System protection

for building technology and measuring and control systems

System components

Protect building, measuring and control systems

BLITZDUCTORconnect

Modular und compact device
Space-saving, universal combined arrester with a width of 6 mm and push-in connection terminal with status indication. With a high lightning current discharge capacity of 3 kA (total) and low protection levels, measuring, control, bus and telecommunication systems are ideally protected from damage caused by lightning and surges. The signal disconnection feature is useful for maintenance purposes.

Protect signalling circuits with higher operating currents in signalling circuits

BLITZDUCTORconnect 24 V up to 10 A

BLITZDUCTORconnect – powerful protection for a nominal current of up to 10 A
The compact combined arrester protects signal circuits in measuring and control applications. Especially applications up to 10 A of nominal current are protected from damage caused by lightning and surges. In addition to its high performance, this compact arrester is characterised by very simple installation (push-in connection) and maintenance (integrated status indication and the option of remote monitoring).

- You save space – compact version: only 12 mm in width (10 A) modular version only 6 mm in width (5 A)
- You save time – easy to install and maintain

More information at:
http://de.hn/21uZf

System components

- **BCO (5–180 V types, MVG, BPD, HF, Ex)**
- **BCO 24 V (5 A / 10 A)**
- **BCO 3 and 4-conductor measuring circuits**
- **DEHNpatch Class E_A**
- **DEHNrecord DRC IRCM**

System

- **DIN rail mounting**
- **Remote monitoring by means of DRC IRCM**
- **LifeCheck indication**
- **Comprehensive certifications**

Protect Gigabit Ethernet

DEHNpatch Class E_A

Space-saving combined arrester of 19 mm in width with status indication and remote signalling option (DRC IRCM accessories). DEHNpatch protects Ethernet applications up to 10 Gbit/s and Power over Ethernet (up to 4PPoE), thus providing effective surge protection for almost all LAN applications.

Monitor the system

DEHNrecord condition monitoring

Easy monitoring of arresters with LifeCheck
The set for DIN-rail-mounted devices with integrated visual transmitter/receiver and visual reverse unit takes on the condition monitoring of the BLITZDUCTORconnect system range with LifeCheck. It impresses with its quick and simple installation and commissioning (plug & play). The visual arrester status indication via LED group display is combined with a remote signalling (break) contact.

Easy. Safe. Robust.

BLITZDUCTORconnect

The universal combined arrester protects measuring and control circuits and bus and telecommunication systems in an industrial context and building technology from damage caused by lightning and surges.

Thanks to its high total lightning current discharge capacity of 3 kA (total) and low voltage protection level, this new generation of devices is optimally suited for protecting terminal devices.

Need reliable protection for measuring and control equipment and process automation in an industrial environment?

In our portfolio of BLITZDUCTORconnect types and device variants, you will always find the right arrester, precisely tailored to your requirements.

1 Easy.

Signal disconnection / galvanic interruption

- Signal disconnection through turning insertion of the arrester module – no tools required
- Enables very easy maintenance

2 Safe.

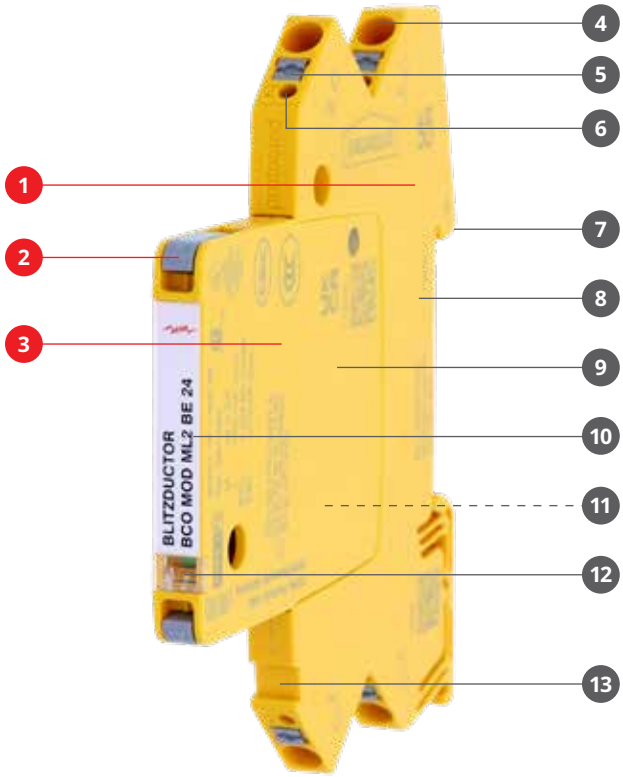
secR module locking and fail-safe function

