

Translation

(1) **EC-Type Examination Certificate**

TÜV NORD



- (2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 94/9/EC**

(3) **Certificate Number** **TÜV 06 ATEX 2964**

(4) for the equipment: Differential pressure switch type DS21.....I

(5) of the manufacturer: **Fischer Mess- und Regeltechnik GmbH**

(6) Address: Bielefelder Straße 37 a
D-32107 Bad Salzuflen

Order number: 8000552858

Date of issue: 2006-08-28

- (7) This equipment or protective system and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) The TÜV NORD CERT GmbH, notified body No. 0044 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 No. 06 YEX 552858.
- (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 13 463-1:2001**
EN 13 463-5:2003
- (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 2 G EEx ib c IIC T6

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, accredited by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

The head of the certification body

Schwedt

Hanover office, Am TÜV 1, 30519 Hanover, Fon +49 (0)511 986 1455, Fax +49 (0)511 986 1590

This certificate may only be reproduced without any change, schedule included.
Excerpts or changes shall be allowed by the TÜV NORD CERT GmbH

(13) SCHEDULE

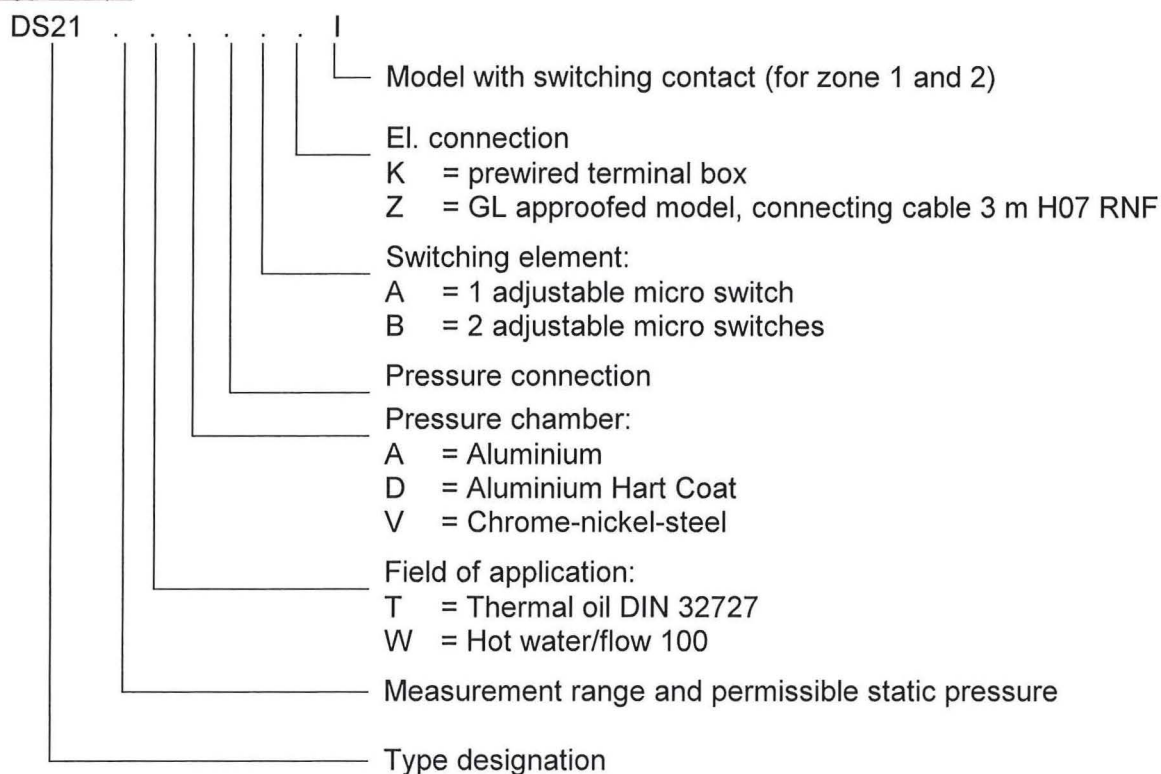
(14) EC-Type Examination Certificate No. TÜV 06 ATEX 2964

(15) Description of equipment

The Differential pressure switch type DS21.....I is to measure differential pressures to guarantee the flow in thermal oil plants.

