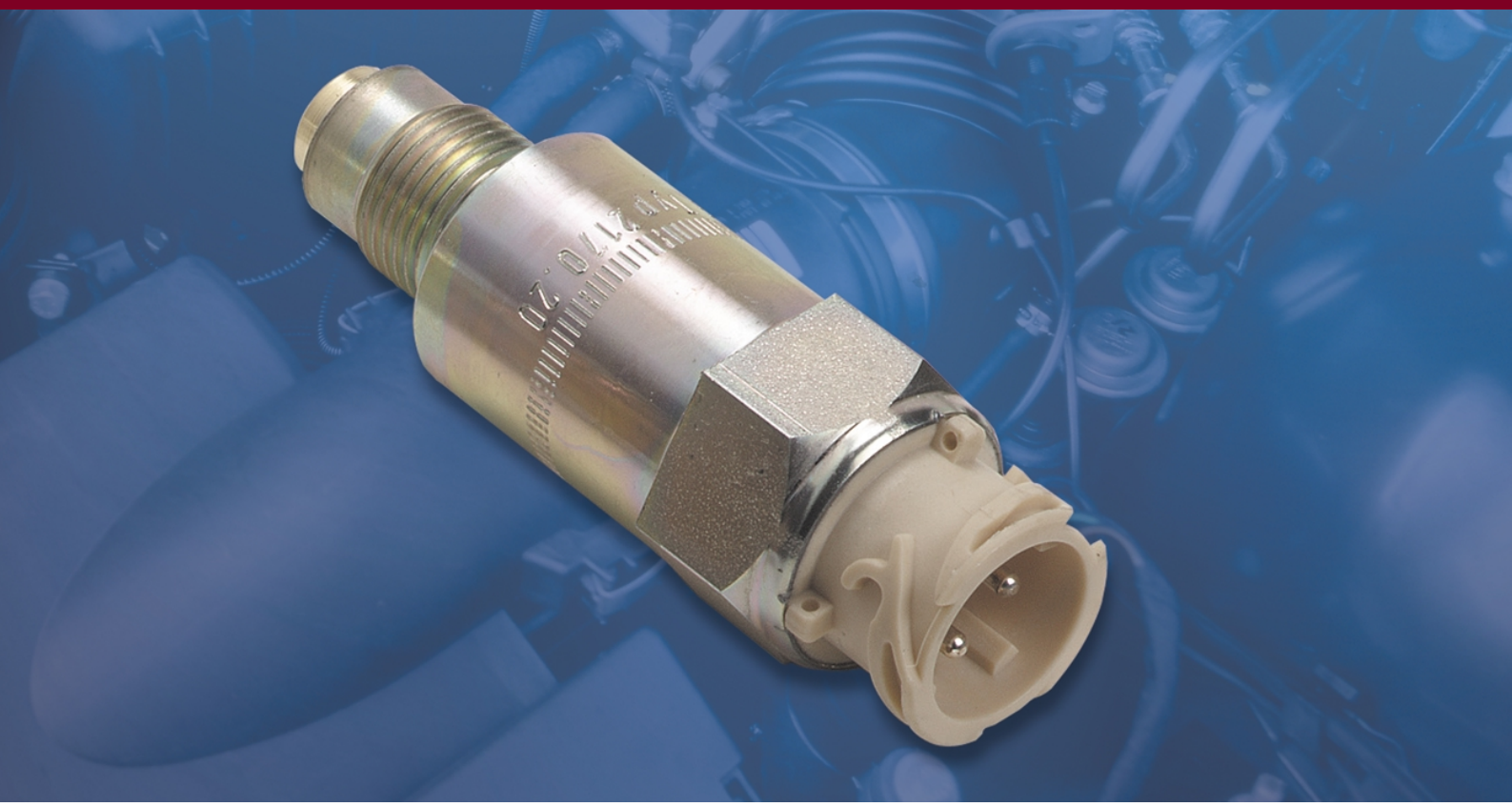
VDO

Handling a complex world.



