



DEHN + SÖHNE

# BLITZDUCTOR® XT with LifeCheck®.



- Maximum discharge capacity for 2-pole, 3-pole or 4-pole interfaces and minimum space requirements
- 2-pole SPD modules, available with direct or indirect shield earthing
- Integrated 3-stage monitoring system for all protective circuit components with early warning function via LifeCheck
- Allows for easy non-contact testing and monitoring of the SPD modules by reading out with portable DRC LC testing device or stationary condition monitoring device
- Vibration- and shock-proof design for safe operation
- Allows for universal use due to base part and different SPD modules



Pluggable multi-pole universal lightning current and surge arrester for use in IT systems. The SPD modules with integrated LifeCheck function allow for quick non-contact testing of SPDs by means of a portable reading device or stationary condition monitoring system. SPD module and base part have to be ordered separately.

BLITZDUCTOR XT is a pluggable multi-pole universal lightning current and surge arrester for mounting onto DIN rails for use in measuring and control circuits, bus systems, alarm systems and telecommunication systems which are subject to maximum availability requirements.

If lightning current arrester type BXT ML4 B 180 establishes the equipotential bonding, a Yellow/Line surge arrester may be installed downstream as a further protective stage for limiting the currents to values bearable for the terminal equipment. The combined lightning current and surge arresters of the BLITZDUCTOR XT series combine the permanently high impulse current discharge capacity of a lightning current arrester with the extremely low protection level of a surge arrester for effective protection of terminal equipment against the influences of lightning and surges caused by switching operations.

LifeCheck allows for quick and easy testing of SPDs without removing the module. Being integrated into the SPD modules, LifeCheck permanently

monitors the operating state of the SPD. Just like an early warning system, LifeCheck detects prospective electrical or thermal overloads on the protection components. The LifeCheck operating state can be read out in a second without contact by means of portable DEHNrecord LC and shows when the SPD module was tested last time. The stationary condition monitoring system supports the operating-state-based maintenance of up to 10 BXT devices.

To ensure safe operation, the SPD can withstand vibrations and shock loads up to 30x acceleration of gravity. The function-optimised design of the device ensures both quick and easy replacing of SPD modules where all relevant protection elements are situated.

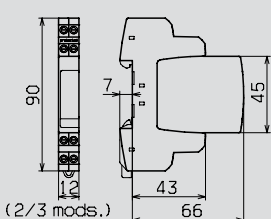
A wide range of accessories makes BLITZDUCTOR XT especially user-friendly. Elements for easy labelling, earthing of unused lines or easy testing of lines complete the SPD range.



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



Universal base part for all SPD modules. Optimises storage and favors prewiring and service. No signal interruption when replacing the modules.



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

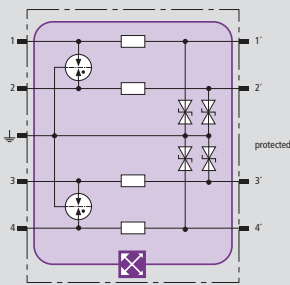


**BXT ML4 B ...:**

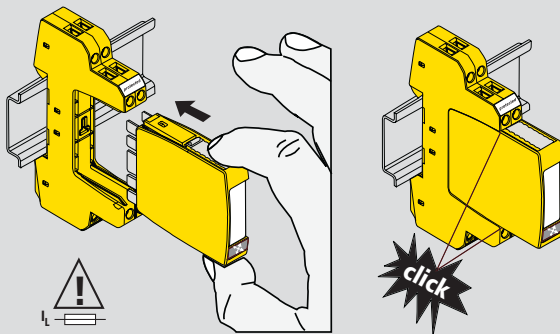
SPD modules for 4 single lines or 2 pairs with LifeCheck for high partial lightning currents.

**BXT ML2 B:**

SPD modules for 2 single lines or 1 pair with LifeCheck for high partial lightning currents. Type BXT ML2 ... S additionally provides connections for direct or indirect shield earthing.



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.

