

# Sensors & Electronics

## Product examples



LVDT sensor, pressure-tight  
Evaluation by customer



Automotive sensor  
Evaluation by customer



Rotary solenoid  
with holding current reduction



Power electronics for AC



Sensor LVDT Aerospace



Sensor LVDT Aerospace



LVDT sensor for servo valve



Sensor LVDT marine application

## Plants and Sales

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Magnet- Schultz of America  
Sales | R&D | Production



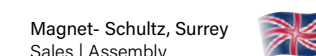
W.E. Schultz, Oberrindal  
Sales | Production



Magnet- Schultz, Suzhou  
Production



Magnet- Schultz, Italia  
Sales



Magnet- Schultz, Surrey  
Sales | Assembly

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Sensors and Electronics

## Inductive displacement transducers LVDT



- For mobile and stationary hydraulic applications
- Hermetically sealed versions with high degree of protection (e.g. for aerospace, deep sea)
- Good media resistance
- Pressure-tight up to 400 bar
- Customer-specific special designs and standard devices
- Cost-efficient solutions for customer-specific large series
- Versions with and without evaluation electronics
- Versions with digital or analogue electronics
- Analogue outputs
- CAN bus interface

### Technical data:

- Measuring ranges:  $\pm 1 \dots \pm 115 \text{ mm}^*$
- Temperature range without electronics:  $-60 \dots +150 \text{ }^\circ\text{C}^*$
- Temperature range with electronics:  $-20 \dots +75 \text{ }^\circ\text{C}^*$
- Temperature drift:  $0.05 \text{ } \%/K^*$
- Accuracy classes :  $\pm 1; \pm 0.5; \text{ } \%/FS^*$

\*usual, extended requirements on request

## Displacement transducer Hall sensor



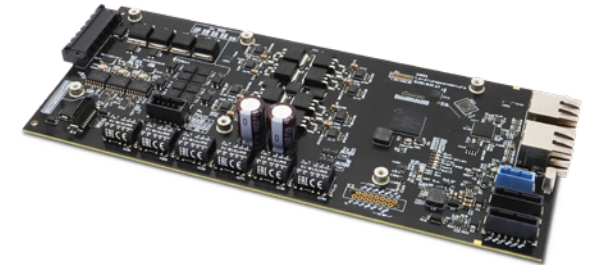
- For mobile and stationary hydraulic applications
- Pressure-tight up to 210 bar
- Displacement measurement and position control with up to 2 switching points
- Mechanical interface according to customer requirements
- Option: Integration in application solution according to ISO 26262 ASIL B/C

### Technical data:

- Measuring ranges:  $\pm 1 \dots \pm 10 \text{ mm}^*$
- Temperature range:  $-40 \dots +125 \text{ }^\circ\text{C}^*$
- Temperature drift:  $0.05 \text{ } \%/K^*$
- Accuracy classes:  $\pm 3; \pm 1; \text{ } \%/FS^*$

\*usual, extended requirements on request

## Controls



- Holding current reductions up to 24VDC
- Holding current reduction for 230VAC, controlled or regulated
- Control types: PWM, phase control and half-wave cut-off
- Controls for pick-up and holding windings for AC and DC
- Evaluation electronics for electromagnetic actuators for position detection, motion detection and switching time detection
- Systems consisting of electromagnet and control unit
- Digital current controller for electromagnetic actuators up to 150VDC /10A
  - Real-time capable EtherCAT interface
  - Different output stage variants can be switched
  - Freewheeling circuit internal, external or adaptive
  - Freely definable setpoint current characteristic with dither overlay
  - 8 inputs and outputs configurable via software (voltage input, voltage output and current output)