

ID LR(M)5400

HF LONG RANGE READER

- High performance reader for a wide range of applications
- Integrated multiplexer with 4 RF outputs up to 8 W RF power
- Linux SDK for integrated customer applications and customized protocols
- Easy network connectivity by DHCP, DNS, NTP Services
- 3 digital inputs, 2 digital outputs, 2 relay outputs
- Best reading range and detection rate, high reliability and different possibilities for diagnostics



The 13.56 MHz high performance reader ID LR(M)5400 provides best sensitivity, stable reading and writing performance, best read range, fast reading speed at large transponder density and multiple antenna configurations.

The reader supports transponders according to ISO 15693, ISO 18000-3-A, ISO 18000-3M3 and NXP I-Code 1 RFID/NFC protocols and is best suited for applications such as libraries, laundries, casinos, logistics and industry.

Combined with FEIG's external multiplexer, power splitter and antenna tuner, setups such as security gates, conveyors and antenna systems of various sizes can be realized easily.

Flexible interface options, configuration options and multiple reading modes allow trouble-free integration in professional TCP/IP networks.

The reader is characterized by the following main features:

- › Integrated multiplexer, offering 4 antenna outputs, high speed switching time with support of additional external multiplexer for multiple antenna setups
- › High receiver sensitivity cares for an enlarged and at the same time homogeneous tag detection range
- › Write / Read ranges up to 2 m
- › Adjustable transmitting power from 1 W – 8 W
- › Easy network integration by IPv6 and IPv4 support and DHCP, DNS, NTP services
- › Multiple interfaces: Ethernet (TCP/IP), USB-Host, USB-Slave and RS485
- › Module version ID LRM5400 or version with housing ID LR5400 for industrial applications
- › Full firmware support of FEIG external multiplexer, power splitter and antenna tuner and with DC power supply via RF outputs
- › Readout of RSSI data for localization of identified transponders
- › Various integrated diagnostic possibilities e.g. SWR analogous measurements
- › Reader protection against fault conditions like antenna shortcut and antenna mismatching
- › 6 LEDs for indication of correct function
- › International radio and safety approval according to ETSI, FCC, IC, UL 62368 and EN 62368-1. More countries on request

POWERFUL HF LONG RANGE READER

Suitable to be used in fields of applications like libraries, logistics and industry

Technical data	ID LR5400	ID LRM5400
Dimensions (w x h x d)	320 mm x 180 mm x 110 mm (12.6 inch x 7.1 inch x 4.3 inch)	160 mm x 120 mm x 46 mm (6.3 inch x 4.7 inch x 1.8 inch)
Weight	approx. 1.9 kg	approx. 0.6 kg
Color	black	n/a
Protection class	IP54	n/a
Operating frequency	13.56 MHz	
Transmitting power	1 W – 8 W (250 mW steps, software configurable)	
Modulation	10 % – 30 % (software configurable)	
Power supply	24 V ± 15 %; Noise Ripple: max. 150 mV	
Power consumption	typ. 35 VA / maximum 47 VA (depending on ext. output circuitry)	
Antenna connection	4 x SMA Jack (50 Ω)	
DC Supply at antenna connectors	8 V (max. 150 mA)	
Outputs	2 Optocoupler (24 V, 30 mA) 2 Relays (2 x NO; 24 V, 1 A)	
Inputs	3 Optocoupler (5 V up to 24 V, 20 mA)	
Interfaces	RS485, USB-Device, USB-Host, Ethernet (TCP/IP), (RS485 auxiliary devices)	
Indicators, optical	6 LEDs	
Supported transponders	ISO 15683*, ISO 18000-3-A, ISO 18000-3M3 (Upgrade code required), NXP I-Code 1	
Protocol modes	ISO Host Mode, Buffered Read Mode, Notification Mode	
Operation system	Embedded Linux	
Others	Anticollision function, Real time clock, RSSI data readout	
Temperature range		
Operation	-20 °C up to +55 °C (-4 °F up to 131 °F)	
Storage	-25 °C up to +85 °C (-13 °F up to 185 °F)	
Relative air humidity	5 % up to 80 % (non-condensing)	

* e.g. EM HF ISO Chips, Fujitsu HF ISO Chips, Infineon my-d, NXP I-Code, STM ISO Chips, TI Tag-it

Standard conformity

Radio license

Europe / UK	EN 300 330
USA	FCC 47 CFR Part 15
Canada	IC RSS-GEN, RSS-210
EMC	EN 301 489
Safety & Health	EN 62368-1, EN 50364
Vibration	EN 60068-2-6 10 Hz up to 150 Hz: 0.075 mm / 1 g
Shock	EN 60068-2-27 Acceleration: 30 g

Order descriptions

6194.000.00	ID LR5400 HF Long Range Reader
6193.000.00	ID LRM5400 HF Long Range Reader Module



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