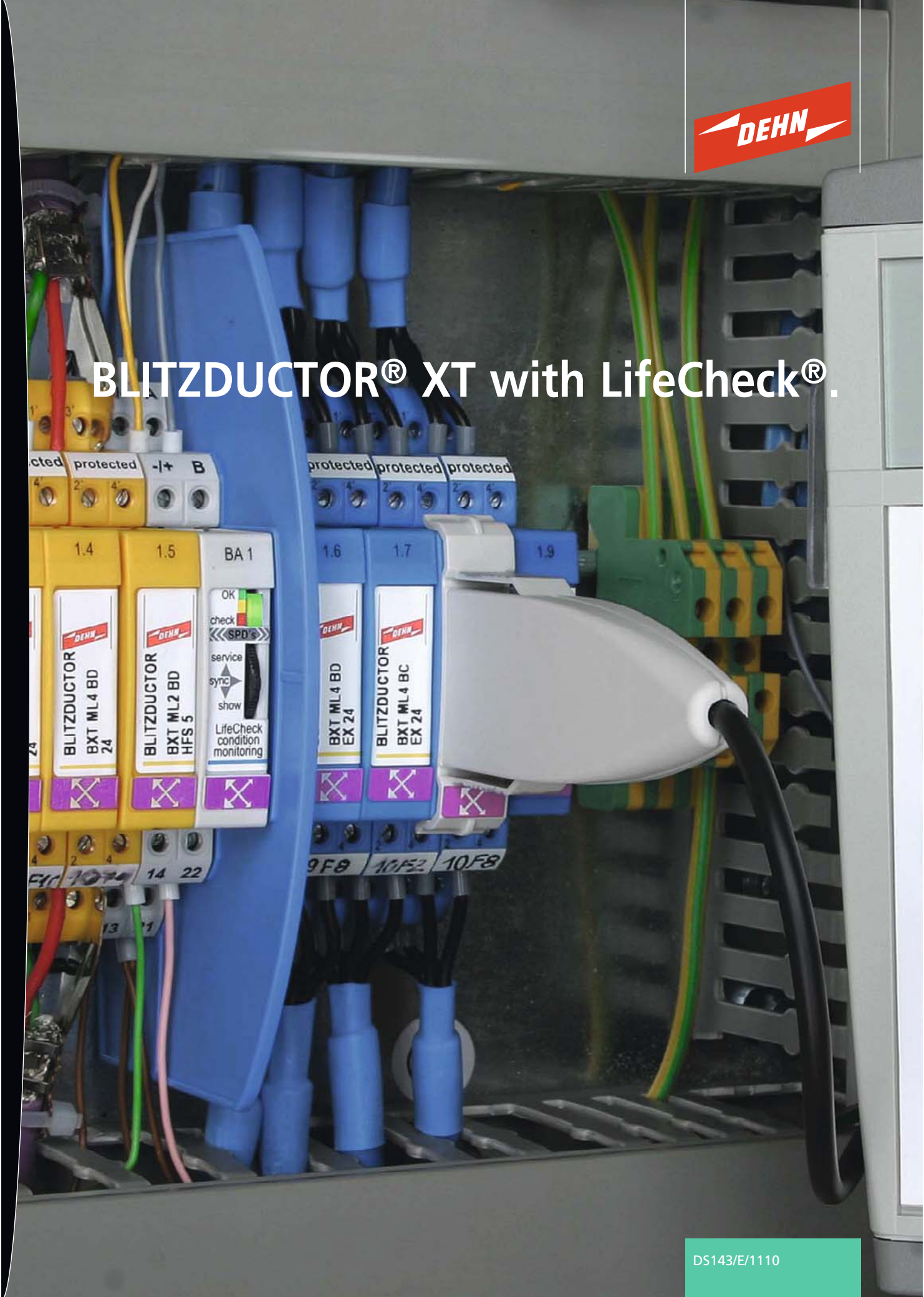
BLITZDUCTOR® XT with LifeCheck®.



DS143/E/1110

Lightning current / surge arrester

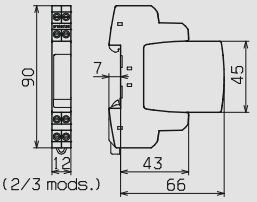
PLUGGABLE SPDs FOR DIN RAIL MOUNTING

- **Combined lightning current and surge arrester**
  - **Maximum discharge capacity for two-, three- or four-pole interfaces**
  - **Lightning current carrying capacity up to 10 kA (10/350 µs)**
  - **Low voltage protection level, also suited for the protection of terminal equipment**
- **SPD consists of a protection module and base part**
  - **Easy replacement of protection modules with little effort**
  - **Base part incorporates make-before-break switch contact for insertion and removal without interruption**
  - **All protection components integrated in the protection module**
- **Functional and appealing design**
  - **DIN rail mounting with integrated earthing**
  - **Minimum space requirements, 2 pairs over a width of 2/3 modules**
  - **Vibration- and shock-proof for safe operation**

Example of use of BLITZDUCTOR XT with an earthing module (grey). The lines can be tested by means of a measuring module (grey with connecting lines) without disconnecting the terminals.

BLITZDUCTOR XT combined arresters are pluggable, multipole, universal DIN rail mounted lightning current and surge arresters for the protection of measuring and control circuits, bus systems and telecommunication systems. They are particularly suited for installations and systems in which high levels of availability are essential. For effective protection of terminal equipment against the effects of lightning and overvoltages, BLITZDUCTOR XT arresters combine the permanently high impulse current discharge capacity of a lightning current arrester with the low protection level of a surge arrester.
LifeCheck allows quick and easy SPD testing without removing the module. Integrated into the SPD modules, LifeCheck permanently monitors the proper condition of the SPD and acts like an early warning system, detecting imminent electrical or thermal overload of the protection components. The status of the SPD can be read out within a matter of seconds via contactless RFID technology by means of the portable DEHNrecord LC reader. The LifeCheck feature also saves the date of the last test of the SPD module and indicates it. Stationary installed, a condition monitoring system permanently monitors the condition of up to 10 BXT arresters.
The module locking system ensures safe operation; thus the SPD provides protection against vibration effects and shock up to a 30-fold acceleration of gravity. The function-optimised design of the device ensures both quick and easy replacement of SPD modules which house all relevant protection elements.
A wide range of accessories makes BLITZDUCTOR XT arresters especially user-friendly. Elements for easy labelling, earthing of unused lines or easy testing of lines complete the product range.

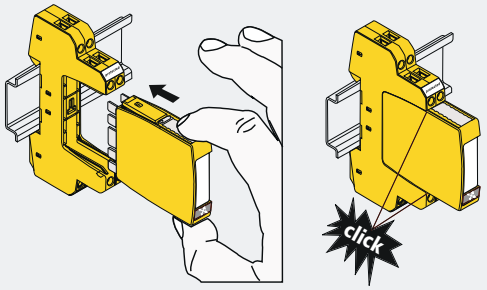
Completely installed BLITZDUCTOR XT. Two-part design with universal base part and application-specific SPD module. Especially space-saving design, for DIN rail mounting.



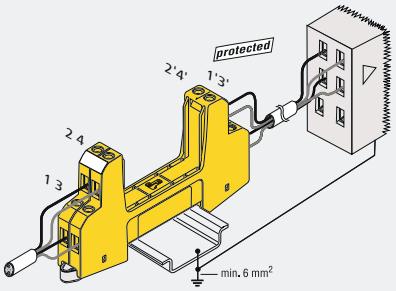
Dimension drawing of BLITZDUCTOR XT base part with plugged-in SPD module. Width: 2/3 modules (12 mm), for DIN rail mounting in distribution boards.

Universal base part accommodates all types of SPD modules thereby minimising storage requirements and easing prewiring and maintenance operations. The modules can be easily removed from the base part without signal interruption due to make-before-break switch contacts.

