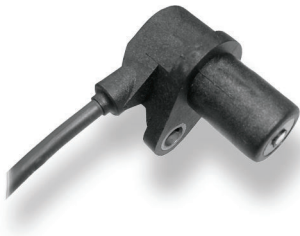


# Inductive Speed Sensor IA-C

www.bosch-motorsport.com



**BOSCH**  
Invented for life



- ▶ Crankshaft or wheel speed
- ▶ 24.0 mm, 315° depth/lead
- ▶ Bore diameter 18 mm

This sensor is designed for incremental measurement of rotational speed (e.g. crankshaft or wheelspeed). The inductive sensor consists of a bar magnet with a soft magnetic pole pin supporting an induction coil with two connections. Every time 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 connector options.

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

## Application

Application	Speed
Max. frequency	≤ 15 kHz
Target wheel air gap AG	0.8 ± 0.3 mm
Operating temp. range (sensing head)	-40 to 130°C
Storage temperature range	-40 to 100°C
Max. vibration	800 m/s <sup>2</sup> max. 80 h

## Technical Specifications

### Mechanical Data

Magnetic pole	Round
Bore diameter	18 mm
Tightening torque	8 Nm
Weight w/o wire	40 g
Installation depth L2	23.7 mm

### Electrical Data

Coil resistance	860 Ohm ± 10 %
Inductance max.	370 mH ± 15 %
Output voltage max.	200 VP-P

### 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 1 928 404 227

Mating connector D 261 205 335-01  
3-pole Compact

Pin 1 Sig+

Pin 2 Sig-

Pin 3 Scr

Various motorsport and automotive connectors are available on request.

Please specify the required wire length with your order.

**Installation Notes**

The inductive speed sensor IA-C is developed for wheels made of ferro-magnetic material.

If a wheel with different dimensions is used (see Environment), the technical function has to be tested individually.

Please contact our technical consultancy for more information.

Please find further application hints in the offer drawing at our home-page.

The inductive speed sensor IA-C is developed for wheels made of ferro-magnetic material.

**Safety Note**

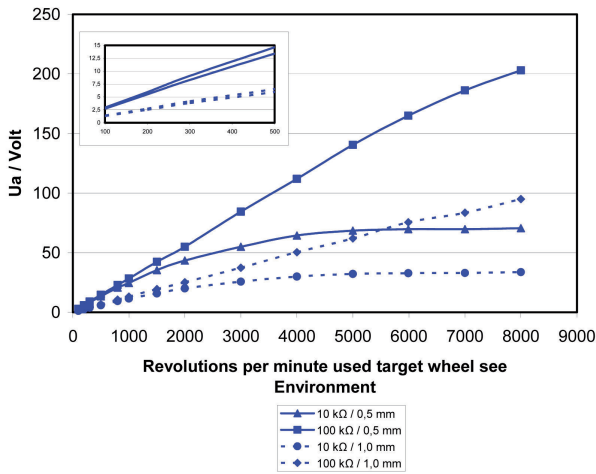
The sensor is not intended to be used for safety related applications without appropriate measures for signal validation in the application system.

**Ordering Information**

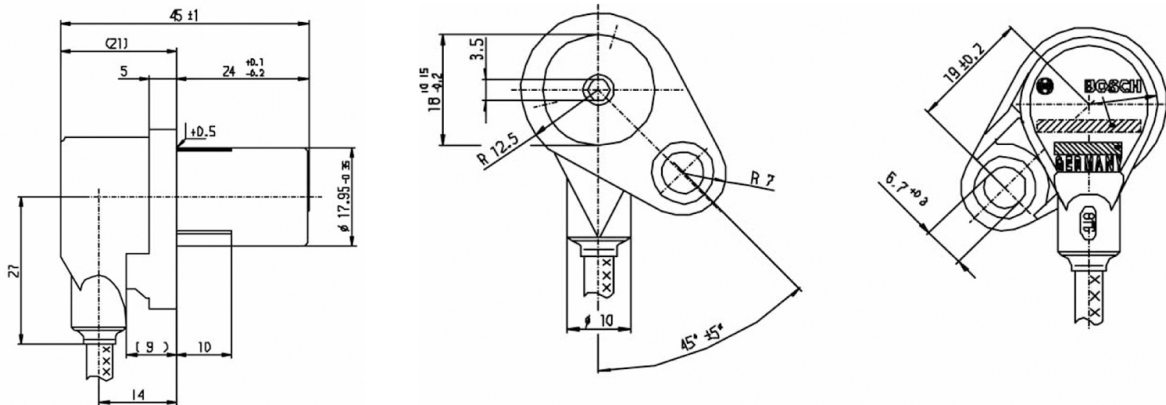
**Inductive Speed Sensor IA-C**

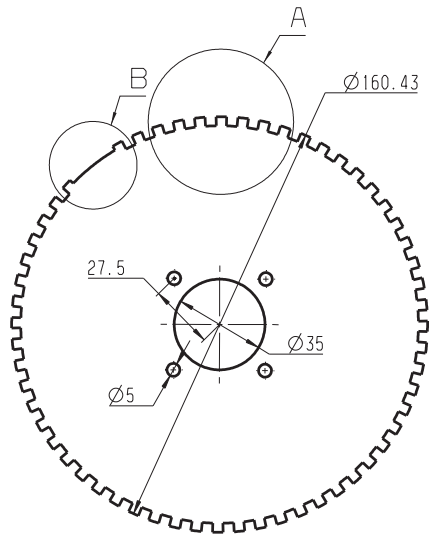
Order number 0 261 210 136

Ua = f (rpm, airgap)

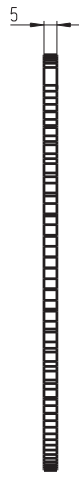


**Dimensions**

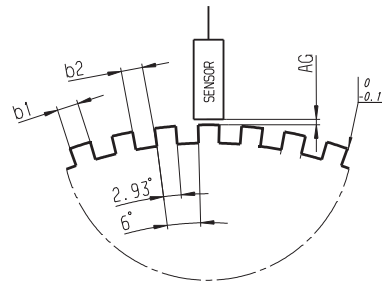




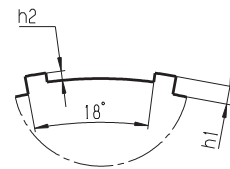
60-2 Teeth



Left view



Detail A



Detail B

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