PROTERIAL
博迈立铖

感应式位置传感器

Inductive Position Sensor

高精度测量转向角或齿条轴位移

High-precision measurement of steering angle or rack shaft displacement

概 要

- ✓ **高精度检测**
  High accuracy
- ✓ **高抗磁场干扰性**
  High immunity to Stray Magnetic Fields
- ✓ **支持冗余设计**
  Supporting redundancy

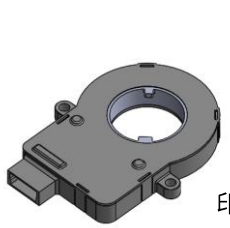
产品应用 **转向/减震器**

转向角检测／齿条轴位移检测
(用于线控转向系统及四轮转向系统)
减震器位移检测
(用于电子控制悬架系统)

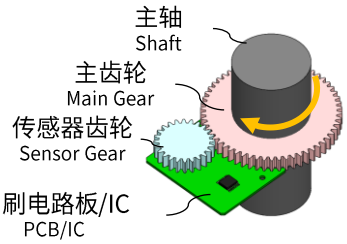
Steering angle detection / Rack shaft displacement detection
(for steer-by-wire and four-wheel steering systems)
Damper displacement detection
(for electronically controlled suspension)

■ 角度传感器 Angle Sensor

・采用感应式原理，具有高磁场抗扰性
High magnetic field immunity due to inductive method
・通过一对齿轮结构实现绝对角度检测（减少零件数量）
Detection of absolute angle in a pair of gears structures (Reduction of the number of parts)



外观 Appearance

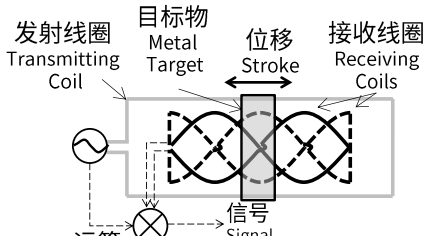


传感结构 Sensor Configuration

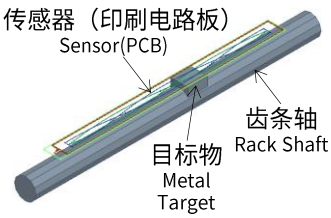
项目 Item	规格（暂定） Specification (provisional)
旋转范围 Range	5圈（可选） 5 rotations (Optional.)
精度 Accuracy	±2°
尺寸 Size	TBD
电源电压 Supply Voltage	5VDC
输出类型 Output type	2角度 (通过运算实现绝对角度检测) 2 Angles (absolute angle detection by calculation)
通信协议 Protocol	SENT/SPC
ASIL(*1)	B, B+B,D

■ 位移传感器 Stroke Sensor

・采用无需旋转机构的直接检测方式，从而实现节省空间和减少零件数量
Direct detection method without using a rotation mechanism, achieving space-saving and fewer components.
・凭借独特的线圈形状，对齿条轴的倾斜具有高稳定性
High robustness against rack shaft inclination due to unique coil shape.



检测原理 Detection Principle



传感结构 Sensor Configuration

项目 Item	规格（暂定） Specification (provisional)
位移量 Range	±100mm
精度 Accuracy	±0.2mm （±0.1%FS）
尺寸 Size	TBD
电源电压 Supply Voltage	5VDC
输出类型 Output type	绝对位移（Absolute） Absolute
通信协议 Protocol	SENT
ASIL(*1)	B,B+B

(*1) ASIL：Automotive Safety Integrity Level（汽车安全水准）