Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

(1) EU-TYPE-EXAMINATION CERTIFICATE
(Translation)

(2) Equipment or Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number:

PTB 04 ATEX 2047 X **Issue: 1**

(4) Product: AC/DC converter, type PPSA230EX and type PPSA115EX

(5) Manufacturer: Hans Turck GmbH & Co. KG

(6) Address: Witzlebenstraße 7, 45472 Mülheim, Germany

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

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential Test Report PTB Ex 17-24206.

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

EN 60079-0:2012+A11:2013 EN 60079-7:2015 EN 60079-18:2015

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

Ex II 2 G Ex eb mb IIC T4 or Ex eb mb IIC T4 Gb

Konformitätsbewertungsstelle, Sektor Explosionsschutz Braunschweig, February 8, 2017
On behalf of PTB:

Dr.-Ing. F. Lienesch
Regierungsdirektor

ZSEx001e c

(13) # SCHEDULE

(14) **EU-Type Examination Certificate Number PTB 04 ATEX 2047 X, Issue: 1**

(15) Description of Product

The AC/DC converter, type PPSA230EX and type PPSA115EX is used for a 24V supply inside of zone 1. It is intended that the AC/DC converter is plugged and secured onto the ballast module subrack, type MT-PPS. The ballast module subrack, type MT-PPS is separately certified by PTB 16 ATEX 2025 U-A0. The electrical input and output circuit are electrically isolated.

The AC/DC converter, type PPSA230EX and type PPSA115EX basically consists of the transformer, the plug-in device and a rectification. The transformer and the plug-in device were designed in type of protection "Increased safety" e "and the rectification in type of protection" Encapsulation "m".

The permissible ambient temperature range is: -20 °C up to +70 °C

Electrical Data:

Supply	type of protection Increased Safety Ex eb IIC
Nominal value	115 / 230 VAC, 85VA safety maximum voltage U_m = 250V
	type of protection Increased Safety Ex eb IIC
	max. 32 VDC
	2,7 A
	67 W

(16) Test Report PTB Ex 17-24206

SCHEDULE TO EU-TYPE EXAMINATION CERTIFICATE PTB 04 ATEX 2047 X, Issue: 1

(17) Specific conditions of use

The AC/DC converter, type PPSA230EX and type PPSA115EX shall only be operated together with the ballast module subrack, type MT-PPS according to certificate PTB 16 ATEX 2025 U-A0.

For the operation in potentially explosive atmospheres the AC/DC converter, type PPSA230EX and type PPSA115EX and the ballast module subrack, type MT-PPS shall be installed in an appropriate enclosure that is separately certified in the type of protection "Increased Safety" e "with a minimum degree of protection of IP54, since the enclosure is not covered by this approval.
The AC/DC converter shall only be plugged or unplugged in a de-energized state.

(18) Essential health and safety requirements

Met by compliance with the aforementioned standards.

According to Article 41 of Directive 2014/34/EU, EC-type examination certificates which have been issued according to Directive 94/9/EC prior to the date of coming into force of Directive 2014/34/EU (April 20, 2016) may be considered as if they were issued already in compliance with Directive 2014/34/EU. By permission of the European Commission supplements to such EC-type examination certificates and new issues of such certificates may continue to hold the original certificate number issued before April 20, 2016.

Konformitätsbewertungsstelle, Sektor Explosionsschutz — Braunschweig, February 8, 2017
On behalf of PTB:

Dr.-Ing. F. Lienesch
Regierungsdirektor

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

(1) # EC-TYPE-EXAMINATION CERTIFICATE

(Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-type-examination Certificate Number:

PTB 04 ATEX 2047

(4) Equipment: Ballast, type PPSA...Ex...

(5) Manufacturer: Hans Turck GmbH & Co. KG

(6) Address: Witzlebenstraße 7, 45472 Mülheim, Germany

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

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment 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 PTB Ex 04-22298.

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

EN 50014:1997 + A1 + A2 **EN 50019:2000** **EN 50028:1987**

(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 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 shall include the following:

Ex II 2 G EEx e m IIC T4

Zertifizierungsstelle Explosionsschutz
By order:

(signature)

Dr.-Ing. U. Johannsmeyer
Regierungsdirektor

Braunschweig, May 13, 2004

3 pages, correct and complete as regards content.
By order:

Dr.-Ing. Johannsmeyer
Direktor und Professor

Braunschweig, July 1, 2005

(13) # SCHEDULE

(14) ## EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 2047

(15) Description of equipment

The ballast, type PPSA...Ex... is intended for use in hazardous areas and converts supply voltages of 230 V AC or 115 V AC into input values which are permissible for the power supply unit PSD 24Ex according to PTB 00 ATEX 2193. The ballast shall only be operated within the fieldbus system *excom*. The electrical input and output circuit are safely electrically isolated.

The permissible range of the ambient temperature is: -20 up to 70 °C.

The type of protection of the ballast is : EEx e m IIC T4

Electrical data:

Multilayer line feed-in by the module subrack unit, type MT...

Input circuit:	type of protection Increased Safety EEx e
Supply voltage (terminals L and N)	U_{in} =230 V AC or 115 V AC
Power consumption	P_{max} < 75 VA
Rated voltage	U_m = 250 V
PE	internally not connected
Output circuit:	(system-internal only) type of protection Increased Safety EEx e
Output voltage (terminals + and -)	U_{out} ≤ 32 V DC
Power	P_{out} < 60 W

(16) Test report PTB Ex 04-22298

(17) Special conditions for safe use

none

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

SCHEDULE TO EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 2047

(18) Essential health and safety requirements

met by compliance with the standards mentioned above

Zertifizierungsstelle Explosionsschutz
By order:

Braunschweig, May 13, 2004

(signature)

Dr.-Ing. U. Johannsmeyer
Regierungsdirektor

EU-Konformitätserklärung Nr. 5082-1M

EU Declaration of Conformity No.:

Wir/ We HANS TURCK GMBH & CO KG
Witzlebenstr. 7, 45472 Mülheim an der Ruhr, Germany

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

230-VAC-Umsetzer / Converter 230 VAC / Type PPSA230Ex
115-VAC-Umsetzer / Converter 115 VAC / Type PPSA115Ex

Ex-Kennzeichnung / Ex-marking:

Gas / gas Ⓔx II 2 G Ex eb mb IIC T4

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

EMV – Richtlinie / EMC Directive	2014 / 30 / EU	26. Feb. 2014
EN 61326-1:2013		
Richtlinie / Directive ATEX	2014 / 34 / EU	26. Feb. 2014
EN 60079-0:2012 +A11:2013	EN 60079-7:2015	EN 60079-18:2015
Niederspannungsrichtlinie / Low Voltage Directive **1*)**	2014 /35 / EU	26. Feb. 2014
EN 61010-1:2010		

Weitere Normen, Bemerkungen
additional standards, remarks

1*) 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.

1*) 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 E (enthalten in Modul D) / module B + module E (part of module D)

EU-Baumusterprüfbescheinigung (Modul B) PTB 04 ATEX 2047 X / EC-type examination certificate (module B):

ausgestellt von / issued by: Physikalisch Technische Bundesanstalt, Kenn-Nr. / number 0102,
Bundesallee 100, 38116 Braunschweig, Germany

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, 38116 Braunschweig, Germany

Mülheim, den 17.02.2017

i.V. U. Vix, CE-Koordinatorin / CE Coordinator

Ort und Datum der Ausstellung /
Place and date of issue

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