



Installation / Montage

Special Condition
BXT BAS EX
BXT BAS WCO EX
BXT M2 BD E EX 24
BXT M2 BD S EX 24

FISCO surge protector

KEMA 09ATEX0177 X
KEMA 09ATEX0178 X
IECEX KEM 09.0077 X

Ex II 3 G
II 2 (1) G
Ex ia [ia Ga] IIC T4... T6 Gb
Ex ic IIC T4... T6 Gc
Ex nA IIC T4... T6 Gc

Standards for ATEX:
EN 60079-0: 2006
EN 60079-11: 2007
EN 60079-15: 2005
EN 60079-26: 2007
EN 60079-27: 2008

Standards for IEC Ex
IEC 60079-0: 2007
IEC 60079-11: 2006
IEC 60079-15: 2005
IEC 60079-26: 2006
IEC 60079-27: 2005

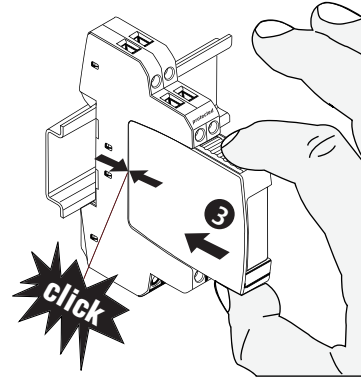
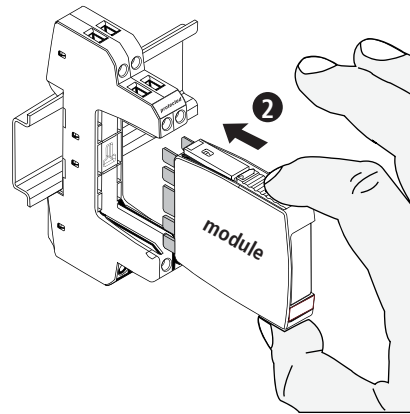
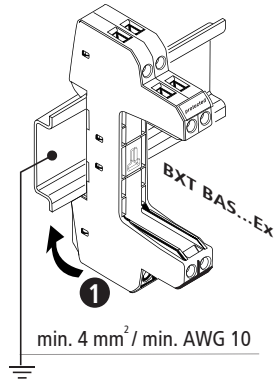
Connection with intrinsically safe circuits with:

$U_i = 30$ V for level of protection "ia" or "ib"
 $U_i = 33$ V for level of protection "ic"
 $I_i = 500$ mA

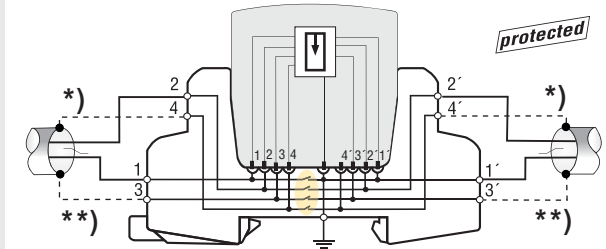
C_i negligibly small
 L_i negligibly small

Ambient temperature range:

- 50°C ... + 50°C for temperature class T6
- 50°C ... + 75°C for temperature class T5
- 50°C ... + 80°C for temperature class T4

