# KITAS 2171-20

## 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 statically operated hall-effect IC is utilised as the sensor. This 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.

Harness flexibility will be increased by using the intelligent KITAS senor.

**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 Target's as per supplement 1B
- Integrated in the gearbox
- Data security by cryptological procedure (TRIPLES DES)
- Non-contact measuring system (Hall IC)
- 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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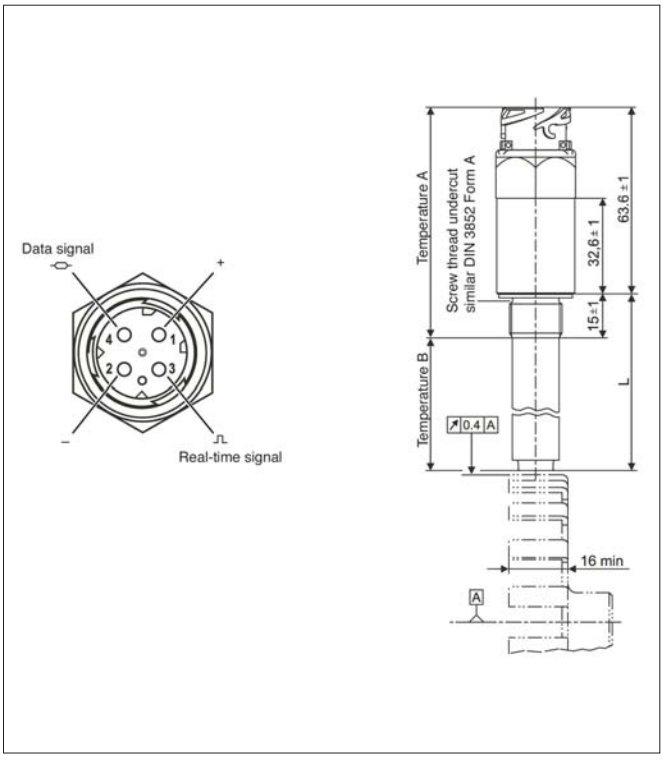
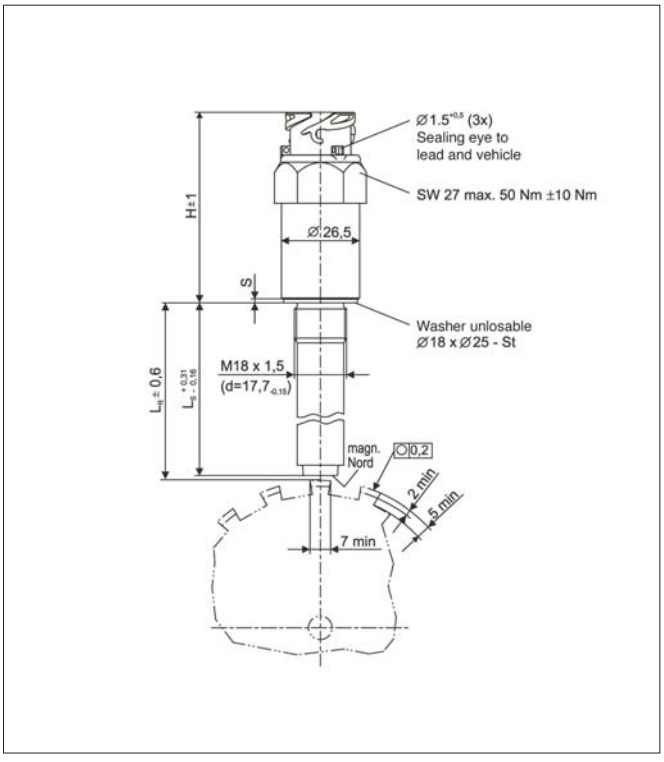
**Technical Information**

| | |
|---|---|
| Operating voltage | 6,5 ... 9 V |
| 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 range | 1 Hz - 2000 Hz |
| Output signal (Pin 3) | Real-time signal |
| | UL max = 800 mV |
| | (@I = 250 µA) |
| | UH min = UE - 1,5 V |
| | (@I = - 150 µA) |
| Output short-circuit | 28 V, 1 min |
| Output signal Pin 4 | Bidirectional interface |
| Protection against | |
| voltage interference | DIN 40 839 |
| Interference protection | DIN 40 839 |
| Protection | EH 60 529 IP 67 / IP 69K |

| | |
|---|---|
| Dimensions | approx. 19,8 / 25 / 35 / 63,2 / |
| (L in mm) | 90 / 136,8 |
| Weight | approx. 100 to 180 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.) | |
| Not to be used in cases of | |
| extraneous magnetic fields | > 2 mT |
| Connection of sensor | standard plug according to |
| to sensor lead | ISO 15170 |
| Connection of sensor to | |
| vehicle gearbox | via thread M 18 x 1,5 |
| Torque | 50 Nm ±10 Nm |
| (wrench size) | (WS 27) |

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