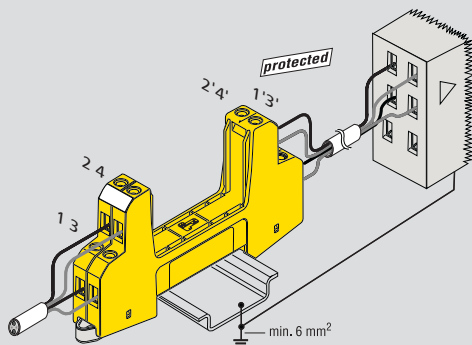
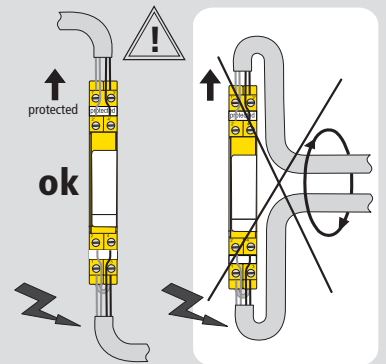


The function-optimised design of the device allows for both "safe plugging" and "easy removing" of an SPD module. The module is secured in the base part by snapping in. By pressing the grey buttons the module can be removed again without problem. This is ensured by the laminated spring contacts and pressing the module releasing spring.



Testing an SPD module for use in intrinsically safe circuits (blue-coloured) by means of RFID technology (LifeCheck)

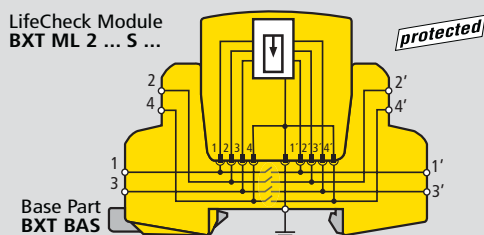
The protected lines have always to be assigned to clamps 1' to 4' (protected) of the base part. In order not to reduce the protective effect, protected and unprotected lines have to be installed separately.



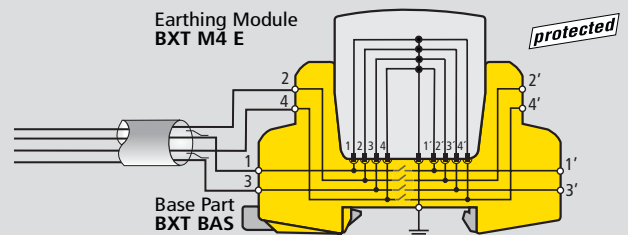
Up to 4 lines can be connected on 2 levels. Corresponding to DIN rail mounting, lines of a pair belonging to each other are connected one above the other.



The clamps integrated into the base part can be used with many 2-pole modules for shield earthing. Especially for bus systems, the EMC spring terminal should be used for wide connection of line shields.



If a both-sided direct earthing of the line shield cannot be performed for technical reasons, one-sided indirect shield earthing may be of advantage. This can be performed by means of SPD modules type BXT ML2 ... S. Their terminal 3, 3' is connected to a gas discharge tube with lightning current carrying capability, which prevents compensating currents. Transient impulse currents on the shield are discharged via the indirect shield earthing.



For a stranded cable, unused lines should be laid and earthed. If the unused lines are connected to base parts, earthing modules 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.

**BLITZDUCTOR® XT Base Part**

**BXT BAS**

BLITZDUCTOR XT base part, for use as very space-saving 4-pole universal feed-through terminal for supporting SPD modules without signal interruption. The SPD module is safely earthed by the supporting foot of the DIN rail by means of a snap-in fixing device. As there are no components of the protective circuit situated in the base part, maintenance work is only required for the protection modules.

Type	BXT BAS	
Cross-sectional area, solid	0.08 - 4 mm <sup>2</sup>	
Cross-sectional area, flexible	0.08 - 2.5 mm <sup>2</sup>	
<b>Type</b>	<b>PU pc(s)</b>	<b>Part No.</b>
BXT BAS	1	<b>920 300</b>

**BLITZDUCTOR® XT LifeCheck® Modules**

**BXT ML4 B 180**

Space-saving 4-pole lightning current arrester module with LifeCheck monitoring for use in nearly all types of applications. For use in connection with downstream surge arresters **TYPE 2 P1** or combined lightning current and surge arresters with lower or equal voltage level.

Type	BXT ML4 B 180	
SPD class	<b>TYPE 1 P1</b>	
Max. continuous operating d.c. voltage U <sub>c</sub>	180 V	
Nominal current for 45°C I <sub>L</sub>	1.2 A	
D1 Total lightning impulse current (10/350 µs) I <sub>imp</sub>	10 kA	
<b>Type</b>	<b>PU pc(s)</b>	<b>Part No.</b>
BXT ML4 B 180	1	<b>920 310</b>

