



DEHN + SÖHNE

# Your safety comes first.



**Lightning  
Protection**



**Surge  
Protection**



**Safety  
Equipment**

# DEHN - A Strong Partner for Your Safety.

## DEHN History.

At first, there was an idea ...

In the early 1920s, diverting lightning to the ground without risk to protect people and buildings, was the great challenge for Hans Dehn, who founded his own electrical installation company in Nuremberg on 21st January 1910. He started the production of lightning protection and earthing components. After a positive development, Hans Dehn appointed his sons as partners in his company. From then, the company got its name: DEHN + SÖHNE.

In the late 1940s, they took a consequent course forward and decided to expand the subsidiary in Neumarkt to a production plant for lightning protection components. The electrotechnical production plant in Neumarkt comprises research, development, production and sale of components for lightning protection, surge protection and safety equipment. It has become a worldwide known company with several subsidiaries in foreign countries.



Foto: Albin Niederstrasser

## DEHN Philosophy.

Yes, lightning is fascinating – from a safe distance. However, if one sees lightning close one can imagine its destructive potential, the force which can split a tree, destroy buildings – and kill people. Suddenly one feels like having no chance against such a natural force.

We cannot prevent any thunderstorms or lightning, but our aim is "to protect people and their possessions against damages caused by lightning electricity and working with electrical currents".





# DEHN - Our Quality Products Offer Safety.

## The DEHN Products.

During our 90-years history we have developed three different product ranges in order to fulfill our company's aim:

- Lightning protection
- Surge protection
- Safety equipment

More than 600 employees want to determine the "State of Art". They carry out researches and develop in own laboratories. They produce components and devices of superior quality, often with specially developed machines at computer controlled production lines and modern workstations. Thus, DEHN + SÖHNE has become a well-known name worldwide as well in the branch of electronics.

With the first surge arrester generation of 1957 and during the following decades we have managed to develop protective products and systems, which also come up to the highest protection requirements of Electrotechnology and Electronics becoming more and more sensitive.

Today, around 3,500 products are developed and produced in Neumarkt for your safety – and many of them have a decisive influence on the status of the international standards and therefore underlined the worldwide lead position of DEHN + SÖHNE.

## The DEHN Quality Management.

To always guard you and your properties against the hazardous effects of electricity, our products must come up to the requirements made on them – today and in the future. Safety has always been a commitment for us. And safety requires quality.

Therefore, we have always set own quality requirements in continuously developed company standards and technical regulations in order to satisfy the increasing requirements of our customers today and also in the future.

Therefore, the certification of our company and its "Quality Management System" in accordance with DIN ISO 9001 in 1993 was only a documentation and confirmation of our previous work.



## DEHN's exposure on the market.

Those serving the need of electrical safety hold great responsibility.

For DEHN, this means producing innovative top-quality products.

Standardization in accordance with DIN ISO 9001 is only one side to the coin. The other side is competent professional information based on a continuous exposure on the market.

16 sales offices and 6 external stocks in Germany, representatives in more than 50 foreign countries as well as substantial collaboration in national and international standardization committees, permanent representation at national and international fairs, numerous lectures and seminars on lightning and surge protection, comprehensive hard-copy and electronic information and specification material, continuous informative press releases, articles in trade journals and national and international publications of books and, last but not least, intensive and personal technical counselling by our sales engineers, ensure DEHN's leading position on the market.

## ... Mit Sicherheit DEHN.

It does not matter whether you rely on the protective function of our products, you are our customer, you provide prefabricated products for us or you work for us – you can always be sure to have a reliable partner. You have our word on it!

.... Mit Sicherheit DEHN.



# DEHN – No worry about lightning hazards.

Yes, lightning is fascinating – from a safe distance. However, if one sees lightning close – when only seconds remain between lightning and thunder and the panes are shivering – one can imagine its destructive potential, which is concentrated on some milliseconds. We can really feel that we have no chance against this natural force.

## Protection and Safety for Everybody.

In Germany, there are four lightning strikes per square kilometre and year on the average. This causes a damage of many billions of Euros. However, at best, insurance companies cover only the direct

portion. The high consequential costs, the anger and the problems are left up to oneself. Ignorance, carelessness, unawareness and negligence in taking precautionary measures are hair-raising! Lightning does not care for



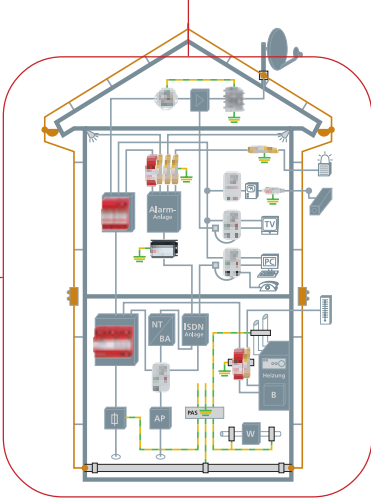
# Lightning Protection



## External and Internal Lightning Protection.

DEHN lightning protection is a complete system, where different devices are used in specific areas of the building. Thus, they form a complete and unbeatable lightning protection system. The external lightning protection comprises an air termination, down conductors and an earth termination system made of corrosion-resistant material – this means an economical fabrication and stable value.

It is combined smoothly with the internal lightning/surge protection: The well-known Faraday Cage only is nowadays no longer sufficient for the protection of sensitive electronic equipment, even in private households. Here, protective devices are available which are adjusted to the sensitivity of electrical systems with electronic equipment. These fulfil the requirements of electromagnetic compatibility (EMC).



compliance with building regulations and positive thinking. Lightning strikes where it wants to and has to!

