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## Hall linear/angular position sensor



A Hall position sensor delivers a signal proportional to the linear position (displacement) and/or angular position of a magnet fixed to a moving part.

The sensor detects either the amplitude or the direction of the magnetic field created by the magnet. The application-specific magnetic circuit includes a pole piece that concentrates the field.

Electricfil solution - ready technologies

## Characteristics

- Stroke up to 40 mm and angles up to 360°
- Temperatures up to 150°C
- Typical accuracy:  $\pm 2\%$
- Response time: 15 ms
- Airgap up to 6 mm
- Size: very small (independent of stroke)
  
- Integrated diagnostics
- Optional redundancy
- Non-contact sensing
- Through-wall detection for non-magnetic materials
- Interface: 3-wire, analog and PWM output

## Electricfil knowhow

- Reduced weight and size of the ignition function with high energy densities
- Wide range of packages and interfaces
- Fully programmable sensors
- Same sensor design for linear or angular measurements
- Combination of several Hall linear and/or angular sensors in a single module

## Application domains

Transmission

[Clutch](#)

[Actuation control](#)

[Clutch control and driver assistance](#)

[Gear-shift control](#)

[Gear selection indicator](#)

Vehicle dynamics

Clutch, brake, accelerator pedal

Engine management

Air circulation

Camshaft and crankshaft