

Theory of Operation

When an Elpas tag enters the field of the LF Exciter, the tag reads the LF ID and transmits an RF message to an Elpas RF receiver.

The Exciter continually emits the 125KHz signal containing a preamble, its preset ID plus a CRC validation code. The tag listens for the LF signal every 0.5 seconds.

The advantage of the LF exciter is that it can reliably cover an door such that only when a tag approaches the door will it sense the LF field.

The device also transmits RF (433MHz) messages at a rate of 1 every 10 seconds for approximately 2ms. These messages are used for supervision of the device. These messages are used to supervise the exciter.