

## System protection

for building, 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 the DC supply

### BLITZDUCTORconnect 24V/10A

#### 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 unearthen power supplies in applications up to 10 A 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).

- You save space – Only 12 mm wide (2/3 modules)
- You save time – Easy to install and maintain



More information  
[de.hn/21uZf](http://de.hn/21uZf)



## System components

- BCO (standard, MVG, Ex)
- BCO 24V/10A
- DEHNpatch Class E<sub>A</sub>
- DEHNrecord DRC IRCM

## System

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



## Protect Gigabit Ethernet

### DEHNpatch Class E<sub>A</sub>

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.

# BLITZDUCTORconnect

Easy. Safe. Robust.

**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.

## 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

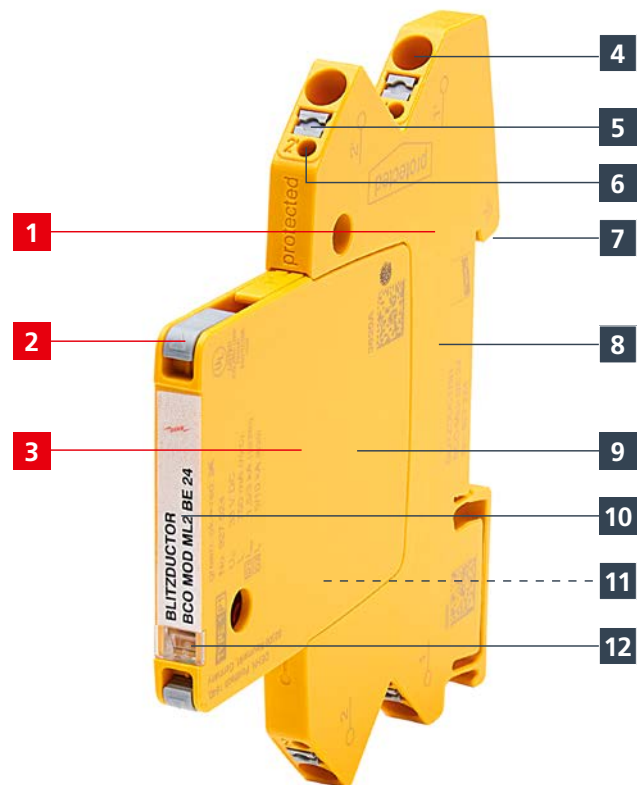
## 3 Robust.

### 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

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

Given the large range of BLITZDUCTORconnect models and device variants, you will always find the right arrester precisely tailored to your needs.



Enclosure	Compact	Modular
Nominal current at 70°C (I <sub>N</sub> )	0.75 A	
D1 lightning current impulse (10/350 μs) per line (I <sub>imp</sub> )	1.5 kA	
C2 nominal discharge current (8/20 μs) per line (I <sub>N</sub> )	5 kA	
Max. discharge current (8/20 μs) per line (I <sub>max</sub> )	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, EAC, SIL, ATEX, IECEx, CCC	
Optional remote signalling with DRC IRCM	Part No. 910 710	





More information  
[de.hn/cCNf2](https://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 mm<sup>2</sup>
  - Installed without tools
- 5 Release button**  
For the connection of the signal line
- 6 Test sockets**  
For 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 design**  
With 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

### 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. It 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.



[de.hn/c7kVD](https://de.hn/c7kVD)



### Easy installation



Installation in five steps:  
[de.hn/7xCy8](https://de.hn/7xCy8)



Video – as simple as that:  
[de.hn/cyTMT](https://de.hn/cyTMT)



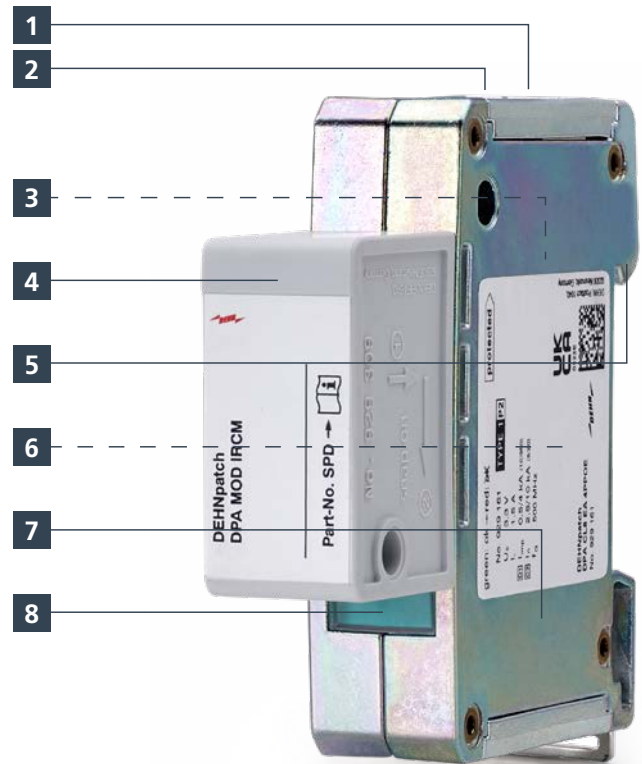
# DEHNpatch

Status check at a glance.