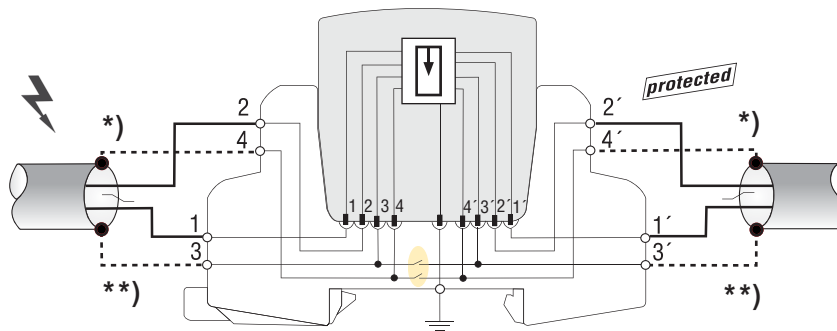


Basic circuit diagrams / Prinzipschaltbild



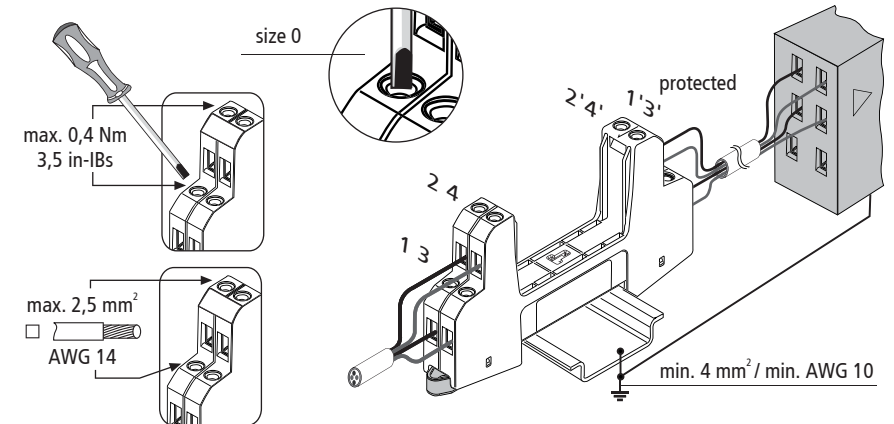
using BXT BAS EX

Basic circuit diagram / Prinzipschaltbild

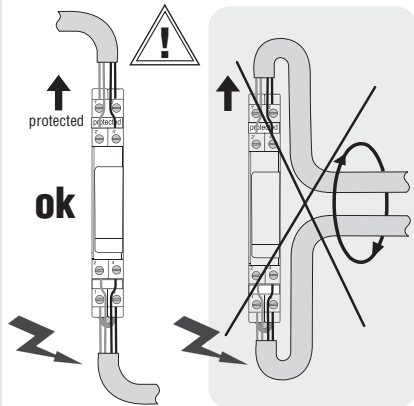


using BXT BAS WCO EX

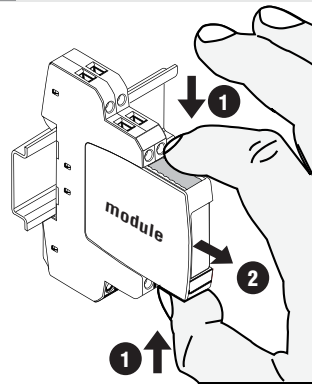
Connection / Anschluss



Cable Routing / Leitungsführung

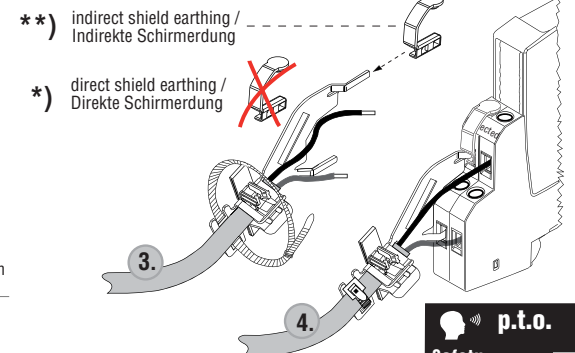
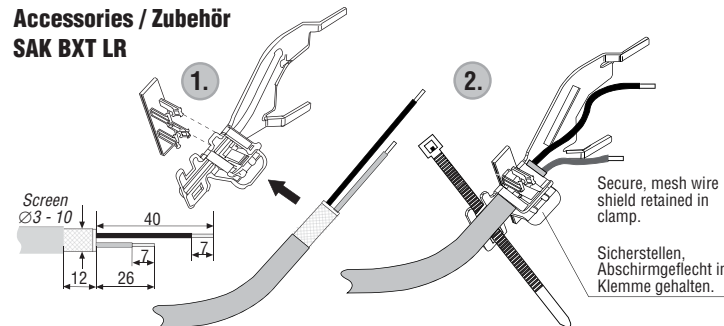


