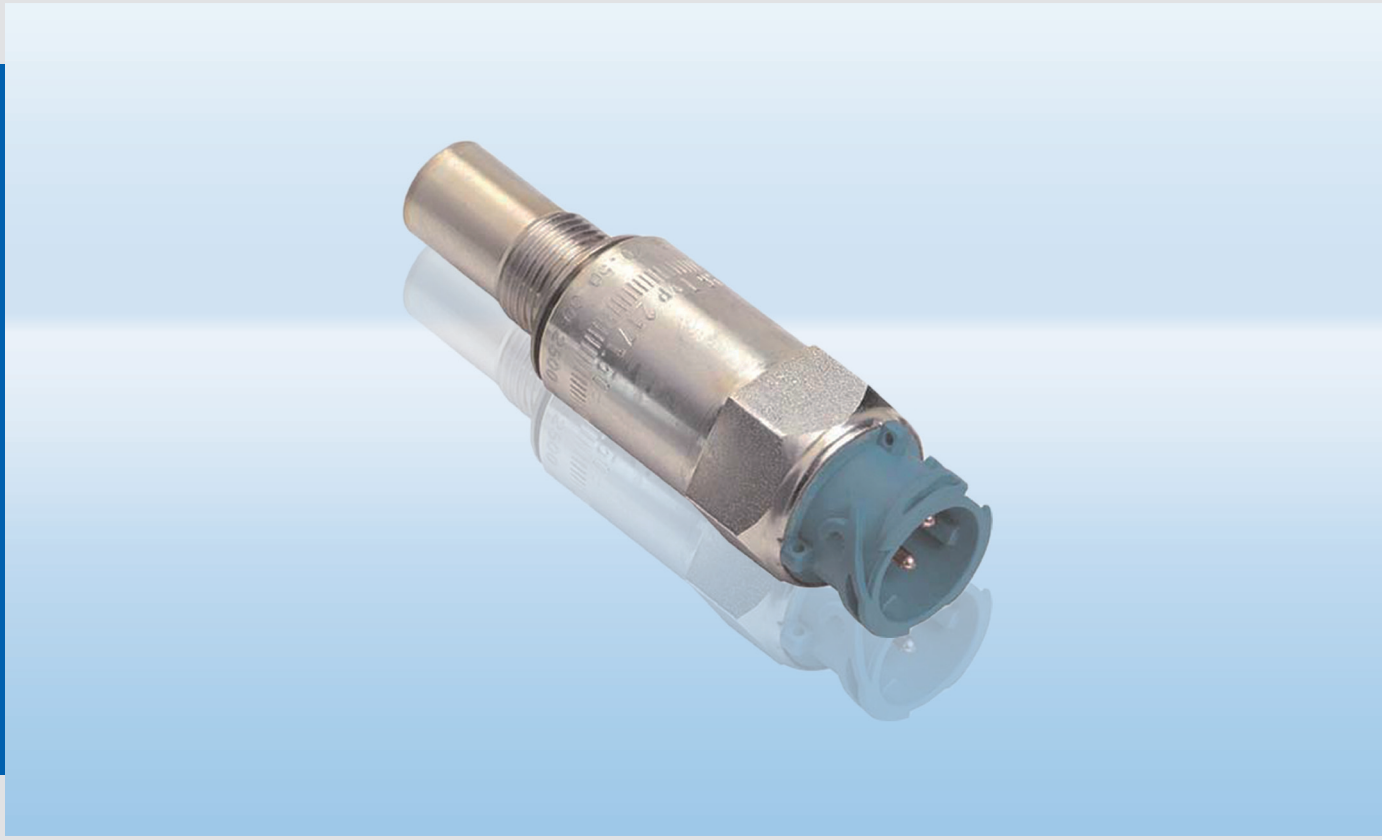


Sensor

KITAS 2171-50

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 enchances 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)

