

The **Cometpi** products listed in this catalogue are developed and manufactured according to the rules set out in IEC international publications and EN European standard.

Specifications

- **International Specifications**

The International Electrotechnical Commission, IEC, which is part of the International Standards Organization, ISO, publishes IEC publications which act as a basis for the world market.

- **European Specifications**

The European Committee for Electrotechnical Standardisation (CENELEC) publishes EN standards for low voltage industrial apparatus.

These European standards differ very little from IEC international standards and use a similar numbering system. The same is true of national standards. Contradicting national standards are withdrawn.

- **Harmonised European Specifications**

The European Committees for Standardisation (CEN and CENELEC) publish EN standards relating to safety of machinery.

- **Specifications in Canada and the USA**

These are equivalent, but differ markedly from IEC, UTE, VDE and BS specifications.

UL Underwriters Laboratories (USA)

CSA Canadian Standards Association (Canada)

Remark concerning the label issued by the UL (USA). Two levels of acceptance between devices must be distinguished.

“Recognized” Authorised to be included in equipment, if the equipment in question has been entirely mounted and wired by qualified personnel. They are not valid for use as “General purpose products” as their possibilities are limited.

They bear the mark: 

“Listed” Authorised to be included in equipment and for separate sale are “General purpose products” components in the USA.

They bear the mark: 

European Directives

The guarantee of free movement of goods within the European Community assumes elimination of any regulatory differences between the member states. European Directives set up common rules that are included in the legislation of each state while contradictory regulations are cancelled.

There are three main directives:

- **Low Voltage Directive 2014/35/UE** concerning electrical equipment from 50 to 1000 V a.c. and from 75 to 1500 V d.c.

This specifies that compliance with the requirements that it sets out **is acquired** once the equipment conforms to the standards harmonised at European level: EN 60947-1 and EN-60947-5-1 for **limit switches**.

- **Machines Directives - 2006/42/CE** defining main safety and health requirements concerning design and manufacture of the machines and other equipment including safety components in European Union countries.

- **Electromagnetic Compatibility Directive 2014/30/UE** concerning all electrical devices likely to create electromagnetic disturbances.

Signification of CE marking:

CE marking must not be confused with a quality label.

CE marking placed on a product is proof of conformity with the European Directives concerning the product.

CE marking is part of an administrative procedure and guarantees free movement of the product within the European Community.

Standards

- **International Standards**

IEC 60947-1 Low-voltage switchgear and controlgear - Part 1: General Rules (CEI EN 60947-1).

IEC 60947-5-1 Low-voltage switchgear and controlgear - Part 5: Control circuit devices and switching elements - Section 1: Electromechanical control circuit devices (CEI EN 60947-5-1) - Chapter 3: Special requirements for control switches with positive opening operation.

IEC 60204-1 Electrical equipment on industrial machines - Part 1: General requirements (CEI EN 60204-1).

IEC 60204-2 Electrical equipment on industrial machines - Part 2: Item designation and examples of drawings, diagrams, tables and instructions.

IEC 60529 Degrees of protection provided by enclosure (IP code) (CEI EN 60529).

- **European Standards**

- EN 50041** Low-voltage switchgear and controlgear for industrial use - Control switches - Position switches 42,5 x 80 - Dimensions and characteristics.
- EN 50047** Low-voltage switchgear and controlgear for industrial use - Control switches - Position switches 30 x 55 - Dimensions and characteristics.
- EN 60947-1** Low-voltage switchgear and controlgear for industrial use - Part 1: General rules.
- EN 60947-5-1** Low-voltage switchgear and controlgear for industrial use - Part 5: Control circuit devices and switching elements - Section 1: Electromechanical control circuit devices - Chapter 3: Special requirements for control switches with positive opening operation.
- EN 60529** Degrees of protection provided by enclosures (IP code).
- EN 61058-1** Switches for appliances. Part. 1: general requirements.
- EN 60947-5-5** Low-voltage switchgear and controlgear - Part 5-5: Control circuit devices and switching elements - Electrical emergency stop device with mechanical latching function.

- **American Standards**

- UL 508** Standard for Industrial Control Equipment.
- CSA - C22.2 No. 14-13** Industrial Control Equipment.