**BXT ML4 BE 5 – BE 180**

Space-saving combined lightning current and surge arrester module with LifeCheck monitoring 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	<b>TYPE 1 P1</b>	<b>TYPE 1 P1</b>	<b>TYPE 1 P1</b>	<b>TYPE 1 P1</b>	<b>TYPE 1 P1</b>	<b>TYPE 1 P1</b>	<b>TYPE 1 P2</b>
Max. continuous operating d.c. voltage U <sub>c</sub>	6.0 V	15 V	33 V	45 V	54 V	70 V	180 V
Nominal current for 45°C I <sub>L</sub>	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 <sub>imp</sub>	10 kA	10 kA	10 kA	10 kA	10 kA	10 kA	10 kA
<b>Type</b>	<b>PU pc(s)</b>		<b>Part No.</b>				
BXT ML4 BE 5	1		<b>920 320</b>				
BXT ML4 BE 12	1		<b>920 322</b>				
BXT ML4 BE 24	1		<b>920 324</b>				
BXT ML4 BE 36	1		<b>920 336</b>				
BXT ML4 BE 48	1		<b>920 325</b>				
BXT ML4 BE 60	1		<b>920 326</b>				
BXT ML4 BE 180	1		<b>920 327</b>				

**BXT ML4 BD 5 – BD 180**

Space-saving combined lightning current and surge arrester module with LifeCheck monitoring for protecting 2 pairs at balanced interfaces with electrical isolation.

Type BXT ML4 ...	BD 5	BD 12	BD 24	BD 48	BD 60	BD 180
SPD class	<b>TYPE 1 P1</b>	<b>TYPE 1 P1</b>	<b>TYPE 1 P1</b>	<b>TYPE 1 P1</b>	<b>TYPE 1 P1</b>	<b>TYPE 1 P2</b>
Max. continuous operating d.c. voltage U <sub>c</sub>	6.0 V	15 V	33 V	54 V	70 V	180 V
Nominal current for 45°C I <sub>L</sub>	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 <sub>imp</sub>	10 kA	10 kA	10 kA	10 kA	10 kA	10 kA
<b>Type</b>	<b>PU pc(s)</b>		<b>Part No.</b>			
BXT ML4 BD 5	1		<b>920 340</b>			
BXT ML4 BD 12	1		<b>920 342</b>			
BXT ML4 BD 24	1		<b>920 344</b>			
BXT ML4 BD 48	1		<b>920 345</b>			
BXT ML4 BD 60	1		<b>920 346</b>			
BXT ML4 BD 180	1		<b>920 347</b>			

**BXT ML4 BC 5 / 24**

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

Type	BXT ML4 BC 5	BXT ML4 BC 24
SPD class	<b>TYPE 1 P1</b>	<b>TYPE 1 P1</b>
Max. continuous operating d.c. voltage U <sub>c</sub>	6.0 V	33 V
Nominal current for 45°C I <sub>L</sub>	1.0 A	0.75 A
D1 Total lightning impulse current (10/350 µs) I <sub>imp</sub>	10 kA	10 kA
<b>Type</b>	<b>PU pc(s)</b>	<b>Part No.</b>
BXT ML4 BC 5	1	<b>920 350</b>
BXT ML4 BC 24	1	<b>920 354</b>

**BXT ML4 BE C 12 / 24**

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

Type	BXT ML4 BE C 12	BXT ML4 BE C 24
SPD class	<b>TYPE 1 P1</b>	<b>TYPE 1 P1</b>
Max. continuous operating d.c. voltage U <sub>c</sub>	15 V	33 V
Nominal current for 45°C I <sub>L</sub>	0.1 A	0.1 A
D1 Total lightning impulse current (10/350 µs) I <sub>imp</sub>	10 kA	10 kA
<b>Type</b>	<b>PU pc(s)</b>	<b>Part No.</b>
BXT ML4 BE C 12	1	<b>920 362</b>
BXT ML4 BE C 24	1	<b>920 364</b>

**BXT ML4 BE HF 5**

Space-saving combined lightning current and surge arrester module with LifeCheck monitoring for protecting 4 single lines with common reference potential as well as high-frequency transmissions without electrical isolation.

