

# Rotational speed sensor NM 510 with alternating voltage output



Detection of rotational speeds and direct indication on instruments with alternating voltage input or connection to transmitters

For high rotational speeds

Voltage or frequency output proportional to rotational speed

High output power

No power supply required

Direct reading possible

Maintenance-free and rugged

Rotational speed sensors with alternating voltage output are small alternating voltage generators with a stationary winding. A carefully balanced permanent magnet is used as rotor

# NM 510

## Rotational speed pick-up with alternating output

10/14-2.16 EN

### Function and system design

In order to couple the rotational speed pick-up with the shaft to be measured, one end of the shaft must be accessible, or a non-slip drive system operating through a gear wheel, chain drive, or toothed belt drive must be possible.

When direct coupling in an axial direction is employed, be sure that the shafts are carefully aligned. The use of a clutch is recommended. Depending on the model the torque requirement ranges between 7 Nmm and 60 Nmm.

The signal voltage delivered is practically a sinusoidal alternating voltage, the amplitude and frequency of which are exactly proportional to the rotational speed. The ratio of output voltage/rotational speed is given with the individual models.

### Technical data

#### Type designation

**NM 510**

Number of poles  
8

Drive speed  
max. 5000 min<sup>-1</sup>

Starting torque  
10 Nmm

Voltage generated  
10 V, 66 2/3 Hz per 1000 min<sup>-1</sup>

Balancing tolerance  
± 1 %

Internal resistance  
12 Ω

Test voltage  
2000 V against housing

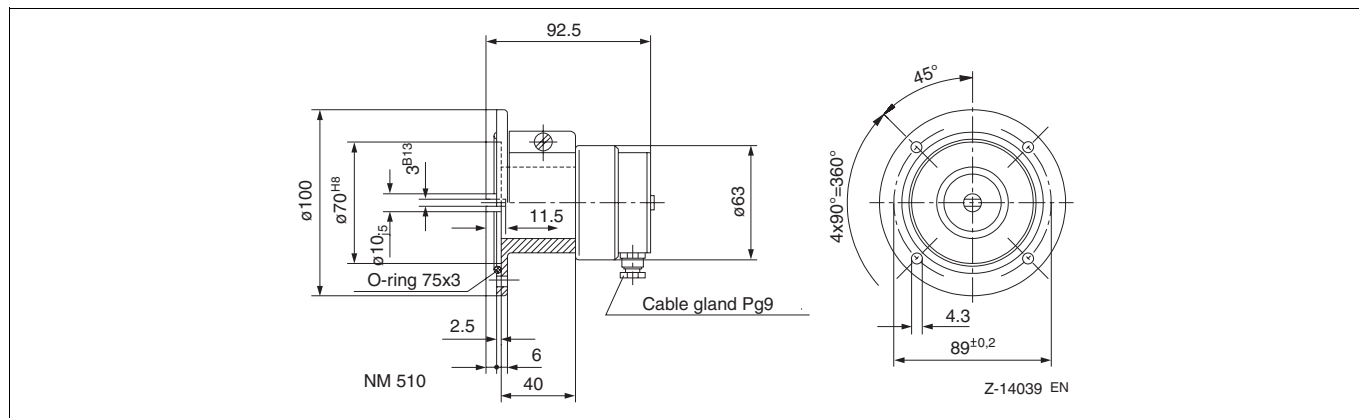
Temperature range  
-20 °C...+100 °C

Degree of protection  
shaft outlet IP 40, housing IP 54

Weight  
0.650 kg

Electrical connection  
screw terminals (E 3 DIN 41000)

### Dimensional drawing (dimensions in mm)



### Stock versions

Type	Catalog No.
Rotational speed pick-up NM 510 with 100 mm flange Ø	14625-8008100



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