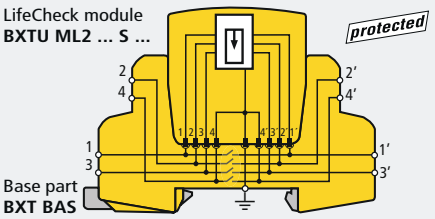
BXT ML4 B ...:
LifeCheck-equipped SPD modules for 4 single lines or 2 pairs for high partial lightning currents.
BXT ML2 B:
LifeCheck-equipped SPD modules for 2 single lines or 1 pair for high partial lightning currents. Type BXT ML2 ... S additionally provides contacts for direct or indirect shield earthing.



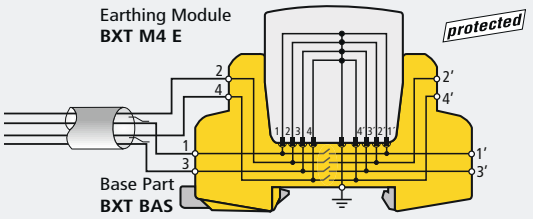
The function-optimised design of the device allows both to safely plug the SPD module into the base part and to remove it without problems. The module is secured in the base part by snapping it in (audible click). When pressing the grey buttons, the module can be removed with little effort. This is ensured by the laminated spring contacts and the module release spring. A mechanical reverse voltage protection ensures that the module is installed in the correct position.



Up to 4 lines can be connected on 2 levels. For DIN rail mounting purposes, lines of a pair belonging to each other are connected on top of one another.



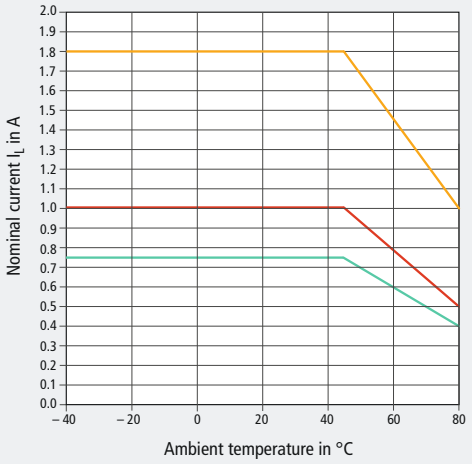
If the line shield cannot be directly earthed on both sides for technical reasons, one-sided indirect shield earthing might be advisable. This can be performed by using SPD modules of type BXT ML2 ... S. The terminal 3, 3´ is connected to a gas discharge tube which is capable of carrying lightning currents and also prevents compensating currents. Transient impulse currents on the shield are discharged via indirect shield earthing.



In case of a stranded cable, unused lines should be connected and earthed. If the unused lines are connected to base parts, earthing modules of type BXT M4 E should be used. These reserve space for retrofitting the SPD modules and the lines can be integrated efficiently into the equipotential bonding.

General Technical Data for BLITZDUCTOR XT LifeCheck Modules	
Degree of protection (plugged-in)	IP 20
Pluggable into	BLITZDUCTOR XT base part
Earthing via	BLITZDUCTOR XT base part
Enclosure material	polyamide PA 6.6
Operating temperature	-40°C...+80°C

Maximum nominal current at ambient temperature

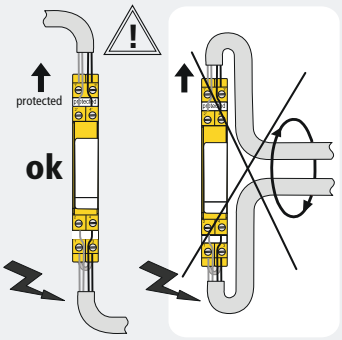


Colour-coded characteristic curves:

BXT ML4 / ML2 ...							
BE	5	12	24	36	48	60	180
BD	5	12	24		48	60	180
BC	5		24				
BE HF	5						
BD HF	5		24				

BXT with a series impedance of 1 Ω:
BXT with a series impedance of 1.8 Ω:
BXT with a series impedance of 0.43 Ω:

The protected lines always have to be assigned to terminals 1´ to 4´ (protected) of the base part. In order not to reduce the protective effect, protected and unprotected lines have to be installed separately.



The terminals integrated in the base part can be used with many two-pole modules for shield earthing. Especially for bus systems, the EMC spring terminal should be used for large-area connection of line shields.

BLITZDUCTOR® XT Base Part

BXT BAS

The BLITZDUCTOR XT base part is a very space-saving, four-pole, universal feed-through terminal for the insertion of SPD modules without signal interruption. The snap-in mechanism at the supporting foot of the base part allows the device to be safely earthed via the DIN rail. As no components of the protective circuit are situated in the base part, maintenance operation is only required for the protection modules.

Type	BXT BAS
Cross-sectional area, solid	0.08 - 4 mm²
Cross-sectional area, flexible	0.08 - 2.5 mm²

Type	PU pc(s)	Part No.
BXT BAS	1	**920 300**

BLITZDUCTOR® XTU

J Universal lightning current / surge arrester with **actiVsense® technology**

- **Automatically detects the operating voltage applied**
- **Optimally adjusts the voltage protection level to this operating voltage**

Application:
- Suitable for the vast majority of applications in information technology systems
- Ideally suited for telecommunications systems, bus systems and measuring and control equipment

⇨ The nominal current of the SPD is limited to 100 mA, allowing the device to be used for the vast majority of applications in information technology systems. In some applications where the signal line is also used for power supply the current may exceed 100 mA.

⇨ All signals are transmitted with signal frequencies up to 25 MHz.

⇨ In bus systems the SPD can be used for applications based on RS 485 / RS 422 interfaces (not RS 232).

BXTU ML4 BD 0-180

Space-saving combined SPD module with actiVsense and LifeCheck technology for protecting 2 pairs of galvanically isolated balanced interfaces with the same or with a different operating voltage.

Type	BXTU ML4 BD 0-180
SPD class	TYPE 1 P1
Max. continuous operating d.c. voltage U_C	180 V
Nominal current at 80° C I_L	100 mA
D1 Total lightning impulse current (10/350 µs) I_{imp}	10 kA
C2 Total nominal discharge current (8/20 µs) I_n	20 kA

Type	PU pc(s)	Part No.
BXTU ML4 BD 0-180	1	**920 349** new

BXTU ML2 BD S 0-180

Space-saving combined SPD module with actiVsense and LifeCheck technology for protecting 1 pair of balanced interfaces which are galvanically isolated. Direct or indirect shield earthing.

Type	BXTU ML2 BD S 0-180
SPD class	TYPE 1 P1
Max. continuous operating d.c. voltage U_C	180 V
Nominal current at 80° C I_L	100 mA
D1 Total lightning impulse current (10/350 µs) I_{imp}	9 kA
C2 Total nominal discharge current (8/20 µs) In	20 kA

Type	PU pc(s)	Part No.
BXTU ML2 BD S 0-180	1	**920 249** new

BLITZDUCTOR® XT LifeCheck® Modules

BXT ML4 B 180

Space-saving, four-pole lightning current arrester module with LifeCheck feature for almost all types of applications. For use in connection with downstream TYPE 2 P1 surge arresters or combined lightning current and surge arresters with a lower or equal voltage level.

Type	BXT ML4 B 180
SPD class	TYPE 1
Max. continuous operating d.c. voltage U_C	180 V
Nominal current at 45°C I_L	1.2 A
D1 Total lightning impulse current (10/350 µs) I_{imp}	10 kA

Type	PU pc(s)	Part No.
BXT ML4 B 180	1	**920 310**

BXT ML4 BE 5 – BE 180

Space-saving combined lightning current and surge arrester module with LifeCheck feature for protecting 4 single lines with common reference potential as well as unbalanced interfaces.

