

# Magnetic Speed Sensor

## Type **SR**

Illustrative picture

Contact-free SR magnetic speed sensor is intended as an alternative to MIREL IRC axle speed sensor. It has been equipped with a magnetic scanning system, which enables in connection with gear wheel the measurement of speed and direction of rotational movement. Measurement principle is based on detection of magnetic field alteration, induced by ferromagnetic material-made gear wheel movement and on conversion to a sequence of electric pulses, from which speed and rail vehicle acceleration, rail vehicle travel direction as well as travelled distance are determined by further processing. Dependent on configuration of delivered sensor set, the output produces one or two speed channels, where each channel is composed of two electric, phase-shifted signals. Powering of SR sensor is provided by a device, to which the sensor is connected. The speed sensor is located on rail vehicle in a position allowing sensing of an already existing gear wheel, or eventually in a location where a gear wheel can be embedded.

Part of SRSET-delivery is a metal grommet with sealing for single- or double-channel applications and for modifications with connector also a connector and crimping pins.



### Basic technical parameters

Supply Voltage	24V DC nominal, tolerance according to table
Covering	IP68, in the state mounted on the axle

### Modifications

Descriptions	Number of channels	Pulse quantity per turn	Gear Wheel Module	Temperature Range [°C]	Tolerance of supply voltage	Length of incoming cable [m]	Connector	Weight [kg]
SRSET.1.1A	1	*	2	-40 ÷ +85	10V <sub>DC</sub> ÷ 30V <sub>DC</sub>	2	-	0,5
SRSET.1.1AK	1	*	2	-40 ÷ +85	10V <sub>DC</sub> ÷ 30V <sub>DC</sub>	2	HAN10-A	0,75
SRSET.1.2A	2	*	2	-40 ÷ +85	10V <sub>DC</sub> ÷ 30V <sub>DC</sub>	2	-	0,92
SRSET.1.2AK	2	*	2	-40 ÷ +85	10V <sub>D</sub> ÷ 30V <sub>DC</sub>	2	HAN10-A	1,18

\* dependent on gear wheel. Recommended teeth number should be within a range of 50÷100 which represents a gear wheel diameter of ca. 100mm÷200mm

### Related Documentation

No.	Version	Title
2128M	160613	SRSET Terms of Use
2126M	160608	SRSET Installation Terms