

[1] **EC-TYPE EXAMINATION CERTIFICATE**
according to Directive 94/9/EC, Annex III
(Translation)



- [2] Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres, Directive 94/9/EC
- [3] EC-Type Examination Certificate Number: **IBExU07ATEX1156**
- [4] Equipment: Transmitter-power supply
type IM33-**Ex-*****
- [5] Manufacturer: Hans Turck GmbH & Co. KG
- [6] Address: Witzlebenstraße 7
45472 Mülheim an der Ruhr
GERMANY
- [7] The equipment mentioned under [4] and any acceptable variation there to are specified in the schedule to this EC-Type Examination Certificate.
- [8] IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 in accordance with article 9 of the Council Directive 94/9/EC of 23rd March 1994, certifies that the under [4] mentioned equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of the equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in test report IB-07-3-311 of 06th December 2007.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2006, EN 60079-11:2007, EN 61241-0:2006 and EN 61241-11:2006.
- [10] If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified under [17] in the schedule to this EC-Type Examination Certificate.
- [11] This EC-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.
- [12] The marking of the equipment mentioned under [4] shall include the following:

Ex II (1) GD [Ex ia] IIC/IIB

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7 - 09599 Freiberg, Germany
☎ +49 (0) 3731 3805-0 - 📠 +49 (0) 3731 23650

Authorised for certifications
- Explosion protection -

By order

(Dr. Lösch)



Freiberg, 7th December 2007

Certificates without signature and seal are not valid.
Certificates may only be duplicated completely and unchanged.
In case of dispute, the German text shall prevail.

Schedule

[13] **Schedule**

[14] **to EC-TYPE EXAMINATION CERTIFICATE IBExU07ATEX1156**

[15] **Description of the equipment**

The Transmitter-power supply type IM33-**Ex-***** is used for the safe galvanic separation and evaluation of current- or voltage signals in 2- or 3-wire technology. The apparatus is suitable for supplying category 1 G or 1D devices.

Type code:
IM33- 1 4 Ex-C D R I
a b c d e f g h

- a Type designation for Transmitter-power supply (IM33)
- b Number of channels (1)
- c Number of outputs (4)
- d Equipment with Ex-approval (Ex)
- e PC-connection (C)
- f Digital display (D)
- g Relay outputs (R)
- h Sort of analogue output (i or u for current or voltage output)

Ambient temperature range: -25 °C to +70 °C
Degree of protection of the enclosure: ≥ IP 20

Electrical data
Supply current circuit
(Terminal 19,20)

Rated voltage: U_B 20 ... 250 V AC or
20 ... 125 V DC

max. effective value of AC voltage
or max. DC voltage: U_m 250 V AC / 125 V DC

Sensor current circuit

in type of protection Intrinsic safety Ex ia IIC/IIB

(Terminal 1...4)

U ₀	21.6 V
I ₀	85 mA
P ₀	459 mW
L _i	negligible
C _i	negligible
U _i	40 V
P _i	600 mW

Trapezoidal characteristic: R_i = 408 Ω

The maximum values of the tables are also allowed to be used up to the permissible limits as concentrated capacitances and as concentrated inductances:

	Ex ia IIC		Ex ia IIB		
	C ₀	30 nF	50 nF	630 nF	680 nF
L ₀	0.3 mH	0.15 mH	5 mH	1 mH	0.15 mH

Output circuit (passive, non intrinsically safe)

(Terminal 11,16) U 13.5 V
I 22.5 mA

max. effective value of AC voltage
or max. DC voltage: U_m 250 V AC / 125 V DC

Contact circuit (non intrinsically safe)
(Terminal 12,13; 14,15; 17,18)

U	I	P
250 VAC	2 A	500VA / 60W
120 VDC	0.5 A	
30 VDC	2 A	

Configuration interface (non intrinsically safe)
(front side stereo jack)

max. effective value of AC voltage
or max. DC voltage:

U	3.3 V
U _m	250 V AC / 125 V DC

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

[16] Test report

The test results are recorded in the test report IB-07-3-311. The test documents are part of the test report and listed there.