The above mentioned equipment consists of a pressure chamber with a membrane and an upper housing with motion work and two micro switches connected to intrinsically safe circuits.

Type code



Technical Data

Permissible range of ambient temperature	-10 °C to +60 °C
Permissible range of medium temperature	0 °C to +60 °C
Max. permissible medium pressure	6 bar
Max. permissible pressure impulse frequency	0,2 Hz
Max. permissible pressure rate of change	5 bar/s

Schedule EC-Type Examination Certificate No. TÜV 06 ATEX 2964

Electrical Data

Contact circuit in the type of protection Intrinsic Safety EEx ib IIC
(Connections in the connection box;) only for connection to certified intrinsically safe circuits
connections 1, 2, 3; 4, 5, 6) Maximum values per circuit:
 $U_i = 30 \text{ V}$
 $I_i = 160 \text{ mA}$
 $P_i = 800 \text{ mW}$
The effective internal inductances and capacitances are negligibly small.

The intrinsically safe contact circuits are safe galvanically separated from each other and ground potential.

(16) Test documents are listed in the test report No. 06 YEX 552858.

(17) Special conditions for safe use

none

(18) Essential Health and Safety Requirements

no additional ones

Translation 1. SUPPLEMENT

to Certificate No.

Equipment:

TÜV 06 ATEX 2964

Differential pressure measuring- and switching device
type DS21.....I

Manufacturer:

Fischer Mess- und Regeltechnik GmbH

Address:

Bielefelder Straße 37 a
32107 Bad Salzuflen
Germany

Order number:

8000402409

Date of issue:

