

Hall-Effect Speed Sensor Mini-HA-P

This sensor is designed for incremental measurement of rotational speed (e.g. camshaft, crankshaft or wheelspeed).

Due to the rotation of a ferromagnetic target wheel in front of the Mini-HA-P, the magnetic field is modulated at the place of the Hall probe. A Hall-effect sensor element with integrated signal conditioning circuit detects this change and generates a digital output signal.

The main feature and benefit of this sensor is the combination of a high quality production part and robust design with a very small housing.



Application	
Application	speed
Max. frequency	≤ 10 kHz
Target wheel air gap	0.2 ... 1.5 mm
Temperature range	-40 ... 150 °C
Output circuit	open collector for 1 kΩ
Output type	Active low
External magnetic fields	≤ 0.3 mT
Max. vibration	1,200 m/s ² @ 10 Hz ... 2 kHz

Mechanical Data	
Weight w/o wire	19.2 g
Mounting	with screw 1 x M6
Bore diameter	11.5 mm
Installation depth L ₂	9 mm
Tightening torque	8 Nm

Characteristic	
Accuracy repeatability of the falling edge of tooth	< 3 % (≤ 6 kHz) < 5 % (≤ 10 kHz)
Signal output	0.4 V ... < U _s

Electrical Data	
Power supply	5 ... 18 V
Current I _s	10 mA

Connectors and Wires	
Connector	[1] ASL 6-06-05PC-HE [2] 1 234 482 092
Mating connector	[1] ASL 0-06-05SC-HE [2] F 02U B00 520-01
Pin 1	[1] U _s [2] Gnd
Pin 2	[1] Gnd [2] Sig
Pin 3	[1] Sig [2] U _s
Pin 4	[1] -
Pin 5	[1] -
Various motorsport and automotive connectors available on request.	
Sleeve	HT cable ø 5.2 mm
Wire size	AWG 20
Wire length L	< 27 cm
Please specify the required wire length with your order.	

Environment

Target wheel diameter D	162.34 mm
Thickness t	12.5 mm
Width of teeth b1	3.8 mm
Width of gap b2	4.7 mm
Width of sync. gap b3	20.79 mm
Depth of teeth h	3.4 mm
Number of teeth	60-2

Application Hint

The Mini-HA-P can be connected directly to most control units and data logging systems.

Please avoid abrupt temperature changes.

For mounting please use only the integrated plug.

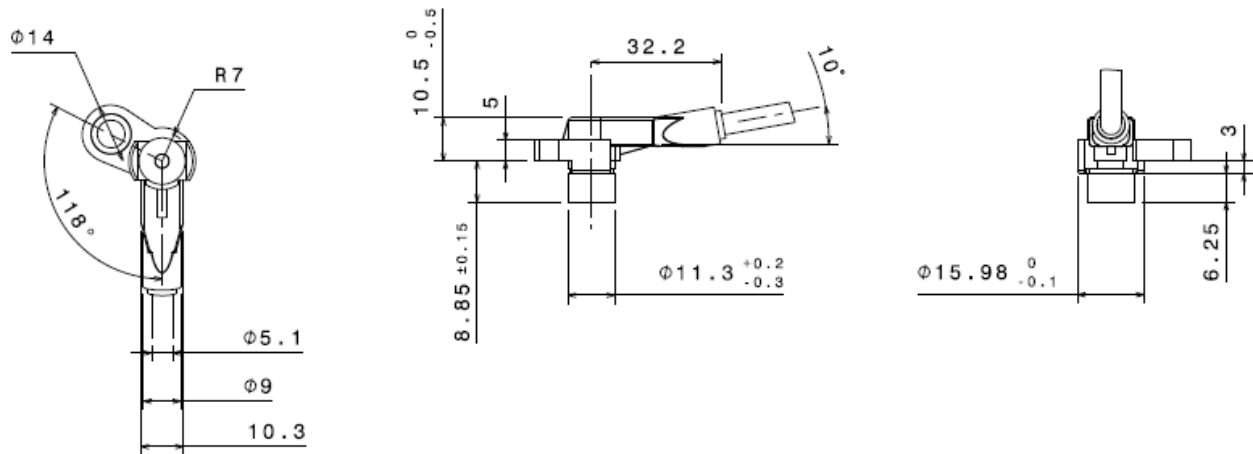
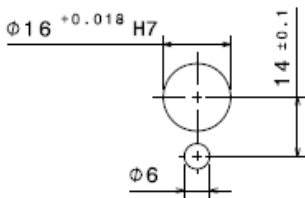
If a wheel with different dimensions is used (see Environment), the technical function has to be tested individually.

Please ensure that the environmental conditions do not exceed the sensor specifications.

Please find further application hints in the offer drawing (<http://www.bosch-motorsport.com>).

Part Number

Speed Sensor Mini-HA-P [1]	F 02U V00 564-01
Speed Sensor Mini-HA-P [2]	F 02U V00 566-01


Einbauvorschrift
 Mounting requirement

Signal-Definition
 Signal definition
