



EC-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use
in Potentially Explosive Atmospheres
Directive 94/9/EC

EC-Type Examination Certificate Number : BAS00ATEX7240

Equipment or Protective System: TYPE K*D2-SCD2-Ex2(P).LK TRANSFORMER ISOLATED DRIVER

Manufacturer: PEPPERL + FUCHS GB LTD

Address: Oldham, Lancashire, OL1 4EL

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

The Electrical Equipment Certification Service, notified body number 600 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 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°

99(C)0589 dated 23 March 2001

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

EN 50014: 1997 + Amds 1 & 2 EN 50020: 1994

except in respect of those requirements listed at item 18 of the Schedule.

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.

This EC-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.

The marking of the equipment or protective system shall include the following:-

II (1) GD [Ex ia] IIC (T_{amb} = -20°C to +60°C)

This certificate may only be reproduced in its entirety and without any change, schedule included.

File No: EECS 0807/02/173



Schedule

EC-TYPE EXAMINATION CERTIFICATE N° BAS00ATEX7240

Description of Equipment or Protective System

The Transformer Isolated Driver Type K*D2-SCD2-Ex2(P).LK is a two channel device designed to provide a galvanically isolated interface to enable the connection of apparatus located in a hazardous area with apparatus located in a non-hazardous area by providing galvanic isolation and limiting to intrinsically safe levels the voltage and current into the hazardous area.

The apparatus comprises a number of electrical components, including transformers, fuses, resistors and zener diodes, all mounted on a single printed circuit board (PCB) and housed within a plastic enclosure.

The use of '*' in the type description may be H for screw type terminals or F for FIM plug in terminals.

The option .P indicates the inclusion of power rail terminals.

The apparatus is designed to operate from a d.c. supply of up to 40V on terminals 7 to 9, terminals 10 to 12, terminals 14 and 15 and on power rail connector terminals 1, 2 and 4. The segregation of the hazardous area circuits meets the requirements for 250V.

Input/Output Parameters

U_m = 250V
(Terminals 7 to 12, 14 and 15 and power rail terminals 1, 2 and 4)

U_o = 25.2V I_o = 93mA P_o = 585mW
Terminals 1 and 2 (Channel 1) and Terminals 4 and 5 (Channel 2)

The capacitance and either the inductance or the inductance to resistance ratio (L_o/R_o) of the load connected to the output terminals of each channel must not exceed the following values:

GROUP	CAPACITANCE in µF	INDUCTANCE in mH	OR	L/R RATIO in µH/ohm
IIC	0.107	4.3		62
IIB	0.82	17.7		234
IIA	2.9	36		493

Report Nos.

CESI

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Centro Elettrotecnico
Sperimentale Italiano
Giacinto Motta SpA
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Telefono +39 022125511
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Capitale sociale € 550.000 e
interamente versato
Codice fiscale e numero
iscrizione CCIAA 00793580150
Registro Imprese di Milano
Sezione Ordinaria
N. R.E.A. 492922
P.I. IT00793580150


Schema di certificazione

CESI-ALEX

CERTIFICATO

CERTIFICATO DI ESAME CE DEL TIPO

- [1]
- [2] **Apparecchiature o Sistemi di Protezione destinati ad essere utilizzati in atmosfere potenzialmente esplosive**
Direttiva 94/9/CE
- [3] Numero del Certificato di Esame CE del tipo:
CESI 06 ATEX 021
- [4] **Apparecchiatura: Barriere a Separazione Galvanica Serie KC**
- [5] **Costruttore: Pepperl+Fuchs GmbH**
- [6] **Indirizzo: Königsberger Allee 87, 68307 - Mannheim - Germania**
- [7] Questa apparecchiatura o sistema di protezione e le sue eventuali varianti accettate sono descritti nell'allegato al presente certificato e nei documenti descrittivi pure riportati in esso.
- [8] Il CESI, organismo notificato n. 0722 in conformità all'articolo 9 della Direttiva 94/9/CE del Consiglio dell'Unione Europea del 23 Marzo 1994, certifica che questa apparecchiatura o sistema di protezione è conforme ai requisiti essenziali di sicurezza e salute per il progetto e la costruzione di apparecchiature e sistemi di protezione destinati ad essere utilizzati in atmosfere potenzialmente esplosive, definiti nell'Allegato II della Direttiva.
Le verifiche ed i risultati di prova sono registrati nel rapporto a carattere riservato n. EX-A6/007676.
- [9] La conformità ai Requisiti Essenziali di Sicurezza e Salute è assicurata dalla conformità alle:
EN 50014: 1997 A1..A2 EN 50020: 2002 EN 50284: 1999 prEN 61241-11: 2005
- [10] Il simbolo "X" posto dopo il numero del certificato indica che l'apparecchiatura o il sistema di protezione è soggetto a condizioni speciali per un utilizzo sicuro, specificate nell'allegato al presente certificato.
- [11] Questo CERTIFICATO DI ESAME CE DEL TIPO è relativo soltanto al progetto, all'esame ed alle prove dell'apparecchiatura o sistema di protezione specificato in accordo con la Direttiva 94/9/CE. Ulteriori requisiti di questa Direttiva si applicano al processo di produzione e fornitura dell'apparecchiatura o sistema di protezione. Questi requisiti non sono oggetto del presente certificato.
- [12] L'apparecchiatura o sistema di protezione deve riportare i seguenti contrassegni:

 **II (1) GD** **[EEx ia] IIC**
[Ex iaD]

Questo certificato, allegato incluso, può essere riprodotto solo integralmente e senza alcuna variazione.

Data di emissione 22 Marzo 2006


Elaborato
Francesco Esposito

Verificato
Mirko Balaz

Approvato
Ulisse Colombo
CESI

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:
CESI 06 ATEX 021
- [4] **Equipment: Galvanically Isolated Barrier KC Series**
- [5] **Manufacturer: Pepperl+Fuchs Elcon S.r.l.**
- [6] **Address: Königsberger Allee 87, 68307 - Mannheim - Germany**
- [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] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 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. EX-A6/007676.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50014: 1997 A1..A2 EN 50020: 2002 EN 50284: 1999 prEN 61241-11: 2005
- [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 or protective system in accordance with the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- [12] The marking of the equipment or protective system shall include the following:

 **II (1) GD** **[EEx ia] IIC**
[Ex iaD]

This certificate may only be reproduced in its entirety and without any change, schedule included.

Date March 22, 2006 - Translation issued the March 22, 2006

Prepared
Francesco Esposito

Verified
Mirko Balaz

Approved
Ulisse Colombo
CESI

Il CESI è stato autorizzato dal governo italiano ad operare quale organismo di certificazione di apparecchi o sistemi destinati a essere utilizzati in atmosfera

CESI
CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO
Funzione Sicurezza, Servizi e Qualità
Responsabile

