

**Data sheet**  
**V100-413 Reading unit | LF | Plug-and-socket power supply unit**



**Description**

The reading unit forms an electromagnetic detection field with an LF antenna. The oscillating circuit consisting of the LF antenna and the capacities of the LF module oscillates at 125 kHz. LF stands for low frequency. The reading unit has the function of waking up transponders that move into the detection field formed by the LF module. Transponders that are in the field send their own ID (tag ID) and the ID of the detection field (LF ID) to a receiving unit (HF module). The detection range is adjustable up to 6 m in radius. The reading unit is equipped with an automatic field regulation: The LF module checks for a change in its oscillating circuit at intervals. If this is changed, e.g. by the insertion of a larger metallic object into the field, the field is automatically readjusted. The reading unit is installed in a housing and a plug and socket power supply unit are included in the delivery. Reliable three-dimensional detection of transponders as well as simultaneous detection of several transponders in the detection field. Battery monitoring of the transponders in the detection field is always carried out: the transponder signals when the battery capacity falls below 10%.

## Data table

Dimensions <b>PCB LF</b> (WxHxD)	80 x 100 x 17 mm
Radio frequency	125 kHz detection field, 868 MHz communication frequency
Power supply	12-26 V (DC)
Current consumption at 12V DC	100 mA to 200 mA (depending on the range setting)
Current consumption at 24V DC	50 mA to 100 mA (depending on the range setting)
Weight	72g
Connections	Connection LF antenna
	HF antenna connection socket (optional)
	2 x optocoupler input
<b>Housing</b> dimensions (WxHxD)	230 x 143 x 34.5 mm
Total weight	454 g
Degree of protection	IP 42 - not suitable for outdoor installation
Housing colour	RAL 9010 white (OEM version); RAL 7016 anthracite
Material	ABS PA 765
Cable inlets	Several predetermined breaking points for cable inlets available

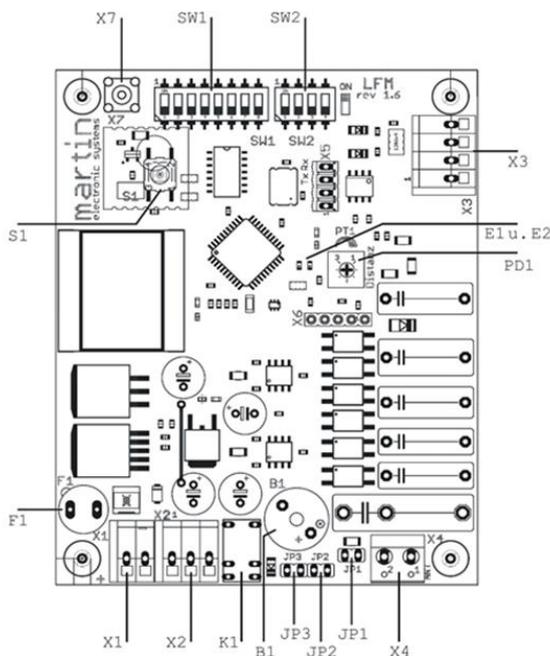
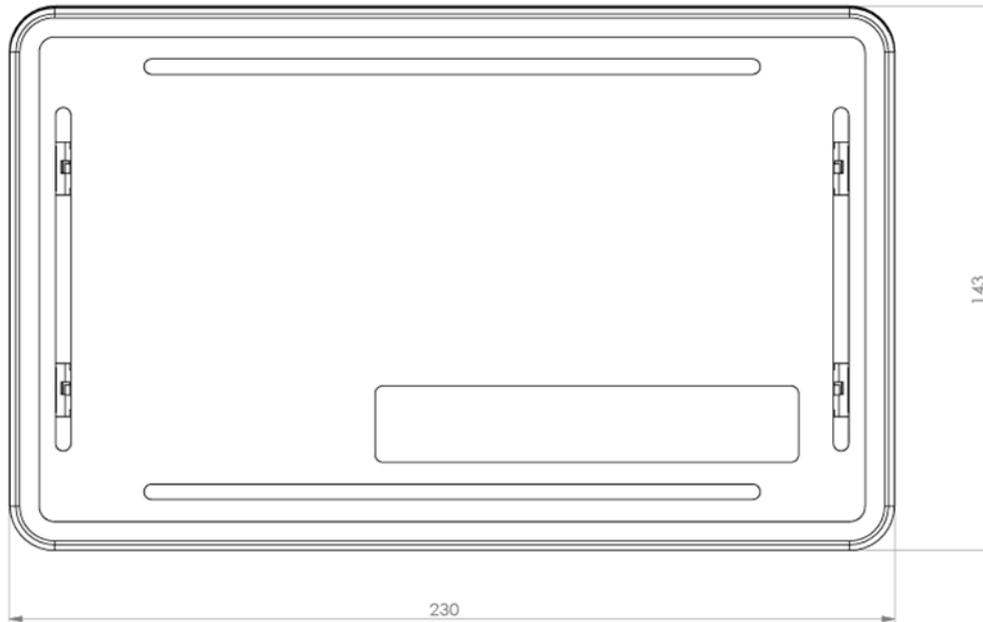


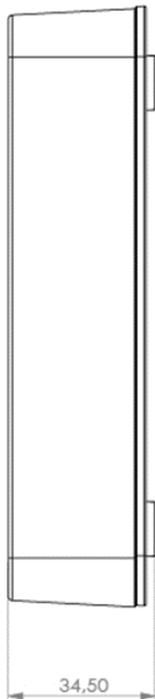
Figure 1 Sketch LF board



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*Figure 1 Sketch housing front view*



*Figure 2 Sketch housing side view*



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Martin Elektrotechnik GmbH hereby declares that the article V100-413 is in conformity with Directives 2014/53/EU, 2014/35/EU, 2014/30/EU. The full text of the EU Declaration of Conformity is available at the following website: <https://martin-elektrotechnik.freshdesk.com/support/solutions>

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