

RELUCTANCE RESOLVER / ROTOR POSITION SENSOR

for the Automotive, Industrial and Commercial Transport Industry

The reluctance resolver is an inductive rotary position sensor and is designed to determine the rotor position in electric motors.

It acts like a transformer; with a primary coil and two secondary coils and where the amplitude of the secondary voltages are modified by the airgap of the rotor. In electric vehicles, the rotor position sensor is considered one of the most important technical components for precise and effective control of the motor and thus for avoiding efficiency losses.

PRODUCT HIGHLIGHTS

- Accuracy $\pm 1^\circ$ electrical
- Temperature range -40°C to $+150^\circ\text{C}$
- Oil or glycol compatibility
- ASIL D on system level

PRODUCT OVERVIEW

Product / Solution Name	Reluctance Resolver / Rotor Position Sensor
Application Focus	e-Motor
Sensor Type	Rotary Position Sensor

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MAIN FEATURES AND BENEFITS

- Temperature range: -40°C to +150°C
- Accuracy: $\pm 1^\circ$ electrical
- Speed range: Up to 20.000 rpm
- Different variants for different shaft sizes available
- Combined temperature sensor possible
- Pole pair numbers: 2-, 3-, 4-, 5-, 6-, 10-, 12-, and 18-speed
- Customized cable assembly and connector interface
- High accuracy performance with eccentricity (static / dynamic)
- Robustness against external fields

DIMENSIONS

	SCR X05	SCR X08
Stator inside diameter	101 mm	117 mm
Stator inside diameter	55 mm	75 mm
Rotor max inside diameter (smaller diameter available)	38 mm	55 mm

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