Type BXT ML4 ...	BE 5	BE 12	BE 24	BE 36	BE 48	BE 60	BE 180
SPD class	TYPE 1 P1	TYPE 1 P1	TYPE 1 P1	TYPE 1 P1	TYPE 1 P1	TYPE 1 P1	TYPE 1 P2
Max. continuous operating d.c. voltage U_C	6.0 V	15 V	33 V	45 V	54 V	70 V	180 V
Nominal current at 45°C I_L	1.0 A	0.75 A	0.75 A	1.8 A	0.75 A	1.0 A	1.0 A
D1 Total lightning impulse current (10/350 µs) I_{imp}	10 kA	10 kA	10 kA	10 kA	10 kA	10 kA	10 kA

Type	PU pc(s)	Part No.
BXT ML4 BE 5	1	**920 320**
BXT ML4 BE 12	1	**920 322**
BXT ML4 BE 24	1	**920 324**
BXT ML4 BE 36	1	**920 336**
BXT ML4 BE 48	1	**920 325**
BXT ML4 BE 60	1	**920 326**
BXT ML4 BE 180	1	**920 327**

BXT ML4 BD 5 – BD 180

Space-saving combined lightning current and surge arrester module with LifeCheck feature for protecting 2 pairs of balanced interfaces which are galvanically isolated.

Type BXT ML4 ...	BD 5	BD 12	BD 24	BD 48	BD 60	BD 180
SPD class	TYPE 1 P1	TYPE 1 P1	TYPE 1 P1	TYPE 1 P1	TYPE 1 P1	TYPE 1 P2
Max. continuous operating d.c. voltage U_C	6.0 V	15 V	33 V	54 V	70 V	180 V
Nominal current at 45°C I_L	1.0 A	1.0 A	1.0 A	1.0 A	1.0 A	0.75 A
D1 Total lightning impulse current (10/350 µs) I_{imp}	10 kA	10 kA	10 kA	10 kA	10 kA	10 kA

Type	PU pc(s)	Part No.
BXT ML4 BD 5	1	**920 340**
BXT ML4 BD 12	1	**920 342**
BXT ML4 BD 24	1	**920 344**
BXT ML4 BD 48	1	**920 345**
BXT ML4 BD 60	1	**920 346**
BXT ML4 BD 180	1	**920 347**

BXT ML4 BC 5 / 24

Space-saving combined lightning current and surge arrester module with LifeCheck feature for protecting max. 4 unearthed single lines with common reference potential.

Type	BXT ML4 BC 5	BXT ML4 BC 24
SPD class	TYPE 1 P1	TYPE 1 P1
Max. continuous operating d.c. voltage U_C	6.0 V	33 V
Nominal current at 45°C I_L	1.0 A	0.75 A
D1 Total lightning impulse current (10/350 µs) I_{imp}	10 kA	10 kA

Type	PU pc(s)	Part No.
BXT ML4 BC 5	1	**920 350**
BXT ML4 BC 24	1	**920 354**

BXT ML4 BE C 12 / 24

Space-saving combined lightning current and surge arrester module with LifeCheck feature for protecting 2 pairs of balanced interfaces with diode protection circuit at the input, current loops (TTY) and optocoupler inputs.

Type	BXT ML4 BE C 12	BXT ML4 BE C 24
SPD class	TYPE 1 P1	TYPE 1 P1
Max. continuous operating d.c. voltage U_C	15 V	33 V
Nominal current at 80°C I_L	0.1 A	0.1 A
D1 Total lightning impulse current (10/350 µs) I_{imp}	10 kA	10 kA

Type	PU pc(s)	Part No.
BXT ML4 BE C 12	1	920 362 new
BXT ML4 BE C 24	1	920 364

BXT ML4 BE HF 5

Space-saving combined lightning current and surge arrester module with LifeCheck feature for protecting 4 single lines with common reference potential as well as high-frequency transmissions which are not galvanically isolated.

Type	BXT ML4 BE HF 5
SPD class	TYPE 1 P1
Max. continuous operating d.c. voltage U_C	6.0 V
Nominal current at 45°C I_L	1.0 A
D1 Total lightning impulse current (10/350 µs) I_{imp}	10 kA
Cut-off frequency line-PG f_G	100.0 MHz

Type	PU pc(s)	Part No.
BXT ML4 BE HF 5	1	920 370

BXT ML4 BD HF 5 / 24

Space-saving combined lightning current and surge arrester module with LifeCheck feature for protecting 2 pairs in high-frequency bus systems or video transmission systems.

Type	BXT ML4 BD HF 5	BXT ML4 BD HF 24
SPD class	TYPE 1 P1	TYPE 1 P1
Max. continuous operating d.c. voltage U_C	6.0 V	33 V
Nominal current at 45°C I_L	1.0 A	1.0 A
D1 Total lightning impulse current (10/350 µs) I_{imp}	10 kA	10 kA
Cut-off frequency line-line f_G	100.0 MHz	100.0 MHz

Type	PU pc(s)	Part No.
BXT ML4 BD HF 5	1	920 371
BXT ML4 BD HF 24	1	920 375

BXT ML4 MY 250

Space-saving surge arrester module with LifeCheck feature for protecting 4 lines of stranded signal interfaces up to 250 V a.c.

Type	BXT ML4 MY 250
SPD class	TYPE 2 P3
Max. continuous operating d.c. voltage U_C	line - PG 320 V
C2 Total nominal discharge current (8/20 µs) I_n	10 kA

Type	PU pc(s)	Part No.
BXT ML4 MY 250	1	920 389

BXT ML2 B 180

Space-saving two-pole lightning current arrester module with LifeCheck feature and shield earthing for almost all applications. For use in connection with downstream TYPE 2 P1 surge arresters or combined lightning current and surge arresters with a lower or equal voltage level.

Type	BXT ML2 B 180
SPD class	TYPE 1
Max. continuous operating d.c. voltage U_C	180 V
Nominal current at 45°C I_L	1.2 A
D1 Total lightning impulse current (10/350 µs) I_{imp}	10 kA

Type	PU pc(s)	Part No.
BXT ML2 B 180	1	920 211 new

BXT ML2 BD 180

Space-saving combined lightning current and surge arrester module with LifeCheck feature for protecting 1 pair of balanced interfaces which are galvanically isolated.

Type	BXT ML2 BD 180
SPD class	TYPE 1 P2
Max. continuous operating d.c. voltage U_C	180 V
Nominal current at 45°C I_L	0.75 A
D1 Total lightning impulse current (10/350 µs) I_{imp}	5 kA

Type	PU pc(s)	Part No.
BXT ML2 BD 180	1	920 247

BXT ML2 BE S 5 – BE S 48

Space-saving combined lightning current and surge arrester module with LifeCheck feature for protecting 2 single lines with common reference potential as well as unbalanced interfaces, with direct or indirect shield earthing.

Type BXT ML2 ...	BE S 5	BE S 12	BE S 24	BE S 48
SPD class	TYPE 1 P1	TYPE 1 P1	TYPE 1 P1	TYPE 1 P1
Max. continuous operating d.c. voltage U_C	6.0 V	15 V	33 V	54 V
Nominal current at 45°C I_L	1.0 A	0.75 A	0.75 A	0.75 A
D1 Total lightning impulse current (10/350 µs) I_{imp}	9 kA	9 kA	9 kA	9 kA

Type	PU pc(s)	Part No.
BXT ML2 BE S 5	1	920 220
BXT ML2 BE S 12	1	920 222
BXT ML2 BE S 24	1	920 224
BXT ML2 BE S 48	1	920 225

BXT ML2 BD S 5 – BD S 48

Space-saving combined lightning current and surge arrester module with LifeCheck feature for protecting 1 pair of balanced interfaces which are galvanically isolated, with direct or indirect shield earthing.

Type BXT ML2 ...	BD S 5	BD S 12	BD S 24	BD S 48
SPD class	TYPE 1 P1	TYPE 1 P1	TYPE 1 P1	TYPE 1 P1
Max. continuous operating d.c. voltage U_C	6.0 V	15 V	33 V	54 V
Nominal current at 45°C I_L	1.0 A	1.0 A	1.0 A	1.0 A
D1 Total lightning impulse current (10/350 µs) I_{imp}	9 kA	9 kA	9 kA	9 kA

Type	PU pc(s)	Part No.
BXT ML2 BD S 5	1	920 240
BXT ML2 BD S 12	1	920 242
BXT ML2 BD S 24	1	920 244
BXT ML2 BD S 48	1	920 245

BXT ML2 BE HFS 5

Space-saving combined lightning current and surge arrester module with LifeCheck feature for protecting 1 pair in high-frequency transmissions which are not galvanically isolated; with direct or indirect shield earthing.

