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**Sistemi zaščite pred delovanjem strele – Simboli**

Lightning protection systems - Symbols

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English version

## **Lightning protection systems – Symbols**

Systèmes de protection contre la foudre –  
Symboles

Blitzschutzsysteme –  
Bildzeichen

### **iTeh STANDARD PREVIEW**

This Technical Report was approved by CENELEC on 2005-10-01.

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## **CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

This Technical Report was prepared by the Technical Committee CENELEC TC 81X, Lightning protection.

The text of the draft was submitted to the vote and was approved by CENELEC as CLC/TR 50469 on 2005-10-01.

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## Introduction

This Technical Report specifies symbols for use in drawings for lightning protection systems

If necessary, additional symbols may be used for other important elements of the object to be protected. These symbols should be simple and they have to be explained in a legend in the LPS design drawings.

In case of an isolated protection system (see IEC 62305-1 and IEC 62305-3) this has to be stated in the LPS design drawings including required separation distances.

In case of preparing a coloured kind of drawing, the colours should be used as follows:

- building                    black,
- lightning protection    red,
- metal sheets            green,
- metal structure        blue.

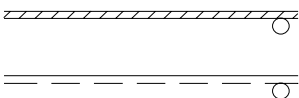
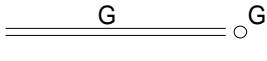
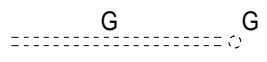
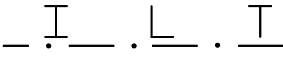
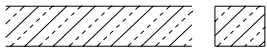
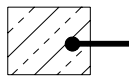
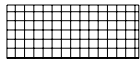



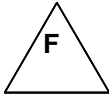


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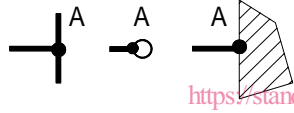

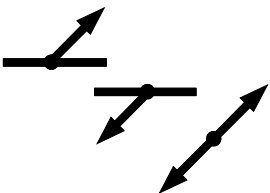


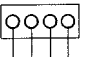

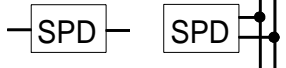
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## 1 Structure components

No.	Symbol	Description	Remarks
	1	2	3
1.1		Contour of structure	
1.2		Roof heights	The number with sign states the height in metres above ground level.
1.3		Roof covering, non metallic	In the area displayed the type of roof covering should be specified (e.g. tile, shingle, double roof covering, galvanized steel).
1.4		Roof covering, metallic	The thickness of metal covering has to be stated if it is too small to be used for air termination.
1.5		Chimney, non metallic	The shape of the symbols (e.g. round, square) can be selected according to the actual construction.
1.6		Chimney, metallic	
1.7		Pipe, pole, ventilation duct, metallic	The number besides the symbol states the height above the roof in metres (e.g. 1,5 m).
1.8		Pipe, pole, ventilation duct, non metallic	
1.9		Roof stand for electric power supply	
1.10		Antenna	
1.11		Plate shaped outside, metallic	
1.12		Plate shaped inside, metallic	The number inside the triangle states the shortest distance to the roof surface in meter (e.g. 5 m).

No.	Symbol	Description	Remarks
	1	2	3
1.13		Gutter, drain pipe, covering roof parapet, edge a.s.o., metallic	One line of this symbol is possibly congruence with a line of the shown building contour.
1.14		Pipe work, metallic	The letter points either to the function or to the medium flowing through e.g. G gas, W water, H heating.
1.15			
1.16		Steel construction elements	
1.17		Reinforced concrete structures	
1.18		Reinforced concrete structures with bonding connection	
1.19		Prefabricated concrete parts	
1.20		Lift, elevator	
1.21		Insulating part	
1.22		Meter	The letter in the symbol specifies the function e.g. G gas, W water, E electrical energy
1.23		Flammable zone	Statement for building areas defining the zones.
1.24		Explosive zone	
1.25		Radioactive zone	

## 2 Parts of the lightning protection system

No.	Symbol	Description	Remarks
	1	2	3
2.1		Air termination rod or stud	Optional character indicates size and material.
2.2		Horizontal conductor (exposed)	Line thickness about 2 to 3 times the line thickness of the building. Optional character indicates size and material.
2.3		Horizontal earth conductor	
2.4		Horizontal conductor (hidden without earth contact)	
2.5		Foundation earth electrode	
2.6		Earth electrode (general)	Optional character indicates size, type and material of electrode.
2.7		Earth electrode with accessible connection	Optional character indicates size and type of electrode and enclosure.
2.8		Vertical earth electrode	Optional character indicates size and material of electrode.
2.9		Conductor connection or termination	Optional character indicates type of connection or termination e.g. clamped, bolted, welded, etc.
2.10		Test joint	
2.11		Conductor leading upwards Conductor leading downwards Conductor leading up- and downwards	
2.12		Bonding conductor	Conductor type to be specified.
2.13		Flexible bonding conductor	
2.14		Earth bar or equipotential bonding bar	
2.15		Isolating spark gap	For special spark gap additional marking necessary, for example with symbol "Ex".
2.16		Surge protection device	Optional character could indicate size and type of the protection device.