- Safe unlocking of the modules
- Safe and precise pulling of individual modules
- System circuit availability after arrester overload
- Vibration-proof thanks to direct plug-in technology and the locking on both sides

3 Robust.

Improved performance range

- 3 kA lightning current carrying capability and a maximum discharge current of up to 20 kA per line provide optimal system protection



Enclosure	Compact	Modular
Nominal current at 70 °C (I_L)	Typ. 0.75 A (compact to 5 A, modular to 10 A)	
D1 lightning current impulse (10/350 µs) per line (I_{imp})	1.5 kA	
C2 nominal discharge current (8/20 µs) per line (I_n)	5 kA	
Max. discharge current (8/20 µs) per line (I_{max})	20 kA (1x)	
Signal disconnection / reverse polarity protection	No	Yes
Dimensions (L x W x H)	90 mm x 6 mm x 70 mm	
Approvals	UL, CSA, SIL, ATEX, IECEx, CCC	
Optional remote signalling with DRC IRCM	Part no. 910 710	

More information at:
http://de.hn/cCNf2

For railway applications, the MVG 230 (part no. 927 290) comfortably meets the requirements of Ril 819.0808.

You can protect intrinsically safe signal circuits with special arresters from the Ex-approved device range.

More features at a glance.

4. Push-in connection terminals
   - 45° inclined, up to 2.5 mm²
   - Installed without tools
5. Release button for the connection of the signal line
6. Test socketsfor easy maintenance – Measure voltage directly on the arrester
7. Earthing contact capable of carrying lightning currents 35 mm DIN rail
8. Vibration and shock-tested for permanently safe operation
9. Fail open: safe after failure Signal circuit availability
10. Narrow designWith two signal lines in just 6mm wide – Saves space in the switchgear cabinet
11. Remote signalling with optional remote signalling transmitter and receiver unit
12. LifeCheck indication for visual arrester status recognition
13. Labelling option using commercially available labelling systems for terminal blocks

Also available as a PCB base part

You can now get a PCB-based system solution for protecting measuring and control circuits. This saves you space because the PCB base part is soldered directly onto the circuit board. Is also makes maintenance easier for you, because each individual base part has a remote signalling contact.

Practical: You can easily replace the pluggable protection modules without using tools. The same as with all BLITZDUCTORconnect models. **http://de.hn/c7kVD**

Status check at a glance.

DEHNpatch

DEHNpatch protects Ethernet applications up to 10 Gbit/s and ensures a reliable flow of data even after a surge or lightning strike.

All the features at a glance.

1. Ergonomic recess for convenient release of the RJ45 patch connection
2. Up to 10 GBit/s Ethernet, for a performance up to class E_A/500 MHz
3. Universal use as a combined arrester for lightning currents up to 4 kA (10/350 µs)
4. Status indication for easy maintenance
5. Fully shielded enclosure design for all Ethernet applications
6. Screw connection for additional equipotential bonding
7. Earthing contact for 35-mm-wide DIN rails
8. Approval for use in zone 2 hazardous areas
9. Remote signalling with optional module adapter and remote signalling unit DRC IRCM

Technical data

Type	DPA CL8 EA 4PPOE	DPA C8 D 4PPOE
Part No.	**929 161**	**929 166**
SPD class	TYPE 1 P2	TYPE 1
Maximum continuous operating DC voltage (U_C)	3.3 V	3.3 V
Maximum continuous operating DC voltage Pa-Pa (PoE) (U_C)	58 V	58 V
Nominal current (I_L)	1.5 A	1.5 A
D1 lightning current (10/350 µs) per line / total ($_{imp}$)	0.5 / 4 kA	0.5 / 4 kA
C2 nominal discharge current (8/20 µs) per core (I_n)	2.5 / 10 kA	2.5 / 10 kA
Cut-off frequency	500 MHz	100 MHz
Transmission class	E_A	D
Status indication	Yes	No
Arrester accessories for remote signalling, DPA MOD IRCM	929 309	No
Optional remote signalling with DRC IRCM	910 710	No

The DEHNpatch can be installed directly in the hazardous area (Ex zone 2).