Summary of the test results:

The Transmitter-power supply type IM33-Ex-***** fulfill the requirements of explosion protection for associated apparatus for Equipment Group II and Category 1G respectively 1D in type of protection Intrinsic safety for gases of Explosion Group IIC/IIB and dusts.

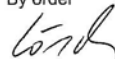
[17] Special conditions

none

[18] Essential health and safety requirements

Confirmed by compliance of standards (see [9]).

By order



(Dr. Lösch)

Freiberg, 7th December 2007

EU Declaration of Conformity No.:

Wirr/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

Universalmessumformer-Speisetrener Typ IM33-14Ex-CDRI

auf die sich die Erklärung bezieht, den Anforderungen der folgenden EU-Richtlinien durch Einhaltung der
folgenden Normen genügen:
to which this declaration relates are in conformity with the requirements of the following EU-directives by compliance with the following
standards:

EMV – Richtlinie / EMC Directive 2014 / 30 / EU 26. Feb. 2014
EN 61326-1:2013

Niederspannungsrichtlinie/ Low Voltage Directive 2014 / 35 / EU 26. Feb. 2014
(für die Geräte mit Versorgungsspannung / for equipment with supply voltage : >50V AC bzw. >75V DC)
EN 61010-1:2010

Richtlinie / Directive ATEX 2014 / 34 / EU 26. Feb. 2014
EN 60079-0:2012 EN 60079-11:2012 EN 60079-15:2010

Weitere Normen, Bemerkungen
additional standards, remarks

Das Produkt stimmt mit den Anforderungen der Richtlinie 2014 / 34 / EU überein. Eine oder mehrere in der zugehörigen EG-Baumusterprüfbescheinigung genannten Normen wurden bereits durch neue Ausgaben ersetzt. Der Hersteller erklärt für das Produkt auch die Übereinstimmung mit den neuen Normenausgaben, da die veränderten Anforderungen der neuen Normenausgaben für dieses Produkt nicht relevant sind.

The product complies with the directive 2014 / 34 / EU. One or more norms mentioned in the respective EC type examination certificate were already replaced by new ones. The manufacturer declares that the product complies with the new valid norms, as the changed requirements mentioned there are not relevant for the product.

Die Niederspannungsrichtlinie ist nicht anwendbar bei Betrieb des Produktes im explosionsgefährdeten Bereich. In diesem Fall sind alle grundlegenden Zielsetzungen im Hinblick auf die Niederspannung von der Richtlinie 2014 / 34 / EU Anhang II Punkt 1.2.7 abgedeckt.

The low voltage directive is not applicable when the product is installed in the hazardous area. In this case all Low Voltage essential objectives are covered by the Directive 2014 / 34 / EU Annex II 1.2.7.

Zusätzliche Informationen:

Supplementary information:

Angewandtes ATEX-Konformitätsbewertungsverfahren / ATEX - conformity assessment procedure applied:
Modul B + Modul D / E / module B + module D / E

EU-Baumusterprüfbescheinigung (Modul B) IBExU 07 ATEX 1156, IBExU 07 ATEX B015 X /
EC-type examination certificate (module B)

ausgestellt von / issued by: IBExU Institut für Sicherheitstechnik GmbH, Kenn-Nr. / number 0637
Fuchsmühlenweg 7, D-09599 Freiberg

Zertifizierung des QS-Systems gemäß Modul D durch:
certification of the QS-system in accordance with module D by:

Physikalisch Technische Bundesanstalt, Kenn-Nr. / number 0102,
Bundesallee 100, D-38116 Braunschweig

Mülheim, den 20.04.2016



i.V. Dr. M. Linde, Leiter Zulassungen / Manager Approvals

Ort und Datum der Ausstellung /
Place and date of issue

Name, Funktion und Unterschrift des Befugten /
Name, function and signature of authorized person