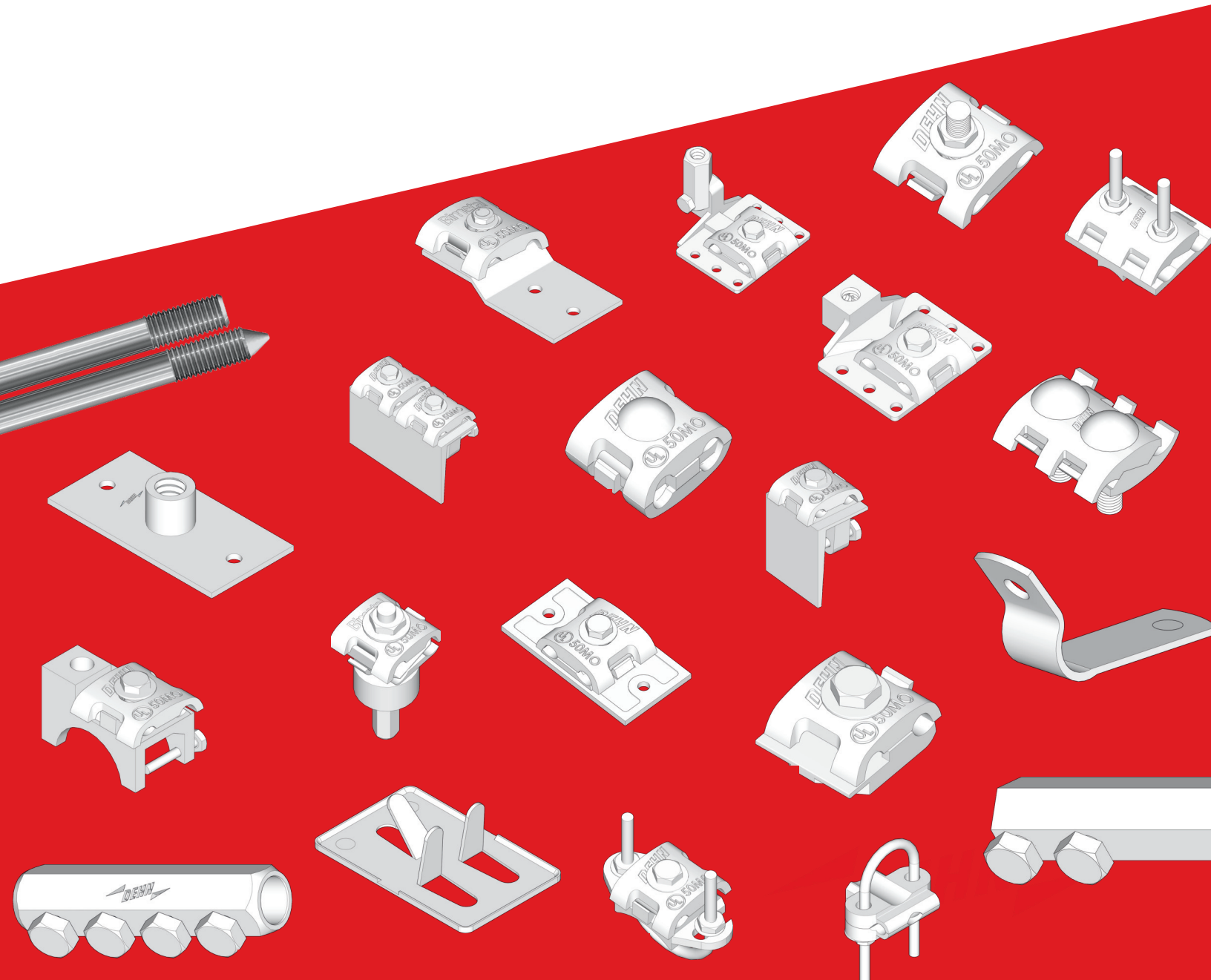




Product Guide

External Lightning Protection



Contents

Lightning protection 101: Is lightning a threat to your business?	03
The risks of inaction: How lightning can damage your business	04
Our solutions	05
ELP highlights	06
ELP highlights	07
ELP product overview	08
ELP product overview	09
ELP product overview	10
Relax – It's a DEHN solution!	11

Facts & figures: Breaking down the risks to your business



Lightning flashes 40 times a second worldwide



Many positive strikes occur 25 miles away from precipitation



Across the globe there are 14.5 million thunderstorms each year



Strikes are 300,000 amperes and one billion volts (homes are 200 amps / 120 volts)



Lightning protection 101: Is lightning a threat to your business?

In summary, the answer is affirmative. Without proper protection, lightning can strike your buildings, causing significant damage to your facilities, their contents, and occupants.

By offering a complete solution for lightning and surge protection, DEHN ensures that customers receive the best possible protection for their assets and operations.

DEHN's External Lightning Protection (ELP) portfolio is suitable for various applications as it is an open and universal solution that can benefit any type of building or structure, regardless of its location, size, or function.

