

BASIC COMPONENTS OF A GENERAL ACCESS CONTROL SYSTEM

The definition of access control is a way of limiting access to a system or to physical or virtual resources. There are four main elements that make up an access control system, which are credentials, readers, locking devices and controllers/panels.

Credentials



- Credentials are defined as a physical or tangible object, a piece of knowledge or a facet of a person's physical being, that enables an individual access into a physical facility or a PC-based information system.
- Some examples of credentials include card, token, PIN code, fingerprint, face and more.
- Credentials must be presented by the user before they can be granted access to a secured area.

Readers



Biometrics = E.g. using your fingerprint or your face to verify your access.







Card = E.g. waving an RFID card to a reader without having to touch the reader.

- A reader is an electronic component of a physical access control system.
- The device is used to "read" the access credentials in order to verify a user's access to a secured area.
- There are two types of readers for access control systems:

Locking Devices

There are several types of locking devices used in a card-based access control system:

Electromagnetic (EM) Lock	Electric Drop-bolt System	Electric Door Strike System	Rim Lock
 <ul style="list-style-type: none"> • Uses the magnetic force generated from the electromagnet to secure the doors. • Has a built-in safety feature, which will disable the lock during emergencies. 	 <ul style="list-style-type: none"> • Consists of a locking system which can be installed either on the floor or on the top of the door frame. • Designed to retract during a power failure or when the emergency break-glass switch is activated. 	 <ul style="list-style-type: none"> • Replaces the locking plate on the existing door locking system. • Functions as an ordinary door locking plate to secure the door lock when electricity is applied to the door strike system. • Disengages itself to enable the door to be pushed open when there is a power failure or when the emergency break-glass switch is activated. 	 <ul style="list-style-type: none"> • A locking device that attaches to the surface of a door. • Easy to install and provides both primary and backup security on any door without much restrictions. • Can match any door design as it can be installed in any desired height and location.

Controllers/Panels

- Controllers and panels are used to process access control activities for all doors connected to it.
- They are normally installed near each door where access control is to be provided.
- It is there where all connection to the door devices terminates.
- Some of these panels are integrated with readers.

