



INSTALLATION INSTRUCTIONS

BLITZDUCTOR® BXT ML2 BD HF EX 6

Publication No. 1695 / UPDATE 07.10 Id. No.058026



Accessories / Zubehör

Installation / Montage

Basic circuit diagrams / Prinzipschaltbild

**Labelling System
BS 1 50 BXT
Part No. 920 399**

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Special Condition Blitzductor BXT BAS EX BXT ML2 BD HF EX 6

KEMA 06 ATEX 0274 X
II 2G Ex ib IIC T4/T5/T6

Standards
EN 60079-0:2006
EN 60079-11:2007
EN 60079-26:2007

Connection with intrinsically safe circuits with:

$U_i = 4,2 V$

$I_i = 4,8 A$

P_i any

L_i negligibly small

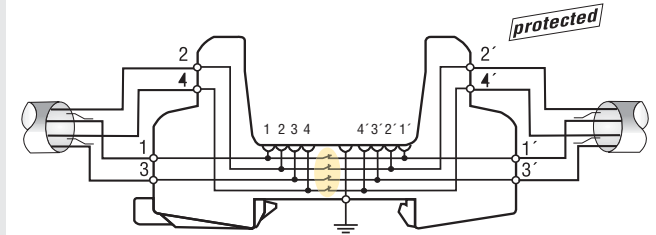
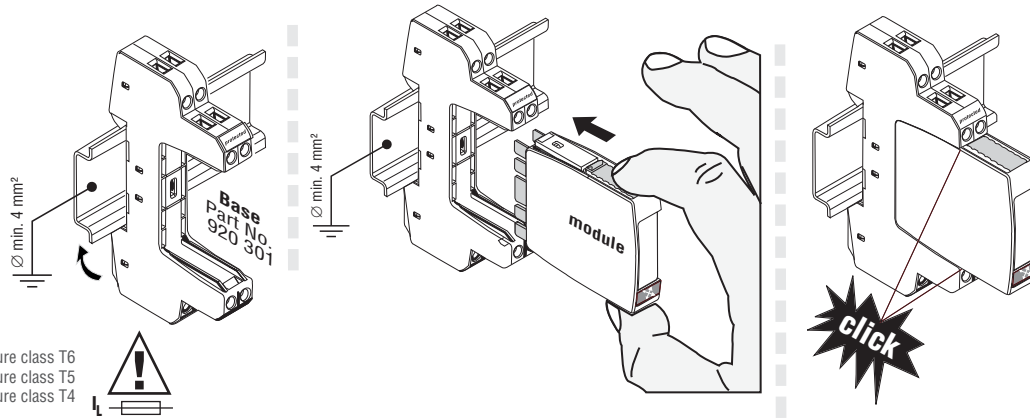
L_i negligibly small

Ambient temperature range:

-40°C... +60°C for temperature class T6

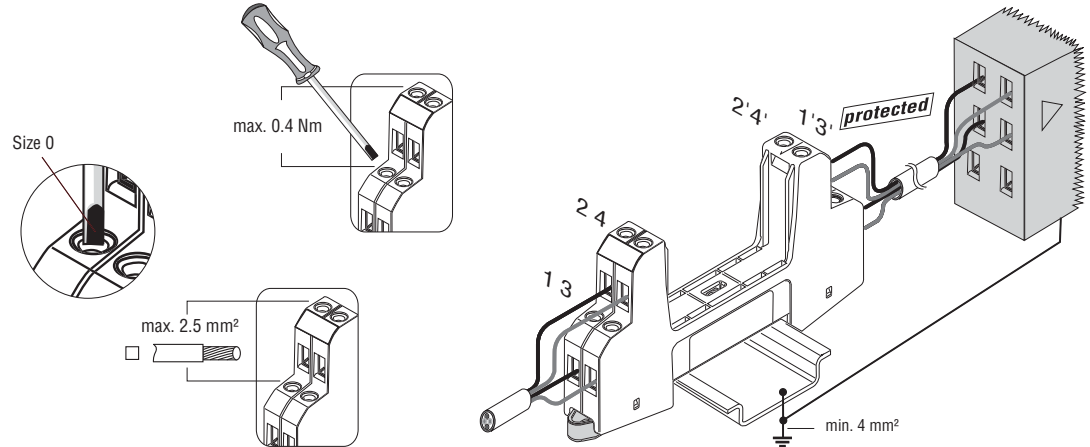
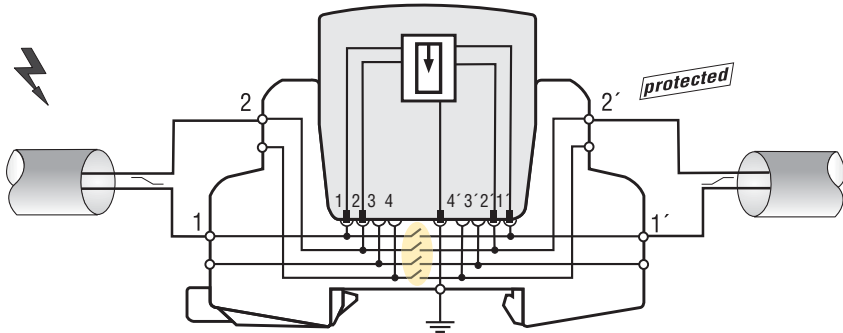
-40°C... +75°C for temperature class T5