VDO

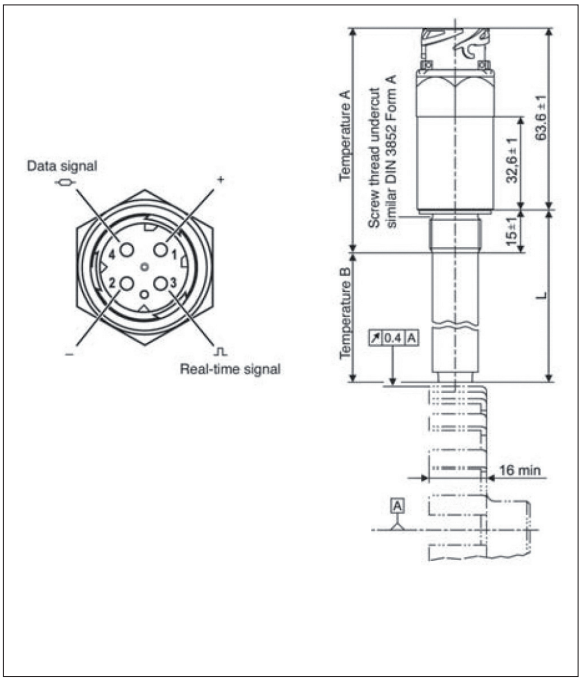
Sensor

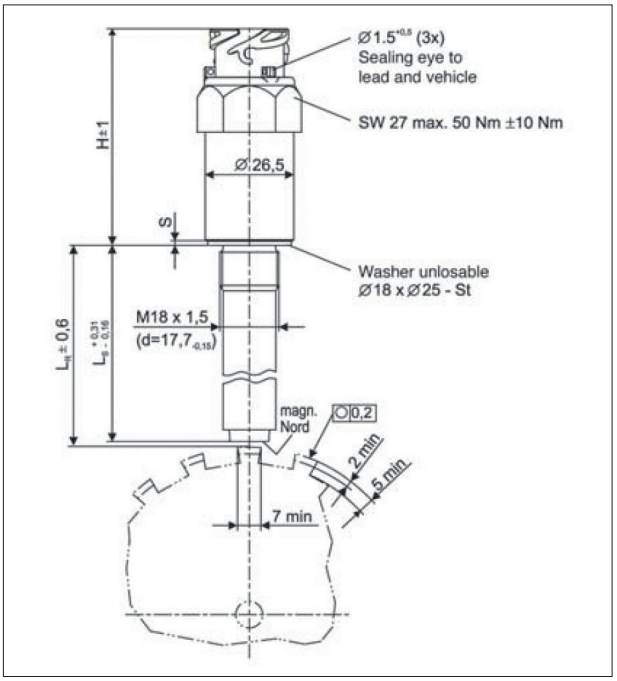
KITAS 2171-50

Technical Information

Operating voltage	6,5 ... 9 V
Power consumption	max. 15 mA
Operating temperature	A - 30 °C ... + 135 °C
	B - 30 °C ... + 145 °C
Storage temperature	A - 40 °C ... + 150 °C
Connection	unearthed
Signal shape (Pin 3)	rectangular
Frequency	800 Hz
Output signal (Pin 3)	Real-time signal
	U_L max = 800 mV
	(@I = 250 µA)
	U_H min = UE - 1,5 V
	(@I = - 150 µA)
Output signal Pin 4	Data signal
Protecting against	
voltage interference	DIN 40 839
Interference protection	DIN 40 839
Protection	EN 60529 IP 67 / IP 69K

Dimensions (L in mm)	approx. 35 / 115
Weight	approx. 120 to 165 g
Resistance to vibration	30 g
Shock resistance	1000 g
Tightness	0,5 bar oil, 120 °C, 100 h
Material of pulse wheel	ST 4 LG RP
Thickness of pulse wheel	2 mm
Segment gap (typ.)	1,5 .... 2 x Segment width
Segment length (typ.)	16 mm
Air gab Sensor/pulse wheel	1,4 mm
(typ.)	
Scanning speed of sensor	Vmin size 0,1 m/s
(typ.)	Vmin vehicle ~ 1,5 km/h
Connection of sensor to	Standard plug according to
sensor lead	ISO 15170
Connection of sensor to	
vehicle gearbox	via thread M 18 x 1,5
Torque max.	50 Nm
(wrench size)	(WS 27)





Continental Trading GmbH | Heinrich-Hertz-Strasse 45 | 78052 Villingen-Schwenningen | Germany
E-mail: tachograph@vdo.com | www.vdo.com