ELP is especially important for higher risk segments, such as chemical plants, mining facilities, distilleries, military bases, data centers, airports, water facilities, or other infrastructure-driven federal or government facilities. These segments are more vulnerable to the devastating consequences of lightning strikes, such as fires, explosions, injuries, fatalities, equipment damage, data loss, or operational disruptions.

Take the first step to proper protection—contact us to schedule your risk assessment. Our lightning protection experts will then manage the process while keeping you informed at every stage.



**Request a Risk
Assessment**

The risks of inaction: How lightning can damage your business

Neglecting the risks associated with lightning strikes and failing to implement appropriate protection measures can have severe consequences for your buildings, including:

Fire hazards

An unprotected building is vulnerable to lightning strikes, which can ignite catastrophic fires. This not only endangers your facilities but also compromises the safety and well-being of occupants and systems within.

Physical damage

Direct lightning strikes can inflict structural damage on your building and the sensitive electronic equipment housed on its roof and exterior. Such damage often necessitates costly repairs or replacements and can reduce the lifespan of your facilities.

Data loss and corruption

Lightning-induced over-voltage can corrupt data, leading to potential data loss. For businesses that depend on accurate and secure data, this can result in significant recovery efforts and costs, as well as the potential loss of critical information.

System failures and downtime

A lightning strike can cause a building-wide power outage, leading to unexpected and costly downtime. On average, businesses lose \$100,000 per hour of downtime, making lightning-related power interruptions extremely expensive.

Lightning poses a genuine threat to your facilities. Mitigate these risks by taking proactive measures to protect against lightning.

Explore DEHN's ELP product line today to get started.



**ELP Online
Catalogue**

Our solution

At DEHN, we recognize that discussions about irreparable damage and risks to your long-term success can be daunting, especially when you are at the starting point and uncertain about the right direction for protection.

That is why we are here. With over a century of experience in the lightning protection industry, we understand what works. We take the time to understand you and your building, allowing us to tailor our proven solutions to your specific needs.

DEHN's External Lightning Protection (ELP) product line offers a comprehensive range of features designed to safeguard buildings from lightning strikes. Key features include:

Air Terminals: These are strategically placed to intercept lightning strikes and safely direct the energy away from the building.

Conductors and Connectors: High-quality conductors and connectors ensure efficient and reliable transmission of lightning energy to the ground.

Ground Rods: These provide a secure path for lightning energy to dissipate into the earth, minimizing the risk of damage.

Surge Protection Devices (SPDs): SPDs protect sensitive electronic equipment from overvoltage caused by lightning strikes, preventing data loss and equipment damage.



These features collectively create a robust external lightning protection system that envelops your facility in reliable safety.

Our solution ensures that your business can move from exposed to protected with minimal effort or hassle on your part. If you are uncertain whether your building is adequately protected or if your current setup meets necessary safety standards, it is time to contact DEHN for a risk assessment.

Product highlights - ELP product line



DEHNatерms - Air terminals & accessories

For protecting roof-mounted structures, parapets, ridges, equipment, etc.

The air terminals with bases are installed on or adjacent to the protected object.



DEHNatерms - Air terminal bases

For securing air terminals on or adjacent to the protected object.

The base interconnects air terminals to the system conductors.



DEHNconduct - Conductors

For interconnecting air terminals, bonds, and grounds in a complete system.

The system conductors are to be secure with clips and fasteners.



DEHNhold - Clips & fasteners

For securing roof, bonding, down, and ground conductors to the protected structure or object.

The clips provide secure points along the conductor between air terminal bases.

Product highlights - ELP product line



DEHNclamp - Connectors & fittings

For interconnecting conductors, pipes, equipment, steel, etc.

The clamps provide points of connection along the system conductors.



DEHNclamp - Thru assemblies & accessories

For interconnecting exposed and concealed conductors.

The thru-assembly provides a transition point, typically between roof and down conductors.



DEHNbridge - Grounding & bonding conductors

For interconnecting equipotential bonds, and ground electrodes in a complete system.

The system bond conductors are to be secured with clips and fasteners when installed above grade.



DEHNrod - Ground electrodes & accessories

For terminating down and ground conductors with ground rods in a complete system.

The below grade connections typically occur at single or multi-point ground system locations.

DEHNaterms - Air terminals & accessories

1 - Aluminum Air Terminals				
Part No.	Diameter	Length	Class	Box Quantity
218431	1/2"	12"	I	10
218454	5/8"	12"	II	10

DEHNaterms - Air terminal bases

3 - Adhesive Air Terminal Base				
Part No.	Material	Air Terminal Diameter	Class	Box Quantity
218441	Aluminum	1/2"	I	10
218442	Aluminum	5/8"	II	10
218443	Copper	1/2"	II	10

3 - Vent Air Terminal Base				
Part No.	Material	Air Terminal Diameter	Class	Box Quantity
218479	Aluminum	1/2"	I	10

3 - Standing Seam Air Terminal Base				
Part No.	Material	Air Terminal Diameter	Class	Box Quantity
218421	Aluminum	1/2"	I	10

