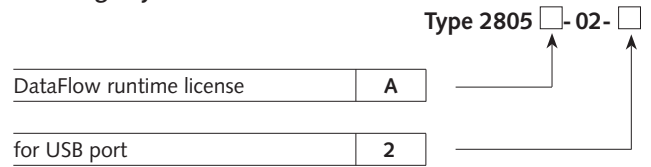
All of the graphics and tables can be readily copied into other documents and reused.

Other configuration are possible. Our technicians will be pleased to help and support you.

**Optional Accessories**

- |  | <b>Type</b> |
|--|-------------|
| • A/D card 16 channel PC card (Laptop)<br>16 bit resolution  | 2855A5      |
| • A/D card 16 channel PCI card (Desktop)<br>16 bit resolution  | 2855A4      |
| • A/D card 64 channel PCI card (Desktop)<br>16 bit resolution  | 2855A6      |
| • Signal Conditioner up to 16 input channels<br>Complete system including DataFlow CD<br>and Runtime licence | 2865B...    |
| • Multi Cavity System up to 64 channels with<br>USB-amplifier on request                                     |             |

**Ordering Key**



Information about Amplifiers and Signal Conditioning Platforms according to data sheet 2853A\_000-374, 2865B\_000-638 and 6829A\_000-046.

Remark: The newest version of DataFlow can be downloaded from Kistler Website: [www.kistler.com](http://www.kistler.com)

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