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 the convenient unlocking of the RJ45 patch connection
- 2 Up to 10 GBit/s Ethernet**  
For cabling up to Class E<sub>A</sub>/500 MHz
- 3 Screw connection**  
For additional equipotential bonding
- 4 Optional module adapter and DRC IRCM remote signalling unit**  
For remote signalling
- 5 Earthing contact**  
For 35 mm DIN rails
- 6 Total lightning current 4 kA (10/350 μs)**  
For universal use as a combined arrester
- 7 Fully shielded enclosure design**  
For all Ethernet applications
- 8 Status indication**  
For visual for visual status recognition



## Technical data

Type	DPA CL8 EA 4PPOE	DPA C8 D 4PPOE
Part no.	929 161	929 166
SPD class	<b>TYPE 1 P2</b>	<b>TYPE 1</b>
Maximum continuous operating DC voltage (U <sub>c</sub> )	3.3 V	3.3 V
Maximum continuous operating DC voltage Pa-Pa (PoE) (U <sub>c</sub> )	58 V	58 V
Nominal current (I <sub>n</sub> )	1.5 A	1.5 A
D1 lightning current (10/350 μs) per line / total (I <sub>imp</sub> )	0.5 / 4 kA	0.5 / 4 kA
C2 nominal discharge current (8/20 μs) per line / total (I <sub>n</sub> )	2.5 / 10 kA	2.5 / 10 kA
Cut-off frequency	500 MHz	100 MHz
Transmission class	E <sub>A</sub>	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



More information  
[de.hn/8j96s](https://de.hn/8j96s)

## So slim and yet so innovative.

**Practical.** The visual operating state indication enables a status check at a glance.

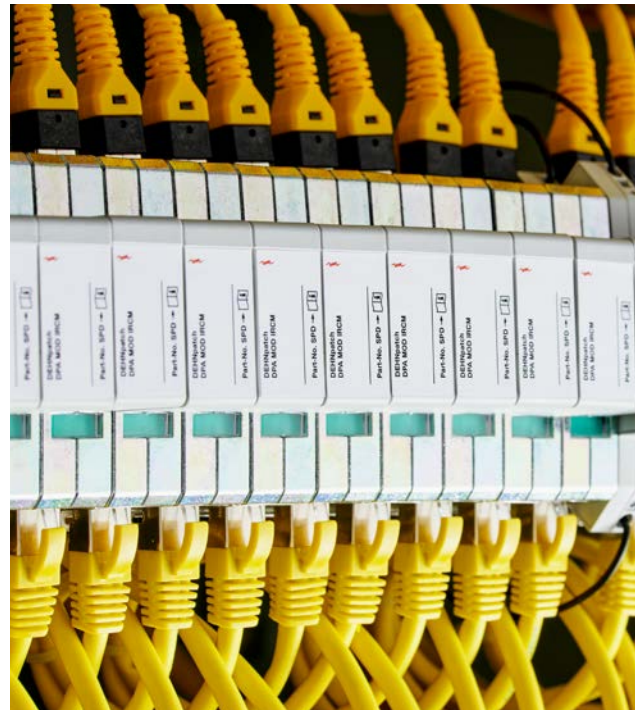
**Effective.** DEHNpatch protects Ethernet infrastructures up to 10 GBit/s and 4PPoE. It thus provides effective surge protection for LAN.

**Compatible.** DEHNrecord IRCM takes over the function monitoring of DEHNpatch via remote signalling.

**Powerful.** Combined arrester (TYPE 1) reduces complexity of planning and selection in the lightning protection concept.

**Space-saving.** Makes ideal use of the maximum installation space in 19 inch patch rack solutions

**System optimised.** Perfect interplay as a system family with BLITZDUCTORconnect and DEHNrecord IRCM.



## Application examples:

- Data distributors
- Industrial Ethernet
- Digital camera systems
- Power over Ethernet (IEEE 802.3-compliant up to 4PPoE)

## 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:  
[de.hn/5cL4C](https://de.hn/5cL4C)



Register now and receive a white  
paper for data centres:  
[de.hn/9hmZf](https://de.hn/9hmZf)



# Lightning protection with a system

Popular in many industries.

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  
[de.hn/2YVbC](https://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  
[de.hn/3LziB](https://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  
[de.hn/4JqUz](https://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  
[de.hn/3Q7sW](https://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.