-40°C... +80°C for temperature class T4



Basic circuit diagram / Prinzipschaltbild

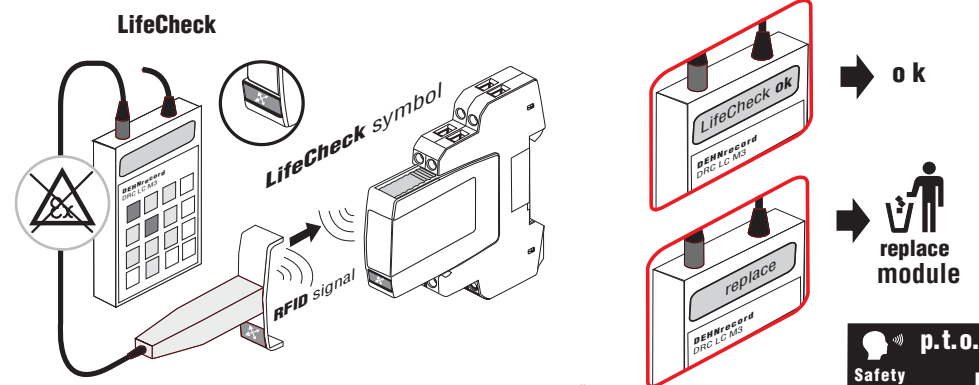
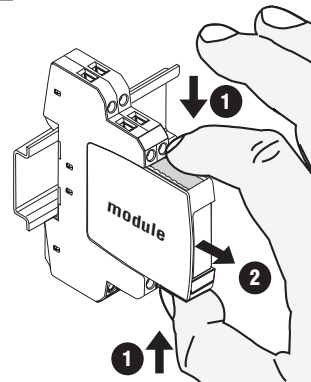
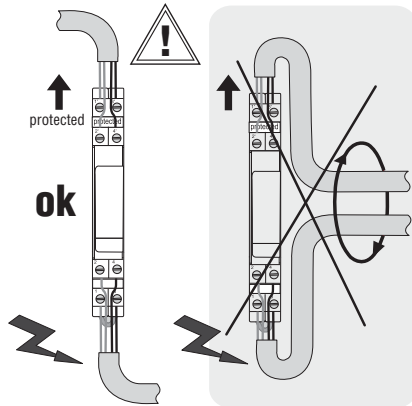
Connection / Anschluss



