

Technical explanations about electric strikers

AGB electrical strikers are going to compose an electrical circuit and can be fed by AC or DC current.

Alternating current (AC)

Alternating current is the one that normally is installed at home (200V AC). Tension (measured in Volt) varies from maximum positive value to maximum negative value, alternatively. In order to feed the electric devices with 12 V AC, we must use a transformer which has to be plugged in a 220V socket. Fed in AC, the electric device gives out a slight buzz (AC has a 50Hz frequency which can be perceived).

Direct current (DC)

The direct current is the one that has a constant tension during time. To feed the electric devices that work with DC current, you will need a power supply. It allows to have an input in alternating current and an output in constant current.

The DC tension is fundamental in order to feed electronic devices such as badge reader for accesses control. Broadly speaking the DC feeds the fireproof plants installed in the hotels and all community buildings. Fed by DC, the device is buzz-free.

Tension

Difference of potential between positive and negative pole (DC). The more the difference of the poles is, the more the tension will be. Tension is measured in Volt (V).

Intensity

It is the quantity of current that flows inside the wire in the time unit: it is measured in (A) Ampére. MilliAmpére (mA) in the 1000th part of A (Ampére).

On equal resistance, more is the tension into an electric device, more will be the quantity of current into that circuit: more tension means more current intensity.

Absorption

Measured in Ampere (A), due to the resistance of the wires and the coil inside the device. Absorption is related to the resistance (which is a fixed coefficient) and depends on the tension of the device.

Intensity and absorption are the same concept but from two different points of view:

- intensity from the feeder point of view
- absorption from the electric device point of view

Contemporaneously doors opening

AAC transformer which feeds a single electric device is dimensioned for a current intensity (mA) equal to absorption (mA) of the electric device. Intensity of transformer = (electric device absorption) x (numbers of devices).

If the electric devices are the same, in order to guarantee the contemporaneous opening of the doors, the current intensity (mA) of the single transformer should have double value of the single electric device absorption.

Resistance

Measured in Ohm (Ω) and means the resistance that currents finds when flows in the wire (or in the coil). Resistance is a parameter of the electric device and is a fixed coefficient.

Low absorption devices

The main reason for ordering low absorption electric devices is the tension drop due to the resistance of the wires between feeder and electric device. Longer is the wire → higher is the resistance → more is the tension drop.

In order to reduce the length of a line it is better to install more supplies. Do not install a single feeder in a corridor of a hotel where many strikers are installed: the electric strikers installed close to the feeder will open easily and, on the other hand, the farthest will open hardly.

Use with extended feeders

Low absorption electric strikers are suggested for the use in sites where the device is continuously feeded all day long.

24V devices

In the community buildings a fireproof plant with continuity groups are compulsory. This is usually made of 24V DC. For a money saving reason, the access control plant is made with this tension and therefore 24V electric devices are required.

Diode

It is a device against the over tensions, to protect the electric system. It works on DC only.

Repeater

The repeater is a device which memorizes the given pulse and keeps the wing of the electric device unblocked until the door is opened and then closed.

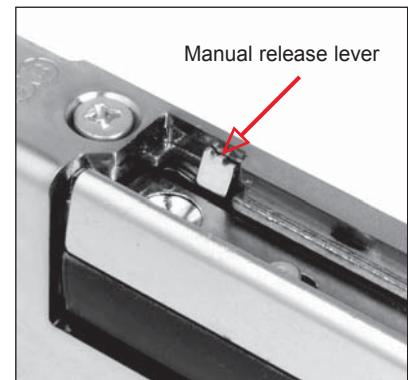
When the electric device does not have a repeater, the striker is set for the opening only while receives the pulse. Broadly speaking, in the hotels, for security reasons, electric strikers without repeater are required.

When using badge readers or similar temporised for more than 3 seconds, we recommend to use electric strikers without repeater. For less than 3 seconds the repeater is recommended



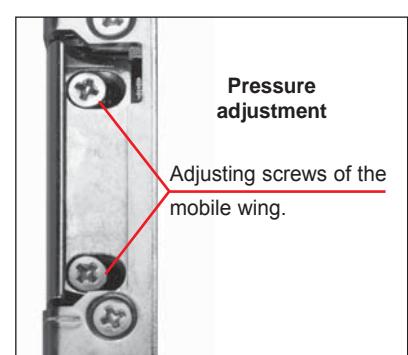
Manual release lever

The manual release lever is a device, usually a lever, which allows to keep the doors constantly unblocked. Therefore the door can always be opened, as for example on shops during the opening hours or in the block of flats during the transfer. When activated, the functioning of the manual release lever is therefore similar as a roller latch.



Pressure adjustment

The adjustment of the mobile wing allows to avoid shakings and guarantees a proper functioning of the striker. The pressure adjustment is indicated on the catalogue pages, according to the electric device model.



Latch preloading

The latch makes a force dependent on different variables on the wing (gaskets, warping of the door). The allowed maximum preloading value (in Newton) is indicated on the data tables.

In REI doors with high noise abatement, the gaskets create a high pressure of the latch on the mobile wing of the electric device and the coil of one device could not have an adequate power to be opened...it is necessary to use devices which have a maximum preloading value of the latch more than 30N.

Radial electric device

When opening the electric device, the centre of rotation avoids the wing to lean out of the striker.

Normal electric device

When opening the electric device, the wing leans out of the striker.

Symmetrical electric device

The mobile wing is in symmetrical position with reference to the vertical centre.

Asymmetrical electric striker

The mobile wing is in an asymmetrical position with reference to the vertical centre.

Anti-panic electric device

This device works without power. In this case the electric device stays closed until it receives the supply: the door opening comes when there is a lack of power.

Signal system

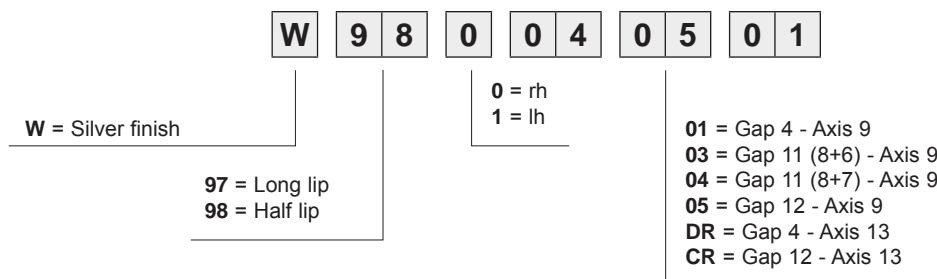
The electric devices with signal system are specifically for access control systems. The contact of the signal system warns the state of the door (closed or opened). For example, if the door is not closed after the transit, the access control panel will make the alarm start. The contact of the signal system is operated by the latch and therefore its correct positioning inside the striker is necessary.

Functioning temperature

The striker works on normal environment temperatures (max range between - 15°C and + 40°C). Particular situations, as for example condensed water or ice on some parts of the striker can compromise the functioning.

Article code structure for Sicurtop Electrical striker

Sicurtop range is composed of many models with repeater, manual release lever, gap 4, 11 and 12 mm.



DIN 107 standard concerning door-hand

A door is defined as "right-handed" or "left-handed" when, from the opening side, the hinges are located on the "right" or "left", respectively. AGB electrical strikers are defined right-hand or left-hand according to this rule:

