AGS 200 Series

"Non-contact, Hall-effect Technology"

- Hall-effect measurement technology
- Quadrature square wave output
- Direction information with 90° phase shifted dual output signal
- Wide frequency range
- Different cable length and connector options
- Wide temperature range
- Resistant to electromagnetic field
- Easy installation and use
- IP67 protection

AGS 200 series speed and direction sensors are designed to provide both speed and direction inf ormation. Speed information is provided as a digital square wave output, and direction information is pro vided using a quadrature output with 90° phase-shifted signals. The target direction is determined by the lead/lag phase shifting.

The AGS 200 series are designed for high accuracy detection of small targets with hall-effect measurement technology.

The AGS is suitable for working in harsh environments thanks to its wide operating temperature range, resistance to electromagnetic field and high IP protection class.

APPLICATIONS

- Speed and rotation direction of gear wheels
- Mobile machinery and electric drive applications
- Speed and position control in escalators and elevators
- Control of power regulation in hybrid engine systems
- Wheel speed detection in material handling, agricultural and construction machinery

TECHNICAL FEATURES

ELECTRICAL SPECIFICATIONS

Supply Voltage		8VDC … 30VDC
Output Signal	**Type**	Square Wave
	Duty cycle (time high/time total)	%50 ±%10
	Phase shift	90° ±45°
	High	>Vs - 0.6 V
	Low	<0.6 V @40mA
	Load current	40 mA max.
	Rise time	10 µs max.(1kOhm pull-up resistor, depend on load resistor)
	Fall time	5 µs max. (1kOhm pull-up resistor, depend on load resistor)
	Frequency	2Hz … 16kHz
Short circuit protection		Yes (50 mA max.)
Current consumption		11mA @5V 14mA @12V 17mA @24V
Reverse polarity protection		Yes
Overload protection		Yes

