



**aim arnold intelligente messsysteme**



**FORDIS**  
**Force-Displacement Measuring System**

| <b>FORDIS</b>                   |             |                    |
|---------------------------------|-------------|--------------------|
| <b>Type</b>                     | <b>Unit</b> | <b>Value</b>       |
| <b>Power supply</b>             |             |                    |
| Supply voltage (via USB)        | <i>V</i>    | 5                  |
| <b>Measurement signals</b>      |             |                    |
| Output rate                     | <i>Hz</i>   | 1000               |
| Measurement duration per test   | <i>s</i>    | 8                  |
| Time delay force-displacement   | -           | synchronous        |
| <b>Force measurement</b>        |             |                    |
| Measuring principle             | -           | strain gauges      |
| Nominal range                   | <i>N</i>    | ± 500              |
| Resolution                      | <i>Bit</i>  | 16                 |
| Accuracy                        | %           | typ. 0, 1          |
| <b>Displacement measurement</b> |             |                    |
| Measuring principle             | -           | optical encoder    |
| Nominal range                   | <i>mm</i>   | 14                 |
| Resolution                      | <i>µm</i>   | 1, 25              |
| Accuracy                        | %           | typ. 0, 1          |
| <b>Dimension and cabling</b>    |             |                    |
| Outer dimensions                | <i>mm</i>   | 155x65x26 (LxW xH) |
| Weight                          | <i>g</i>    | 485g               |
| Cable length                    | <i>m</i>    | 3                  |

# Force-Displacement Measuring System FORDIS

With the FORDIS measuring system, the course of force and displacement can be recorded synchronously, for example in the field of vehicle safety tests. In particular, investigations into the force required while opening the belt buckle of seat belts or on vehicle doors after crash tests are possible.

- Force measurement using strain gauges (full bridge)
- Wear-free optical displacement measurement
- Data output at 1kHz with 16 bits (signed INT) per signal
- Long duration of 8 seconds per measurement
- USB interface for communication and power supply
- Two bicolor LEDs for status indication
- Data export in ISO-MME format
- Easy test definition via intuitive user interface
- Software-guided procedure for correct test execution
- Door and seat belt buckle tests with a single measuring device
- Overload protection for force measurement
- Adapters available for different belt buckle geometries
- Robust, anodized aluminum housing

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