

SPEED AND DIRECTION SENSOR

AGS 300

“Non-contact Hall-effect Sensing Technology”



- Hall-effect sensing technology
- Integrated into the gearbox
- Static measurement (zero-speed detection)
- Dual pulse output (inverted)
- Can be sealed
- Direct connection to the vehicle electrical system
- Direction detection capability (with 2 sensors)
- Different length options for compatibility with various gearbox types
- IP67 protection rating

AGS 300 series speed sensors convert the rotational speed of a gear into electrical pulses.

The speed data is detected by an integrated Hall-effect sensor.

The pulses generated by the Hall sensor are used by tachographs and in-vehicle control units to determine the vehicle's distance traveled and real-time speed information.

When a speed sensor is used, the traditional mechanical speedometer cable connection is no longer required.

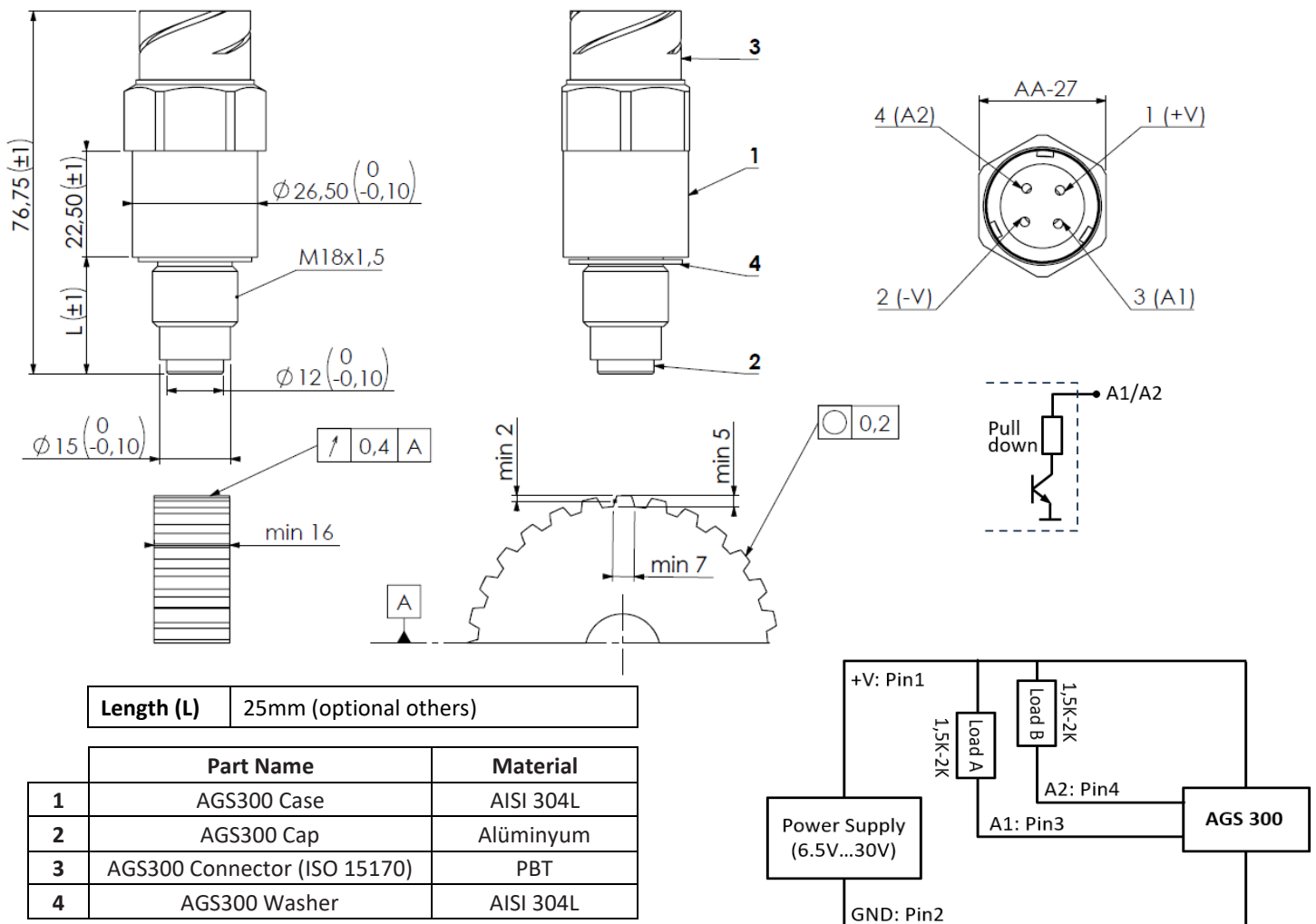
Application Areas

- For tachographs / EU-type electronic tachographs KTCO 1318, FTCO 1319, and MTCO 1390 NEC
- General use in devices requiring electrical pulses (dual, inverted) for road speed and/or distance measurement

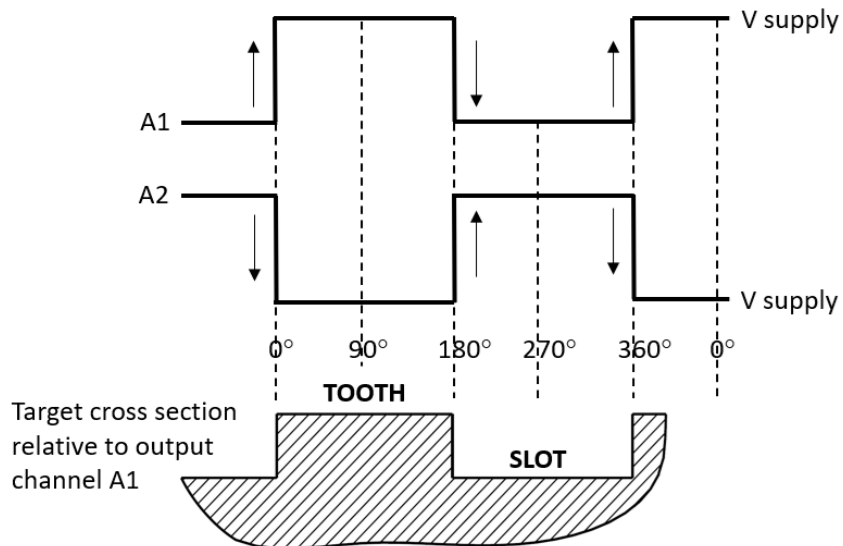
TECHNICAL FEATURES

Length (L)	25mm (optional others)	
Output	Double pulse (inverted)	