Type	BXT ML4 BE HF 5	
SPD class	<b>TYPE 1 P1</b>	
Max. continuous operating d.c. voltage U <sub>c</sub>	6.0 V	
Nominal current for 45°C I <sub>L</sub>	1.0 A	
D1 Total lightning impulse current (10/350 µs) I <sub>imp</sub>	10 kA	
<b>Type</b>	<b>PU pc(s)</b>	<b>Part No.</b>
BXT ML4 BE HF 5	1	<b>920 370</b>

**BXT ML4 BD HF 5 / 24**

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

Type	BXT ML4 BD HF 5	BXT ML4 BD HF 24
SPD class	<b>TYPE 1 P1</b>	<b>TYPE 1 P1</b>
Max. continuous operating d.c. voltage U <sub>c</sub>	6.0 V	33 V
Nominal current for 45°C I <sub>L</sub>	1.0 A	1.0 A
D1 Total lightning impulse current (10/350 µs) I <sub>imp</sub>	10 kA	10 kA
<b>Type</b>	<b>PU pc(s)</b>	<b>Part No.</b>
BXT ML4 BD HF 5	1	<b>920 371</b>
BXT ML4 BD HF 24	1	<b>920 375</b>

**BXT ML4 MY 250**

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

Type	BXT ML4 MY 250	
SPD class	<b>TYPE 2 P3</b>	
Max. continuous operating d.c. voltage U <sub>c</sub>	line - PG 320 V	
C2 Total nominal discharge current (8/20 µs) I <sub>n</sub>	10 kA	
<b>Type</b>	<b>PU pc(s)</b>	<b>Part No.</b>
BXT ML4 MY 250	1	<b>920 389</b>

**BXT ML2 B 180**

Space-saving 2-pole lightning current arrester module with LifeCheck monitoring and shield earthing for use in nearly all applications. For use in connection with downstream surge arresters **TYPE 2 Pt** or combined lightning current and surge arresters with lower or equal voltage level.

Type	BXT ML2 B 180		
SPD class	<b>TYPE 1 Pt</b>		
Max. continuous operating d.c. voltage $U_c$	180 V		
Nominal current for 45°C $I_L$	1.2 A		
D1 Total lightning impulse current (10/350 µs) $I_{imp}$	10 kA		
	<b>PU</b>	<b>Part</b>	
<b>Type</b>	<b>pc(s)</b>	<b>No.</b>	
BXT ML2 B 180	1	<b>920 211</b>	



**BXT ML2 BD 180**

Space-saving combined lightning current and surge arrester module with LifeCheck monitoring for protecting 1 pair at balanced interfaces with electrical isolation

Type	BXT ML2 BD 180		
SPD class	<b>TYPE 1 Pt</b>		
Max. continuous operating d.c. voltage $U_c$	180 V		
Nominal current for 45°C $I_L$	0.75 A		
D1 Total lightning impulse current (10/350 µs) $I_{imp}$	5 kA		
	<b>PU</b>	<b>Part</b>	
<b>Type</b>	<b>pc(s)</b>	<b>No.</b>	
BXT ML2 BD 180	1	<b>920 247</b>	



**BXT ML2 BE S 5 – BE S 48**

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

Type BXT ML2 ...	BE S 5	BE S 12	BE S 24	BE S 48
SPD class	<b>TYPE 1 Pt</b>	<b>TYPE 1 Pt</b>	<b>TYPE 1 Pt</b>	<b>TYPE 1 Pt</b>
Max. continuous operating d.c. voltage $U_c$	6.0 V	15 V	33 V	54 V
Nominal current for 45°C $I_L$	1.0 A	0.75 A	0.75 A	0.75 A
D1 Total lightning impulse current (10/350 µs) $I_{imp}$	10 kA	10 kA	10 kA	10 kA
	<b>PU</b>	<b>Part</b>		
<b>Type</b>	<b>pc(s)</b>	<b>No.</b>		
BXT ML2 BE S 5	1	<b>920 220</b>		
BXT ML2 BE S 12	1	<b>920 222</b>		
BXT ML2 BE S 24	1	<b>920 224</b>		
BXT ML2 BE S 48	1	<b>920 225</b>		



**BXT ML2 BD S 5 – BD S 48**

Space-saving combined lightning current and surge arrester module with LifeCheck monitoring for protecting 1 pair at balanced interfaces with electrical isolation, available with direct or indirect shield earthing.