Cable Routing / Leitungsführung

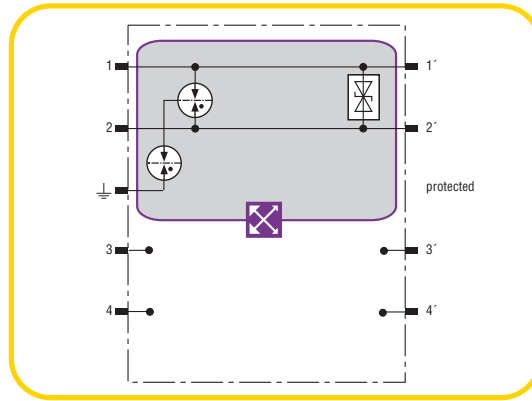
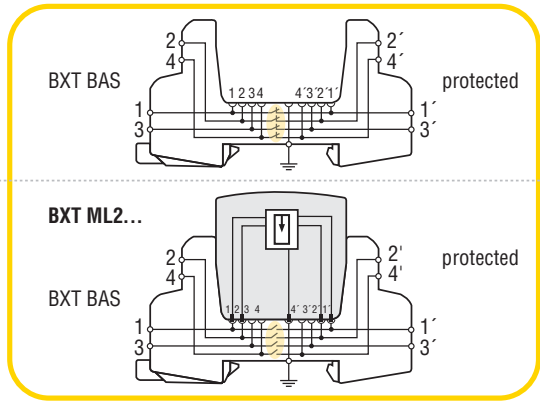
Removing the module / Entfernen des Moduls

