

## FNC SS20 Speed Sensor



### Features

- Detecting speed and direction of rotation of ferrostat gearwheels with high resolution
- Wide frequency range
- Wide temperature range

### Technical data - electrical ratings

Voltage supply	9VDC to 30VDC
Consumption w/o load	max. 20 mA
Frequency range	0...20 kHz
Push-pull outputs	$I_{max} = \pm 30$ mA
Output voltage HI UHI	$> U_{supply} - 1,5V$
Output voltage LO ULO	$< 1,5V$
EMC compliant	EN 50121-3-2
Approval	CE

### Technical data - mechanical design

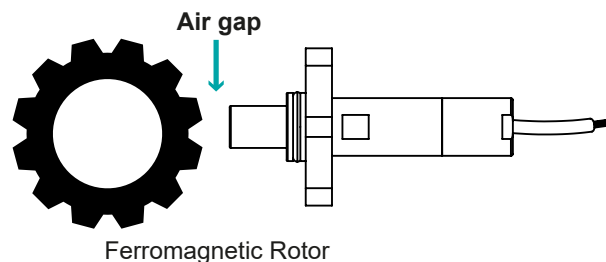
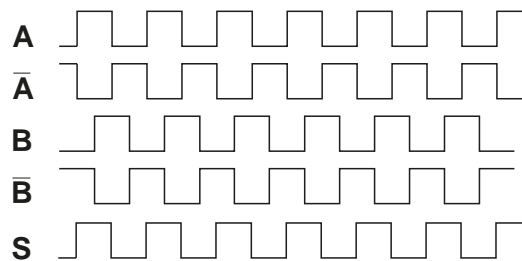
Air gap between sensor housing and pole wheel for involute gear	Module1- 0,5...0,7 mm Module1,5 - 0,5...1,3 mm Module $\geq 2$ - 0,5...1,5 mm
Operating temperature	-40...+125 °C
Weight approx.	150 g
Protection class	Sensor head :IP68
Shock & vibration	EN 61373 Cat.3

### Cable Wiring

Function	Color	Renk	Explanation
+VB	Brown	Kahve	Supply Voltage
GND	White	Beyaz	Ground
A	Green	Yeşil	A Channel
A'	Red	Kırmızı	A Inverted Channel
B	Yellow	Sarı	B Channel
B'	Pink	Pembe	B Inverted Channel
S	Gray	Gri	Speed

\*\*Standard cable (hologen free, d13mm, 6x0.6mm<sup>2</sup>, AWG20, armoured cable -40 to +125°C)

### Pulse Diagram



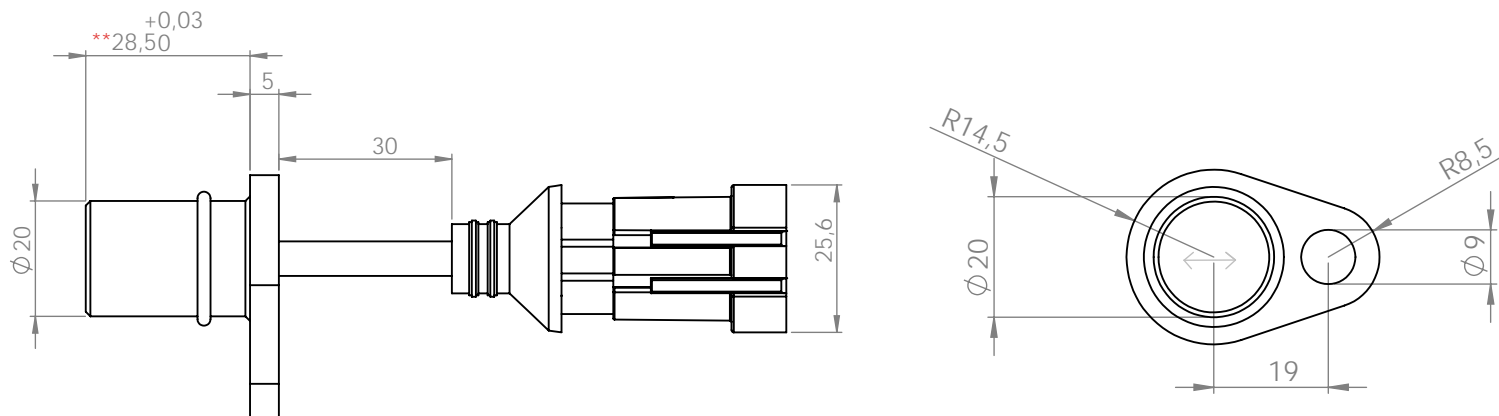
### Signal Output

2 phase shifted square wave signals, minimum edge shift with an involute gear wheel: minimal phase shift of 20° between A & B signals.

