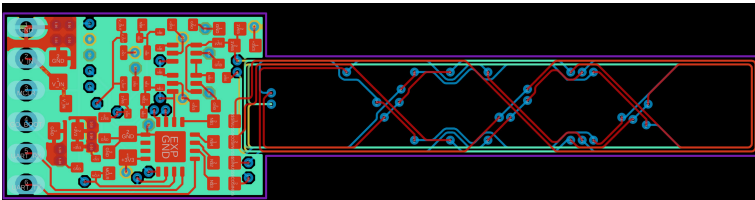


POSITION / DISPLACEMENT Sensor

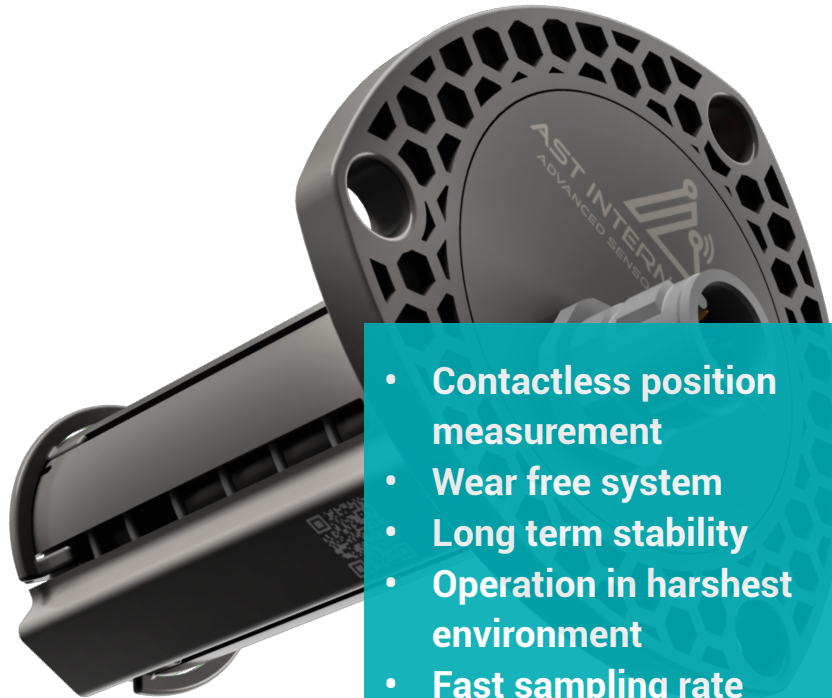
3D-Hall or inductive technology

AST's linear displacement sensors with inductive or 3D-Hall ASIC-based measuring principle determine the position of mechanical components **contactless** and **without wear**. The so-called target is attached to the movable part of the mechanical system and interacts without contact with the stationary sensor system via magnetic or inductive mechanisms. The sensor and target are each **encapsulated against environmental influences**, enabling operation in the **harshest environments**. The sensor is qualified according ASIL B.

The **inductive sensing technology** is based on a **printed circuit coil arrangement** and a **passive target** made out of a **conductive material**. The **eddy currents** induced in the conductive target give a **retroactive signal** into the coils and allow a very **precise position detection**.



The **3D-Hall Technology** is based on an **ASIC owned by AST**. The ASIC interacts with a **small permanent magnet** as a target to determine the relative position of these two components.



- **Contactless position measurement**
- **Wear free system**
- **Long term stability**
- **Operation in harshest environment**
- **Fast sampling rate**
- **Customized housing**
- **ASIL B qualified**

Technical data:

Measuring range	up to 300mm
Measuring accuracy	± 0.5% fullscale
Operating temperature	-40°C to +125°C
Sampling rate	100Hz
Ingres protection	IP6K9K
Geometry	adapted to customer requirements
Interface	LIN/SENT/CAN 0-5V/4-20mA

AST International is a leading provider of **customized sensors and controls** for automotive, domestic appliance, and industrial applications. Our products stand out on account of their **cutting-edge sensor technology**, best quality and reliability.



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