More information at:
http://de.hn/2x9Bd

So slim and yet so innovative.

One of a kind. Practical status check (green or red) at a glance.

Compatible.DEHNrecord monitors DEHNpatch and reports arrester failures and malfunctions.

Effective. DEHNpatch protects Ethernet infrastructure up to 10 GBit/s and 4PPoE and thus provides effective surge protection for the LAN.

Ex-certified. Reliable protection in potentially explosive atmospheres.

Powerful. The TYPE 1 classification reduces complexity for planning and installation at the lightning protection zone 0_A – 2 and higher.

Space-saving. The DEHNpatch is optimally designed for racks 19 inches in height.

Application examples:

- Data distributors
- Industrial Ethernet
- Digital camera systems
- Power over Ethernet (IEEE 802.3-compliant up to 4PPoE)
- Protection of Ethernet-based devices in hazardous areas

Fields of use:

- Building equipment
- Renewable sources of energy (wind und photovoltaics)
- E-mobility
- Safety technology
- Process industry
- Smart Energy
- Railway infrastructure

Planning and implementation made easy

Simplify planning with our DEHNselect IT configurator:
http://de.hn/9hmZf

Register now and receive a white paperfor data centres:
http://de.hn/5cL4C

Popular in many industries.

Lightning protection with a system

The perfect interplay between various product series that can be used in many applications. For some industries, adapted system components also offer special solutions – to do this, combine the system with the component intended for it.

Technical building equipment

Whether it be heating, sanitation, air-conditioning or safety technology – they all fall under the rubric of technical building equipment. Different systems and technologies need to interact perfectly here. After all, a fault or loss of availability of important technical building equipment have serious consequences – especially for intelligent building systems. If central components fail – e.g. as a result of surge damage – this can compromise the whole automation of the building.

The BLITZDUCTORconnect reliably protects the important communication interfaces of technical building equipment.

Heating, ventilation and air-conditioning
Ventilation and air-conditioning systems ensure air quality and therefore the well-being of people in enclosed spaces. The necessary cooling is provided for sensitive technical devices; e.g. servers in information technology. This prevents damage through overheating. For faultless operation, all components located indoors and outdoors – e.g. heat exchangers and refrigerant compressor systems – must be protected.

Building automation
Building automation and measuring and control systems are used to automatically control, monitor and optimise all processes relating to building technology. This technology is based on a multitude of interlinked components, such as building management, communication, control and safety systems. Comprehensive protection is a fundamental component within the overall concept of building technology and safety.

Safety and security technology
Burglar alarm systems, voice alarms, fire detection technology, transmission equipment – all of these components report dangers within a monitored area. They must therefore function reliably at all times. False alarms should be prevented as best as possible. This is why lightning and surge protection measures are necessary for all hazard alarm and safety systems.

More information at:
http://de.hn/2YVbC

Wind power

Sensor equipment for pitch systems and azimuth drives, control systems for aircraft warning lights, communication equipment of turbine controllers, wind sensors – measuring and control systems in wind turbine generator systems must always work seamlessly.

More information at:
http://de.hn/3LZiB

Railway infrastructure

Interlocking equipment, level crossing systems, point heaters, GSM-R transmitting and receiving systems – all components in railway infrastructure require professional, long-lasting protection from damage caused by surges and lightning. BLITZDUCTORconnect protects signalling, control and telecommunication systems.

More information at:
http://de.hn/4JqUz

Process industry

The automation, measuring and control technology in the process industry sets a wide variety of requirements. In potentially explosive areas in particular – e.g. intrinsically safe signal circuits – the products must satisfy certain conditions. BLITZDUCTORconnect protects the process industry from damage caused by lightning and surges.