Type	BXT ML2 BE HFS 5
SPD class	TYPE 1 P1
Max. continuous operating d.c. voltage U_C	6.0 V
Nominal current at 45°C I_L	1.0 A
D1 Total lightning impulse current (10/350 µs) I_{imp}	9 kA
Cut-off frequency line-PG f_G	100.0 MHz

Type	PU pc(s)	Part No.
BXT ML2 BE HFS 5	1	920 270

BXT ML2 BD HFS 5

Space-saving combined lightning current and surge arrester module with LifeCheck feature for protecting 1 pair in high-frequency bus systems or video transmission systems, with direct or indirect shield earthing.

Type	BXT ML2 BD HFS 5
SPD class	TYPE 1 P1
Max. continuous operating d.c. voltage U_C	6.0 V
Nominal current at 45°C I_L	1.0 A
D1 Total lightning impulse current (10/350 µs) I_{imp}	9 kA
Cut-off frequency line-line f_G	100.0 MHz

Type	PU pc(s)	Part No.
BXT ML2 BD HFS 5	1	**920 271**

BXT ML2 BD DL S 15

Space-saving LifeCheck-equipped combined lightning current and surge arrester module for protecting 1 pair of balanced and galvanically isolated interfaces, which specifically fulfils the requirements of Dupline buses, direct or indirect shield earthing.

Type	BXT ML2 BD DL S 15
SPD class	TYPE 1 P1
Max. continuous operating d.c. voltage U_C	17 V
Nominal current at 70° C I_L	0.4 A
D1 Total lightning impulse current (10/350 µs) I_{imp}	9 kA
C2 Total nominal discharge current (8/20 µs) I_n	20 kA

Type	PU pc(s)	Part No.
BXT ML2 BD DL S 15	1	**920 243** new

BXT ML4 BC EX 24

Space-saving LifeCheck-equipped surge arrester module for protecting up to 4 unearthed single lines with common reference potential in intrinsically safe measuring circuits, meets FISCO requirements.

Type	BXT ML4 BC EX 24
SPD class	TYPE 2 P1
Max. continuous operating d.c. voltage U_c	33 V
Max. input voltage acc. to EN 60079-11 U_i	30 V
Max. input current acc. to EN 60079-11 I_i	0.5 A
C2 Total nominal discharge current (8/20 µs) I_n	20 kA

Type	PU pc(s)	Part No.
BXT ML4 BC EX 24	1	**920 384**

BXT ML2 BD HF EX 6

Space-saving LifeCheck-equipped surge arrester module for protecting intrinsically safe measuring circuits and RS485 bus systems.

Type	BXT ML2 BD HF EX 6
SPD class	TYPE 2 P1
Max. continuous operating d.c. voltage U_c	6 V
Max. input voltage acc. to EN 60079-11 U_i	4.2 V
Max. input current acc. to EN 60079-11 I_i	4.8 A
C2 Total nominal discharge current (8/20 µs) I_n	10 kA

Type	PU pc(s)	Part No.
BXT ML2 BD HF EX 6	1	**920 538** new

SPDS FOR POTENTIALLY EXPLOSIVE ATMOSPHERES

BLITZDUCTOR® XT Ex (i) Base Part

BXT BAS EX

BLITZDUCTOR XT base part in blue colour for intrinsically safe measuring circuits; for more detailed information, see BXT BAS (Part No. 920 300)

Type	BXT BAS EX
Cross-sectional area, solid	0.08 - 4 mm²
Cross-sectional area, flexible	0.08 - 2.5 mm²

Type	PU pc(s)	Part No.
BXT BAS EX	1	**920 301**

BLITZDUCTOR® XT Ex (i) LifeCheck® Modules

BXT ML4 BD EX 24

Space-saving LifeCheck-equipped surge arrester module for protecting 2 pairs in intrinsically safe measuring circuits and bus systems, meets FISCO requirements.

Type	BXT ML4 BD EX 24
SPD class	TYPE 2 P1
Max. continuous operating d.c. voltage U_c	33 V
Max. input voltage acc. to EN 60079-11 U_i	30 V
Max. input current acc. to EN 60079-11 I_i	0.5 A
C2 Total nominal discharge current (8/20 µs) I_n	20 kA

Type	PU pc(s)	Part No.
BXT ML4 BD EX 24	1	**920 381**

Accessory Parts for Use in Non-Hazardous Areas

Earthing module

For direct earthing of lines connected to the BLITZDUCTOR XT base part.

Type	PU pc(s)	Part No.
BXT M4 E	1	**920 308**

Test / Disconnection Module

Module for testing lines, to be plugged into the BLITZDUCTOR XT base part.

Type	BXT M4 T
Accessories	2 measuring lines (1 m), protective bag

Type	PU pc(s)	Part No.
BXT M4 T	1	**920 309**

Marking system BA1-BA15

2 x 165 adhesive labels for labelling DRC MCM XT monitoring devices with their bus address (BA1 to BA15) and BXT base parts or modules with consecutive numbers (1.1-1.10 to 15.1-15.10)

Type	PU pc(s)	Part No.
BS BA1 BA15 BXT	1	**920 398**

Marking system 1-50

2 x 50 adhesive lables for labelling BXT base parts or modules with consecutive numbers, printed with numbers from 1 to 50.

Type	PU pc(s)	Part No.
BS 1 50 BXT	1	**920 399**

EMC spring terminals

Two spring terminals for permanent low-impedance shield contact with the protected and unprotected side of a BXT device. With integrated terminal coding for direct or indirect shield earthing, cable ties and insulating strips included.

Type	SAK BXT LR
Accessories	cable tie, insulating strips
Clamping range	3 - 10 mm

Type	PU pc(s)	Part No.
SAK BXT LR	1	**920 395**

Accessory Part for BLITZDUCTOR® XT Ex (i) Base Part

Partition

For DRC MCM XT

Type	PU pc(s)	Part No.
TW DRC MCM EX	1	**910 697**

Accessory Parts for BLITZDUCTOR® XT LifeCheck® Modules

DRC MCM XT

DIN rail mounted device with integrated LifeCheck sensor for condition monitoring of max. 10 LifeCheck-equipped BLITZDUCTOR XT devices. Visual three-coloured SPD operating state indication combined with remote signalling function (break or make contact).

The free "Status Display and Service Console" software can be optionally used via an RS 485 interface converter.

Type	DRC MCM XT
For testing	up to 10 BLITZDUCTOR XT ML devices **up to 10 BLITZDUCTOR XT ML EX devices; for use in non-hazardous atmospheres only! Observe thread measure!**
Message: Replacing of SPD recommended	LED, remote signalling contact (break and make contact)
Test cycle	continuous

Type	PU pc(s)	Part No.
DRC MCM XT	1	**910 695**

DRC LC M3+

Portable device with LifeCheck sensor for flexible use. For fast and easy testing of LifeCheck-equipped arresters. Visual and acoustic indication. With additional USB connection and database software for PC-aided management of test samples and documentation of the test results. DRC LC M3+ features a new snap-on LifeCheck sensor, allowing to test the SPD without holding the sensor. The handheld device allows parameterisation of SPDs for condition monitoring.

Type	DRC LC M3+
For testing	BLITZDUCTOR XT ML **BLITZDUCTOR XT ML EX; for use in non-hazardous atmospheres only!**
Measured value indication	beep and LCD
Testing period	typically 3 to 10 sec.
Delivery includes	handheld device, LifeCheck sensor BXT, charging device, USB cable, test module for reference, software CD, storage case

Type	PU pc(s)	Part No.
DRC LC M3+	1	**910 653** new

LifeCheck sensor for DRC BXT

LifeCheck snap-on sensor and test module for use as spare part / extension for portable LifeCheck test devices.