LifeCheck

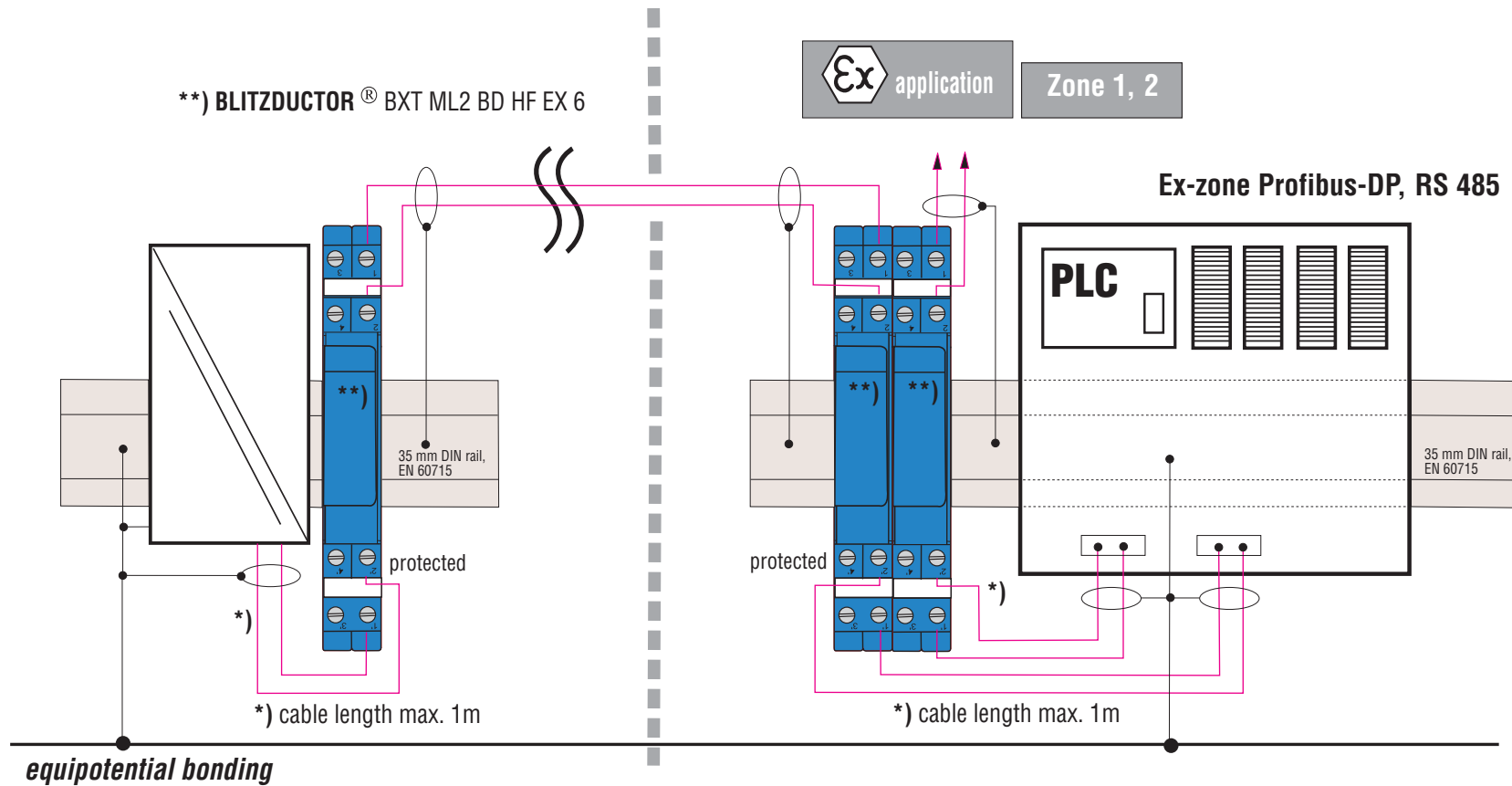




Basic circuit diagrams / Prinzipschaltbilder



Application / Anwendung



**Wskazówki bezpieczeństwa****PL**

Do połączenia i montażu upoważnieni są wyłącznie fachowcy elektrycy. Obowiązkiem jest przestrzeganie przepisów krajowych i bezpieczeństwa pracy. Przed przystąpieniem do montażu należy urządzenie skontrolować pod względem ewentualnych uszkodzeń zewnętrznych lub innych usterek.

Eksploatacja urządzenia dozwolona jest wyłącznie z uwzględnieniem podanych i opisanych warunków zawartych w instrukcji montażu. Obciążenia przekraczające wartości podane w instrukcji mogą spowodować uszkodzenie samego urządzenia jak i podłączonych układów elektrycznych.

Manipulacja i zmiany przeprowadzane na urządzeniu grożą wygaszeniem prawa gwarancji.

Łączenia obwodów elektrycznych z wbudowanym bezpieczeństwem dokonywać z uwzględnieniem normy EN 60079-14 / IEC 60079-14.

Specjalne warunki

W celu ochrony przed elektrostatycznym naładowaniem należy powierzchnie zewnętrzne wyczyścić wilgotną szmatką. Przy montażu urządzenia należy przestrzegać zachowania 50 mm odstępu (dalmierz nitkowy) od zacisków zabezpieczających. Niniejsze urządzenie robocze wg wskazań producenta może być stosowane tak w 1 strefie jak i w 2 strefie 2. Ochronę przepięciową montować w metalowej obudowie. Przy zastosowaniu w obszarach z palnym pyłem należy wybrać rodzaj obudowy z ochroną typu IP6X.

Przewody / kable w rurze metalowej należy układać otoczone płaszczem metalowym, izolacyjnym lub umieszczone w rurze metalowej.

Wszystkie części metalowe w obszarze z zagrożeniem eksplozji połączyć z przewodem kompensacji napięcia. Połączenie pomiędzy ochroną przepięciową i miejscowym uziemieniem musi wykazywać średnicę co najmniej 4 mm. Wszystkie połączenia z uziemieniem muszą być zabezpieczone.

Informazioni di sicurezza**IT**

L'allacciamento ed il montaggio dell'apparecchiatura possono essere effettuati solo da personale qualificato. Sono da osservare le prescrizioni e le disposizioni di sicurezza nazionali.

Prima del montaggio, controllare che l'apparecchiatura non presenti danneggiamenti all'esterno. Nel caso in cui dovesse essere constatato un danneggiamento o un altro difetto, non montare l'apparecchiatura. L'impiego dell'apparecchiatura è consentito esclusivamente in presenza delle condizioni menzionate ed indicate in queste istruzioni sul montaggio. In caso di carico superiore ai valori dimostrati, l'apparecchiatura e l'impianto elettrico collegatovi possono subire gravi danneggiamenti.

Interventi o modifiche all'apparecchiatura comportano la perdita del diritto di garanzia.

Per l'interconnessione dei circuiti dotati di sicurezza intrinseca, va osservata la norma EN 60079-14 / IEC 60079-14.

