

KITAS 2171-50

Sensor



www.siemensvdo.com

The intelligent KITAS sensors form a new generation of speed sensors. With the innovative crypto-graphical IC the gear-box signals can be transmitted tamper-proof without an armoured cable for the first time.

A dynamic element converts the revolution of an impulse- or gear wheel into electrical signals.

In parallel to the encrypted revolution data the conventional real-time signal is also available. Through a comparison of these two sources the tachograph can detect data manipulations safely. Therefore the KITAS sensor and the tachograph form an authorised system.

A link between the serial numbers of the KITAS sensor and the tachograph enhances the security even further.

Features

- Conform with Regulation VO (EG) No. 1360/2002
- Certificate through BSI according to ITSEC, level E 3 High, as per supplement 1B
- Full fills the Generic Security Targets as per supplement 1B
- Integrated in the gearbox
- Data security by cryptological procedure (TRIPLES DES)
- Non-contact measuring system (inductive)
- Sealing possibility
- Replace the steel armoured cable
- Interface according to ISO 16844-3
- Standard plug according to ISO 15170
- Comparison of the real-time signal with the encoded signal
- Power-On reset function
- Storage of additional facts (identification, installation)

Use

- Only for use in the new tachograph generation MTCO 1324 (Modular Tachograph) and DTCO 1381 (Digital Tachograph)

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Technical Information

Operating voltage	6,5 ... 9 V	Dimensions (L in mm)	approx. 35 / 115
Power consumption	max. 15 mA	Weight	approx. 120 to 165 g
Operating temperature	A - 30 °C ... + 135 °C B - 30 °C ... + 145 °C	Resistance to vibration	30 g
Storage temperature	A - 40 °C ... + 150 °C	Shock resistance	1000 g
Connection	unearthed	Tightness	0,5 bar oil, 120 °C, 100 h
Signal shape (Pin 3)	rectangular	Material of pulse wheel	ST 4 LG RP
Frequency	800 Hz	Thickness of pulse wheel	2 mm
Output signal (Pin 3)	Real-time signal UL max = 800 mV (@I = 250 µA) UH min = UE - 1,5 V (@I = - 150 µA)	Segment gap (typ.)	1,5 2 x Segment width
Output signal Pin 4	Data signal	Segment length (typ.)	16 mm
Protecting against voltage interference	DIN 40 839	Air gab Sensor/pulse wheel (typ.)	1,4 mm
Interference protection	DIN 40 839	Scanning speed of sensor (typ.)	Vmin size 0,1 m/s Vmin vehicle ~ 1,5 km/h
Protection	EN 60529 IP 67 / IP 69K	Connection of sensor to sensor lead	Standard plug according to ISO 15170
		Connection of sensor to vehicle gearbox	via thread M 18 x 1,5
		Torque (wrench size)	max. 50 Nm ± 10 Nm (WS 27)