Type	For testing	PU pc(s)	Part No.
LCS DRC BXT	BLITZDUCTOR XT ML	1	**910 652** new

LifeCheck Sensor for DRC BCT

LifeCheck sensor and test module for use as spare part / extension for portable LifeCheck test devices.

Type	For testing	PU pc(s)	Part No.
LCS DRC BCT	BLITZDUCTOR CT MLC	1	**910 654**

USB interface converter of type USB NANO 485

USB NANO 485 converts signals between USB and RS-485. The interface converter is specifically designed for 2-wire RS-485 buses. LEDs indicate operation (yellow), Rx (green) and Tx (red).

USB NANO 485 is ideally suited for use with notebooks due to its small size. Stationary use is also possible.

Type	PU pc(s)	Part No.
USB NANO 485	1	**910 486**

KEMA

(1) **TYPE EXAMINATION CERTIFICATE**

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) Type Examination Certificate Number: **KEMA 09ATEX0114 X** Issue Number: **1**

(4) Equipment: **Blitzductor BXT-series**

(5) Manufacturer: **DEHN + SÖHNE GmbH + Co. KG.**

(6) Address: **Hans-Dehn-Strasse 1, D-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. 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 no. 212607100.

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

EN 60079-0 : 2006 **EN 60079-15 : 2005**

(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 Type Examination Certificate relates only to the design, examination and tests of the specified equipment and not to the manufacturing process and supply of this equipment.

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

II 3 G Ex nA II T4

This certificate is issued on October 16, 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 Es
Certification Manager

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* Integral publication of this certificate and adjoining reports is allowed. This Certificate may only be reproduced in its entirety and without any change.

KEMA Quality B.V. Utrechtseweg 310, 6812 AR Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
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Experience you can trust.

KEMA

(13) **SCHEDULE**

(14) **to Type Examination Certificate KEMA 09ATEX0114 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 (Base unit) and the following modules:
BXT ML4 B 180, BXT ML4 BE 5, BXT ML4 BE 12, BXT ML4 BE 24, BXT ML4 BE 36, BXT ML4 BE 48, BXT ML4 BE 60, BXT ML4 BE 180, BXT ML4 BD 5, BXT ML4 BD 12, BXT ML4 BD 24, BXT ML4 BD 48, BXT ML4 BD 60, BXT ML4 BD 180, BXT ML4 BC 5, BXT ML4 BC 24, BXT ML4 BE C 12, BXT ML4 BE C 24, BXT ML4 BE HF 5, BXT ML4 BD HF 5 and BXT ML4 BD HF 24.

Ambient temperature range -40 °C to 80 °C.

Electrical data

Type	Un
BXT ML4 BE 5, BXT ML4 BD 5, BXT ML4 BC 5, BXT ML4 BE HF 5, BXT ML4 BD HF 5	5 V
BXT ML4 BE 12, BXT ML4 BD 12, BXT ML4 BE C 12	12 V
BXT ML4 BE 24, BXT ML4 BD 24, BXT ML4 BC 24, BXT ML4 BE C 24, BXT ML4 BD HF 24	24 V
BXT ML4 BE 36	36 V
BXT ML4 BE 48, BXT ML4 BD 48	48 V
BXT ML4 BE 60, BXT ML4 BD 60	60 V
BXT ML4 B 180, BXT ML4 BE 180, BXT ML4 BD 180	180 V

Type	Ta (max)	In
BXT ML4 BE 5, BXT ML4 BE 60, BXT ML4 BE 180, BXT ML4 BD 5,	45 °C	1 A
BXT ML4 BD 12, BXT ML4 BD 24, BXT ML4 BD 48, BXT ML4 BD 60, BXT ML4 BC 5, BXT ML4 BE HF 5, BXT ML4 BD HF 5, BXT ML4 BD HF 24	80 °C	0,55 A
BXT ML4 BE 12, BXT ML4 BE 24, BXT ML4 BE 48, BXT ML4 BD 180, BXT ML4 BC 24	45 °C	0,75 A
	80 °C	0,45 A
BXT ML4 B 180, BXT ML4 BE 36	45 °C	1,2 A
	80 °C	0,8 A
BXT ML4 BE C 12, BXT ML4 BE C 24	80 °C	0,1 A

(16) **Test Report**

KEMA No. 212607100.

(17) **Special conditions for safe use**

The Blitzductor series BXT shall be installed into an enclosure, which meets the requirements of a recognized type of protection, in accordance with EN 60079-0.

For ambient temperature range, see (15).

CERT03 V1.1

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KEMA

(13) **SCHEDULE**

(14) **to Type Examination Certificate KEMA 09ATEX0114 X** Issue No. **1**

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 212607100.

CERT03 V1.1

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BLITZDUCTOR® XT
IECEx Certificate

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres
for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx KEM 09.0053X Issue No.: 0 Certificate history:

Status: Current

Date of Issue: 2009-10-16 Page 1 of 3

Applicant: **DEHN + SÖHNE GmbH + Co. KG.**
Hans-Dehn-Strasse 1
D-92318 Neumarkt / Opf.
Germany

Electrical Apparatus: **Blitzductor BXT-series**
Optional accessory:

Type of Protection: **Ex n**

Marking: **Ex nA II T4 Gc**

Approved for issue on behalf of the IECEx Certification Body: C.G. van Es

Position: Certification Manager

Signature: (for printed version)

Date: 2009-10-16

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:
KEMA Quality B.V.
Utrechtseweg 310
6812 AR Arnhem
The Netherlands

IECEx Certificate of Conformity

Certificate No.: IECEx KEM 09.0053X

Date of Issue: **2009-10-16** Issue No.: **0**

Page 2 of 3

Manufacturer: **DEHN + SÖHNE GmbH + Co. KG.**
Hans-Dehn-Strasse 1
D-92318 Neumarkt / Opf.
Germany

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:
The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2007-10 Edition: 5	Explosive atmospheres - Part 0:Equipment - General requirements
IEC 60079-15 : 2005-03 Edition: 3	Electrical apparatus for explosive gas atmospheres Part 15: Contruction, test and Marking of Type of Protection "n" electrical apparatus

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:
NL/KEM/ExTR09.0054/00

Quality Assessment Report:
NL/KEM/QAR09.0004/00

IECEx Certificate of Conformity

Certificate No.: IECEx KEM 09.0053X

Date of Issue: **2009-10-16** Issue No.: **0**

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

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

This approval applies to the following equipment types:
BXT BAS (Base unit) and the following modules:
BXT ML4 B 180, BXT ML4 BE 5, BXT ML4 BE 12, BXT ML4 BE 24, BXT ML4 BE 36, BXT ML4 BE 48, BXT ML4 BE 60, BXT ML4 BE 180, BXT ML4 BD 5, BXT ML4 BD 12, BXT ML4 BD 24, BXT ML4 BD 48, BXT ML4 BD 60, BXT ML4 BD 180, BXT ML4 RC 5, BXT ML4 RC 24, BXT ML4 RF C 12, BXT ML4 RF C 24, BXT ML4 BE HF 5, BXT ML4 BD HF 5 and BXT ML4 BD HF 24.

Ambient temperature range -40 °C to 80 °C.

Details are shown in Annex 1 to this certificate.

CONDITIONS OF CERTIFICATION: YES as shown below:

The Blitzductor series BXT shall be installed into an enclosure which meets the requirements of a recognized type of protection, in accordance with IEC 60079-0.

Ambient temperature range -40 °C to 80 °C.

Annexe: Annex 1 to Certificate of conformity IECEx KEM 09.0053X Issue No.0.pdf

Information on SIL

The term **Safety Integration Level (SIL)** is defined in the international IEC 61508 and IEC 61511 standards and is used in the field of functional safety. It is intended for assessing the reliability and safety of electrical, electronic or programmable electronic systems. "Functional safety" describes the safety level of a system or installation, which depends on the correct operation of sub-systems and external installations to reduce the risk. The aim of functional safety is to minimise the risk of failure of the individual sub-systems so that the risk for the entire system or installation is reduced to an acceptable level. The values in the table below can be used for calculating the functional safety of systems with the surge protective devices used.

