



More Precision

induSENSOR // Linear inductive displacement sensors



Ideal for customer-specific adaptations

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Examples for customer-specific modifications

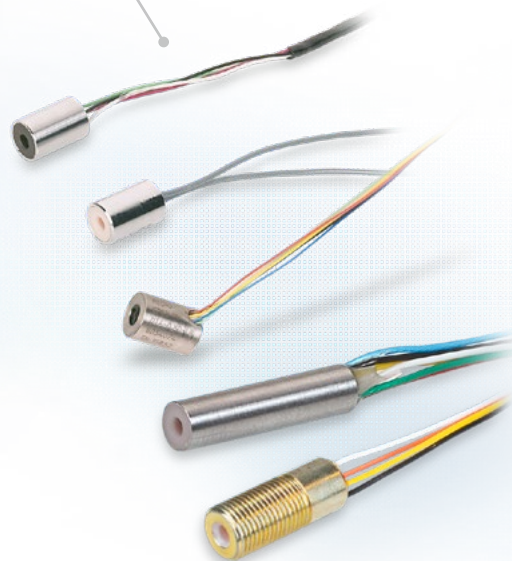
Special Systems

- Mechanical adaptations
- ATEX/FM approval
- Additional physical principles



Miniature LVDTs

- Small measuring ranges and designs for installation into confined spaces



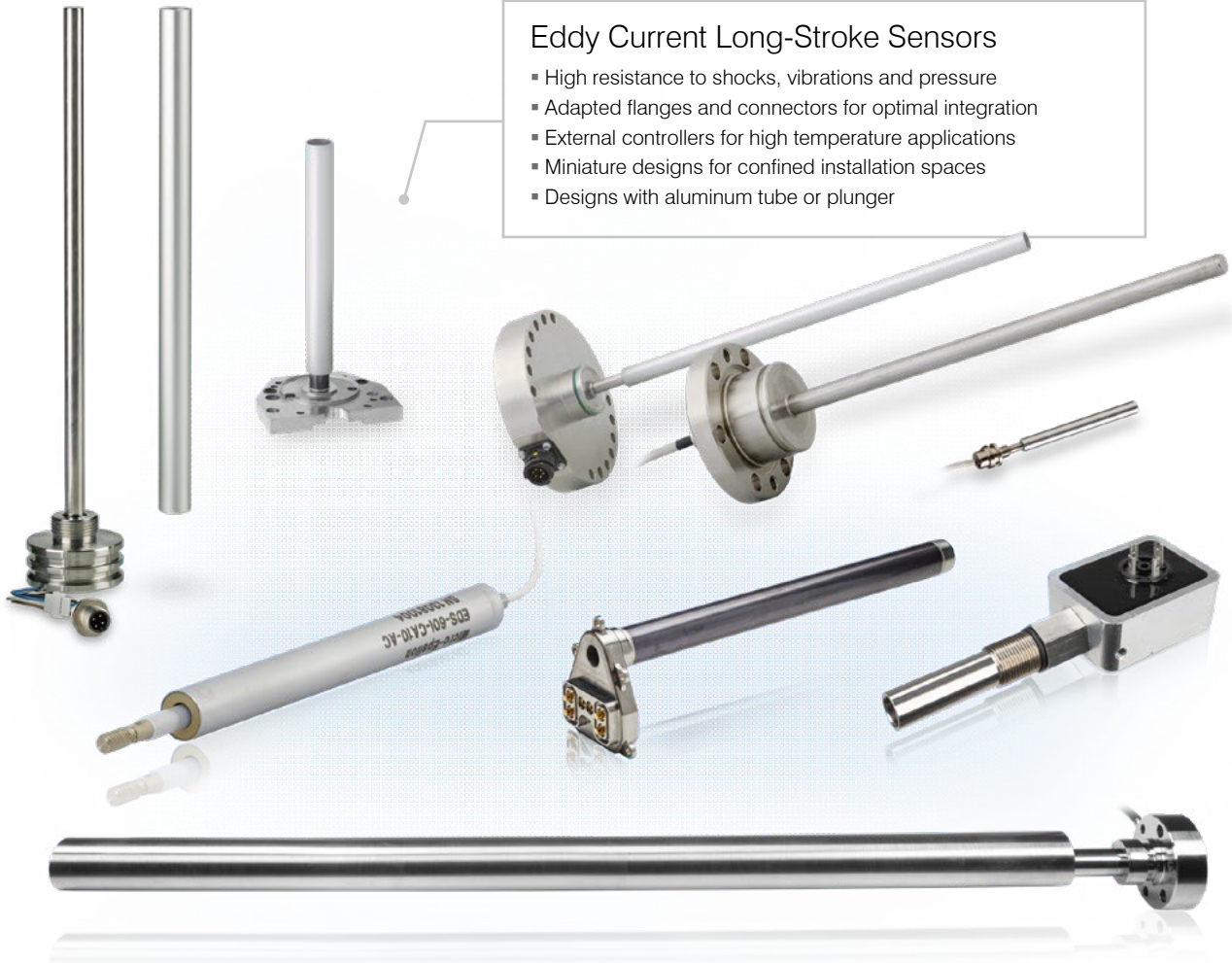
Optimized Sensor Technology for Large Series

