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Sensor

KITAS 2171-0x

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 statically operated hall-effect IC is utilised as the sensor. This element converts the revolution of an impulse- or gearwheel 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
- Mechanical input
- Static measuring (Hall-IC)
- Data security by cryptological procedure (TRIPLES DES)
- 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	Output short-circuit	28 V, 1 min
Power consumption	max. 15 mA	Output signal Pin 4	Bidirectional interface
Impulse/revolution	8 (s- und v- impulse)	Protection against voltage	
Operating temperature	- 30 °C ... + 120 °C ADR (T4/Part 4)	interference	DIN 40 839
Storage temperature	A - 40 °C ... + 140 °C	Interference protection	DIN 40 839
Impulse ratio	30 - 70 % ... 70 - 30 %	Protection	EN 60529 / IP 69K
Connection	unearthed	Resistance to vibration	10 g
Signal shape (Pin 3)	rectangular	Connection of sensor to	Standard plug according to
Frequency range	1 Hz - 1000 Hz	sensor lead	ISO 15170
Output signal (Pin 3)	Real-time signal	Connection of sensor	via thread M 22 x 1,5 or
	U_L max = 800 mV	to vehicle gearbox	7/8" 18 UNS 2B
	(@I = 250 µA)	Torque	max. 50 Nm ± 10 Nm
	U_H min = UE - 1,5 V	(wrench size)	(WS 27)
	(@I = - 150 µA)	Dimensions (L in mm)	approx. 46,5 x 79
		Weight approx.	135 to 150 g