2170-20

Sensor KITAS

The “intelligent“ sensor KITAS transforms the number of revolutions of a pulse or toothed wheel. The revolutions are detected via non-contact scanning by means of a Hall IC.

Real-time signals and encoded data from the microcontroller of the sensor are transmitted to the tachograph. The sensor, together with the tachograph, forms an integrated system unit. Via data communication and comparison with the real-time signal the system detects interference and other malfunctions which might lead to manipulations on the transmission path from the sensor to the TCO. The pulses supplied by KITAS are used for distance and speed recording.

Features

- **Conform to Regulation (EEC) No. 3821/85 adapting to regulation (EC) No. 2479/95**
- **Can replace the steel armoured cable**
- **Non-contract measuring system (Hall IC)**
- **Integrated in the gearbox**
- **Standard plug according to DIN 72 585-A1-4.1**
- **Data security by cryptological procedure**
- **Comparison of the real-time signal with the encoded signal**
- **Watchdog**
- **Power-On Reset function**
- **Sealing possibility**

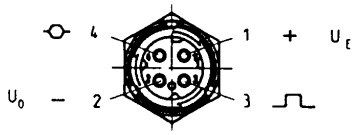
Applications

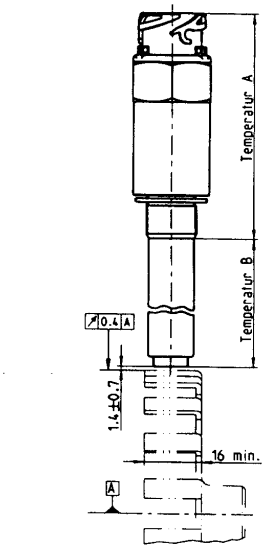
- **Only for use in the new tachograph generation according to the Commission's proposal regarding Regulation (EEC) No. 3821/85**

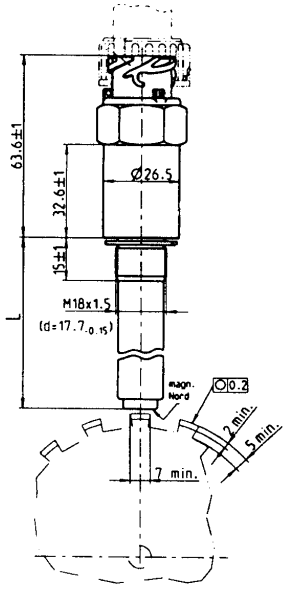
Sensor KITAS 2170-20

Technical Information

Operating voltage (U_E)	6,5...9V
Power consumption	max. 15 mA
Operating temperature	A -30°C...+135°C B -30°C...+145°C
Storage temperature	-40°C...+150°C
Connection	unearthed
Signal shape (Pin 3)	Rectangular
Frequency range (max.)	1 Hz - 2000 Hz
Output signal (Pin 3)	Real-time signal U_{Lmax} = 0,8 V (@ I = 250 µA) U_{Hmin} =U_E-1,5 V (@ I = -150 µA)
Output short-circuit	28V, 1 min
Output signal (Pin 4)	Bidirectional interface
Protecting against voltage	DIN 40 839
Interference	DIN 40 839
Interference protection Protection	30 V, 1 min. IEC 529, IP 67/IP 69K
Dimensions (L in mm)	approx. 19,8/25/35/63,2 80/90/115/136,8
Weight	approx. 100 to 180 g
Resistance to vibrations	30 g
Shock resistance	1000 g
Tightness	0,5 bar Oil, 120°C, 100h
Pulse wheel Material (typ.)	St 4 LG RP
Thickness of pulse wheel	2 mm
Segment gap	min. 1,5 x segment width
Lenght of segment (typ.)	16 mm
Air gap Sensor/pulse wheel (typ.)	1,4 mm
Not to be used in cases of extraneous magnetic fields	› 2 mT
Connection of sensor to sensor lead	standard plug according to DIN 72585-A1-4.1
Connection of sensor to vehicle gearbox	via thread M 18 x 1,5
Torque (wrench size)	max. 50 Nm (SW 27)







Dealer