Condizioni particolari

Per evitare cariche elettrostatiche, le superfici devono essere pulite con un panno umido. Durante il montaggio dell'apparecchio, mantenere una distanza di 50 mm (misura del filo) dai morsetti a sicurezza intrinseca. In base ai dati del produttore, questo mezzo di produzione può essere impiegato nella Zona 1 e nella Zona 2. La protezione dalla sovratensione va installata in una cassa metallica o in una cassa certificata per l'impiego dell'apparecchio. In caso d'impiego in zone con polvere infiammabile, utilizzare il tipo di protezione della cassa IP6X.

Fili / cavi devono essere posati con rivestimenti di metallo, schermatura o in tubi di rivestimento. Tutte le parti metalliche in zona soggetta a pericolo d'esplosione devono essere collegate con il filo di compensazione di potenziale.

Il collegamento tra la protezione da sovratensione e la massa locale deve presentare una sezione minima di 4 mm². Tutti i collegamenti a massa devono essere protetti.

Consignes de sécurité**FR**

Montage et branchement de l'appareil à faire effectuer exclusivement par un électricien qualifié. Respecter les normes et les prescriptions de sécurité en vigueur localement.

Avant montage, procéder à un contrôle visuel extérieur de l'appareil. Ne pas monter celui-ci en cas de dommage manifeste ou si tout autre défaut est présent. La mise en œuvre de l'appareil n'est autorisée que pour la destination et aux conditions présentées et explicitées dans les présentes instructions de service. Des charges non comprises dans les plages de valeurs indiquées pourront abîmer l'appareil ainsi que les matériels électriques qui lui sont raccordés.

Toute revendication en garantie sera exclue dans le cas d'une intervention sur l'appareil ou d'une transformation de celui-ci.

Respecter la norme EN 60079-14 / IEC 60079-14 pour l'interconnexion des circuits électriques à sécurité intrinsèque.

Conditions particulières

Pour éviter une décharge électrostatique, procéder au nettoyage de surface avec un chiffon humide. Lors du montage de l'appareil, respecter un intervalle de 50 mm (cote du brin) aux bornes à sécurité intrinsèque. Cet appareil peut être monté en zone 1 ou en zone 2 conformément aux indications du fabricant. Le parasurtension devra être monté dans un boîtier métallique ou boîtier certifié comme adapté à l'utilisation de l'appareil. Appliquer le type de protection IP6X pour le boîtier en cas d'utilisation dans un local à poussières inflammables.

Les lignes / câbles sont à poser gainés de métal, blindés ou dans une canalisation métallique.

Toutes les pièces métalliques situées dans les zones à risque de déflagration sont à raccorder à la ligne de compensation de potentiel.

Section minimale du câble de raccordement entre parasurtension et masse locale = 4 mm². Tous les raccordements à la masse doivent être protégés.

Safety Instructions**GB**

The device may only be connected and installed by an electrically skilled person. National standards and safety regulations must be observed.

The device must be checked for external damage prior to installation. If any damage or other faults are found, the device must not be installed.

Its use is only permissible within the conditions shown and mentioned in the present installation instructions. The device and the equipment connected to it can be destroyed by loads exceeding the values provided. Opening of or tampering with the device invalidates the warranty.

For interconnection of intrinsically safe electrical equipment EN 60079-14 / IEC 60079-14 must be observed.

Special conditions

The surface of the unit should be cleaned with a humid cloth in order to prevent electrostatic charging. When installing the device, a distance of at least 50 mm (thread measure) from the intrinsically safe terminals must be maintained. According to the indications of the manufacturer, this device can be used for zone 1 or zone 2.

The surge protective device has to be installed into a metal housing or into a housing, which is certified for being used for the devices involved. If it is used in areas with flammable dust, IP6X housings have to be used. Leads or cables have to be laid with metal coatings, with shielding or in a metal pipe.

All metal parts within the explosive area have to be connected with the equipotential bonding conductor. The connection between surge protective device and local ground must have a minimum cross section of 4 mm². All connections to earth must be backed up.