Removing the module / Entfernen des Moduls



Shield Earthing by EMC-Spring-Terminal / Schirmerdung mit EMV-Federklemme

Accessories / Zubehör SAK BXT LR





INSTALLATION INSTRUCTIONS

BLITZDUCTOR®XT

Basic circuit diagrams / Prinzipschaltbilder

Publication No. 1719 / UPDATE 04.11 Id. No. 063367

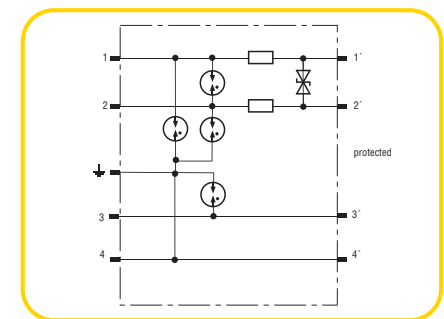
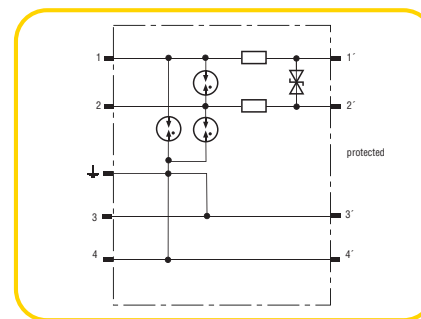
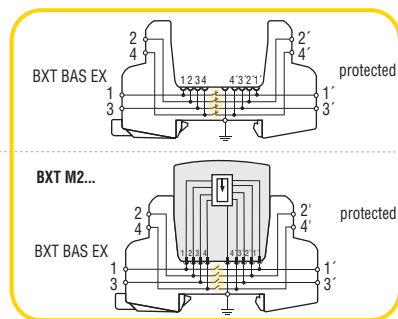
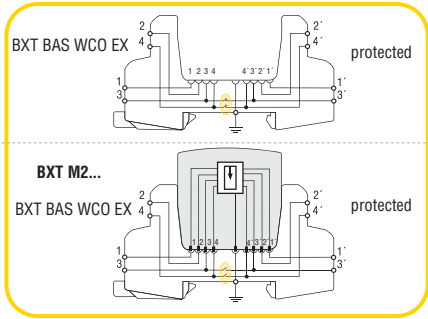


BXT BAS WCO EX Part No. 920 302

BXT BAS Part No. 920 301

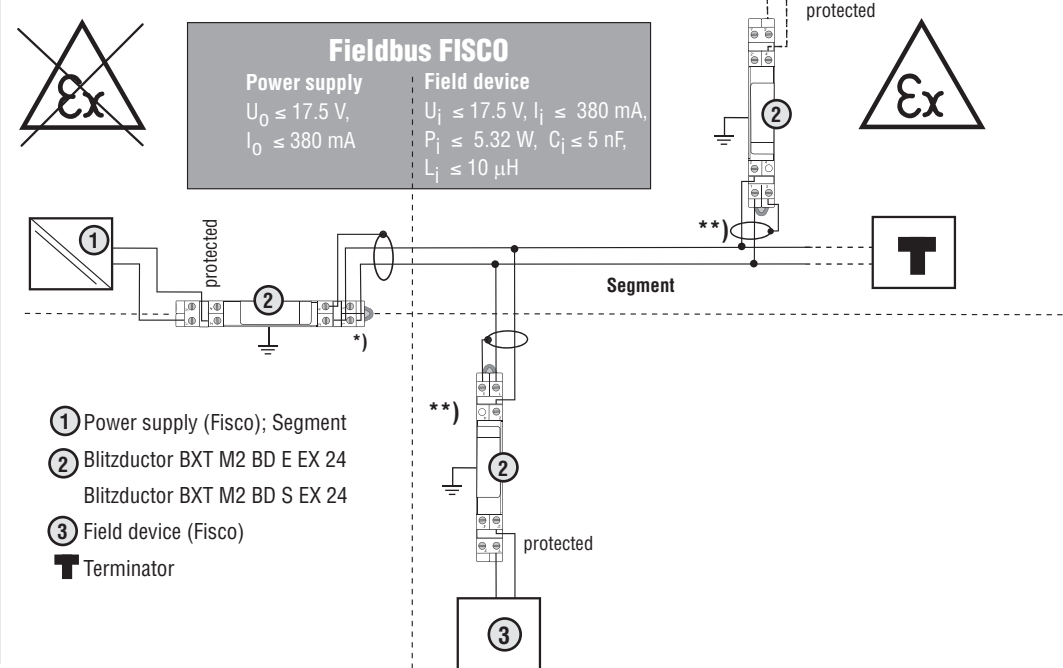
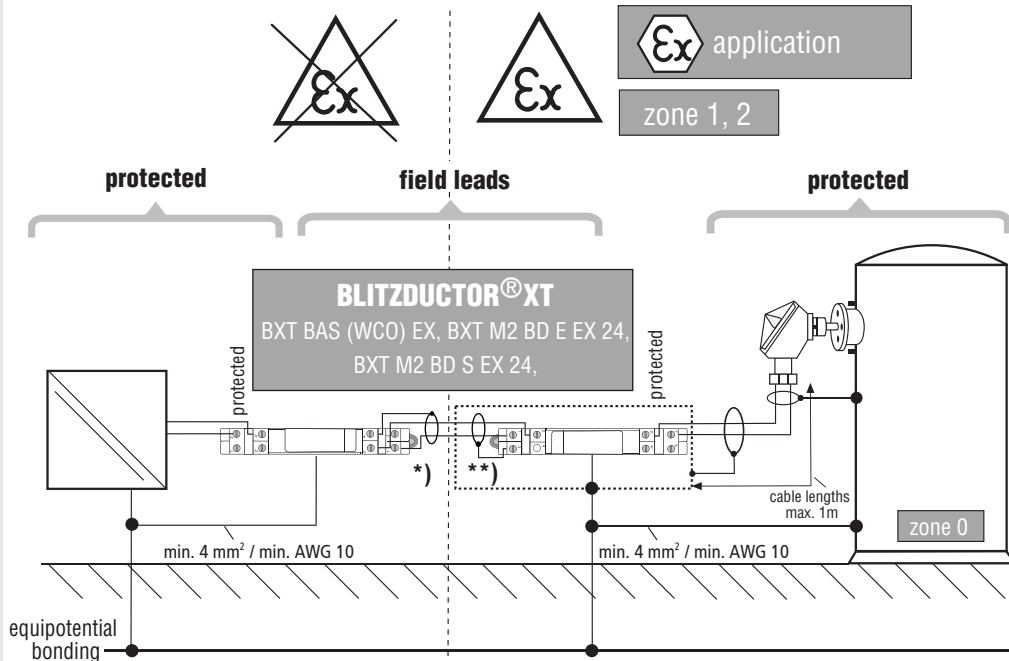
BXT M2 BD E EX 24 Part No. 920 382

