



Translation

EC-TYPE EXAMINATION CERTIFICATE

(1)

(2) Equipment or protective system intended for use in potentially explosive atmospheres - **Directive 94/9/EC**



(3) EC-Type Examination Certificate Number

TÜV 03 ATEX 2324 X

(4) Equipment: Digital Tachograph type DTCO 1381.x

(5) Manufacturer: Siemens VDO Automotive AG

(6) Address: Heinrich-Hertz-Straße 45
D-78052 Villingen-Schwenningen

(7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The TÜV NORD CERT GmbH & Co. KG, TÜV CERT-Certification Body, notified body number N° 0032 in accordance with Article 9 of the Council Directive of the EC of March 23, 1994 (94/9/EC), certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential report N° 04YEX551131.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50 014: 1997+A1+A2

EN 50 020: 2002

EN 50 021: 1999

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type examination certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment or protective system must include the following:

 **II 3 (2) G EEx n A [ib] IIC T6**

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Hanover, 2004-11-02



TÜV NORD CERT


Head of the
Certification Body

(13)

SCHEDULE

(14) EC-TYPE EXAMINATION CERTIFICATE N° TÜV 03 ATEX 2324 X

(15) Description of equipment

Together with the motion sensor type KITAS 2171.xx the Digital Tachograph type DTCO 1381.x is used for the supervision of vehicles transporting combustible liquids or gases.

The Digital Tachograph type DTCO 1381.x is installed according to the intended use in the driving cab of a motor vehicle. The driving cab may be considered an explosion hazardous areas that requires apparatus of the category 3.

The Digital Tachograph type DTCO 1381.x is also an associated electrical apparatus with intrinsically safe circuits.

The explosion protection of the Digital Tachograph type DTCO 1381.x is ensured when the vehicle comes to standstill and the battery master switch is opened.

The permissible ambient temperature range is $-25^{\circ}\text{C} \dots 70^{\circ}\text{C}$.

Electrical data

Supply circuit permanent supply from the vehicle battery
(Connections A1[30] and A5[31a] $U_n = 24 \text{ V}$
at the plug connector)

Ignition system supply via the battery master switch and
(Connections A2[58d], A3[15], ignition switch from the vehicle battery
and A6[31] at the plug connector) $U_n = 24 \text{ V}$

Remainders data and
signal circuits electrical data according to the manufacturers
specifications

Supply and signal
circuits in type of protection Intrinsic Safety EEx ib IIC
(Connections B1, B2, B3 and B4 maximum values:
at the plug connector) $U_o = 9,7 \text{ V}$
 $I_o = 36 \text{ mA}$
 $P_o = 320 \text{ mW}$
characteristic line: trapezoidal

only for connection to the
motion sensor type KITAS 2171.xx according to
EC-Type Examination Certificate TÜV 02 ATEX 1842 X
For the interconnection a cable length of 20 m is
permissible.

The intrinsically safe circuits are galvanically connected with the non intrinsically safe circuits.



(16) Test documents are listed in the test report no. 04 YEX 551131.

(17) Special conditions for safe use

1. The permissible ambient temperature range has to be taken from this EC-Type Examination Certificate resp. the manual of the manufacturer.
2. The Digital Tachograph type DTCO 1381.x is only allowed to be installed into the designated radio panel at any place in the driving cab of a vehicle
3. The connecting and disconnecting as well as the switching of circuits under voltage, is only permitted during installation, for maintenance or for repair purposes.
4. The operation of the Digital Tachograph type DTCO 1381.x with closed battery master switch is not allowed if explosion hazardous atmosphere exists.

(18) Essential Health and Safety Requirements

no additional ones