

**Technical Guidance Note TGN 23 on Use of artificial hand in the standard EN61000-4-6****ECANB Technical Guidance Note TGN 23 on the Use of the artificial hand in the standard EN61000-4-6.****1. Introduction**

This TGN is applicable to products touched during the use, such as: keyboard, handle...

Standard EN61000-4-6 (2007) in 4<sup>th</sup> paragraph of §7.6 requires the use of artificial hand placed on the keyboard or wrapped on the accessory and connected to the reference plane.

Questions are:

How long should the cable used be?

What should be done with a product required to be operated by two hands?

What should be done with products which needs an occasional use of a hand?

**2. Guidelines:**

Length of cable : It is normally practice to use a cable < 0.3 meters between the hand and the network connected to the ground plane (like others cables of the E.U.T)

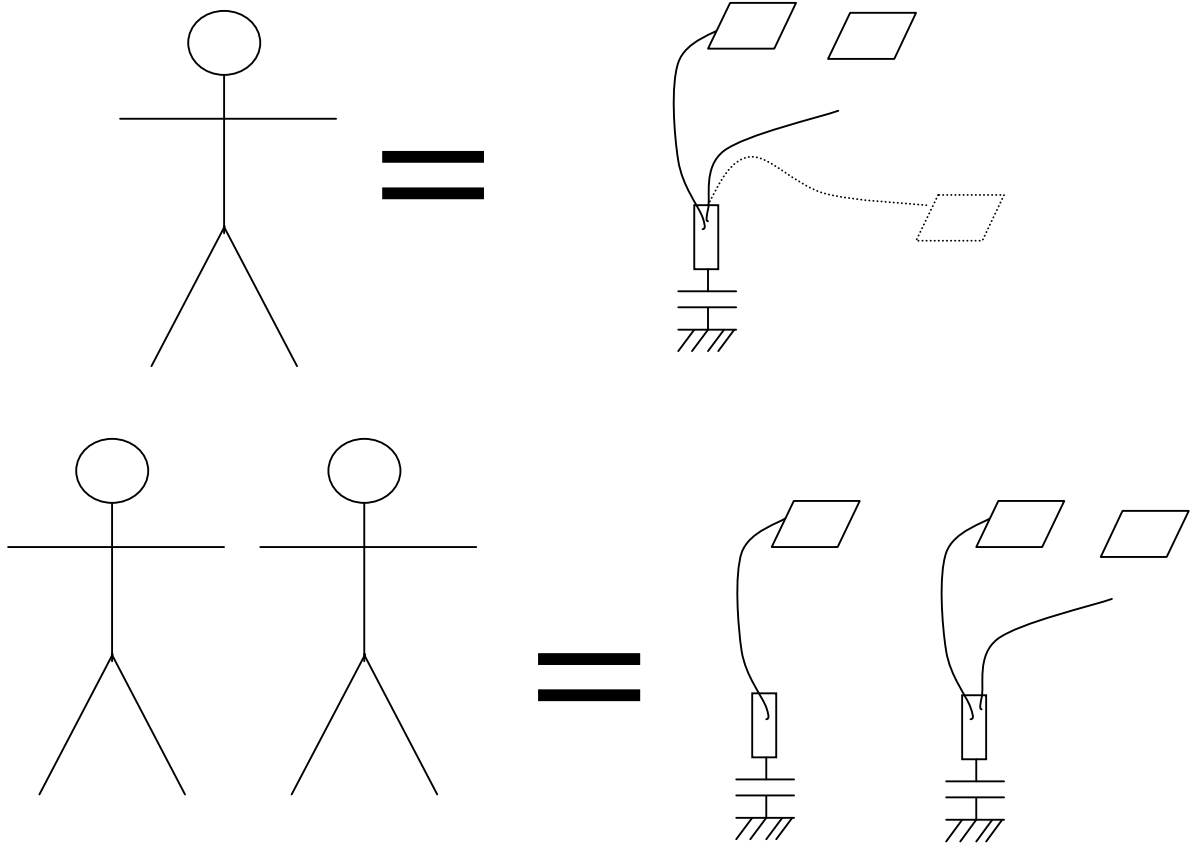
Applicability of the artificial hand :

For equipment which needs an occasional use of the artificial hand, this one is applied automatically.

For equipment with several parts to take by hand, it requires to use artificial hands connected to the same RC network (500  $\Omega$  & 200 pF) for each part. For a computer, an artificial hand should be on the keyboard, another on the mouse, another on the joystick...

In case of several simultaneous users for a same product, an RC network is applied per person.

*Explanation schematics*



**Conclusion :**

*The artificial hand must be applied on keyboards, microphones, equipment handles, etc with a cable of maximum 0.3 meters applying a RC network per operator/person.*

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*Note: This TGN is based on TECHNICAL DECISION n°13 : Edition 1 08/12/03 of the Working Group of French Notified Bodies for EMD Directive 2004/108/EC.*

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