Type BXT ML2 ...	BD S 5	BD S 12	BD S 24	BD S 48
SPD class	<b>TYPE 1 Pt</b>	<b>TYPE 1 Pt</b>	<b>TYPE 1 Pt</b>	<b>TYPE 1 Pt</b>
Max. continuous operating d.c. voltage $U_c$	6.0 V	15 V	33 V	54 V
Nominal current for 45°C $I_L$	1.0 A	1.0 A	1.0 A	1.0 A
D1 Total lightning impulse current (10/350 µs) $I_{imp}$	10 kA	10 kA	10 kA	10 kA
	<b>PU</b>	<b>Part</b>		
<b>Type</b>	<b>pc(s)</b>	<b>No.</b>		
BXT ML2 BD S 5	1	<b>920 240</b>		
BXT ML2 BD S 12	1	<b>920 242</b>		
BXT ML2 BD S 24	1	<b>920 244</b>		
BXT ML2 BD S 48	1	<b>920 245</b>		



**BXT ML2 BE HFS 5**

Space-saving combined lightning current and surge arrester module with LifeCheck monitoring for protecting 1 pair in high-frequency transmissions without electrical isolation; available with direct or indirect shield earthing.

Type	BXT ML2 BE HFS 5		
SPD class	<b>TYPE 1 Pt</b>		
Max. continuous operating d.c. voltage $U_c$	6.0 V		
Nominal current for 45°C $I_L$	1.0 A		
D1 Total lightning impulse current (10/350 µs) $I_{imp}$	10 kA		
	<b>PU</b>	<b>Part</b>	
<b>Type</b>	<b>pc(s)</b>	<b>No.</b>	
BXT ML2 BE HFS 5	1	<b>920 270</b>	



**BXT ML2 BD HFS 5**

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

Type	BXT ML2 BD HFS 5		
SPD class	<b>TYPE 1 Pt</b>		
Max. continuous operating d.c. voltage $U_c$	6.0 V		
Nominal current for 45°C $I_L$	1.0 A		
D1 Total lightning impulse current (10/350 µs) $I_{imp}$	10 kA		
	<b>PU</b>	<b>Part</b>	
<b>Type</b>	<b>pc(s)</b>	<b>No.</b>	
BXT ML2 BD HFS 5	1	<b>920 271</b>	

SPDs FOR POTENTIALLY EXPLOSIVE AREAS

**BLITZDUCTOR® XT Ex (i) Base Part**

**BXT BAS EX**

BLITZDUCTOR XT Base Part, blue-coloured, for use in intrinsically safe circuits; for more details please refer to BXT BAS (Part No. 920 300)

Type	BXT BAS EX		
Cross-sectional area, solid	0.08 - 4 mm <sup>2</sup>		
Cross-sectional area, flexible	0.08 - 2.5 mm <sup>2</sup>		
	<b>PU</b>	<b>Part</b>	
<b>Type</b>	<b>pc(s)</b>	<b>No.</b>	
BXT BAS EX	1	<b>920 301</b>	



**BLITZDUCTOR® XT Ex (i) LifeCheck® Modules**

**BXT ML4 BD EX 24**

Space-saving surge arrester module with LifeCheck function for protecting 2 pairs in intrinsically safe circuits and bus systems. KEMA 06 ATEX 0274 X II 2 (1) G EEx ia IIC T4/T5/T6, meets FISCO requirements.

Type	BXT ML4 BD EX 24		
SPD class	<b>TYPE 2 Pt</b>		
Max. continuous operating d.c. voltage $U_c$	33 V		
Max. input voltage acc. to EN 50020 $U_i$	30 V		
Max. input current acc. to EN 50020 $I_i$	0.5 A		
C2 Total nominal discharge current (8/20 µs) $I_n$	20 kA		
	<b>PU</b>	<b>Part</b>	
<b>Type</b>	<b>pc(s)</b>	<b>No.</b>	
BXT ML4 BD EX 24	1	<b>920 381</b>	



**BXT ML4 BC EX 24**

Space-saving surge arrester module with LifeCheck for protecting up to 4 earth-potential-free single lines with common reference potential in intrinsically safe circuits. KEMA 06 ATEX 0274 X II 2 (1) G EEx ia IIC T4/T5/T6, meets FISCO requirements.

Type	BXT ML4 BC EX 24		
SPD class	<b>TYPE 2 Pt</b>		
Max. continuous operating d.c. voltage $U_c$	33 V		
Max. input voltage acc. to EN 50020 $U_i$	30 V		
Max. input current acc. to EN 50020 $I_i$	0.5 A		
C2 Total nominal discharge current (8/20 µs) $I_n$	20 kA		
	<b>PU</b>	<b>Part</b>	
<b>Type</b>	<b>pc(s)</b>	<b>No.</b>	
BXT ML4 BC EX 24	1	<b>920 384</b>	



### Accessory Parts for BLITZDUCTOR® XT Base Part

#### 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, for plugging into the BLITZDUCTOR XT base part



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

#### Labelling system

2 x 50 labels for marking BXT base parts or modules with their current numbers, printed with numbers 1-50.



