Functional description
User Manual

5WK4 9510

SIEMENS VDO
Automotive

Homologation Information for CAS3

Information required for tests during homologation of the CAS3

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1 General Information

Purpose of this document is to give a survey of the test equipment and test setup.

2 Variants

The CAS3 has two variants. The PCB is identical for both variants. The SW differs between both variants.

Siemens part number	difference
5WK4 9510	with ELV-Master SW
5WK4 7997	without ELV-Master SW

The homologation shall be reached for both variants.

3 Technical Data

CAS voltage range:	6.0V...16.0V
BaseStationIC rated voltage:	5V
CAS quiescent current:	max. 1.3 mA
BaseStationIC quiescent current:	max. 20 µA
Coil charge current:	max. 63 mA
Operating temperature:	-40°C...+85°C
Type of modulation:	ASK
HF level pre-oscillation time:	max. 10 ms
Transmission frequency:	125 kHz
Output power:	55 dBµV (conducted)
Number of coil turns:	145
Coil wire diameter:	$\leq 0,15$ mm²
Coil DC resistance:	20,7 Ohm
Coil inductivity:	1.32 mH (at lock)
Coil quality (f = 125 kHz):	33,5 (at lock)

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4 Test equipment and setup

4.1 General

The transponder software of the CAS3 tries to authenticate a key permanently via the LF transponder antenna as soon as the ECU's power supply is available.

The key shall be inserted to the FSE. The Start Stop button shall be pressed.
If the key is authenticated via the LF transponder antenna, the key will be held in the FSE
Pressing the plugged key in the FSE again, the key will be released and ejected.

The supplied keys is learned to the CAS, so the key can be authenticated
The CAS tries permanently tries to authenticate the key.

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Functional description of the measurement system

The components are
- CAS3 ecu
- FSE with slot for the key, connected to the CAS via 14pin flat cable
- Start Stop Button, connected with FSE and CAS via 14pin flat cable
- One Key which is learned to the CAS

The components are supplied via the two banana jacks connected to the CAS
Banana Jack , black, KL31: GND (ground)
Banana Jack , red, KL30: +12V DC

Functional test, activating the transponder authentication

1. Connect GND to KL31
2. Connect 12 V to KL30
3. The CAS permanently tries to authenticate a key
4. Press the Start Stop button
5. Insert the learned key to the FSE
6. After the successful authentication, the key is held in the FSE (plugged)
7. The key is authenticated permanently.
8. Pressing the plugged key again releases the key and the key is ejected.

5 Label

Siemens VDO

CE ⊛

FCC ID:KR5CAS3
IC:267T-CAS3

owner manual USA, Canda : warning statement

This device complies with part 15 of the FCC Rules and RSS-210. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept interference received, including interference that may cause undesired operation.

Note:
Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

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