Sicherheitshinweise**DE**

Der Anschluss und die Montage des Gerätes darf nur durch eine Elektrofachkraft erfolgen. Die nationalen Vorschriften und Sicherheitsbestimmungen sind zu beachten. Vor der Montage ist das Gerät auf äußere Beschädigung zu kontrollieren. Sollte eine Beschädigung oder ein sonstiger Mangel festgestellt werden, darf das Gerät nicht montiert werden. Der Einsatz des Gerätes ist nur im Rahmen der in dieser Einbauanleitung genannten und gezeigten Bedingungen zulässig. Bei Belastungen, die über den ausgewiesenen Werten liegen, können das Gerät sowie die daran angeschlossenen elektrischen Betriebsmittel zerstört werden. Eingriffe und Veränderungen am Gerät führen zum Erlöschen des Gewährleistungsanspruches. Für das Zusammenschalten der eigensicheren Stromkreise ist die EN 60079-14 / IEC 60079-14 zu beachten. Für die Bundesrepublik Deutschland ist zusätzlich das "Nationale Vorwort" der DIN EN 60079-14 / VDE 0165 Teil 1 zu beachten.

Besondere Bedingungen

Zur Vermeidung von elektrostatischen Aufladungen sind die Oberflächen mit einem feuchten Tuch zu reinigen. Beim Einbau des Gerätes ist darauf zu achten, dass zu den eigensicheren Klemmen ein Abstand von 50 mm (Fadenmaß) eingehalten wird. Dieses Betriebsmittel kann nach Herstellerangaben in der Zone 1 bzw. Zone 2 eingesetzt werden. Der Überspannungsschutz ist in einem metallischen Gehäuse oder in einem für den Geräteinsatz entsprechend zertifizierten Gehäuse zu installieren. Bei der Verwendung in Bereichen mit brennbarem Staub ist die Gehäuseschutzart IP6X zu wählen.

Leitungen / Kabel sind mit Metallmantel, Schirmung oder in Metallrohr zu verlegen.

Alle metallischen Teile im explosionsgefährdeten Bereich sind mit der Potentialausgleichsleitung zu verbinden. Die Verbindung zwischen Überspannungsschutz und der örtlichen Masse muss einen Mindestquerschnitt von 4 mm² aufweisen. Alle Masseverbindungen müssen gesichert sein.



(1) EC-TYPE EXAMINATION CERTIFICATE

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC
(3) EC-Type Examination Certificate Number: KEMA 06ATEX0274 X Issue Number: 2
(4) Equipment: Blitzductor BXT-series
(5) Manufacturer: DEHN + SÖHNE GmbH + Co. KG
(6) Address: Hans-Dehn-Straße 1, 92318 Neumarkt/Opf, Germany
(7) This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
(8) KEMA Quality B.V., notified body number 0344 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 confidential test report number 209501900.
(9) Compliance with the Essential Health and Safety Requirements has been assumed by compliance with:
EN 60079-0 : 2006 EN 60079-11 : 2007 EN 60079-26 : 2007 EN 60079-27 : 2008
(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 according 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:



II 2 (1) G Ex Ia IIC T4,T5,T6 or
II 2 G Ex Ib IIC T4,T5,T6

This certificate is issued on September 18, 2009 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

KEMA Quality B.V.
C.G. van Ex
Certification Manager



(13) SCHEDULE

(14) to EC-Type Examination Certificate KEMA 06ATEX0274 X Issue No. 2

(15) Description

The Blitzductor BXT series serve as transient suppressors in the lines of intrinsically safe circuits.

This approval applies to the following equipment types:

- BXT BAS EX (Base unit)
BXT ML4 BD EX 24 (Module)
BXT ML4 BC EX 24 (Module)
BXT ML2 BD HF EX 6 (Module)

The relation between the ambient temperature and temperature class is per table below:

Table with 2 columns: Ambient temperature range, Temperature class. Rows: -40 °C to +60 °C (T6), -40 °C to +75 °C (T5), -40 °C to +80 °C (T4)

Electrical data

For Blitzductor BXT series type BXT ML4 B, EX 24:
The Blitzductor BXT series are in type of protection intrinsic safety.
The level of protection "ia" or "ib" and the apparatus group (IIC or IIB or IIA) is determined by the intrinsically safe circuit(s) in which the Blitzductor BXT series is placed.