BXT M2 BD S EX 24 Part No. 920 383



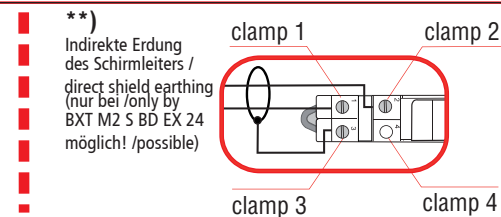
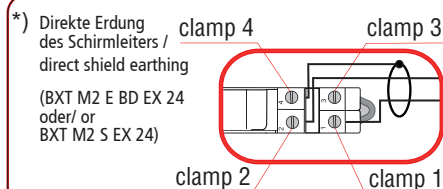
Application / Anwendung

Application / Anwendung



**) indirect shield earthing / Indirekte Schirmerdung

*) direct shield earthing / Direkte Schirmerdung





Wzskazówki bezpieczeństwa

PL

Informazioni di sicurezza

IT

Consignes de sécurité

FR

Safety Instructions

GB

Sicherheitshinweise

DE

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 mogą być 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 w zabezpieczających. Niniejsze urządzenie robocze wg wskazań producenta może być stosowane tak w 1 strefie jak i w 2 strefie 2. Do strefy 0 można dołączyć obwód czujnikowy. Jest to odpowiednikiem oznakowania II (2)1G. 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 otoczono 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.

Urządzenie zabezpieczające można stosować w systemach BUS według modelu FISCO. W przypadku, gdy odgromnik Blitzductor serii BXT zastosowany jest w koncepcji Fieldbusa o wbudowanym bezpieczeństwie (FISCO), zasilanie musi być wyposażone w nieczułą na zakłócenia izolację galwaniczną wzgl. bez uziemienia, lub posiadać nieczułą na zakłócenia połączenia do wyrównania potencjałów w obszarach zagrożonych eksplozją. W przypadku jeżeli z powodów technicznych wymagane jest prowadzenie izolowanych obwodów ekranowych, zaleconym jest niezależne uziemienie ekranu. Montaż i eksploatację należy przeprowadzać z uniknięciem zagrożenia ze strony bezpośredniego lub pośredniego uziemienia ekranu.

Wskazówki bezpieczeństwa dla zastosowania jako ochrona przepięciowa w strefie 0 (niniejsze informacje należy przestrzegać w przypadkach gdy przewód ukł. adany jest w strefie 0 (kategoria 1):

- długość przewodu pomiędzy ochroną przepięciową i strefą 0 nie może przekraczać 1 m.
- przewód pomiędzy ochroną przepięciową i strefą 0 należy układać z uwzględnieniem ochrony przed wpływami atmosferycznymi.

Ekranu nie wolno doprowadzać do obszaru zagrożenia strefy 0 jeżeli nie jest on pewnie uziemiony (ZG 600079-14) bezpośrednio w miejscu wprowadzenia, odpowiednio do przewodów wyrównawczych napięcia. W obwodzie prądowym można zastosować elementy przeznaczone dla rodzaju ochrony zapłonowej - Ex ia. Aby spełnić wymagania dotyczące stopnia ochrony zgodnie z normą IEC 600079-0, BLITZDUCTOR BXT należy zamontować w obudowie.

