



Translation

EC-TYPE EXAMINATION CERTIFICATE

- (2) Equipment or Protective System intended for use in potentially explosive atmospheres - **Directive 94/9/EC**
- (3) EC-Type Examination Certificate Number



TÜV 02 ATEX 1898

- (4) Equipment or Protective System: Temperature Transmitter type IM34-12Ex-*i
- (5) Manufacturer: Hans Turck GmbH & CO KG
- (6) Address: Witzlebenstraße 7
D-45472 Mülheim
- (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 Certification Body N° 0032 in accordance with Article 9 of the Council Directive 94/9/EC of March 23, 1994, 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 confidential report N° 02YEX184675.

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

EN 50 014:1997

EN 50 020:1994

- (10) If the sign "X" is placed after the certification 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 (1) G D [EEx ia] IIC

TÜV NORD CERT GmbH & Co. KG
 TÜV CERT-Certification Body
 Am TÜV 1
 D-30519 Hannover
 Tel.: 0511 986-1470
 Fax: 0511 986-2555

Head of the
 Certification Body



Hanover, 2002-09-04



SCHEDULE

- (13)
- (14) **EC-TYPE EXAMINATION CERTIFICATE N° TÜV 02 ATEX 1898**
- (15) Description of equipment or protective system

The temperature transmitter type IM34-12Ex-*i is used for the measurement of temperatures by means of thermocouples or resistance thermometers (e. g. Pt 100) and for the safe galvanic separation of the intrinsically safe and the non intrinsically safe circuits, as well.

The permissible ambient temperature range is -25°C ... 70°C.

Electrical Data

Supply circuit $U_n = 20 \dots 250 \text{ V a. c. resp. } 20 \dots 125 \text{ V d. c.}$
 (Terminals 11, 12) $U_m = 250 \text{ V a. c. resp. } 125 \text{ V d. c.}$

Measuring circuit in type of protection Intrinsic Safety EEx ia IIC/IIB
 (Terminals 1 ... 6) maximum values:
 $U_o = 5 \text{ V}$
 $I_o = 2 \text{ mA}$
 $P_o = 2,6 \text{ mW}$
 Characteristic line: linear
 The effective internal capacitance is negligibly small.
 effective internal inductance: 0,2 mH

	EEx ia	IIC	IIB
max. permissible external inductance		1000 mH	1000 mH
max. permissible external capacitance		100 µF	1000 µF

Output circuit $U = 35 \text{ V, } 25 \text{ mA}$
 (Terminals 7, 8) $U_m = 250 \text{ V a. c. resp. } 125 \text{ V d. c.}$

Contact circuit $U = 250 \text{ V a. c., } I = 2 \text{ A, } S = 500 \text{ VA resp.}$
 (Terminals 9, 10) $U = 120 \text{ V DC, } I = 0,5 \text{ A bzw.}$
 $U = 30 \text{ V DC, } I = 6 \text{ A}$

Configuration circuit RS232C
 (Front side stereo jack) $U_m = 250 \text{ V a. c. resp. } 125 \text{ V d. c.}$

The intrinsically safe measuring circuit is safely galvanically separated from the non intrinsically safe circuits up to the peak crest value of the voltage of 375 V.



Translation

1. SUPPLEMENT to

EC TYPE-EXAMINATION CERTIFICATE No. TÜV 02 ATEX 1898

of the company : Hans Turck GmbH & Co KG
Witzlebenstraße 7
D-45472 Mülheim

In the future, the marking of the Temperature Transmitter type IM34-12Ex-*i reads as follows:

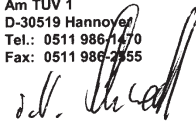
IM34-**Ex-***i

All other details remain unchanged for this 1. supplement.

The test document is listed in the test report no. 02 YEX 0164.

TÜV Hannover/Sachsen-Anhalt e.V.
TÜV CERT-Zertifizierungsstelle
Am TÜV 1
D-30519 Hannover
Tel.: 0511 986-1470
Fax: 0511 986-2755

Hannover, 2002-11-26


Head of the
Certification Body

- (16) The test documents are listed in the test report no. 02YEX184 675.
- (17) Special conditions for safe use
none
- (18) Essential Health and Safety Requirements
no additional ones

Translation
2. SUPPLEMENT

to Certificate No. TÜV 02 ATEX 1898
 Equipment: Temperature Transmitter type IM34-**Ex-**i
 Manufacturer: Hans Turck GmbH & Co. KG
 Address: Witzlebenstraße 7
 D-45472 Mülheim
 Order number: 8000552976
 Date of issue: 2006-06-21

Amendments:

In the future, the temperature transmitter type IM34-**Ex-**i may also be manufactured and operated according to the documents listed in the test report.