- Hydraulic valves
- Process valves
- White goods



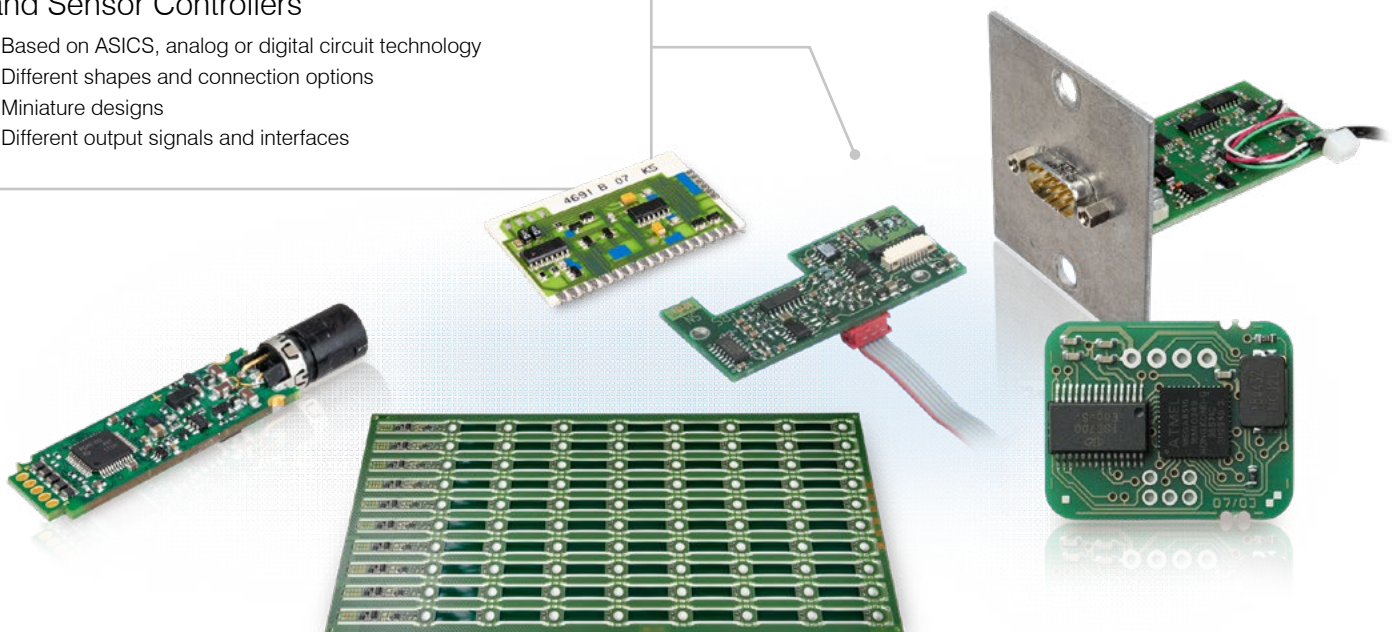
Eddy Current Long-Stroke Sensors

- High resistance to shocks, vibrations and pressure
- Adapted flanges and connectors for optimal integration
- External controllers for high temperature applications
- Miniature designs for confined installation spaces
- Designs with aluminum tube or plunger



Adapted Controller Components and Sensor Controllers

- Based on ASICs, analog or digital circuit technology
- Different shapes and connection options
- Miniature designs
- Different output signals and interfaces





Sensor-level services:

Connector assembly, cable reduction



Mounting accessories / Probe tips

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Sensors



Gauge: DTA-xG8 series

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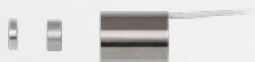
Sensor: DTA-xDX series

