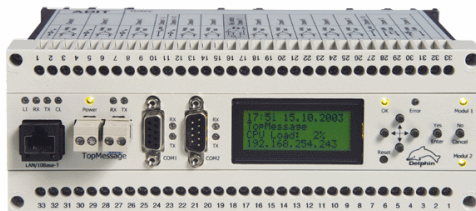


## DATA ACQUISITION - HARDWARE

### 1 - Top Message



#### Application mainly for:

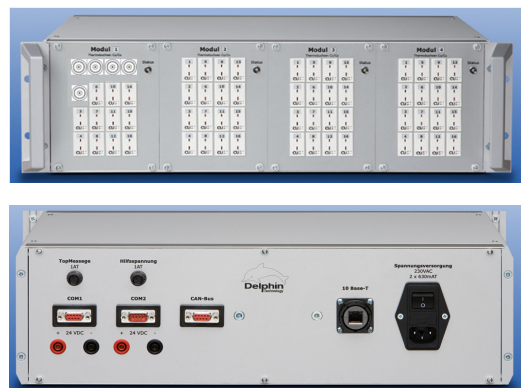
- 1) Data Logger for Sensor and PLC Signals
- 2) Mobile Data Acquisition and Fault Analysis
- 3) Endurance Testing
- 4) Environment Simulation Testing
- 5) Laboratory Data Acquisition and Automation
- 6) Vibration Measurement
- 7) Monitoring and Alarm Functions
- 8) Monitoring and Controlling Remote Processes

Top Message – For Temperature / Voltage / Strain / Pressure Measurement

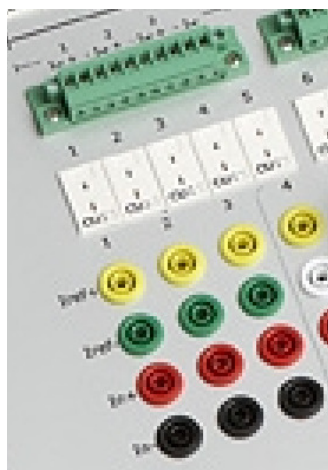
Top Message with Case



Top Message with Rack System



#### Top Message - Channel Connection Type



← Screw Connections

← Miniature Connector - Thermocouple

← Plugs



← BNC Connectors

← Multi Plug



## DATA ACQUISITION - HARDWARE

### 2 - Expert Series



**Expert Key** is Delphin's new product series for PC-supported measurement technology and test stand automation.

The entire functioning of an Expert device is incorporated onto a single circuit board, giving it an extremely compact format. Expert Key devices are equipped with both USB and network interfaces that can be used as required.

**Expert Key L** is use for:

- i) Laboratory
- ii) Experiment use.

**Expert Key C** is use for:

- i) Test and measurement (mobile and in Lab) intended with cabinet mounting

The devices are supplied with ProfiSignal Go software for the quick-start of measurement and automation procedures. Functions range from data storage, both in record and continuous database format, right through to online and offline analyses and monitoring in trends. There are also functions for monitoring, alarm management and data-export.

#### Application mainly for:

- 1) Data Logger for Sensor and PLC Signals
- 2) Mobile Data Acquisition and Fault Analysis
- 3) Endurance Testing
- 4) Environment Simulation Testing
- 5) Laboratory Data Acquisition and Automation
- 6) Vibration Measurement
- 7) Monitoring and Alarm Functions
- 8) Monitoring and Controlling Remote Processes



## Device Versions

### Device versions input / output channels

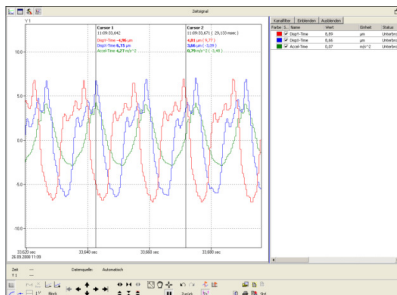
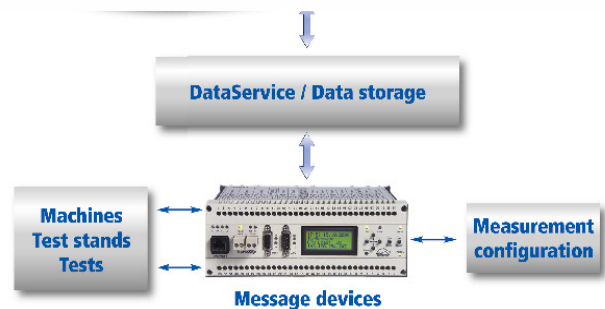
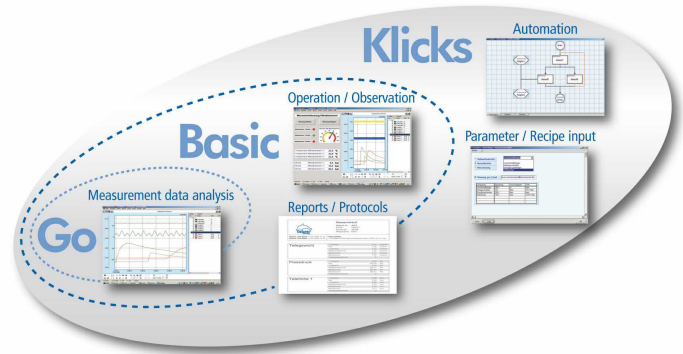
|                                         |                                                                                                       |                                                                                                         |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Expert Key L                            | Expert Key 100L<br>  | Expert Key 200L<br>  |
| Expert Key C                            | Expert Key 100C<br> | Expert Key 200C<br> |
| <b>Analog inputs</b>                    |                                                                                                       |                                                                                                         |
| Number                                  | 14                                                                                                    | 28                                                                                                      |
| Power Supply for RTD / Number           | Yes / 4                                                                                               | Yes / 8                                                                                                 |
| Temperature Reference Junction / Number | Yes / 1                                                                                               | Yes / 2                                                                                                 |
| <b>Analog outputs</b>                   |                                                                                                       |                                                                                                         |
| Number                                  | 2                                                                                                     | 2                                                                                                       |
| <b>Digital Inputs</b>                   |                                                                                                       |                                                                                                         |
| Number                                  | 12 to 8                                                                                               | 1                                                                                                       |
| With Counter Function                   | 2                                                                                                     | 1                                                                                                       |
| <b>Digital Outputs</b>                  |                                                                                                       |                                                                                                         |
| Number                                  | 4 to 8                                                                                                | 1                                                                                                       |
| With PWM Function                       | 4                                                                                                     | 1                                                                                                       |