More information at:
http://de.hn/3Q7sW

Always the right choice

BLITZDUCTORconnect and DEHNpatch are always the right solution for protecting information technology from surges. And this goes for a wide variety of applications. Whether it be measuring and control circuits, bus systems or general IT interfaces – the clear selection guide helps to identify the right product quickly.

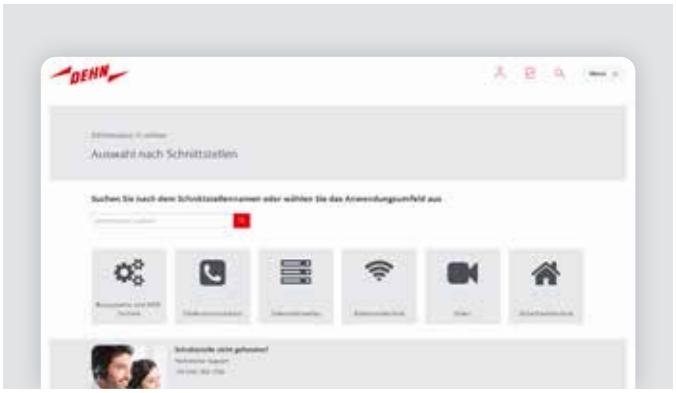
Interfaces / signal	Compact part no.	Modular part no.
0–20 mA, 4–20 mA	**927 944**	**927 244**
Binary signals	**927 924**	**927 224**
Ex(i) measuring circuit	**927 984**	**927 284**
Fieldbus foundation	**927 944**	**927 244**
Fieldbus foundation Ex(i)	**927 984**	**927 284**
MODBUS RTU, PROFIBUS-DP/FMS	**927 971**	**927 271**
PROFIBUS-PA	**927 944**	**927 244**
PROFIBUS-PA Ex(i)	**927 984**	**927 284**
RS 422, RS 485	**927 971**	**927 271**
2-conductor temperature measurement	**927 942**	**927 242**
3-/4-conductor temperature measurement	**927 954**	–
TTL	**927 922**	**927 222**
TTY 4 – 20 mA	**927 924**	**927 224**
Video (2-wire)	**927 971**	**927 271**
xDSL	**927 910**	**927 210**
CAN bus	**927 971**	**927 271**
24-V signal circuits (higher operating currents)	**927 408** (10 A)	**927 254** (5 A)
Ethernet up to 10 Gbit/s, industrial Ethernet	**929 161**	–
IP communication, Power over Ethernet (up to 4PPoE)	**929 161, 929 166**	–

Accessories		Part no.
	DEHNrecord condition monitoring unit The set for DIN-rail-mounted devices with integrated visual transmitter/receiver and visual reverse unit takes on the condition monitoring of the BLITZDUCTORconnect system range with LifeCheck.	**910 710**
	EXI partition Special installation conditions have to be taken into account when using the BLITZDUCTORconnect surge protective devices in intrinsically safe electric circuits. When using the Ex i partition, these conditions are also complied with if the arresters are arranged directly next to one other.	**910 797**
	Power supply unit for DRC IRCM remote signalling unit Robust power supply in the DIN-rail-mounted enclosure with single-phase, wide-range input for operation in a wide variety of supply systems. The operating state indication on the front side signals the availability of the output voltage.	**910 499**
	BLITZDUCTORconnect BCO M2 E earthing module with base part Space-saving earthing module with base part in a width of 6 mm and push-in connection system for defined equipotential bonding of all wires connected to the base part.	**927 318**

Services and information

Selection guide
The quick and easy way to the right products. With our selection guide by interface / signal.

More information at: http://de.hn/a36eL



DEHNselect IT
With this tool, you will quickly find the right surge protection for interfaces from the widest fields of application.

More information at: http://de.hn/73JPp

Online catalogue

Data sheets, design bases (tender specifications, product macros), certificates, installation instructions: You can find all the product details on our website.

Simply enter the product name or part number in the search field.

More information at:
http://de.hn/98LN8

Personal consultation
Pose your technical questions directly to the experts for lightning protection, earthing, surge protection, safety equipment and protection against arc faults:

Global Technical Support
itss@dehn.de
Phone +49 9181 906 1740

More information at:
http://de.hn/USU5i

http://de.hn/46Jgx

Surge Protection
Lightning Protection / Earthing
Safety Equipment

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