The amendments concern the internal construction. A changed printed circuit board with the identifier 2010/5 is used.

The electrical data and all other data apply unchanged for this supplement.

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

EN 50014:1997+A1+A2 **EN 50020:2002**

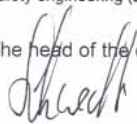
(16) The test documents are listed in the test report No. 06 YEX 552976.

(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, 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, Tel.: +49 (0) 511 986-1455, Fax: +49 (0) 511 986-1590

Translation
3. SUPPLEMENT

to Certificate No. TÜV 02 ATEX 1898
 Equipment: Temperature Transmitter type IM34-**iEx-**i
 Manufacturer: Hans Turck GmbH & Co. KG
 Address: Witzlebenstraße 7
 45472 Mülheim an der Ruhr
 Germany
 Order number: 8000554342
 Date of issue: 2008-04-02

Amendments:

In the future, the temperature transmitter type IM34-**Ex-**i may only be manufactured, installed and operated according to the documents listed in the test report.

The following changes and/or additions were made:

- The temperature transmitter type IM34-**Ex-**i may be manufactured, installed and operated with the printed circuit boards 2010/4 or 2010/6.
- For the use of the equipment as associated apparatus for locations with combustible dust the meanwhile existing standards were considered.
- For the assessment the current standards listed as evaluation principles were considered.

The electrical data and all other data apply unchanged for this supplement.

The equipment meets the requirements of these standards:

EN 60079-0:2006 **EN 60079-11:2007**
EN 61241-0:2006 **EN 61241-11:2006**

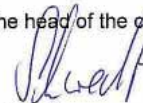
(16) The test documents are listed in the test report No. 08203554342.

(17) Special conditions for safe use
none

(18) Essential Health and Safety Requirements
no additional ones

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The head of the certification body



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P17-F-016 06-06

Konformitätserklärung **Nr. 3068-2 M**
Declaration of Conformity



Diese Konformitätserklärung entspricht der Europäischen Norm EN 45014 "Allgemeine Kriterien für Konformitätserklärungen von Anbietern". Die Grundlage der Kriterien sind internationale Dokumente, insbesondere ISO/IEC Leitfaden 22, 1982: "Information on manufacturer's declaration of conformity with standards or other technical specifications".

This "Declaration of Conformity" complies with the European Standard EN 45014 "General criteria for a supplier's declaration of conformity". These criteria are based on the relevant international documentation, particularly the ISO/IEC Guide 22, 1982: "Information on the manufacturer's declaration of conformity with standards or other technical specifications".

Wir/ We **HANS TURCK GMBH & CO KG**
WITZLEBENSTR. 7, D - 45472 MÜLHEIM A.D. RUHR

erklären in alleiniger Verantwortung, dass die Produkte
declare under our sole responsibility that the products

Temperatur-Messumformer Typ IM34-Ex-**i**

auf die sich die Erklärung bezieht, mit den folgenden Normen übereinstimmen
to which this declaration relates are in conformity with the following standards

DIN EN 61326-1:2006-10

und wo anwendbar
and where applicable

EN 60079-0:2006 **EN 61241-0:2006**
EN 60079-11:2007 **EN 61241-11:2006** **EN 60079-15:2005**

Gemäß den Bestimmungen der Richtlinie (falls zutreffend)
Following the provisions of Directive (if applicable)

EMV - Richtlinie	/ EMC Directive	2004 / 108 / EG	15. Dez. 2004
Richtlinie ATEX	/ Directive ATEX	94 / 9 / EG	23. März 1994

Weitere Normen
additional standards

Aussteller der EG-Baumusterbescheinigung:

TÜV NORD CERT GmbH
Am TÜV 1, D-30519 Hannover
Kenn-Nr. 0044, Registriernummer: TÜV 02 ATEX 1898, TÜV 06 ATEX 552978 X

Kennzeichnung:  II (1) G, II (1) D, II 3 G

Mülheim, den 23.04.08

(i.V. W. Stoll)

Ort und Datum der Ausstellung /
Place and date of issue

Name und Unterschrift des Befugten /
Name and signature of authorized person