In 1752, Benjamin Franklin proved, that lightning is an electrical discharge. DEHN has always proved that lightning protection is a way to direct lightning and thus prevent damage safely. Normally, the owner of the building is responsible for this protective measure. Often, however, he does not realize this until people and property have had to suffer due to lack of lightning protection.



## Competent Help.

DEHN can offer the planning software "DEHNguide" to make projecting and production planning easier for customers and interested people, including designers and contractors.

## Quality Management in Practice.

DEHN has approx. 800 lightning protection components available for being able to solve every conceivable task. Different raw materials are treated in a competent way and all technical and visual requirements are fulfilled. The Quality-Management System ensures the observance of standards far above the norms.

The satisfaction of the customers is the high strategy of the company. It is achieved by top quality products which are easily applicable, by the development of better and better protection systems, effective counselling regarding the combination of components, optimized installation instructions, continuously improved planning documentation and consequent customer training.



# DEHN – No more damage due to overvoltages.

Every chain is only as strong as its weakest link. Hoping that the neighbour's house is struck by lightning instead of the own house is no help, as even from a distance of 1.5 km severe damage has been found at high-quality electronic equipment. Therefore, a lightning protection system must not be installed partly, but completely.

## Fight against surges, the killer of electronic equipment.

Calculable safety for expensive investments? Yes, if the internal lightning and surge protection can be combined smoothly with the appropriately installed external lightning protection system. Only this can prevent damage at atmospheric discharges, switching operations and electrostatic discharges.

Since the standardization in the early 1980s, many things have changed. The electronic devices are constantly becoming "smaller and more powerful", whereas the installations to be protected are continuously becoming larger. Systems are more networked and more capital intensive than ever. It would have disastrous consequences for the companies, if surges caused a collapse: No current – no data – no communication.

New standards are in line with the development of the EMC-orientated Lightning Protection Zones Concept. They subdivide a building with comprehensive electronic devices into lightning protection zones and take also the EMC-aspects into account. There is detailed information material available for specifiers, contractors and operators.



**Red/Line**



# Surge Protection

## Energy coordination – A protection system.

The highest load is a direct lightning strike. For keeping lightning and partial lightning currents from penetrating the installation to be protected under these extreme circumstances, lightning current and surge arresters must be installed, which are harmonized with each other in their

capacities. The DEHN-specific "energy coordination of arresters", which is often beyond the non-sufficient thinking of the voltage protection level, precisely leads to the Red/Line Product Group for the energy aspect and to the Yellow/Line Product Group for the IT-aspect.

## Advance due to leadership in technology.

Innovation has its price, as prices are always a reflection of quality and features. For DEHN's customers this means always receiving the technically best application. The products are continuously improved. Here, experience of users and permanent research and development form an always improving control circuit of progress.



Already 40 years ago, this high requirement applied to the first surge arrester of the company. It has approved itself for the customers' purposes. In this sensitive field, the experience of decades, high commitment, determined research and very modern production technology are guarantors for top quality: For the highest safety which can be purchased for the protection of valuable electronic equipment and complex installations.

**Yellow/Line**

# DEHN – No fear of working with electrical equipment.

**One wrong grip can be fatal. Was the "wrong grip" a coincidence, mistake, clumsiness or complete carelessness? Is the expert or his assistant working in a concentrated way or do they tend to be careless? Electricity makes no difference, it just takes its effects: positively in our every-day lives, fatally on the unprotected people.**

## Trust? Yes, 100 per cent!

Everybody must assume responsibility: for oneself, for colleagues, for professionally instructed people. Nobody is perfect. Unfortunately, electricity punishes mistakes quickly and severely. Accident statistics show that valid protection measures are effective. However, it also proves that more than 50% of the accidents of electricians have been caused by "non-observance of safety rules and general wrong working performance." (base: 1984-1994).

## Isolation or Live working.

For the work with low-, medium-, or high voltage systems, the electricians in Germany prefer isolating the respective system as a protective measure. On the other hand, live working (LV) has established itself as a measure with economic advantages and high security of supply for star networks.

For both working methods safety is most important – and DEHN realises this by providing safety equipment. So you do not need to worry. The safety expert can rely on having done the best possible for the safety of the workers who have been trusted to him.

## Safe with every working method.

Actually, safety is automatically provided at repair or maintenance work, if the "5 Safety Rules" are kept and the numerous additional requirements and instructions for live working are observed.



## Safety Equipment



### But who guarantees this permanently?

DEHN offers approved safety equipment for every working method both for observing the 5 safety rules and live working. Nevertheless, there are especially other quality aspects featuring the advance of DEHN: There are no compromises as the most important thing is the physical soundness of the people involved. Our innovations, like our pioneering invention of the fixed ball point in the early 1950s at the very beginning, were and have often been the basis of national and international standards.



Furthermore, DEHN provides many important contributions to safety like the silicon-elastomer coating of the voltage detectors. They make a pretreatment in wet weather unnecessary – consequently, nothing can be forgotten, which is not necessary anyway. For the same reason, the cable entries and junctions of safety equipment have water-proof plastic coatings.





DEHN + SÖHNE

## More Information Material

I would like to have more information material about the following topics:

- Lightning Protection
- Surge Protection
- Safety Equipment

Name .....

Company .....

Address .....

Country .....

Phone/Fax No. ....

eMail .....

Post or fax us the above coupon.  
The information material will be directly sent to you.

**Lightning Protection**  
**Surge Protection**  
**Safety Equipment**

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