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

#### EMC Spring terminals

2 spring terminals for permanent low-impedant shield contacting of the protected and unprotected side of a BXT device. With integrated terminal coding for direct or indirect shield earthing, cable ties and insulating strips.



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

### Accessory Parts for BLITZDUCTOR® XT LifeCheck® Modules

#### DRC MCM XT

DIN-rail-mountable device with integrated LifeCheck sensor for condition-based monitoring of max. 10 BXT devices with LifeCheck function. Visual SPD operating state indication combined with remote signalling device. Selectable break or make contact. BXT devices to be controlled can be programmed by means of DRC MCM via PC and common RS 485 adapter, or with DRC LC M3.

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



#### DRC LC M3

Portable device with LifeCheck sensor for flexible use. Provides visual and acoustic "OK" indication for identified LifeCheck circuits in SPDs. With additional USB connection for PC-aided administration of test samples and documentation of the test results. DRC LC M3 can save the date of the last test on BXT and helps to program the same for DRC MCM XT condition monitoring system.

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





Testing an SPD module with RFID technology (LifeCheck)

SPD diagnostics with early warning function!

- Without contacting
- Within seconds
- At low costs

**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. EN 62305-3 (see table excerpt) specifies the maximum intervals between tests of external and internal lightning protection systems.

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

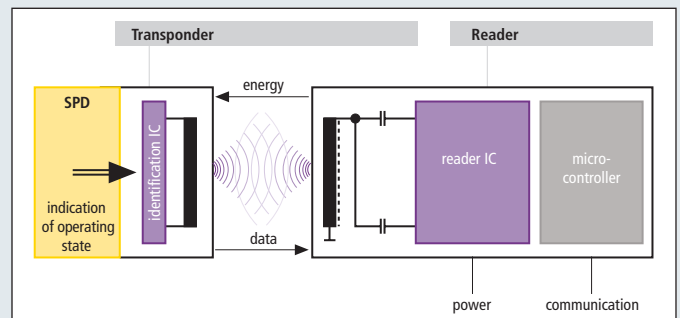
**Easy testing with LifeCheck**

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 the new stationary DRC MCM condition monitoring unit.

**Signal before damage**

The 3-stage LifeCheck monitoring circuit with early warning function detects the extreme electrical or thermal load of all protection elements of an SPD below their destruction limit. This can be read out within seconds and without contacting by means of a reader with RFID technology. 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 availability of the protected circuit.

**Functional principal of the LifeCheck diagnostics systems**



Principle of communication of an SPD and testing 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)
  - If overvoltage peaks may damage components, the transponder interrupts the "OK" message permanently
- Diagnostics of thermal overload (overheating)
  - If the protection elements work in the critical temperature range, thermal fuse elements prevent the "OK" message permanently.

- Device for condition-based monitoring of SPDs with LifeCheck function
- Visual indicator displays faulty or damaged SPDs
- Additional remote signalling contact for signalling purposes
- Remote signalling also possible via RS 485 interface and PC software
- Small dimension and minimum wiring requirements
- One DRC can monitor up to 10 SPDs, i.e. max. 40 signal lines



Space-saving rail-mountable device with minimum wiring requirements for condition-based monitoring of up to 10 programmed SPDs type BXT with integrated LifeCheck monitoring circuit. A fault signal is generated visually and by means of a remote signalling contact already in case of a risk of prospective overloads on the SPD. The SPDs can be programmed by means of a PC or DRC LC M3.

Space-saving rail-mountable device with minimum wiring requirements for condition-based monitoring of up to 10 programmed SPDs type BXT with integrated LifeCheck monitoring circuit.

The SPDs can be programmed by means of a PC with an interface converter to RS 485 (not included in delivery) and the terminal software, which can be downloaded free of charge, or by means of DRC LC M3 (current version of April 2008). DRC MCM has a small power input and wide operating voltage range for universal use.

Like an early warning system, the device generates an interference signal already in case of a prospective overload on the SPD, indicates it with the integrated 3-colour LED and transmits it via one of the two integrated fault signalling contacts. A failure of the monitoring device, e.g. due to a voltage power failure, will also be signalled via the remote signalling contacts.

The Show function integrated into the DRC MCM device allows for operating state indication of damaged SPDs. When using several Condition Monitoring units in one switchgear cabinet, these are connected by the integrated RS 485 interfaces in order to synchronise the monitoring cycles. Up to 15 DRC MCM devices can be connected to the RS 485 bus, spread over a bus length of max. 1000 m. Furthermore, the bus basically allows the user to "listen" in bus telegrams and convert these to a visualised operating state indication of the individual SPDs – For more details, please do not hesitate to contact us.



