

**Data sheet**  
**V100-410 Reading/receiving unit | LF+HF | Plug and socket installation**  
**power supply unit**



## **Description**

The reading/receiving unit consists of two components combined in one housing. Accordingly, the item also fulfils two different tasks: The reading unit (LF) generates a spherical electromagnetic detection field. This "wakes up" sleeping transponders from their stand-by mode as soon as they are brought into the field. At the same time, the reading unit transmits its identification number (LF-ID) to the transponder. The transponder in the field sends its own identification number (tag ID) as well as the received LF ID to the second component - the receiving unit (HF). The received data is processed and sent from the receiving unit via potential-free contacts to the in-house nurse call system or mobile PPE/DECT systems. HF dependencies can be realised by external devices (reed contacts, etc.). Detection range adjustable **up to 6m in radius**. Safe three-dimensional detection of transponders as well as simultaneous detection of several transponders in the detection field possible. The detection field automatically readjusts itself if, for example, it has been distorted, shifted or the like by the insertion of a larger metallic object. There is always battery monitoring of the transponders in the detection field: 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	LF antenna connection
	HF antenna connection socket (optional)
	2 x optocoupler input
Dimensions <b>PCB HF</b> (WxHxD)	80 x 100 x 19 mm
Power supply	10-36 V (DC)
Current consumption at 12V DC	100 mA (with X-port connected up to 200 mA)
Current consumption at 24V DC	50 mA (with X-port connected up to 100 mA)
Frequency	868 MHz communication frequency
Weight	63 g
Connections	3 x relay
	RF module slot (RFM 22/23)
	2 x optocoupler inputs, X3.10, X3.11
<b>Housing</b> dimensions (WxHxD)	230 x 143 x 34.5 mm
Total weight	517 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

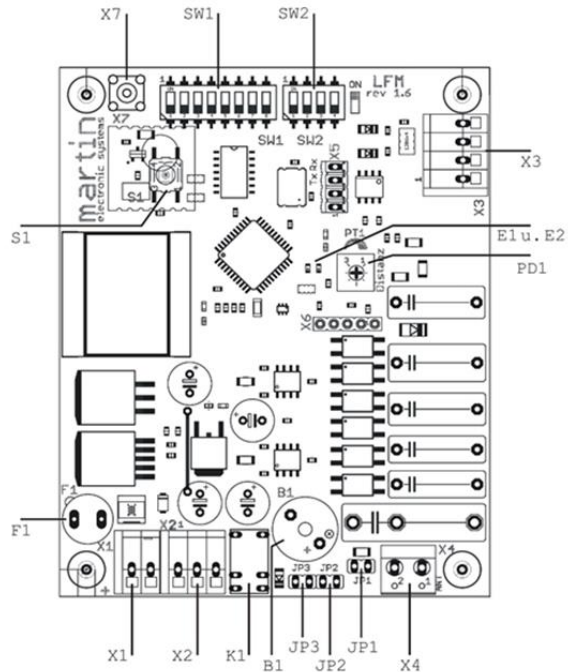


Figure 1 Sketch LF board

X1.1	+ 10-36V	X2.1	K3 Schließer
X1.2	GND	X2.2	K3 Pol
		X2.3	K3 Öffner
X6.1	IMCLR	X2.4	K2 Öffner
X6.2	+ 5V	X2.5	K2 Pol
X6.3	GND	X2.6	K2 Schließer
X6.4	SD	X2.7	K1 Öffner
X6.5	SC	X2.8	K1 Pol
		X2.9	K1 Schließer
X3.1	+5V		
X3.2	Out1	JP1	gesetzt: Beeper ist aktiv
X3.3	Out2	JP2	gesetzt: Relais K3 ist aktiv
X3.4	Out3	E1	LED (grün) 3,3Volt
X3.5	Out4	E2	LED (grün) HF-Aktivität
X3.6	Out5	E4	LED (orange) Störung/Service
X3.7	Out6		
X3.8	Gnd	SW1	DIP-Schalter 8-stellig
X3.9	opto -	SW2	DIP-Schalter 8-stellig
X3.10	optoin 1		
X3.11	optoin 2	S1	Programmierungstaste
X3.12	+5V	S2	Programmierungstaste
X5.0	nicht belegt	SG1	Signalgeber
X5.1/X5.2	Sub-B/C/E Steckmodul		
X5.0.3/ X5.1.3	GND	X7	Steckplatz für RF-Modul(RFM22/23)

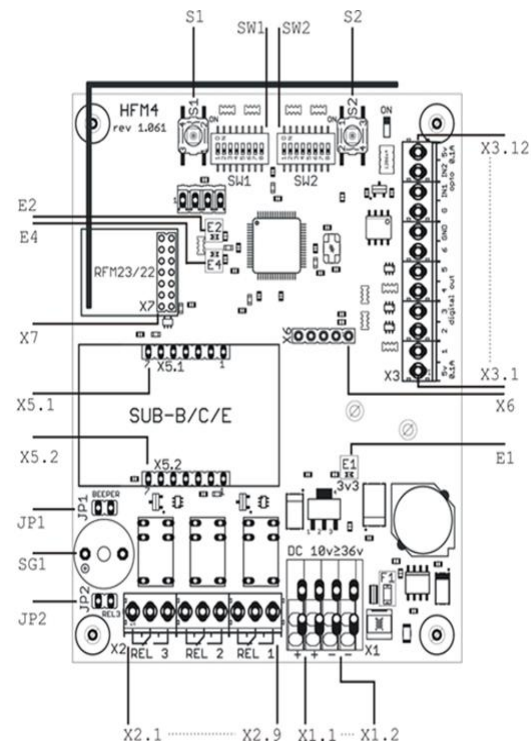
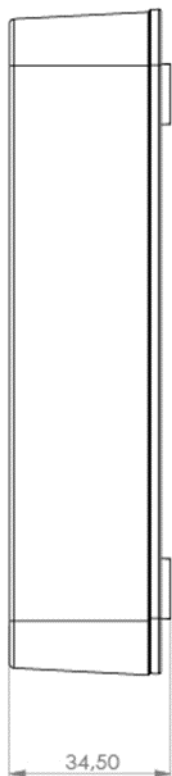


Figure 2 Sketch HF board



*Figure 3 Sketch housing front view*



*Figure 4 Sketch housing side view*

Martin Elektrotechnik GmbH hereby declares that the article V100-410 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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