## DEHNselect IT

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



More information  
[de.hn/73Jpp](https://de.hn/73Jpp)

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 circuits 	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
DC supply up to 45V/10A	927 408	–
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.
	<b>Earthing module with base part BLITZDUCTORconnect BCO M2 E</b> 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
	<b>Power supply unit for DRC IRCM remote signalling unit</b> Robust power supply in the DIN-rail-mounted enclosure with single-phase, wide-range input for operation in a broad variety of supply systems. The operating state indication on the front side signals the availability of the output voltage.	910 499
	<b>PARTITION EXI</b> Special installation conditions have to be taken into account when using the BLITZDUCTORconnect surge protective devices in intrinsically safe electric circuits. When using PARTITION EXI, these conditions are also complied with if the arresters are arranged directly next to one another.	910 797

# Service and information content

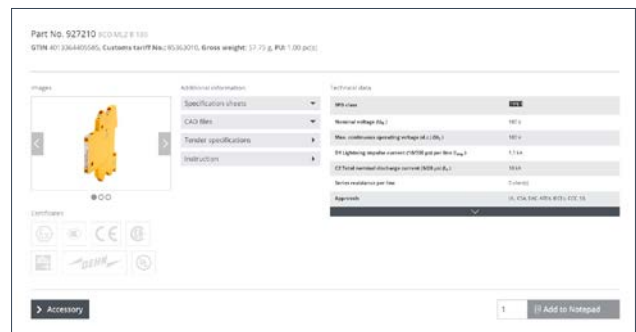
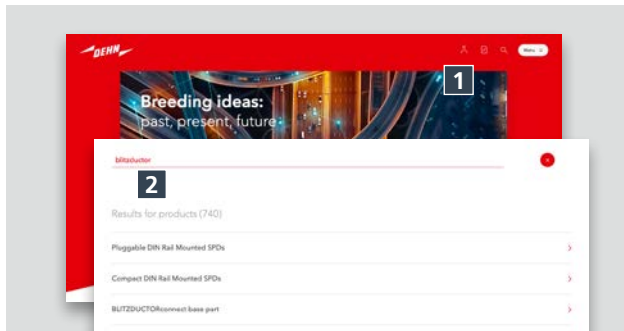
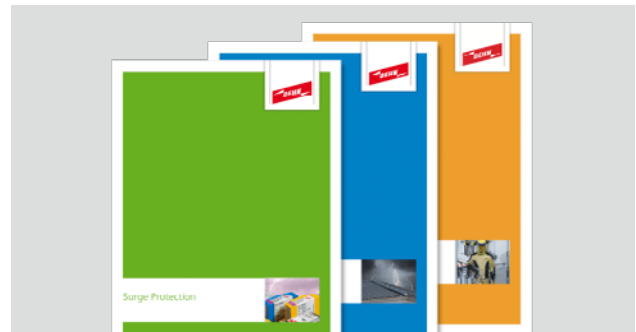


## Catalogues

Use our product catalogues to get an overview of all lightning protection components. Using the integrated selection guide according to interface and signal, you will find the right device with ease.



More information  
[de.hn/a36eL](https://de.hn/a36eL)



Part No. 527210 (ICD ML2 R 100)  
GTM: 401 23485545, Customs tariff No.: 85382010, Gross weight: 37.70 g, PA: 1.00 pcs

Images	Additional information	Technical data
	Specifications sheets CAD files Transfer specifications Instructions	SPD class Nominal voltage (U <sub>n</sub> ) Max. continuous operating voltage (U <sub>c</sub> ) EN Lightning impulse current (I <sub>imp</sub> ) per line (p.c.) EN Total nominal discharge current (I <sub>nt</sub> ) per line Surge resistance per line Response time
		SPD 100 V 110 V 10 kA 10 kA 10 kA 10 ns

## Online catalogue

Data sheets, design bases (tender specifications, product macros), certificates, installation instructions: you will find all the product details on the website. Simply enter the product name or part number in the search field.



More information  
[de.hn/98LN8](https://de.hn/98LN8)

## Answering questions

If you have commercial or specific technical questions, please contact our commercial customer services or our experts for lightning protection, earthing, surge protection, safety equipment and arc fault protection:



### Commercial Customer Service

Phone +49 9181 906-1462

Fax +49 9181 906-1444

[sales@dehn.de](mailto:sales@dehn.de)

### Technical Support

Phone +49 9181 906-1774

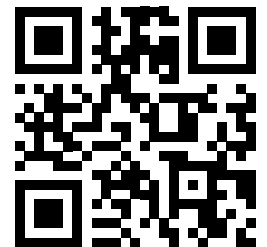
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Surge Protection  
Lightning Protection  
Safety Equipment  
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de.hn/46Jgx

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