

EDDY CURRENT RESOLVER / MOTOR POSITION SENSOR

for the Automotive, Industrial and Commercial Transport Industry

The Eddy current resolver (ECR) is an inductive rotary position sensor based on eddy current technology. It consists of several coils printed on a PCB packaged in a plastic housing (stator).

Towards the surface of the stator there is a metallic rotor mounted on the rotating shaft of the application. The outline of the rotor has a specific shape enabling the coupling area between the sending and two receiving coils to change each electrical revolution.

The high frequency signals from the coils are demodulated and amplified for differential sine and cosine output.

PRODUCT HIGHLIGHTS

- Robustness against harsh environment
- Standard ASIL C, alternative ASIL D possible
- High Accuracy: +/-1° electrical

PRODUCT SPECIFICATIONS

Solution Name	Eddy current resolver / Motor position sensor
Application Focus	E-Motor
Sensor Type	Rotary position sensor

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FEATURES & BENEFITS

- Temperature range -40°C to +150°C
- High Accuracy: +/-1° electrical
- Up to 30.000 rpm
- Different variants for different shaft sizes and pole pair numbers possible
- High accuracy performance even with extreme eccentricity of 1 mm
- Robust against external fields
- Standard ASIL C, alternative ASIL D possible

DIMENSIONS

	ECR X035	ECR XX15	Unit
Stator bushing centerline diameter	65	184	mm
Stator inside diameter	21.8	118	mm
Stator angle	360	Min 65 Max 110	°
Rotor top diameter/ bottom diameter/ mounting diameter	44 / 29 / 14.8 46 / 27 / 14.8 For inner rotor	128 / 175 / 197 For outer rotor	mm
Rotor thickness	0.5 - 1	1	mm

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