



Speed sensor Type FAW... for non-magnetic scanning (eddy current principle)

Features

- Suitable for scanning conductive materials, e.g. aluminium gearwheels
- Compact design with robust sensor frontside
- As thread or flange sensor type available
- Non-magnetic scanning for maintenance-free use under harsh environmental conditions: the sensor head is unaffected by ferromagnetic particles
- Available on request with extremely durable wiring in special sheathing for protection against extreme heat as well as stone and ice impact

The speed sensor Type FAW is a new type of powerful eddy current sensor that is used for scanning any electrically conductive materials, whether they are ferromagnetic or non-ferromagnetic. Thanks to its compact and robust design as well as its resistance to temperature and soiling, the sensor is particularly suitable for use in extremely harsh environments such as traction control of rail vehicles.

The eddy current measuring principle

A coil with a high frequency alternating current supply is integrated in the sensor head. An electromagnetic field is produced with its field lines emitted from the sensor surface. Eddy currents are induced as the electrically conductive scanning object moves past the sensor face. These eddy currents in the scanning object create a magnetic field opposing the coil field of the sensor. As a result, a voltage is detected in the sensor coil.

Technical data (extract)

Measuring range	from 0.2 ... 25,000 Hz
Output signal	Square wave signal (2- or 4-channel), optional with status output
Operating temperature	-40...120 °C
Supply voltage	9...32 VDC
Scanning object	Involute toothing wheel or rectangular wheel
Scanning object material	Steel, aluminium, other on request
Module	m2 ... m3
Protection class	IP68/IP69
Standards	Type approval DIN EN 50155 Fire protection standard DIN EN 45545

