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**Pliers and nippers for electronics –  
General technical requirements (ISO 9657:2004)  
English version of DIN ISO 9657:2006-09**

Elektronikzangen –  
Allgemeine technische Anforderungen (ISO 9657:2004)  
Englische Fassung DIN ISO 9657:2006-09

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## National foreword

This standard has been prepared by Technical Committee ISO/TC 29 "Small tools", Subcommittee SC 10 "Assembly tools for screws and nuts, pliers and nippers".

The responsible German body involved in its preparation was the *Normenausschuss Werkzeuge und Spannzeuge* (Tools and Clamping Devices Standards Committee), Technical Committee NA 121-09-01 AA *Zangen*.

The DIN Standard corresponding to the International Standard referred to in clause 2 of the ISO Standard is as follows:

ISO 8979    DIN ISO 8979

### Amendments

This standard differs from DIN ISO 9657:1994-09 as follows:

- a) The content of the standard has been updated.
- b) A new clause 6 "Marking" has been included.
- c) The standard has been editorially revised.

### Previous editions

DIN ISO 9657: 1994-09

**National Annex NA**  
(informative)

**Bibliography**

DIN ISO 8979, *Pliers and nippers for electronics — Nomenclature*

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# Pliers and nippers for electronics — General technical requirements

## 1 Scope

This International Standard specifies the general technical requirements to be met by pliers and nippers for use in electronics. These pliers and nippers are intended for use on electronic components, printed circuit boards, etc.

NOTE Certain terms used in this International Standard are defined in ISO 8979.

This International Standard does not apply to tools intended for working on live electrical circuits and for antistatic applications.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 8979, *Pliers and nippers for electronics — Nomenclature*

## 3 Handles

The hardness of the handles shall be 40 HRC. The handles shall be shaped and equipped with sleeves to afford a comfortable grip. The width of the handles shall include the thickness of the comfort grip.

## 4 Heads

### 4.1 General

Unless otherwise specified, the minimum hardness of the head shall be 40 HRC.

### 4.2 Joint

The joint shall be constructed to allow free movement from the closed to the open position within the normal working range and shall be free from excessive side movement which could impair the function of the tool.

### 4.3 Jaws

Unless otherwise specified in the dimensional standards, the jaws of all pliers shall meet at the point. Cutting nippers shall have a minimum cutting edge hardness of 55 HRC.

Gripping pliers shall have a minimum hardness of 40 HRC on the gripping surfaces.

No hardness values are specified for the jaws of round nose pliers.

## 5 Designation

### 5.1 Cutting nippers

The principal information required for the designation of cutting nippers shall be given in the following order and in accordance with ISO 8979:

- a) designation and number of nomenclature;
- b) number of ISO standard concerned;
- c) dimensions;
- d) direction and position of cutting edges;
- e) type and shape of cutting edges;
- f) type of joint;
- g) field of application; e.g. size and type of wire, off-cut retention (only if required for better understanding).

### 5.2 Single-purpose and multi-purpose pliers

The principal information required for the designation of single-purpose and multi-purpose pliers shall be given in the following order and in accordance with ISO 8979:

- a) designation and number of nomenclature;
- b) number of ISO Standard concerned;
- c) dimensions;
- d) shape of the nose (end view at the point);
- e) shape of the nose (in the longitudinal direction);
- f) type of joint;
- g) whether the jaws are serrated;
- h) whether the jaws have grooves.

For multi-purpose pliers with cutters, the following information shall also be given:

- i) direction and position of cutting edges;
- j) type and shape of cutting edges;
- k) field of application; e.g. size and type of wire, off-cut retention (only if required for better understanding).

## 6 Marking

Pliers shall be marked with at least the name or trademark of the manufacturer (or responsible supplier).

## Bibliography

- [1] ISO 6508-1, *Metallic materials — Rockwell hardness test — Part 1: Test method (scales A, B, C, D, E, F, G, H, K, N, T)*
- [2] ISO 9656, *Pliers and nippers for electronics — Test methods*