Surge Protection Device	λ_{SD}	λ_{SU}	λ_{DD}		λ_{DU}		Total	SFF *3		SIL AC *4	
	Failure rates according to IEC 61508 in FIT							Safe Failure Fraction		SIL	
			*1	*2	*1	*2		*1	*2	*1	*2
BXT ML2(4) B 180	0	21	0	1	3	2	24	86.8%	92.7%	SIL2	SIL3
BXT ML4(2) BD *, BXT ML2 BD S *	0	21	0	4	6	2	27	78.2%	92.8%	SIL2	SIL3
BXT ML4 BD HF *, BXT ML2 BD HFS *	0	29	0	4	14	10	43	67.7%	76.8%	SIL2	SIL2
BXT ML2 BD DL S 15	0	21	0	4	6	2	27	78.2%	92.8%	SIL2	SIL3
BXT ML4 BE *, BXT ML2 BE S *	0	21	0	7	9	2	30	71.4%	93.0%	SIL2	SIL3
BXT ML4 BE HF *, BXT ML2 BE HFS *	0	33	0	8	18	10	51	64.9%	80.4%	SIL2	SIL2
BXT ML4 BE C *	0	23	0	9	12	3	35	65.4%	91.3%	SIL2	SIL3
BXT ML4 BC EX 24	0	39	0	8	11	3	50	78.8%	93.7%	SIL2	SIL3
BXT ML4 BD EX 24	0	57	0	6	10	4	67	85.3%	94.1%	SIL2	SIL3
BXT ML2 BD HF EX 6	0	28	0	1	16	15	44	64.0%	67.2%	SIL2	SIL2
BXT ML4 BC *	0	21	0	7	9	2	30	71.4%	93.0%	SIL2	SIL3
BXT ML4 MY 250	0	20	0	0.5	10	9.5	30	66.6%	67.9%	SIL2	SIL2

* All voltages available

*1 Analysis 1 represents a worst-case analysis

*2 Analysis 2 represents an analysis with the assumption that line short circuits and short circuits to GND are detectable or do not have an effect.

*3 The complete sensor or final element subsystem will need to be evaluated to determine the overall Safe Failure Fraction. The number listed is for reference only.

*4 SIL AC (architectural constraints) means that the calculated values are within the range for hardware architectural constraints for the corresponding SIL but does not imply all related IEC 61508 requirements are fulfilled. See also previous footnote.

Testing an SPD module via RFID technology

SPD diagnostics with early warning function!

- **Higher protection and availability of installations and systems due to integrated LifeCheck monitoring system**
  - **Integrated three-stage monitoring of all circuit components**
  - **Quick diagnostics of surge protective devices**
  - **Easy testing of SPD modules without downtime via contactless RFID technology**
  - **Even detects previously damaged SPDs**

Regular testing of SPDs installed

During operation, an SPD can be overloaded by discharge processes exceeding the equipment specification. In order to ensure high system availability, it is therefore essential to test SPDs on a regular basis. DIN EN 62305-3, supplement 3 (see table excerpt) specifies the maximum intervals between tests of external and internal lightning protection systems.

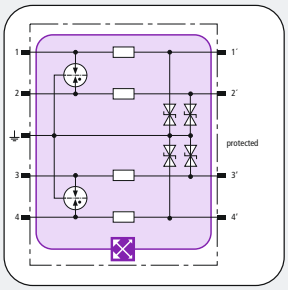
Protection level	Visual inspection	Complete inspection	Complete inspection of critical systems
I and II	1 year	2 years	1 year
III and IV	2 years	4 years	1 year

Easy testing with LifeCheck

Maintenance of BLITZDUCTOR XT with integrated LifeCheck is particularly easy. LifeCheck uses modern RFID (Radio Frequency Identification) technology for monitoring the protective circuit and for communication. Irrespective of downtimes of the system, LifeCheck allows for quick and easy testing of SPDs by means of the hand-held DRC LC M3+ reader or a stationary DRC MCM XT condition monitoring unit.

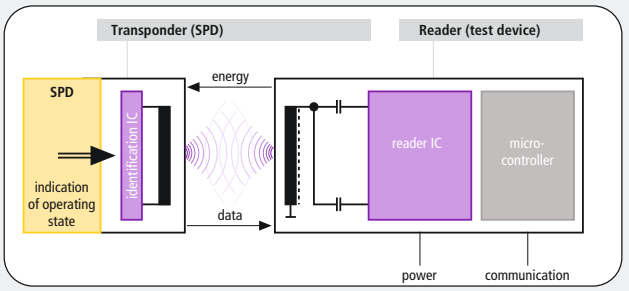
Signal before arrester failure

The 3-stage LifeCheck monitoring circuit with early warning function detects extreme electrical or thermal loads of all protection elements of an SPD below their destruction limit. This can be read out within seconds and without contact by means a RFID reader. If the reader displays "OK", no extreme load was detected. If the contrary is the case, the module has to be replaced as soon as possible in order not to threaten the availability of the protected circuit.



If LifeCheck monitors a protective circuit of an SPD, this is shown graphically in the basic circuit diagram. For BXT, the complete protective circuit is monitored.

Functional principal of the LifeCheck diagnostics systems



Principle of communication of an SPD and a test device

The diagnostics system consists of two functional units:

1. RFID reading and signalling device (reader)

Combined with a visual and electrical display, an electronic system transmits energy without contact to the RFID transponder in the SPD via antenna. If the operating state can be read out, an "OK" message is displayed.

2. Monitoring unit within the SPD:

Diagnostics of the 3-stage LifeCheck monitoring circuit is combined with communication of the RFID transponder:

- Diagnostics of electrical overload (impulse current)

  Lightning strikes or overvoltage exceeding the specified discharge capacity of the SPD will damage or even destroy the protection elements. This electrical overload is detected by the LifeCheck monitoring device. When reading out the transponder, the "Replace SPD!" message appears.
- Diagnostics of thermal overload (overheating)

  Active and passive protection elements which are operated in the critical temperature range will be previously damaged or even destroyed depending on the type and duration. This overload is detected by the LifeCheck monitoring device. When reading out the transponder, the "Replace SPD!" message appears.

Condition Monitoring System LifeCheck®

- **Maximum protection and availability of systems by means of permanent condition monitoring of LifeCheck-equipped SPDs**
- **The early detection system already detects arrester overload and warns of imminent failure of the arrester**
  - **Visual indication of faulty or previously damaged SPDs**
  - **Compact dimensions and minimum wiring**
  - **Monitoring of up to 10 SPDs (40 signal lines)**
  - **Remote signalling contact**
  - **Remote signalling also via RS 485 interface and PC software**

Example of use of the DEHNrecord condition monitoring system.

Condition Monitoring:

The DRC MCM XT condition monitoring system is a compact DIN rail mounted device for monitoring the condition of up to 10 pre-programmed BXT arresters with integrated LifeCheck monitoring circuit.

Integrated into the SPD modules, LifeCheck permanently monitors the proper condition of the SPD and acts like an early warning system, detecting imminent electrical or thermal overload of the protection components. The LifeCheck status can be read out within a matter of seconds via contactless RFID technology by means of the portable DEHNrecord LC device and also shows the date of the last test of the SPD module. Stationary installed, the condition monitoring system supports condition-based maintenance of 10 BXT.

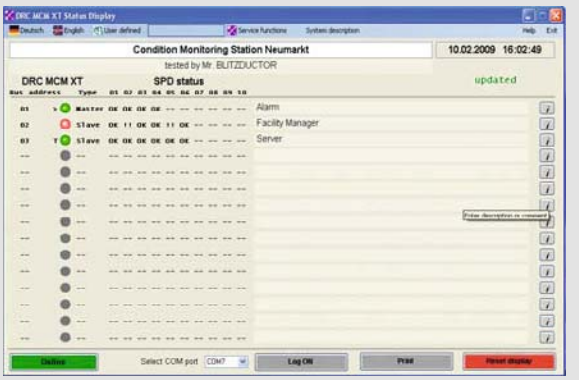
The unit acts like an early warning system, generating a fault message even in case of imminent arrester overload, indicates it by means of the integrated three-colour LED and transmits it to one of the two integrated remote signalling contacts. Failure of the monitoring unit, e.g. due to a voltage breakdown, is also indicated via the remote signalling contact.
The Show function integrated into the DRC MCM system allows to detect previously damaged SPDs in the monitoring group.

