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**Safety of machinery -- Interlocking devices associated with
guards -- Principles for design and selection
(English Translation)**

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Interlocks related to safety of machinery and guards Design and selection principles

1 Scope

This standard specifies the principles for the design and selection of interlocking devices associated with guards, regardless of the type of energy used.

This standard applies to the parts of the protective device that actuate the interlock.

Note: The general requirements for the design and manufacture of protective devices specified in ISO 14120 are mainly used to prevent mechanical hazards. On the interlocking device issued to stop the machine for the processing of signals that remain stationary, see GB/T 16855.1 or IEC 62061.

This standard does not prescribe all specific requirements for trapped key systems.

This standard gives measures to prevent, as far as possible, the obsolescence of interlocks in a reasonably foreseeable manner.

3 Terms and Definitions the terms and definitions defined in GB/T 15706, GB/T 16855.1 and the following apply to this document.

Interlockingdevice

Interlock Interlock

A mechanical, electrical or other type of mechanical, electrical or other type used to prevent dangerous machine functions from operating under specified conditions (usually this means as long as the guard is not closed).

type device.

NOTE: See Figure 1 and Table 1.

4.3.3 Interlock with electromagnetic guard locking the guard is kept closed (locked) by electromagnetic force and not by any mechanical locking means (see F.4).

The electromagnetic guard locking works on the principle of locking by power-on and unlocking by power-off [see Figure 5d)].

5 Design and installation requirements for interlocks with or without guard locking

5.1 General requirements the installation of the interlocking device should make it firm and reliable, and meet the requirements of the instructions provided by the manufacturer (see Chapter 9).

5.2 Arrangement and fastening of position switch the position switch shall be arranged so that it is adequately protected against changes in its position. To achieve this goal, the