### DATA ACQUISITION - SOFTWARE

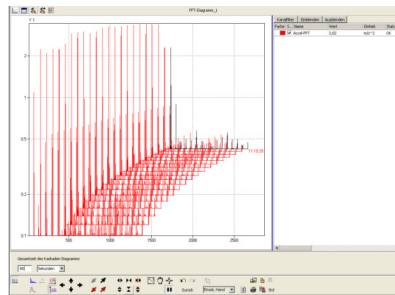
**ProfiSignal** software is very user friendly and easy to use. With just a few clicks individual applications can be developed. The software is available in two different versions **BASIC** and **KLICKS**.

**ProfiSignal Basic / Profisignal Go** is the perfect solution for all customers who are interested in monitoring, controlling and analysing process data. The configuration of the VisuObjects works via drag and drop functionality. Graphic user interface (GUI) can be developed very quickly. The software provides many different diagram types which extensive analysis features.

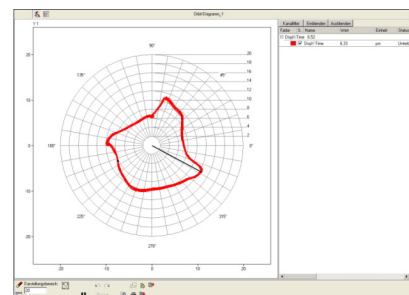
**ProfiSignal Klicks** is the right tool for all customers who would like to go beyond monitoring and analysis. Klicks is providing a development framework for automated programs.



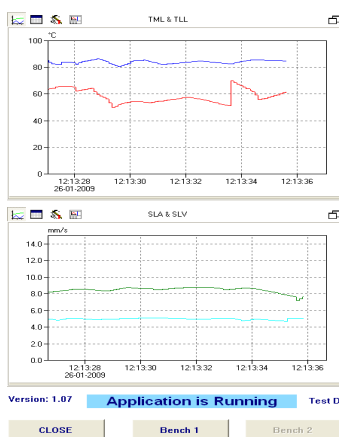
Time Signal



Spectrum (Cascaded)



Orbit  
(Eccentricity / Phase Angle)



#### Compressor Test Stand 2

| Probe                  | Recordings | Product ID: AS-3508                          |
|------------------------|------------|----------------------------------------------|
| Frequency              | 701 Hz     | Date: 2009-01-15                             |
| Engine Voltage         | 360 V      | Order-No.: 2009-1359                         |
| Engine Current         | 35 A       | Stator-No.: 36-2789-9-18                     |
| RPM                    | 4200 1/min | Supervisor: Mick Anderson                    |
| p1 Intake Pressure     | 570 mbar   | Helium Leak Test: <input type="checkbox"/>   |
| p10 Gate Pressure      | 820 mbar   | Pulse Voltage Test: <input type="checkbox"/> |
| Pressure Ratio         | 144        | Pressure Test: <input type="checkbox"/>      |
| Cool Water Temperature | 38 °C      |                                              |
| Flowrate               | 30 l/min   |                                              |
| t1 Intake Temperature  | 20 °C      |                                              |
| t10 Gate Temperature   | 65 °C      |                                              |
| Bearing Temperature    | 27 °C      |                                              |
| Engine Temperature     | 42 °C      |                                              |
| Power Consumption      | 15000 W    |                                              |
| Axial Vibration        | 10 mm/s    |                                              |
| Vertical Vibration     | 5 mm/s     |                                              |
| Horizontal Vibration   | 4 mm/s     |                                              |