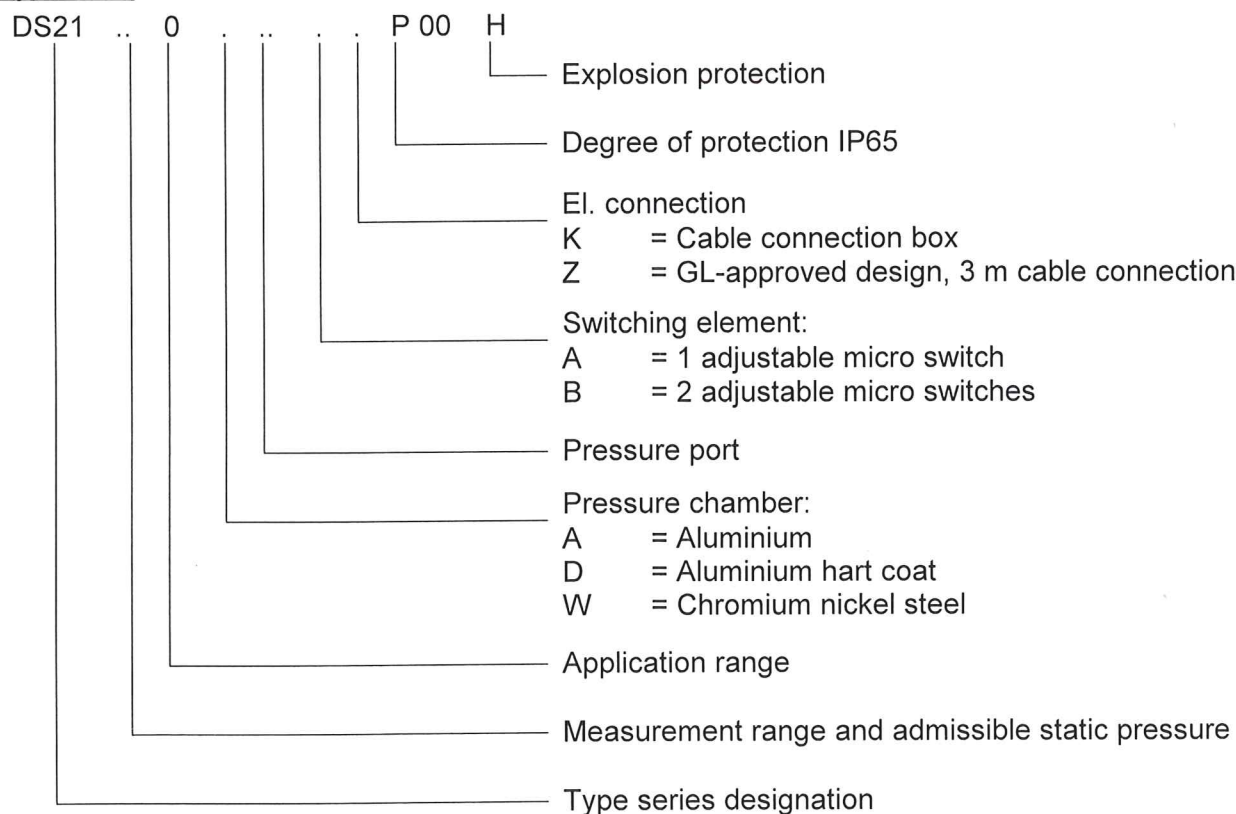
2012-05-02

Amendments:

The changes concern the suitability for the use within areas exposed to dust explosion hazards, the type code and the construction. In the future the above-named device may be manufactured according to the test documents mentioned below.

The type designation changes as follows:

Type code



1. Supplement to Certificate No. TÜV 06 ATEX 2964

Electrical data

Contact circuit..... in the type of protection intrinsic safety Ex ib IIC
(connections inside of the only for connection to certified intrinsically safe circuits
Connection box; Maximum values per circuit:
 $U_i = 30 \text{ V}$
 $I_i = 160 \text{ mA}$
 $P_i = 800 \text{ mW}$
The effective internal inductance and capacitance are negligibly small.

The intrinsically safe circuits are isolated galvanically safe from each other and to the earth potential, also in explosion hazardous areas with conductive dust.

All other details remain unchanged.

The marking changes as follows:

 II 2 G Ex ib c IIC T6
 II 2 D Ex tb c IIIC T70 °C IP 65

The equipment incl. of this supplement meets the requirements of these standards:

EN 60079-0:2009
EN 13463-1:2009

EN 60079-11:2007
EN 13463-5:2011

EN 60079-31:2009

(16) The test documents are listed in the test report No. 12 203 092915.

(17) Special conditions for safe use

no additional ones

(18) Essential Health and Safety Requirements

no additional ones

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, notified by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

The head of the notified body



Schwedt

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Translation

2. SUPPLEMENT

to Certificate No.

Equipment:

Manufacturer:

Address:

TÜV 06 ATEX 2964

Differential pressure switch type DS21.....H

Fischer Mess- und Regeltechnik GmbH

Bielefelder Straße 37 a

32107 Bad Salzuflen

Deutschland

8000421886

06.05.2014

Order number:

Date of issue:

Amendments:

Amendments according to the EC-Type Examination Certificate TÜV 06 ATEX 2964 incl.

1. Supplement:

The below mentioned standards are considered.

All other data apply unchanged.

The marking changes as follows:



II 2 G Ex ib c IIC T6 Gb



II 2 D Ex tb c IIIC T70 °C Db

The equipment incl. this supplement meets the requirements of these standards:

EN 60079-0:2012

EN 13463-1:2009

EN 60079-11:2012

EN 13463-5:2011

EN 60079-31:2009

(16) The test documents are listed in the test report No. 14 203 122999.

(17) Special conditions for safe use

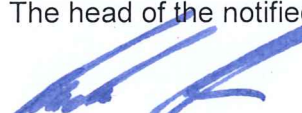
no additional ones

(18) Essential Health and Safety Requirements

no additional ones

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The head of the notified body



Meyer

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