Being a 2-part device, DRC MCM allows for easy application. The configuration of the electronic module can be changed any time without interfering with the wiring levels.



Often required operating elements such as the 3-coloured LED for indicating operating states and the 3-way operating key are situated on the front of the module for easy access. Unfrequently used operating elements were intentionally placed on the side of the module.



The bus addresses of the monitoring device requested and the number of SPDs to be monitored can be set by means of a DIP switch.



For optimal bus transmission, a bus terminator is already integrated into DRC MCM and can be activated by means of a plug-in jumper.





Operating states, for example, can be enquired from the DRC MCM XT Service Console software by means of an interface converter.



The DRC MCM XT Status Display software is an example for PC-aided operating state indication of SPDs to be monitored.



DIN-rail-mountable device with integrated LifeCheck sensor for condition-based monitoring of max. 10 BXT devices with LifeCheck function. Visual SPD operating state indication combined with remote signalling device. Selectable break or make contact. BXT devices to be controlled can be programmed by means of DRC MCM via PC and common RS 485 adapter, or with DRC LC M3.

DRC MCM XT	
For testing	up to 10 BLITZDUCTOR XT ML devices
	<b>max. 10 BLITZDUCTOR XT ML EX devices; for use in non-hazardous atmospheres only! Observe thread measure!</b>
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
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	screw
Cross-sectional area, solid	0.08 - 4 mm <sup>2</sup>
Cross-sectional area, flexible	0.08 - 2.5 mm <sup>2</sup>
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	break and make contact
Switching capacity d.c.	350 V/0.1 A
Switching capacity a.c.	250 V/0.07 A
Delivery includes	terminal software and numbering plates
<b>Ordering information</b>	
Type	DRC MCM XT
Part No.	910 695
Packing unit	1 pc(s).

Interface Signal	BLITZDUCTOR XT	
	4-pole module	2-pole module
0-20 mA, 4-20 mA (also with HART)	920 324	920 224
4-20 mA (also with HART) according to NAMUR recommendation NE 21 or according to EN 61000-4-5, open-circuit voltage 1 kV A-PG	920 344	920 244
ADVANT	920 370	920 270
ADSL	920 347	920 247
Binary signals	920 320 – 327	920 220 – 225
Bitbus	920 370	920 270
BLN		920 242 920 245
CAN Bus (data line only)	920 370	920 270
C Bus (Honeywell)	920 370	920 270
Data Highway Plus		920 242
Delta Net Peer Bus	920 370	920 270
Datex-P	920 375	
Device Net (data line only)	920 370	920 270
E Bus (Honeywell)	920 345	920 245
EIB	920 310	920 211
ET 200	920 370	920 270
Ex (i) circuits 4-20 mA, NAMUR HART, PROFIBUS-PA, FF	920 381	
Fieldbus Foundation	920 344	920 244
Fieldbus Foundation Ex (i)	920 381	
FIPIO/FIPWAY	920 344	920 244
FIP I/O	920 370	920 270
FSK	920 370	920 270
Genius I/O Bus	920 342	920 242
HDSL up to 30 dBm for 600 W	920 375	
IEC Bus (RS 485)	920 370	920 270
INTERBUS-INLINE (I/O)	920 345	920 245
K Bus	920 344	920 244
KBR Energy bus	920 370	920 270
KNX Bus	920 310	920 211
ISDN S <sub>0</sub>	920 371	920 271
ISDN S <sub>2m</sub> / U <sub>2m</sub>	920 375	
ISDN U <sub>K0</sub> / U <sub>P0</sub>	920 347	920 247
LON TP/XF 78	920 340	920 240
TP/FTT 10 up to 1 A and TP/LPT10	920 345	920 245
TP/FTT 10	920 371	920 271
LUXMATE Bus	920 344	920 244
M Bus	920 345	920 245
MODBUS	920 370	920 270
Modem M1		920 222
MPI Bus	920 370	920 270
N1 LAN	920 371	920 271