Signal Type	Square	
Output Resistance	Open collector	
Operating Voltage	6,5...30VDC	
Current Consumption (max)	5mA @6,5VDC / 11mA @24VDC / 13mA @30VDC	
Connection	Unearthed	
Frequency	0...4kHz	
Output signal A1	U _L ≤ 1.9 V (1 mA)	
Output signal A2	inversion of A1	
Impulse Wheel	Min. 2m	
Minimum Distance	0.8mm	
Maximum distance	2.5mm	
Sensor Connection	M18x1,5 thread	
Torque (wrench size)	max. 50 Nm (SW 27)	
Material	Case	AISI 304L
	Cap	Aluminum
	Connector (ISO 15170)	PBT
	Washer	AISI 304L
Operating Temperature	-40°C ... +150°C	
Storage Temperature	-40°C ... +150°C	
Protection Class	IP67	
Short-circuit Protection	Yes	
Reverse polarity Protection	Yes	
EMC Protection	TS EN IEC 61326-1	

MECHANICAL DIMENSIONS (mm) and ELECTRICAL CONNECTIONS



SENSOR OUTPUT SIGNAL



OUTPUT SIGNALS

Signal A1		$U_L \leq 1.9 \text{ V}$ (1 mA) At tooth : High Level
Signal A2		inversion of A1
Output resistance Pull up Pull down		Open collector, $I_{\text{sink}} < 2 \text{ mA}$ 1.5 K Ω

IMPULSE WHEEL

Material	Ferromagnetic material
Minimum distance	0.8mm
Maksimum distance	2.5mm

ORDER CODE

Electrical Connection

S220 : AMP DIN 72585 / 4 pin connector

Model

AGS 300	-	XX	-	XXX
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Length (L)

25 : 25mm (Standard)

*Optional others