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 collegato 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 protezione può essere impiegato nella Zona 1 e nella Zona 2. Il circuito elettrico del sensore può essere introdotto nella Zona 0, conformemente all'indicazione II (2)1G. 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. L'apparecchio di protezione può essere usato per i sistemi BUS conformemente al modello FISCO. Se la serie Blitzductor BXT viene utilizzata in una rete Fieldbus a sicurezza intrinseca (FISCO), l'alimentazione dovrebbe avere una disinserazione galvanica non suscettibile a disturbi o non essere collegata a massa o ancora possedere un collegamento non suscettibile a disturbi verso la linea equipotenziale nella zona a rischio di esplosione.

Nel caso in cui per motivi tecnici di funzionamento risulti necessario condurre i conduttori schermati in modo isolato, si consiglia la messa a terra schermata indiretta. L'installazione ed il funzionamento devono assicurare che la messa a terra schermata diretta o indiretta non costituisca alcun pericolo.

Istruzioni di sicurezza per l'impiego come protezione da sovratensione nella zona 0 (queste indicazioni devono essere osservate solo se il filo viene condotto nella zona 0 (categoria 1):

- il filo tra la protezione da sovratensione e la zona 0 può avere una lunghezza massima di 1 m.
- il filo tra la protezione da sovratensione e la zona 0 deve essere protetto da induzioni di fulmini.

Lo schermo non può essere introdotto nell'area di pericolo della zona 0, se non è collegato a massa in modo sicuro direttamente sul punto di introduzione, come un conduttore compensatore di potenziale (IEC 600079-14)

Nel circuito elettrico possono essere utilizzati solo componenti determinati per il tipo di protezione di accensione Ex ia. Per l'impiego con grado di protezione Ex nA IIC T4...T6 Gc: il Blitzductor XT dev'essere installato in una custodia in accordo con i requisiti del grado di protezione secondo IEC 600079-0.

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 présenté.

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 circuit électrique du senseur peut être entré en zone 0. Cela correspond à la caractéristique II (2)1G. 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.

Le protecteur peut être monté sur des systèmes de BUS conformément au modèle FISCO. Si la série Blitzductor BXT doit être utilisée au sein d'un concept de bus de champ à sécurité intrinsèque (FISCO), l'alimentation devra être équipée d'une déconnexion galvanique insensible aux défaillances ou ne pas être reliée à la terre ou présenter, dans la zone à risque d'explosion, une liaison à la compensation équipotentielle insensible aux défaillances.

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

Si, pour des raisons techniques, il est nécessaire d'isoler le conducteur blindé, une mise à la terre de protection indirecte est conseillée. Veiller à ce qu'aucun risque ne résulte de l'installation et du service.

Consignes de sécurité pour l'utilisation en tant que protection contre les surtensions en zone 0 (ne tenir compte de ces indications que si la ligne est posée en zone 0 - catégorie 1):

- longueur maximum de ligne entre parasurtension et zone 0 = 1 m.
- la ligne entre parasurtension et zone 0 doit être protégée contre les effets de la foudre.

L'écran ne doit pas pénétrer dans la zone de danger 0 s'il n'est pas directement mis à la terre au niveau du point d'entrée de manière sûre et adaptée à un conducteur d'équipotentialité (CEI 600079-14).

Le circuit électrique doit inclure des composants exclusivement adaptés au type de protection antidéflagrante Ex ia. En cas de mise en œuvre sous indice de protection Ex nA IIC T4...T6 Gc: Le Blitzductor BXT doit être installé dans un boîtier répondant aux exigences de cet indice de protection conformément à la norme IEC 600079-0.

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 sensor circuit can be led into zone 0. It corresponds to II (2)1G.

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.

The protective device can be used in bus-systems in accordance with the FISCO Model. When the Blitzductor BXT series is used in a Fieldbus intrinsically safe concept (FISCO), the supply shall have infallible galvanic isolation and may not be connected to ground or shall be infallibly connected to the potential equalizing circuit within the hazardous area. Opening or otherwise tampering with the device invalidates the warranty.

If the operating characteristics require the shield bonding lead to be mounted separately, indirect grounding of the shield is recommended. Installation and operation must ensure that direct or indirect grounding of the shield do not cause danger.

