

Inductive Speed Sensor IS-M

This sensor is designed for incremental measurement of revolutions and angles at engine and chassis applications.

The inductive sensor consists of a bar magnet with a soft magnetic pole pin supporting an induction coil with two connections. When a ferromagnetic ring gear turns past this sensor, it generates a voltage in the coil which is directly proportional to the periodic variation in the magnetic flux. The rotational speed is reflected on a periodic interval between the voltage's zero transition points.

It is available in a DR-25 sleeve with various connectors options and different installation depths.

The main benefit of this sensor is the combination of both high quality production part and a robust, compact design.



Application	
Application	speed
Max. frequency	≤ 15 kHz
Target wheel air gap AG	0.5 ± 0.25 mm
Operating temp. range (sensing head)	-40 ... 225 °C
Storage temperature range	-40 ... 100 °C
Max. vibration	800 m/s ² max. 80 h

Electrical Data	
Coil resistance	390 Ω
Inductance max.	75 mH
Output voltage max.	55 V P-P

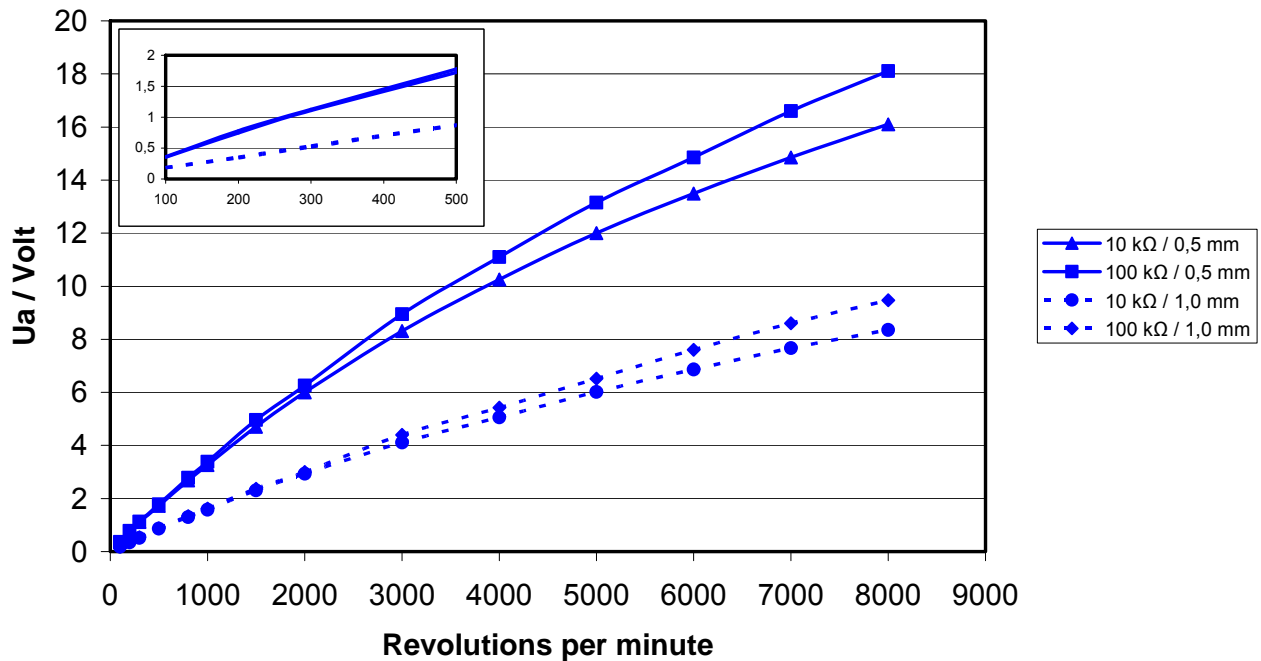
Mechanical Data	
Magnetic pole	round, 2.36 mm

Environment	
Target wheel diameter D	160.43 mm
Thickness t	> 5 mm
Width of teeth b1	4.1 mm
Width of gap b2	4.3 mm
Depth of teeth h1	3.5 mm
Depth of teeth h2	1.75 mm
Number of teeth	60-2

Connectors and Wires	
Connector	ASL 6-06-05SN-HE
Mating connector	ASL 0-06-05PN-HE
Pin 1	-
Pin 2	Sig-
Pin 3	Sig+
Pin 4	-
Pin 4	-
Various motorsport and automotive connectors on request.	
Sleeve	DR-25
Wire	AWG 24
Wire length L	10 ... 100 cm
Various motorsport and automotive connectors are available on request.	
Please specify the required wire length with your order.	

Application Hint	
The inductive speed sensor IS-M is developed for wheels made of ferromagnetic material.	
If a wheel with different dimension has to be used (see Environment), the technical function has to be tested individually.	
The installation depth can be changed individually according to the customer request.	
Please contact our technical consultancy for more information.	
Please find further application hints in the offer drawing (http://www.bosch-motorsport.com).	
Part Number	
Inductive Speed Sensor IS-M	F 02U V00 693-01

U_a = f (rpm, airgap)





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