Module input circuits:
U_i = 30 V, I_i = 500 mA, P_i = any, C_i = 0 nF, L_i = 0 mH,
or for connection to a certified intrinsically safe circuit or a circuit in accordance with FISCO, with the following maximum values:
U_i = 17,5 V, I_i = 380 mA, P_i = 5,32 W, C_i = 0 nF, L_i = 0 µH

Module output circuits:
The values of U_o, I_o and P_o are determined by the parameters of the circuit(s) to which the Blitzductor BXT series is connected.
The electrical data applies to each circuit connected to Module type BXT ML4 BD EX 24 and to the combined circuits for Module type BXT ML4 BC EX 24.

For Blitzductor BXT series type BXT ML2 BD HF EX 6:
The Blitzductor BXT series are in type of protection intrinsic safety.
The level of protection "ib" and the apparatus group (IIC or IIB or IIA) is determined by the intrinsically safe circuit(s) in which the Blitzductor BXT series is placed.

Module input circuits:
U_i = 4,2 V, I_i = 4,8 A, P_i = any, C_i = 0 nF, L_i = 0 mH,
Module output circuits:
The values of U_o, I_o and P_o are determined by the parameters of the circuit(s) to which the Blitzductor BXT series is connected.



(13) SCHEDULE

(14) to EC-Type Examination Certificate KEMA 06ATEX0274 X Issue No. 2

Installation instructions

The Blitzductor BXT series can be installed outside or within the potentially explosive atmosphere, however in all cases they may only be connected to intrinsically safe circuits.

When installed outside the potentially explosive atmosphere its operation may be checked by the LifeCheck unit model DEHNrecord DRIC LC1 or DEHNrecord DRIC LC2.

The degree of protection of the Blitzductor BXT series is IP20. When the environmental conditions are such that a higher degree of ingress protection is required, this shall be taken into account.

When the BXT BAS EX (Base unit) is installed inside the potentially explosive atmosphere for use in combination with module type BXT ML2 BD HF EX 6, the supply shall only be connected when a module is inserted.

(16) Test Report

KEMA No. 209501900.

(17) Special conditions for safe use

When the Blitzductor BXT series is used in a Fieldbus system according to FISCO, the power supply shall have reliable galvanic isolation and may not be connected to earth or shall be reliably connected to the potential equalizing system within the hazardous area.

For ambient temperature range, see (15).

(18) Essential Health and Safety Requirements

Covered by the standards listed at (9).

(19) Test documentation

As listed in Test Report No. 209501900.



EC Declaration of Conformity



Document: CE - Blitzductor XT EX

Manufacturer: DEHN + SÖHNE GmbH + Co. KG
ELEKTROTECHNISCHE FABRIK

Address: Hans-Dehn-Straße 1
D-92318 Neumarkt/Opf.

We declare that the designated products:

Table with 6 columns: SPD Type, Part No., Standard, EC-Type Examination Certificate, Technical Report, Date. Rows include BXT ML4 BD EX 24, BXT ML4 BC EX 24, BXT ML2 BD HF EX 6, BXT BAS EX, BXT ML4 BD EX 24, BXT ML4 BC EX 24, BXT ML2 BD HF EX 6, BXT BAS EX.

KEMA Quality B. V., Utrechtseweg 310, 6812 AR Arnhem, Netherland
Notified body number: 0344

are in conformity with the European Directive:

DIRECTIVE 94/9/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 23 March 1994

on the approximation of the laws of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres.

Seite 2 vom 01.10.2009
CE Declaration of Conformity

DIRECTIVE 2006/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 12 December 2006

on the harmonisation of the laws of Member States relating to electrical equipment designed for use within certain voltage limits.

Issuer: DEHN + SÖHNE GmbH + Co. KG
Hans-Dehn-Straße 1
D-92318 Neumarkt

Place, date: Neumarkt, 01.10.2009

Legally binding signature:

DEHN + SÖHNE GmbH + Co. KG

This declaration certifies compliance with the indicated directives but implies no warranty of properties.

The safety instructions of the accompanying documentation shall be observed.