Safety instructions for use as surge protective device in zone 0 (these instructions must only be observed, if the conductor is led into zone 0 (category 1):

- The conductor between surge protective device and zone 0 may have a maximum length of 1 m.
- The conductor between surge protective device and zone 0 must be installed to be protected against interferences deriving from lightning.

The shield must not be led into zone 0, if it is not safely earthed directly at the lead-in point just like an equipotential bonding conductor (IEC 60079-14). The only components which can be used in the circuit are those designed for Ex ia.

For use with degree of protection Ex nA IIC T4...T6 Gc: The Blitzductor BXT series shall be installed in an enclosure which meets the class of LPS requirements in accordance with IEC 600079-0.

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 Einbauleitung 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 Sensorstromkreis darf in die Zone 0 eingeführt werden. Entspricht der Bezeichnung II (2)1G.

Der Überspannungsschutz ist in einem metallischen Gehäuse oder in einem für den Geräteinsatz entsprechend zertifizierten Gehäuse zu installieren. Bei der Verwendung in Bereichen mit brennbaren 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.

Das Schutzgerät kann in BUS-Systemen entsprechend dem FISCO-Modell eingesetzt werden. Wenn die Blitzductor BXT Reihe in einem eigensicheren Feldbus Konzept (FISCO) verwendet wird, soll seine Versorgung eine nichtstöranfällige galvanische Trennung haben bzw. nicht geerdet sein oder eine nichtstöranfällige Verbindung zum Potentialausgleich im explosionsgefährdeten Bereich besitzen.

Ist es aus betriebstechnischen Gründen notwendig, den Schirmleiter isoliert zu führen, wird die indirekte Schirmung empfohlen. Bei Errichtung und Betrieb ist sicherzustellen, dass durch die direkte oder indirekte Schirmung keine Gefahren entstehen.

Sicherheitshinweise für den Einsatz als Überspannungsschutz in Zone 0 (Diese Angaben sind nur zu beachten, wenn die Leitung in die Zone 0 (Kategorie 1) geführt wird):

- Die Leitung zwischen Überspannungsschutz und Zone 0 darf maximal 1 m lang sein.
- Die Leitung zwischen Überspannungsschutz und Zone 0 muss so errichtet werden, damit sie gegen Blitzbeeinflussung geschützt ist.

Der Schirm darf nicht in den Gefahrenbereich der Zone 0 eingeführt werden, wenn er nicht direkt an der Einführungsstelle, entsprechend einem Potentialausgleichsleiter, sicher geerdet ist (IEC 60079-14). Im Stromkreis dürfen nur Komponenten verwendet werden, die für die Zündschutzart Ex ia bestimmt sind. Für den Einsatz bei Schutzart Ex nA IIC T4...T6 Gc gilt: Der Blitzductor BXT muss in einem Gehäuse installiert werden, das die Anforderungen der Schutzart entsprechend IEC 600079-0 erfüllt.



(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 09ATEX0178 X Issue Number: 1

(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 212902900/2.

(9) Compliance with the Essential Health and Safety Requirements has been assured 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 intended for use in potentially explosive atmospheres.

(11) This EC-Type Examination Certificate relates only to the design, examination according to the Directive 94/9/EC. Further requirements of the directive apply to 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

This certificate is issued on June 18, 2010 and, as far as applicable, shall be of presumption of conformity of (one of) the standards mentioned above as conforming to the European Union.

KEMA Quality B.V. signature

C.G. van Es Certification Manager

Integral publication of this certificate and adjoining reports is allowed. This Certificate may only be reproduced with the permission of KEMA Quality B.V.

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(13) SCHEDULE

(14) to EC-Type Examination Certificate KEMA 09ATEX0178 X Issue No. 1

(15) Description

Blitzductors series BXT serve as transient suppressors in the lines of electronic circuits.

This approval applies to the following equipment types: BXT BAS EX (Base unit) and BXT BAS WCO EX (Base unit) and the following modules: BXT M2 BD E EX 24 and BXT M2 BD S EX 24.

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

Table with 2 columns: Ambient temperature range, Temperature class. Rows: -40 °C to +50 °C (T6), -40 °C to +75 °C (T5), -40 °C to +80 °C (T4)

Electrical data

Module input circuits (terminals X1, X2, X3 and X4): in type of protection intrinsic safety Ex ia IIC, for connection to a certified intrinsically safe circuit, with the following maximum values: 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 (terminals X1', X2', X3' and X4'): 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.

(16) Test Report

KEMA No. 212902900/2.

(17) Special conditions for safe use

For ambient temperature range, see (15).

