



**BET  
TESTED**

## Product safety and quality

Edition 2 of the testing standards IEC/EN 62561 (VDE 0185-561)  
for lightning protection system components

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# International overall provider for lightning and surge protection systems



These safety-relevant systems must be carefully selected for the application at hand and used in a coordinated way. Lightning protection is primarily preventive fire protection. In 2017/2018, a revised version of the IEC/EN 62561 series Parts 1 to 7 will be released, if the national committees provide positive approval. Part 1 for all connection components has been valid since March 2017 and will soon be published as IEC/ EN 62561-1 Ed.2.0 (VDE 0185-561-1 Ed.2.0).

## Standard change 2017/2018 also for lightning protection components

A lightning and surge protection system consists of several systems, each tailored to each of the others. At its most basic, a lightning and surge protection system consists of one internal and one external lightning protection system.

### Product standards

To ensure that the components can withstand the loads to which they are likely to be exposed in application, they must be checked against the respective product standard for external and internal lightning protection. This affects terminals, connectors and round/strip steels, e.g. for foundation earthing according to DIN 18014.

## Lightning and surge protection systems

To be able to retrofit a lightning protection system at the lowest cost, only connectors and materials certified according to the product standard should be used during the raw construction phase.

### Hierarchy of standards: International/European/national

When the European standardisation committee (CEN) and the European committee for electrotechnical standardisation (CENELEC) adopt an international standard (IEC) as a European standard (EN), all member states must adopt this as a national standard without any changes (e.g. a VDE standard in Germany).



## International lightning protection component standards, Edition 2

As a complete provider and expert in the field of lightning protection with almost 100 years of experience, OBO actively structures the standards, in order to implement its own high quality requirements. The testing standards listed below are to be complied with for lightning protection system components according to IEC 62305-3 / DIN EN 62305-3 (VDE 0185-305-3):

- |          |   |   |
|----------|---|---|
| <b>1</b> | IEC 62561-1 (VDE 0185-561-1)<br>IEC 62561-1 Ed.2.0 (VDE 0185-561-1) | Lightning protection system components – Requirements for connection components                     |
| <b>2</b> | IEC 62561-2 (VDE 0185-561-2)  | Lightning protection system components – Requirements for conductors and earthers                   |
| <b>3</b> | IEC 62561-3 (VDE 0185-561-3)  | Lightning protection system components – Requirements for spark gaps                                |
| <b>4</b> | IEC 62561-3 (VDE 0185-561-4)  | Lightning protection system components – Requirements for holders                                   |
| <b>5</b> | IEC 62561-5 (VDE 0185-561-5)  | Lightning protection system components – Requirements for inspection boxes and earther penetrations |
| <b>6</b> | IEC 62561-6 (VDE 0185-561-6)  | Lightning protection system components – Requirements for lightning strike counters                 |
| <b>7</b> | IEC 62561-7 (VDE 0185-561-7)  | Lightning protection system components – Requirements for earthing enhancing compounds              |



Global	IEC International Standard	IEC 62305-1... -4	2011-01
Europe	CENELEC European Standard	EN 62305-1... -4	2011-02 2012-03 (Part 2)
Germany	VDE German National Standard	VDE 0185-305-1... -4	2011-10 2013-02 (Part 2)



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Load test according to IEC 62561-5 / VDE 0185-561-5

# Standard-compliant testing

Top of the agenda at the BET Test Centre is the expert testing of OBO's surge voltage and lightning protection.

This includes testing newly developed products, modifying existing products and comparing lightning protection components, surge protection equipment and lightning current arrestors.

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When planning and executing a lightning protection system, it is necessary to observe all relevant national standards, appendices and the safety stipulations in the relevant country-specific supplements. Non-application of the necessary care in the selection of the products used according to the current state of the art must be avoided.

OBO, as a leading manufacturer and complete provider in the field of lightning and surge protection, supports planners, installation engineers and surveyors.



Test reports, certificates, declarations of conformity and mounting instructions are available for downloading directly by the appropriate product at [www.obo.de](http://www.obo.de).



### Connector, Rd 8-10 mm with pressure trough

- Note: This is not a mounting system and cannot be used as such.
- Requires pre-drilled or drilled holes, 400.
- Conforms to the requirements according to DIN EN 61024-1:2014 (IEC 61024-1).



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Typ: ...  
SSS: ...



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# Certification

In development, manufacture and marketing, the products of OBO Bettermann are subject to high, standardised quality standards and international standards. For decades now, OBO Bettermann has operated ISO 9001-certified quality management, which also fulfils the high requirements of the ATEX 2014/34/EU directive for EX products. In addition, OBO has run certified energy management according to ISO 50001 and is a long-standing member of Industrieverband Feuerverzinken e.V.

The BET Test Centre is a testing laboratory, recognised and certified by VDE, for the execution of countless international standards for lighting protection systems.



# Lightning protection guide. Safely routed.

## Reference work and planning aid for electrical installation engineers and technical planners

At OBO Bettermann, we can look back on more than 90 years of experience in the field of lightning and surge protection. This experience and, of course, the latest standards and technical innovations have flowed into the company's new lightning protection guide. The brochure allows you to plan installations in the field of lightning and surge protection faster and more easily.

It contains a balanced mixture of both basic and expert knowledge, as well as planning and selection aids for the protection of buildings and systems.

The new lightning protection guide can be requested and is also available for download under [www.obo-bettermann.com](http://www.obo-bettermann.com).

## Topics

- Basic principles
- The external lightning protection system
- Air-termination and down-conductor systems
- Examples and selection aids for wind load calculation conform with Eurocode 1+3
- Earthing systems with foundation earther to current DIN 18014
- The internal lightning protection system
- Equipotential bonding systems
- Overvoltage protection systems
- Current standards
- New selection and planning aids
- Examples



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**Building Connections**