Interface Signal	BLITZDUCTOR XT	
	4-pole module	2-pole module
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	
PROFIBUS-DP/FMS	920 370	920 270
PROFIBUS-PA	920 344	920 244
PROFIBUS-PA Ex (i)	920 381	
PROFIBUS	920 370	
SIMATIC NET		920 270
PSM-EG-RS 422	920 371	
PSM-EG-RS 485	920 371	920 271
Rackbus (RS 485)	920 371	920 271
R Bus	920 340	920 240
RS 485	920 370	920 270
RS 422, V11	920 370	920 270
S Bus	920 370	920 270
SafetyBUS p	920 370	920 270
SDLC	920 370	920 270
Securilan LON BUS	920 340	920 240
SHDSL	920 375	
SIGMASYS		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	920 370	920 270
T-DSL	920 347	920 247
Telephony, System Telephony e. g. Siemens, HICOM, Alcatel	920 347	920 247
TELEPERM M Analogue input	920 322 920 324	920 222 920 224
TELEPERM M Binary input/output	920 325	920 225
TELEPERM MES 100 K	920 322	920 222
TELEPERM MFM 100	920 342	920 242
TELEPERM M Coupling AG S5 ET 100	920 324	920 224
TELEPERM M Relais output	920 310	920 211
Temperature measurement PT 100, PT 1000, Ni 1000, NTC, PTC	920 350 920 354	920 220
Temperature measurement Ex (i)	920 384	
TTL	920 322	920 222
TTY	920 364	
Universal lightning equipotential bonding	920 310	920 211
V 24 (RS 232 C)	920 322	
Video (2-wire)		920 270 920 271

BLITZDUCTOR CT		BLITZDUCTOR XT	
Part No.	Type	Part No.	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
919 320	BCT MLC BE 5	920 220 920 320	BXT ML2 BE S 5 BXT ML4 BE 5
919 321	BCT MLC BE 12	920 222 920 322	BXT ML2 BE S 12 BXT ML4 BE 12
919 322	BCT MLC BE 15	920 222 920 322	BXT ML2 BE S 12 BXT ML4 BE 12
919 323	BCT MLC BE 24	920 224 920 324	BXT ML2 BE S 24 BXT ML4 BE 24
919 324	BCT MLC BE 30	920 224 920 324	BXT ML2 BE S 24 BXT ML4 BE 24
919 325	BCT MLC BE 48	920 225 920 325	BXT ML2 BE S 48 BXT ML4 BE 48
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
919 341	BCT MLC BD 12	920 242 920 342	BXT ML2 BD S 12 BXT ML4 BD 12
919 342	BCT MLC BD 15	920 242 920 342	BXT ML2 BD S 12 BXT ML4 BD 12
919 343	BCT MLC BD 24	920 244 920 344	BXT ML2 BD S 24 BXT ML4 BD 24
919 344	BCT MLC BD 30	920 244 920 344	BXT ML2 BD S 24 BXT ML4 BD 24
919 345	BCT MLC BD 48	920 245 920 345	BXT ML2 BD S 48 BXT ML4 BD 48
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
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
919 371	BCT MLC BD HFD 5	920 271 920 371	BXT ML2 BD HFS 5 BXT ML4 BD HF 5
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
919 521	BCT MOD ME 12	920 222 920 322	BXT ML2 BE S 12 BXT ML4 BE 12
919 522	BCT MOD ME 15	920 222 920 322	BXT ML2 BE S 12 BXT ML4 BE 12
919 523	BCT MOD ME 24	920 224 920 324	BXT ML2 BE S 24 BXT ML4 BE 24

BLITZDUCTOR CT		BLITZDUCTOR XT	
Part No.	Type	Part No.	Type
919 524	BCT MOD ME 30	920 224 920 324	BXT ML2 BE S 24 BXT ML4 BE 24
919 525	BCT MOD ME 48	920 225 920 325	BXT ML2 BE S 48 BXT ML4 BE 48
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	—	
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
919 541	BCT MOD MD 12	920 242 920 342	BXT ML2 BD S 12 BXT ML4 BD 12
919 542	BCT MOD MD 15	920 242 920 342	BXT ML2 BD S 12 BXT ML4 BD 12
919 543	BCT MOD MD 24	920 244 920 344	BXT ML2 BD S 24 BXT ML4 BD 24
919 544	BCT MOD MD 30	920 244 920 344	BXT ML2 BD S 24 BXT ML4 BD 24
919 545	BCT MOD MD 48	920 245 920 345	BXT ML2 BD S 48 BXT ML4 BD 48
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
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
919 571	BCT MOD MD HFD 5	920 271 920 371	BXT ML2 BD HFS 5 BXT ML4 BD HF 5
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 hazardous (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	—	

**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



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Safety Equipment**

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