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

The dielectric strength of at least 500 V of the intrinsically safe circuits of the Blitzductors series BXT is limited only by the overvoltage protection. Terminals X3, X4, X3' and X4' are considered to be connected to earth.



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 M4 BD EX 24, BXT M4 BC EX 24, BXT M2 BD HF EX 6, etc.

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

are in conformity with the European Directives:

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

CE_Blitzductor_XT_EX.doc

Page 1 of 2



(13) SCHEDULE

(14) to EC-Type Examination Certificate KEMA 09ATEX0178 X Issue No. 1

(16) Essential Health and Safety Requirements

Covered by the standards listed at (9).

(19) Test documentation

As listed in Test Report No. 212902900/2.

Page 2 of 2 EC 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, August 3rd, 2010

Legally binding signature: P. Zühlke

Dr. Peter Zühlmann (General Manager)

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

The safety instructions of the accompanying documentation shall be observed.

CE_Blitzductor_XT_EX.doc

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Blitzductor Surge Protectors BXT M2 BD E EX 24 and BXT M2 BD S EX 24

Certificate CSA 2392869

Ambient temperature range:

- 50° C to + 50° C for T6

- 50° C to + 75° C for T5

- 50° C to + 80° C for T4

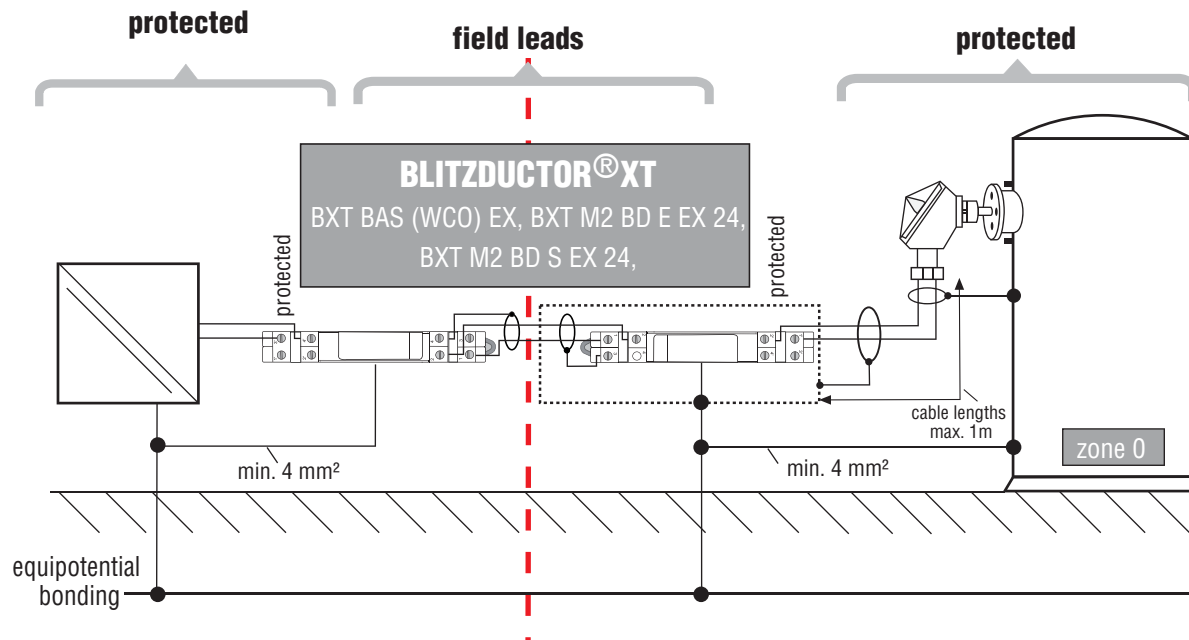
Installation should be in accordance with Canadian Electrical Code CSA C22.2 part I.

Intrinsic Safety

Non hazardous area

Hazardous area

Class I Div. 1, GP A, B, C, D T4...T6
Class I, Zone 1, AEx / Ex ia IIC T4...T6



For use in type of protection IS, Class I Div. 1, GP A, B, C, D T4...T6, Class I, Zone 1, AEx ia IIC T4...T6 or Ex ia IIC T4...T6:
Module input circuits (terminals X1, X2, X3 and X4) for connection to A certified intrinsically safe circuit, with the following maximum values:
 $U_i = 30\text{ V}$; $I_i = 500\text{ mA}$; $P_i = \text{any}$; $C_i = 0\text{ nF}$; $L_i = 0\text{ mH}$

