Unbalance and load detection in washing machines

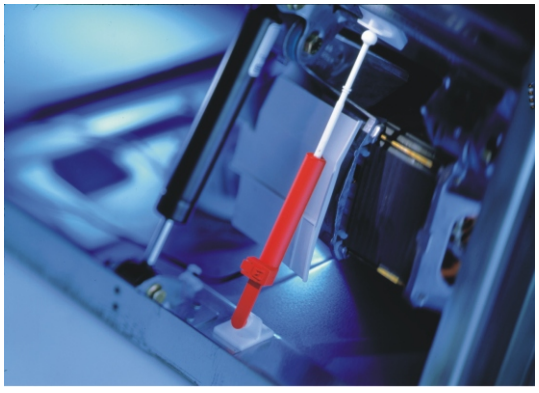
When the washing machine is loaded, the DRA displacement sensor measures how much the outer drum drops. It also measures the drum's deflection during spin-drying. Due to the inductive measuring principle, the sensor provides absolute position measuring for static and dynamic processes. The washing results are optimised by the load measurement providing ease of use. The displacement sensor delivers an output signal proportional to the weight. This permits full utilisation of the drum volume and helps to determine the required amount of detergent.

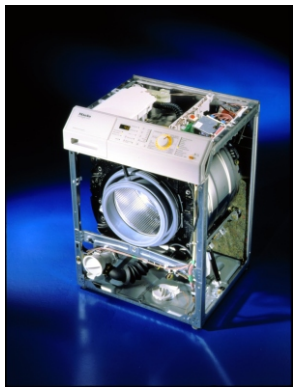
Operational costs are reduced and the environment is protected. The ability to sense an unbalance makes it possible to tailor the speed during spin-drying. This improves how the machine runs and the effectiveness of spin-drying. The service life of the washing machine is also increasing. The simple mounting and direct control via the washing machine's microcontroller allow for simple implementation and an excellent price/performance relationship.

Sensor features

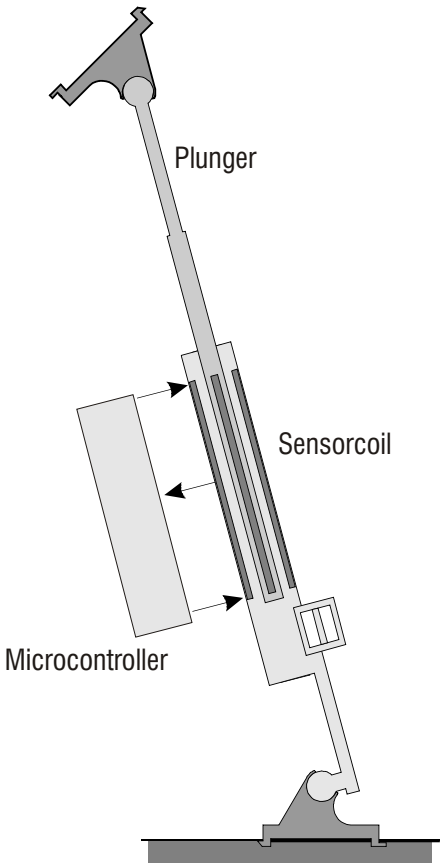
- Measuring range: 50mm (±25mm)
- Well-priced, customer-specific version
- Power supply and signal processing by micro-controller (patented)
- For static and dynamic displacement detection
- Simple mounting

Direct control and signal processing by microcontroller





Photograph: Miele



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