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Sensor: LDR series

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Sensor: LVP/LDR series

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Controllers



Single-channel system

Controller MSC7401

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2-channel system

Controller MSC7802

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Multi-channel system

Controller MSC7602

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RS485

Analog

Measuring system



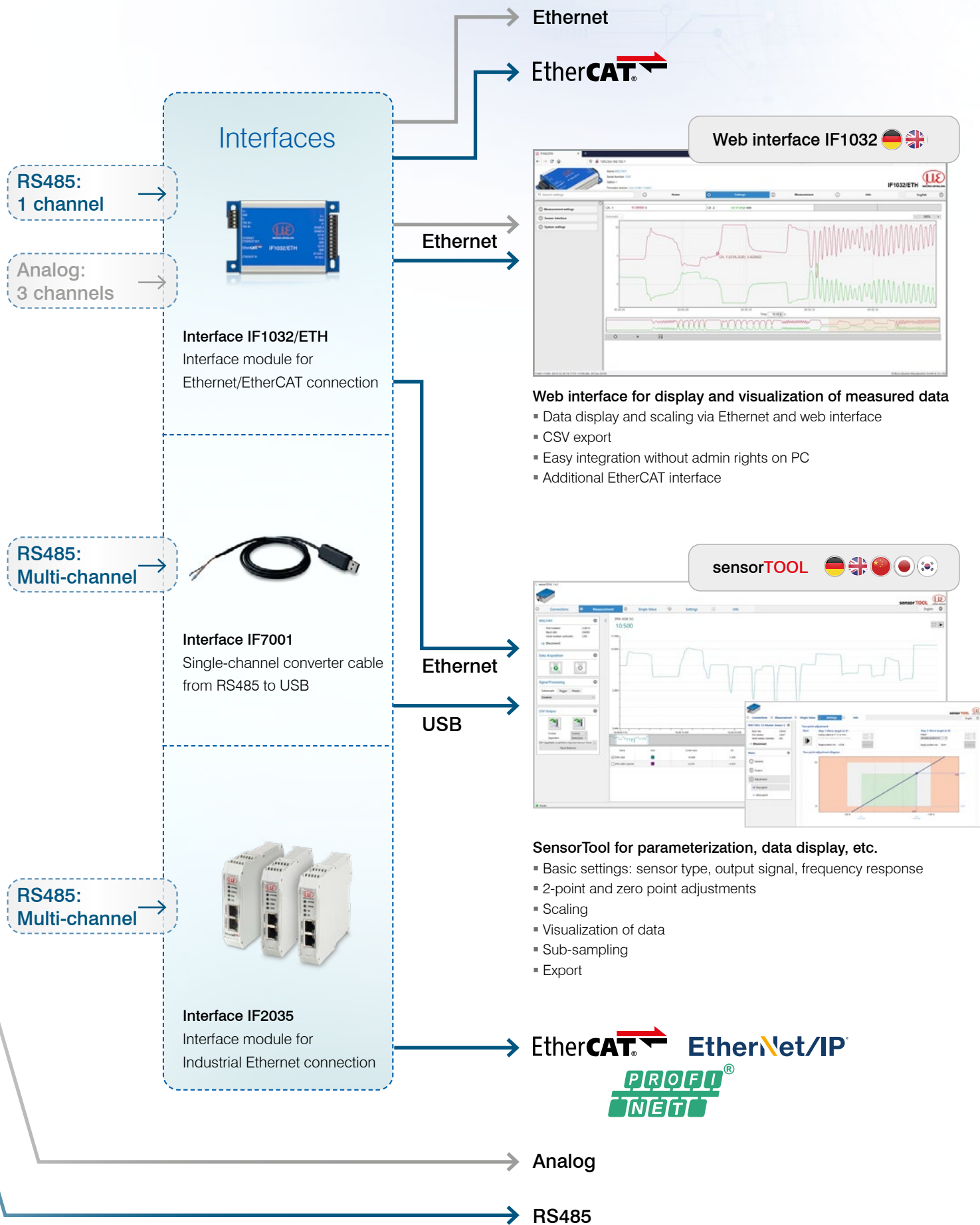
Sensor: DTD-xG8 series

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System-level services:

Adjustment, linearization, basic settings, test certificates



Technology and measuring principle

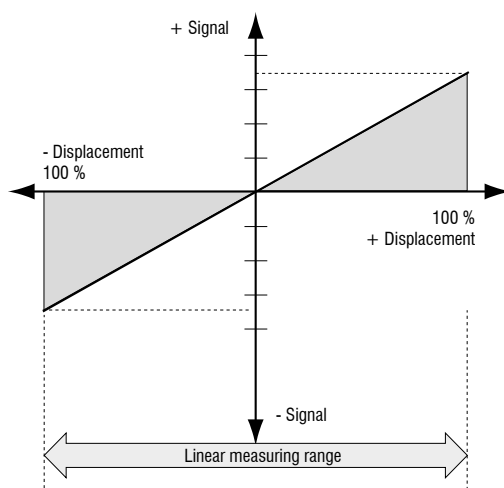
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LVDT Gauges and LVDT displacement sensors (DTA series)

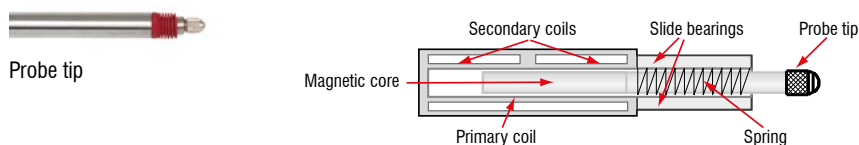
LVDT displacement sensors and gauges (Linear Variable Differential Transformer) are constructed with a primary and two secondary coils, which are arranged symmetrically to the primary winding. As a measuring object, a rod shaped soft-magnetic core can be moved within the differential transformer. An electronic oscillator supplies the primary coil with an alternating current of constant frequency. The excitation is an alternating voltage with an amplitude of a few volts and a frequency between 1 and 10 kHz.

Depending on the core position, alternating voltages are induced in the two secondary windings. If the core is located in its "zero position", the coupling of the primary to both secondary coils is equally large. Movement of the core within the magnetic field of the coil causes a higher voltage in one secondary coil and a lower voltage in the second coil. The difference between the two secondary voltages is proportional to the core displacement. Due to the differential design of the sensor, the LVDT series has an output signal which is very stable.

Signal LVDT sensor



Measuring principle gauging sensor



Measuring principle displacement sensor