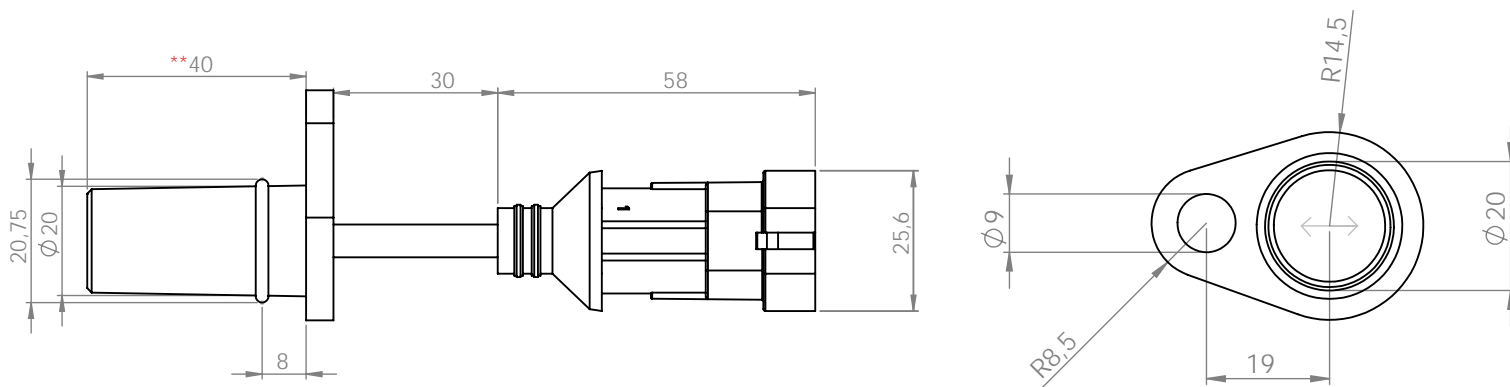
## FNC SS20 Speed Sensor

### Mechanical Dimensions

**\*19 mm distance between mounting holes, \*\*28 mm length version**

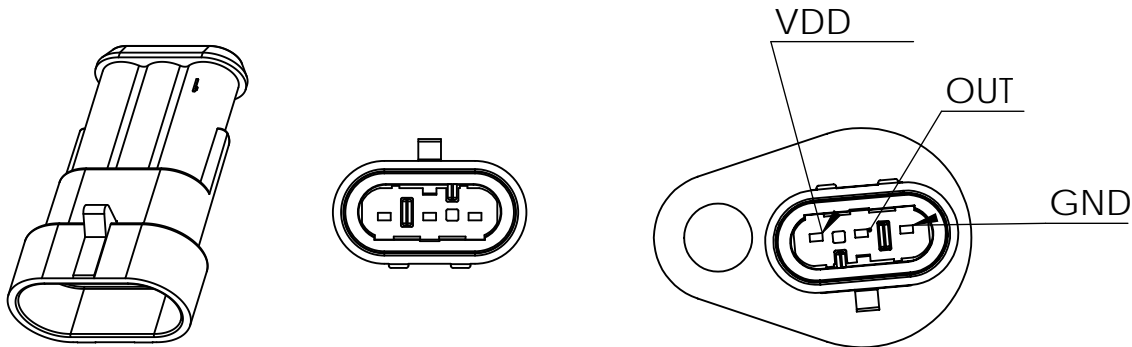


**\*19 mm distance between mounting holes, \*\*40 mm length version**



## FNC SS20 Speed Sensor

### Connector Pin Design



### Encoder Part Number

**FNC** **SS** **20** **1928** **2N** - **A05**

**Sensor**  
SS : Speed Sensor

**Sensor head diameter**  
20 : 20 mm

**Mounting hole diameter and length**  
1928 : 19 mm hole diameter, 28 mm length  
1940 : 19 mm hole diameter, 40 mm length

**Connection**  
A05 : 5 cm cable length  
A05C3P : 5 cm cable length with 3 pin connector

**Electronic type**  
2N : Push pull 2 channels (A , B)  
4N : Push pull 2 channels (A , B) & inverted (A', B')  
ODS : Open drain speed