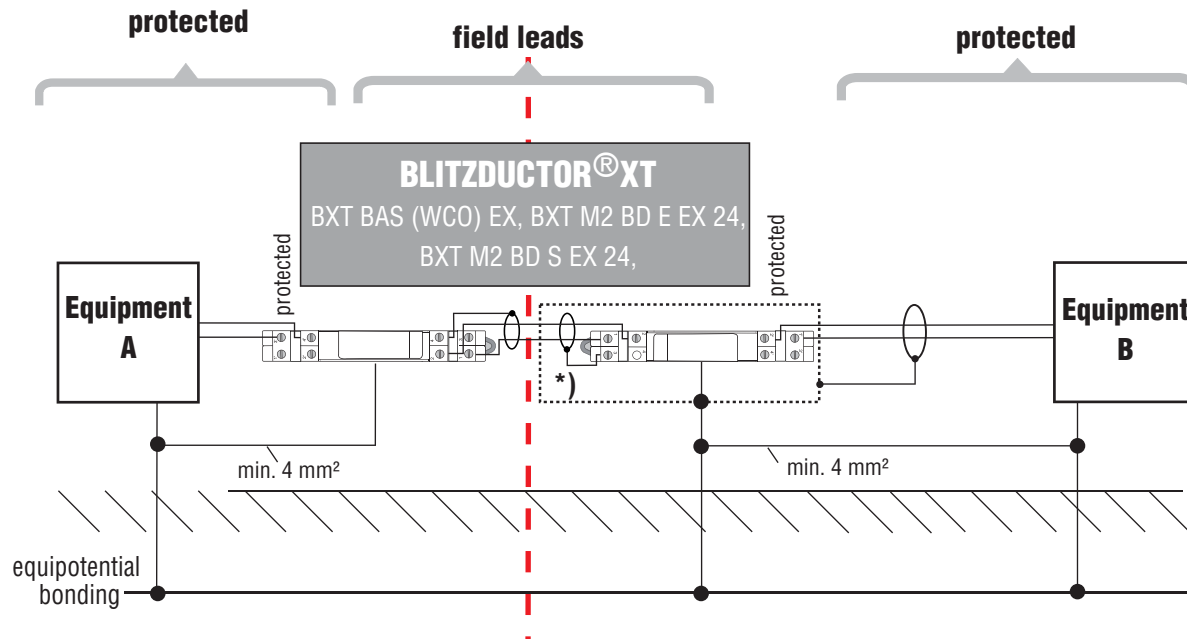
or for connection to a certified intrinsically safe circuit or a circuit in accordance with FISCO, with the following maximum values:
 $U_i = 17.5\text{ V}$; $I_i = 380\text{ mA}$; $P_i = 5.32\text{ W}$; $C_i = 0\text{ nF}$; $L_i = 0\text{ }\mu\text{H}$

The module outputs (terminals 1', 2') can be connected to zone 0.

Non-Incendive

Non hazardous area

- Hazardous area
- Class I Div. 2, GP A, B, C, D T4...T6
- Class I, Zone 2, AEx nC IIC T4...T6
- Class I, Zone 2, Ex nL IIC T4...T6
- Class I, Zone 2, AEx/Ex nA IIC T4...T6



For use in type of protection NI Class I Div. 2, GP A, B, C, D T4...T6, Class I, Zone 2, AEx nA IIC T4...T6 or Ex nA IIC T4...T6:
Module input circuits (terminals X1, X2, X3 and X4):
 $U_n = 33 \text{ V}$; $I_n = 500 \text{ mA}$.

For use in type of protection NI Class I Div. 2, GP A, B, C, D T4...T6, Class I, Zone 2, AEx nC IIC T4...T6 or Ex nL IIC T4...T6:
For connection to a limited energy certified circuit, with the following maximum values:
 $U_i = 33 \text{ V}$; $I_i = 500 \text{ mA}$; $P_i = \text{any}$; $C_i = 0 \text{ nF}$; $L_i = 0 \text{ mH}$.

*) The Blitzductor series BXT shall be installed into an enclosure, which meets the requirements of a recognized type of protection, in accordance with ANSI/ISA-60079-0 (2009) or CAN/CSA-C22.2 No. 60079-0-07.

Conditions of certification:

Module output circuits terminals (X1', X2', X3' and X4'):

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 dielectric strength of at least 500 V of the intrinsically safe circuits of the Blitzductors series BXT is limited only by the overvoltage protection.

Terminals X3, X4, X3' and X4' are considered to be connected to earth.

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