

CASI-RUSCO

Model 1000 and Model 1010 Technical Description

These devices are access control proximity card readers. They operate on the principle of field disturbance. The two models are identical except the 1010 has a keypad.

The proximity access cards used with this device are passive, have no battery, and do not transmit any signal. Each card has a unique access ID number encoded into it.

The reader will seek an optimum frequency of operation nominally around 125 KHz with a range of 119 KHz to 133 KHz. When a proximity access card is placed in the magnetic field of the reader it generates its own power from the field and then sends back a code to the reader by amplitude varying the load on the card's coil. When the load on the card's coil is varied it reflects to a load variation on the coil of the reader. This variation of load (or field disturbance) is detected and presented to a microcontroller in the reader for decoding. Upon completion of the decoding the reader sends the information out via standard F/2F communications to a controller for an access control system. Operation of the reader can be verified by examining the signal out of the reader and observing a data stream with each beep of the sounder in the reader. The sounder beeps with each transmission.

The unit is powered from 12 volts DC and provides internal regulation for the voltages used by the circuitry.