If several condition monitoring systems are used in one switchgear cabinet, these systems are connected via the integrated RS 485 interfaces to synchronise the monitoring cycles. Up to 15 DRC MCM systems can be connected to the RS 485 bus. Thus, up to 150 BLITZDUCTORs or 300 pairs can be monitored simultaneously with minimum wiring effort.

The "Status Display and Service Console" PC software

is an optional user software for the DRC MCM XT condition monitoring system which indicates the status of the SPDs and addresses LifeCheck-equipped BLITZDUCTOR modules.
The software can be installed on a standard PC using an RS485/USB interface converter of type "USB-NANO 485" which is available as accessory.

The software can be downloaded free of charge from www.dehn.de/download/ or is available as CD for a nominal fee.



Graphical status indication of DRC MCM XT monitoring devices and of all programmed protection modules assigned to them.

The Service functions allow to switch to the "Service Console" function complex. The protection modules can be easily addressed, tested and reset due to the user-friendly user interface.

Condition Monitoring System LifeCheck®

DRC MCM XT

The two-component design of the DRC MCM monitoring device increases user-friendliness. The configuration of the electronic module can be changed at any time without having to change the wiring.

Frequently required operating elements such as the three-coloured status LED and the three-way button are situated at the module front and are thus easily accessible. Less frequently required operating elements were placed at the sides of the modules.

DIN rail mounted device with integrated LifeCheck sensor for monitoring the condition of max. 10 LifeCheck-equipped BLITZDUCTOR XT devices. Visual three-coloured SPD operating state indication combined with remote signalling function (break or make contact). The free "Status Display and Service Console" software can be optionally used via an RS 485 interface converter.

- **Monitoring the condition of Life-Check-equipped SPDs**
- **Permanent monitoring of up to 10 SPDs (40 signal lines)**
- **Minimum wiring effort**
- **Optional remote signalling via RS 485 or remote signalling contacts**

DRC MCM XT	
For testing	up to 10 BLITZDUCTOR XT ML devices
	up to 10 BLITZDUCTOR XT ML EX devices; for use in non-hazardous atmospheres only! Observe thread measure!
Operating elements	multiway button, DIP switch
Indicator element	3-coloured LED (green, orange, red)
Input d.c. voltage range U_{IN}	18...48 V
Max. nominal current input I_{IN}	100 mA
RFID transmission frequency	125 kHz
Message: Replacing of SPD recommended	LED, remote signalling contact (break and make contact)
Test cycle	continuous
Operating temperature range for monitoring 10 BXT devices	-20°C...+60°C
Operating temperature range for monitoring 8 BXT devices	-40°C...+80°C
Degree of protection	IP 20
For mounting on	35 mm DIN rail acc. to EN 60715
Connection type	screw
Cross-sectional area, solid	0.08 - 4 mm²
Cross-sectional area, flexible	0.08 - 2.5 mm²
Tightening torque (terminal)	0.4 Nm
Enclosure material	polyamide PA 6.6
Colour	grey
Test standards	EN 61010-1, 61000-6-2/4
Type of remote signalling contact	make (no) and break contact (nc)
Switching capacity d.c.	350 V/0.12 A
Switching capacity a.c.	250 V/0.07 A
Delivery includes	base part, monitoring module, quick guide and marking system

Ordering information	
Type	DRC MCM XT
Part No.	**910 695**
Packing unit	1 pc(s).

Accessory Part for Condition Monitoring System LifeCheck®

USB interface converter of type USB NANO 485

USB NANO 485 converts signals between USB and RS-485. The interface converter is specifically designed for 2-wire RS-485 buses. LEDs indicate operation (yellow), Rx (green) and Tx (red).

USB NANO 485 is ideally suited for use with notebooks due to its small size. Stationary use is also possible.

Type	PU pc(s).	Part No.
USB NANO 485	1	**910 486**

Accessory Part for Condition Monitoring System LifeCheck®

Marking system BA1-BA15

2 x 165 adhesive labels for labelling DRC MCM XT monitoring devices with their bus address (BA1 to BA15) and BXT base parts or modules with consecutive numbers (1.1-1.10 to 15.1-15.10)

Type	PU pc(s).	Part No.
BS BA1 BA15 BXT	1	**920 398**

Easy Choice according to Interface / Signal

Interface Signal	BLITZDUCTOR XT 4-pole Module	BLITZDUCTOR XT 2-pole Module	
0-20 mA, 4-20 mA (also with HART)	920 324	920 224	J
4-20 mA (also with HART) acc. to NAMUR recommendation NE 21 or acc. to EN 61000-4-5, open-circuit voltage 1 kV A-PG	920 344	920 244	J
a/b wires	920 347		J
ADVANT	920 370	920 270	
ADSL	920 347	920 247	J
ADSL 2+	920 347		J
Binary signals	920 320 – 327	920 220 – 225	
Bitbus	920 370	920 270	
BLN	920 342 920 345	920 242 920 245	
CAN-Bus (date line only)	920 370	920 270	J
C-Bus (Honeywell)	920 370	920 270	J
Data Highway Plus	920 342	920 242	J
Delta Net Peer Bus	920 370	920 270	
Datex P	920 375		
Device Net (date line only)	920 370	920 270	J
Dupline		920 243	J
E1	920 375		
E-Bus (Honeywell)	920 345	920 245	J
EIB	920 310	920 211	
Electroacoustic system (ELA)	920 327		
ET 200	920 370	920 270	
Ex (i) circuits	920 381	920 538	
Fieldbus Foundation	920 344	920 244	J
Fieldbus Foundation Ex (i)	920 381	920 538	
FIPIO/FIPWAY	920 344	920 244	
FIP I/O	920 370	920 270	
FSK	920 371	920 271	J
Genius I/O Bus	920 342	920 242	
HDSL up to 30 dBm at 600 W	920 375		
IEC-Bus (RS 485)	920 370	920 270	J
INTERBUS-INLINE (I/O)	920 345		J
Interbus INLINE Long-distance bus	920 371	920 271	J
K-Bus	920 344	920 244	
KBR Energy bus	920 370	920 270	
KNX Bus	920 310	920 211	
ISDN S_0	920 371	920 271	J
ISDN S_{2m} / U_{2m}	920 375		J
ISDN U_{K0} / U_{P0}	920 347	920 247	J
LON TP/XF 78 TP/FTT 10 up to 1 A and TP/LPT10 TP/FTT 10	920 340 920 345 920 371	920 240 920 245 920 271	
LUXMATE Bus	920 344	920 244	J
M Bus	920 345	920 245	J
MODBUS	920 370	920 270	J