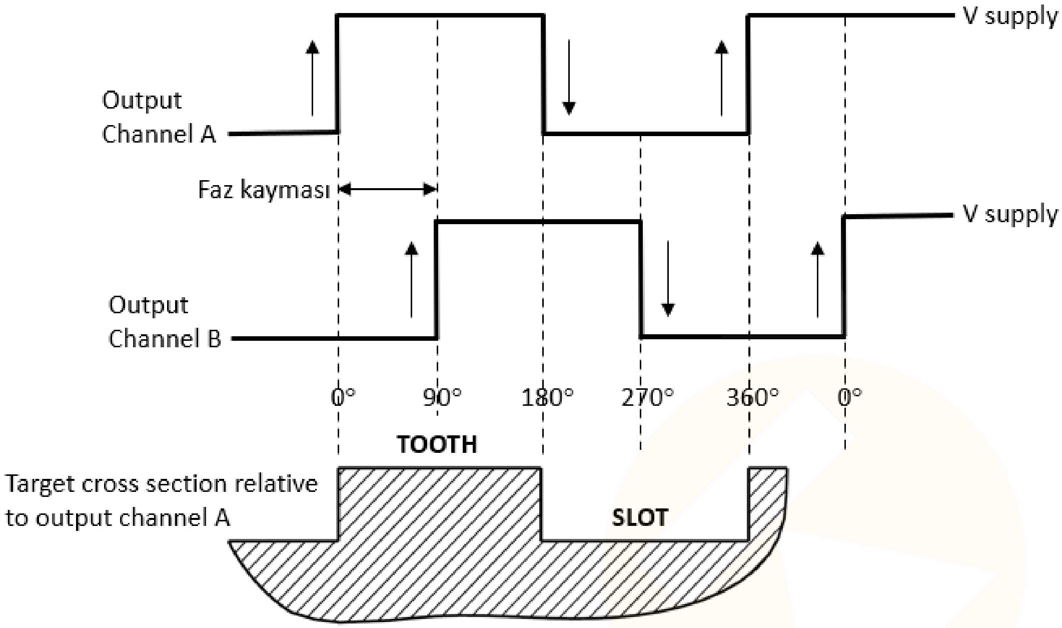
ENVIRONMENTAL SPECIFICATIONS

Operating temperature	-40°C…+85°C
Humidity	%95 @ 38°C
Protection	IP67

MECHANICAL SPECIFICATIONS

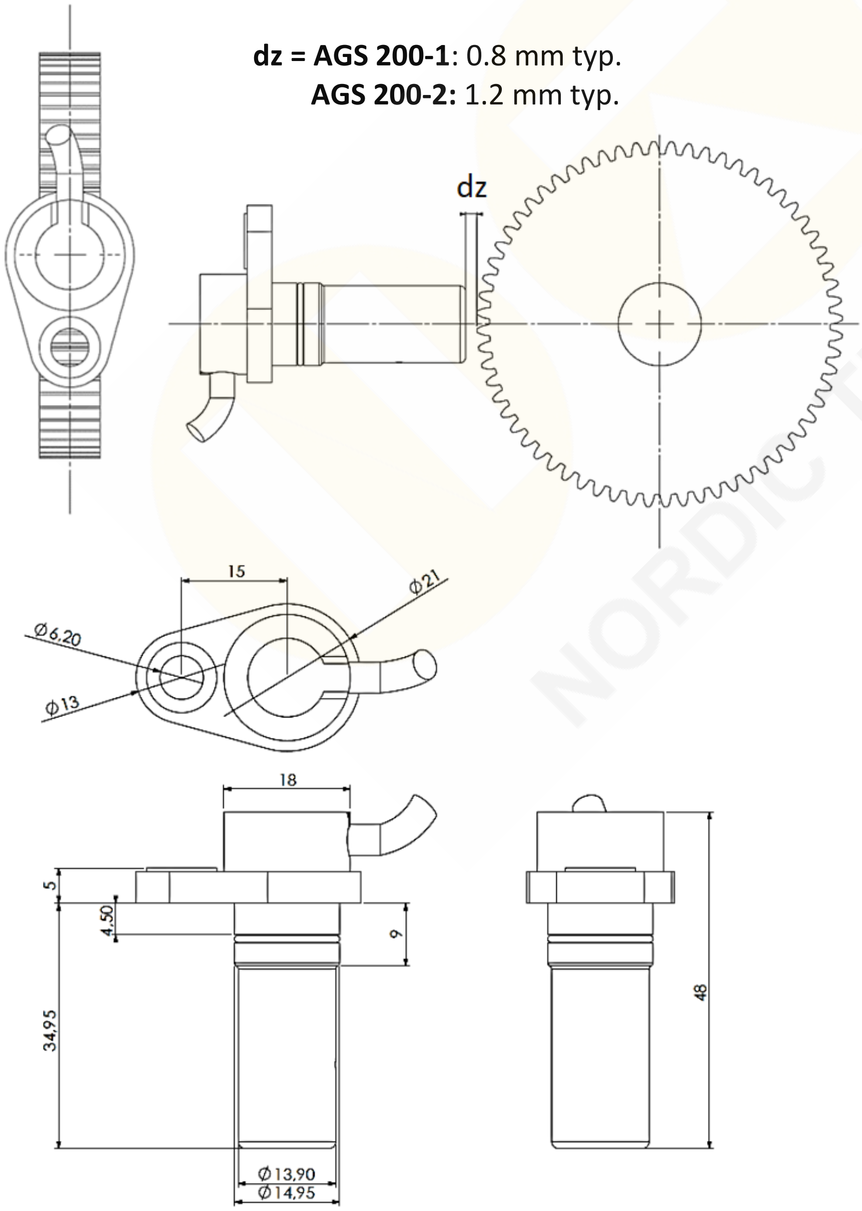
Sensing air gap	**AGS 200-1**	Min:0mm, Typ:0.8mm, Max:1.6mm
	AGS 200-2	Min:0mm, Typ:1.2mm, Max:2.4mm
Target	**Width**	>5,0 mm recommended; 10 mm typ.
	Slot width	2,0 mm min.
	Tooth width	1,6 mm min.
	Tooth height	>2,0 mm ecommended; 4,0 mm typ.
Material	**Housing**	Delrin
	Bushing	Brass
	O-ring	FKM
	Cable	4x0,14 mm^2 PVC
Mounting	**Bore size**	Ø15,15 mm … Ø15,40 mm
	Torque	10 Nm max, with M6 X 1.0 bolt

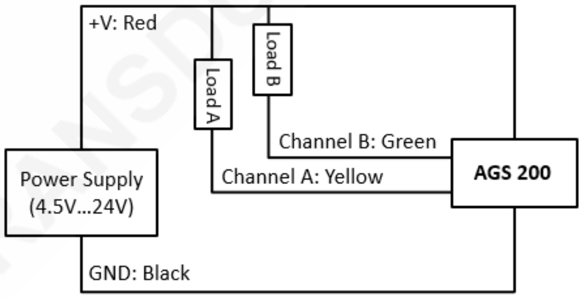
SENSOR SIGNAL OUTPUT



MECHANICAL DIMENSIONS (mm) AND ELECTRICAL CONNECTIONS

dz = AGS 200-1: 0.8 mm typ.
AGS 200-2: 1.2 mm typ.





SIGNAL	CABLE COLOR
+V	Res
GND	Black
Output channel A	Yellow
Output channel B	Green

Note: The load resistor values should be such that the output current does not exceed the maximum load current of 40 mA.

Use Ohm's Law to calculate the load resistor based on the supply/load voltage used:

R = V / 0.04 A

ORDER CODE

Model

Cable Length

0,5M : 0.5m (standard)
*Optional others

AGS 200	-	X	-	XXX

Sensing Air Gap

1: Min:0mm, Typ:0.8mm, Max:1.6mm
2: Min:0mm, Typ:1.2mm, Max:2.4mm