3 - Swivel Air Terminal Base				
Part No.	Material	Air Terminal Diameter	Class	Box Quantity
218470	Aluminum	1/2"	I	10

3 - Dual Terminal Base				
Part No.	Material	Air Terminal Diameter	Class	Box Quantity
218475	Aluminum	1/2"	I	10
218476	Aluminum	5/8"	II	10

DEHNconduct - Conductors

2 - Aluminum Conductors						
Part No.	No of Strands	Strand Size	Diameter	X-sectional Area	Class	Reel Size
228300	24	14 AWG	7/16"	98,640	I	500
228301	37	12-1/2 AWG	19/32"	211,475	II	500

2 - Copper Conductors						
Part No.	No of Strands	Strand Size	Diameter	X-sectional Area	Class	Reel Size
228310	29	17 AWG	3/8"	59,450	I	500
228311	28	0.066 AWG	1/2"	121,968	II	250

DEHNhold - Clips & fasteners

4 - Fastener, Cable Holders		
Part No.	Material	Box Quantity
218155	Aluminum	100

4 - Fastener, Cable Clips		
Part No.	Material	Box Quantity
218154	Aluminum	100

DEHNclamp - Connectors & fittings

5 - Connectors, 1-Bolt, Parallel			
Part No.	Material	Class	Box Quantity
218270	Aluminum	II	10
218271	Copper	II	10
218310	Bi-metal	II	10

5 - Connectors, 2-Bolt, Parallel			
Part No.	Material	Class	Box Quantity
218272	Aluminum	II	10
218273	Copper	II	10

5 - Connectors, 4-Bolt, Straight			
Part No.	Material	Class	Box Quantity
218282	Aluminum	II	10
218283	Copper	II	10
218312	Bi-metal	II	10

5 - Connectors, Bonding Plate				
Part No.	Material	Surface Contact	Class	Box Quantity
218274	Aluminum	3" square	II	5
218278	Aluminum	8" square	II	5
218279	Copper	8" square	II	5

5 - Connectors, Beam Clamp				
Part No.	Material	Surface Contract	Class	Box Quantity
218290	Aluminum	8" square	II	5
218291	Copper	8" square	II	5
218292	Aluminum	4" square	II	5

5 - Connectors, Malleable Bonding Lug				
Part No.	Material	Surface Contact	Class	Box Quantity
218276	Aluminum	3" square	II	10

DEHNclamp - Connectors & fittings

5 - Connectors, Bimetal Bonding Lug				
Part No.	Material	Surface Contact	Class	Box Quantity
218311	Bi-metal	3" square	II	10

5 - Connectors, Cross-Run			
Part No.	Material	Class	Box Quantity
218634	Aluminum	II	10
218635	Copper	II	10

5 - Connectors, Conductor to Flat Metal			
Part No.	Material	Class	Box Quantity
218221	Aluminum	II	10

6 - Pipe Clamps				
Part No.	Material	Range	Class	Box Quantity
218170	Aluminum	1" to 1-1/4"	II	5
218171	Copper	1" to 1-1/4"	II	5
218172	Aluminum	1-1/2" to 2"	II	5
218173	Aluminum	2-1/4" to 3"	II	5
218174	Aluminum	3-1/4" to 4"	II	5

DEHNclamp - Thru assemblies & accessories

9 - Thru-wall / roof			
Part No.	Material	Fits Conduit Size	Box Quantity
218460	Bi-metal	1" PVC	5

DEHNerod - Ground electrodes & accessories

7 - Ground Rod Clamps			
Part No.	Material	Range	Box Quantity
238160	Copper	1/2" to 3/4"	5

8 - Ground Rods				
Part No.	Material	Size	Type	Standard Bundle
238051	Copper-clad	5/8" x 10'	Plain	5
238063	Copper-clad	3/4" x 10'	Plain	5





Trust in DEHN solutions

DEHN's process for protecting your building is straightforward and minimizes effort on your part.

Our approach is designed to make it as seamless as possible for you to achieve comprehensive protection, offering a complete package that includes product provision, concept design, system maintenance, and additional protection measures such as surge protection and grounding.

You do not need to become an expert in lightning protection - that is our expertise. By partnering with us, you can focus on utilizing your building with the confidence that it is safe and secure.

Here's how it works:

-  **Risk assessment:** Our team of experts will conduct a thorough risk assessment of your facility, identifying vulnerabilities and determining the most suitable ELP products to protect against lightning.
-  **Development:** Based on the risk assessment, we develop a customized solution tailored to your specific needs. This includes designing an ELP concept that fits your building and creates a protective umbrella around it.

By following these steps, a partnership with DEHN ensures that your business is protected. Our goal is to provide peace of mind, knowing that your facility is safeguarded by the best protection solutions available. DEHN protects.

Surge Protection
Lightning Protection
Safety Equipment
DEHN protects.

DEHN, Inc.
500 S Main Street,
Suite 115
Mooresville, NC 28115
US

877-927-6510
contact@dehn.us
www.dehn.us