Interface Signal	BLITZDUCTOR XT 4-pole Module	BLITZDUCTOR XT 2-pole Module	
Modem M1	920 322	920 222	
MPI Bus	920 370	920 270	J
N1 LAN	920 371 920 370	920 271 920 270	
N2 Bus (Johnson Controls, LON, FTT 10)	920 371	920 271	
Optocoupler Interface	920 364		
Procontic CS31 (RS 232)	920 322		
Procontic T200 (RS 422)	920 371		J
PROFIBUS DP/FMS	920 370	920 270	J
PROFIBUS PA	920 344	920 244	
PROFIBUS PA Ex (i)	920 381	920 538	
PROFIBUS SIMATIC NET	920 370	920 270	J
PSM-EG-RS 422	920 371		J
PSM-EG-RS 485	920 371	920 271	J
Rackbus (RS 485)	920 371	920 271	J
R Bus	920 340	920 240	J
RS 485	920 370	920 270 920 538	J
RS 422, V11	920 370	920 270	J
S Bus	920 370	920 270	
SafetyBUS p	920 370	920 270	J
SDLC	920 370	920 270	
Securilan LON BUS	920 340	920 240	
SDSL	920 375	920 211	J
SHDSL	920 375	920 211	J
SIGMASYS	920 345 920 325	920 245 920 225	
SINEC L1	920 370	920 270	
SINEC L2	920 370	920 270	
SS97 SINIS (RS 232)	920 322	920 222	
SUCONET	920 340	920 240	J
T-DSL	920 347	920 247	J
Telephony, System Telephony e.g. Siemens, HICOM, Alcatel	920 347	920 247	J
Temperature measuring PT 100, PT 1000 Ni 1000, NTC, PTC	920 350 920 354 920 320	920 220	
Temperature measuring Ex (i)	920 384		
Telecommunication systems	920 347	920 247	
TTL	920 322	920 222	J
TTY	920 364 920 362		
TTY 4-20 mA	920 324	920 224	
Universal lightning equipotential bonding	920 310	920 211	
V 24 (RS 232 C)	920 322		
VDSL	920 311	920 211	
Video (2-wire)	920 370	920 270	J

J BLITZDUCTOR® XTU with **actiVsense® technology.**
For more detailed information, please refer to page 4 or publication No. 164/E.

DEHN www.dehn.de

BLITZDUCTOR® XT
Cross-reference BCT – BXT

BLITZDUCTOR CT Part No.	BLITZDUCTOR CT Type	BLITZDUCTOR XT Part No.	BLITZDUCTOR XT Type	
919 506	BCT BAS	920 300	BXT BAS	
919 310	BCT MLC B 110	920 211 920 310	BXT ML2 B 180 BXT ML4 B 180	or
919 320	BCT MLC BE 5	920 220 920 320	BXT ML2 BE S 5 BXT ML4 BE 5	or
919 321	BCT MLC BE 12	920 222 920 322	BXT ML2 BE S 12 BXT ML4 BE 12	or
919 322	BCT MLC BE 15	920 222 920 322	BXT ML2 BE S 12 BXT ML4 BE 12	or
919 323	BCT MLC BE 24	920 224 920 324	BXT ML2 BE S 24 BXT ML4 BE 24	or
919 324	BCT MLC BE 30	920 224 920 324	BXT ML2 BE S 24 BXT ML4 BE 24	or
919 325	BCT MLC BE 48	920 225 920 325	BXT ML2 BE S 48 BXT ML4 BE 48	or
919 326	BCT MLC BE 60	920 326	BXT ML4 BE 60	
919 327	BCT MLC BE 110	920 327	BXT ML4 BE 180	
919 360	BCT MLC BE C 5	—		
919 361	BCT MLC BE C 12	920 362	BXT ML4 BE C 12	
919 362	BCT MLC BE C 24	920 364	BXT ML4 BE C 24	
919 363	BCT MLC BE C 30	920 364	BXT ML4 BE C 24	
919 340	BCT MLC BD 5	920 240 920 340	BXT ML2 BD S 5 BXT ML4 BD 5	or
919 341	BCT MLC BD 12	920 242 920 342	BXT ML2 BD S 12 BXT ML4 BD 12	or
919 342	BCT MLC BD 15	920 242 920 342	BXT ML2 BD S 12 BXT ML4 BD 12	or
919 343	BCT MLC BD 24	920 244 920 344	BXT ML2 BD S 24 BXT ML4 BD 24	or
919 344	BCT MLC BD 30	920 244 920 344	BXT ML2 BD S 24 BXT ML4 BD 24	or
919 345	BCT MLC BD 48	920 245 920 345	BXT ML2 BD S 48 BXT ML4 BD 48	or
919 346	BCT MLC BD 60	920 346	BXT ML4 BD 60	
919 347	BCT MLC BD 110	920 247 920 347	BXT ML2 BD 180 BXT ML4 BD 180	or
919 349	BCT MLC BD 250	—		
919 370	BCT MLC BD HF 5	920 270 920 370	BXT ML2 BE HFS 5 BXT ML4 BE HF 5	or
919 371	BCT MLC BD HFD 5	920 271 920 371	BXT ML2 BD HFS 5 BXT ML4 BD HF 5	or
919 375	BCT MLC BD HFD 24	920 375	BXT ML4 BD HF 24	
919 520	BCT MOD ME 5	920 220 920 320	BXT ML2 BE S 5 BXT ML4 BE 5	or
919 521	BCT MOD ME 12	920 222 920 322	BXT ML2 BE S 12 BXT ML4 BE 12	or
919 522	BCT MOD ME 15	920 222 920 322	BXT ML2 BE S 12 BXT ML4 BE 12	or

BLITZDUCTOR CT Part No.	BLITZDUCTOR CT Type	BLITZDUCTOR XT Part No.	BLITZDUCTOR XT Type	
919 523	BCT MOD ME 24	920 224 920 324	BXT ML2 BE S 24 BXT ML4 BE 24	or
919 524	BCT MOD ME 30	920 224 920 324	BXT ML2 BE S 24 BXT ML4 BE 24	or
919 525	BCT MOD ME 48	920 225 920 325	BXT ML2 BE S 48 BXT ML4 BE 48	or
919 526	BCT MOD ME 60	920 326	BXT ML4 BE 60	
919 527	BCT MOD ME 110	920 327	BXT ML4 BE 180	
919 560	BCT MOD ME C 5	—		
919 561	BCT MOD ME C 12	920 362	BXT ML4 BE C 12	
919 562	BCT MOD ME C 24	920 364	BXT ML4 BE C 24	
919 563	BCT MOD ME C 30	920 364	BXT ML4 BE C 24	
919 540	BCT MOD MD 5	920 240 920 340	BXT ML2 BD S 5 BXT ML4 BD 5	or
919 541	BCT MOD MD 12	920 242 920 342	BXT ML2 BD S 12 BXT ML4 BD 12	or
919 542	BCT MOD MD 15	920 242 920 342	BXT ML2 BD S 12 BXT ML4 BD 12	or
919 543	BCT MOD MD 24	920 244 920 344	BXT ML2 BD S 24 BXT ML4 BD 24	or
919 544	BCT MOD MD 30	920 244 920 344	BXT ML2 BD S 24 BXT ML4 BD 24	or
919 545	BCT MOD MD 48	920 245 920 345	BXT ML2 BD S 48 BXT ML4 BD 48	or
919 546	BCT MOD MD 60	920 346	BXT ML4 BD 60	
919 547	BCT MOD MD 110	920 247 920 347	BXT ML2 BD 180 BXT ML4 BD 180	or
919 549	BCT MOD MD 250	—		
919 570	BCT MOD MD HF 5	920 270 920 370	BXT ML2 BE HFS 5 BXT ML4 BE HF 5	or
919 571	BCT MOD MD HFD 5	920 271 920 371	BXT ML2 BD HFS 5 BXT ML4 BD HF 5	or
919 575	BCT MOD MD HFD 24	920 375	BXT ML4 BD HF 24	
919 552	BCT MOD MD TC N	—		
919 589	BCT MOD MY 250	920 389	BXT ML4 MY 250	
SPDs for potentially explosive areas				
919 507	BCT BAS EX	920 301	BXT BAS EX	
919 580	BCT MOD MD EX 24	920 381	BXT ML4 BD EX 24	
919 581	BCT MOD MD EX 30	920 381	BXT ML4 BD EX 24	
919 583	BCT MOD MD HFD EX 6	920 538	BXT ML4 BD EX 24	
Accessories				
919 502	GDT 90	—		
919 504	BCT MOD PTS	920 309	BXT M4 T	
919 505	EKS BCT	920 308	BXT M4 E	
919 508	EFK BCT	920 395	SAK BXT LR	

Lightning Protection
Surge Protection
Safety Equipment

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You will find information material and services e.g.

- Surge Protection main catalogue
- Lightning Protection main catalogue
- Appointment with our sales engineer

on our website:
www.dehn.de in the “Service” section

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