125KHz RFiD reader, Ethernet link MODBUS-TCP Power Over Ethernet

RFiD90

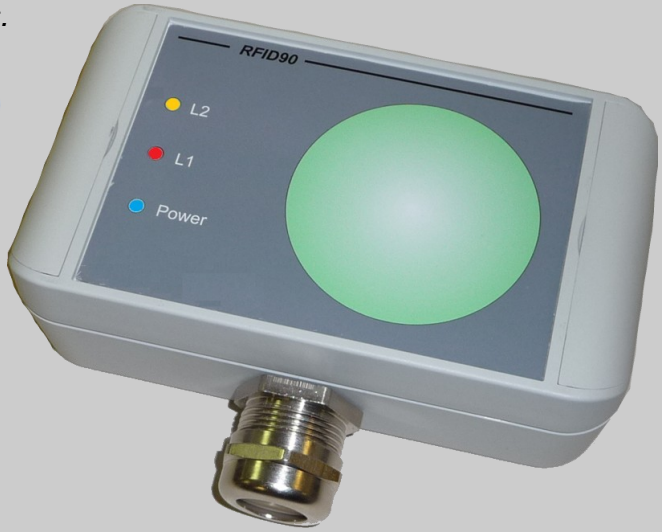
- **Reader for EM4102 iso card tags**
  - *Frequency 125Khz, read distance <10 cm*

- **Communication**
  - *Modbus TCP (Ethernet) 4 concurrent connections.*
  - *Embedded Web Server.*
  - *SNMP option.*
  - *Specific protocol on request.*

- **Dual power supply mode**
  - *Power over Ethernet (PoE).*
  - *Auxiliary power supply 8….28 Vdc.*

- **Applications**
  - *Access control, automatic identification, inventory tracking, payment systems.*

- **Indoor or outdoor use**
  - *Integrated antenna.*
  - *IP66 protection.*



The RFiD90 is a robust wireless card reader for access control applications, its implementation is easy, the product relying on standard communication protocols and Ethernet.

DESCRIPTION: RFID technology
Radio Frequency Identification (RFID) is a generic term for contactless technologies that use radio waves to automatically identify people or objects. There are several methods of identification, but the most common is to store a unique serial number that identifies a person or an object on a microchip that is attached to an antenna.
The combined antenna and microchip are called a "RFID transponder" or "RFID tag". Each transponder tag contains a unique identifier (one of 2^{40}, or 1,099,511,627,776 possible combinations).

Feature:
- Wall mount (hinged screw cover).
- Waterproof ABS plastic enclosure + conformal coated electronic (IP66 protection rating, cable gland entry)
- Power supply over Ethernet (PoE) or 24Vdc auxiliary power supply.
- Confirmation of tag reading by internal buzzer.

Front face:
Tag reading area (antenna), 3 LEDs: A power LED and 2 LEDs drive by application via Modbus TCP.

Configuration:
IP address setting: 2 modes are available:
1) via BOOTP protocol : Enter the MAC address (found on electronic pcb) in a BOOTP server.
2) Fixed IP address : configured via the embedded Web server.
If the actual IP address is unknown, an internal button is used to return to the factory IP address: 192.168.0.253 (long press, the buzzer confirms the return to the factory IP address).
The Web server allows the display of the tag IDs and the testing of the front LEDs.

Communication:
Ethernet 10/100 T base (RJ45 connection)
Powered by the Switch (power over Ethernet) according to IEEE802.3af
Supported protocols: Modbus-TCP, SNMP, Web server.
Firmware update over the Ethernet link.

Installation requirements:
- Keep the reader away as much as possible from cables and power circuits (AC or high voltage). Disturbances they cause can affect the reading.
- Distance between two readers: 40 cm
- If the device is attached to a metallic surface, the reading detection range may be reduced.

Accessories:

PoE power injector: (AL36 PoE)
Powered the RFiD90 by Ethernet link.
For switch which do nor have PoE, we provide a PoE power injector in DIN rail mounting conform to IEEE 802.3af standard.

BDG90 : RFiD credit card tag
PCL90 : RFiD tag keychain

delivered blank or customized according to customer data.
Tag are EM4102 ISO type.

Version and order code:

Request a quote

RFiD90 : Ethernet RFID Tag reader, Modbus protocol
RFiD90RW : Ethernet RFID Tag reader/writer, Modbus protocol
Power supply: PoE or 24Vdc auxiliary power supply
(*requires a compatible switch or a PoE power injector*)

Option : **/SNMP** SNMP protocol

BDG90 : Credit card format tag
Option : **/Prt** custom print

90 days accuracy (20 °C +/- 2 °C) DATA SHEET CAN BE DOWNLOADED ON WWW.LOREME.FR

TECHNICAL SPECIFICATIONS

Reading

Carrier frequency	125 kHz.
Mode	Read only.
Rate	5 readings / second.
Reading range	< 10 cm with badge. < 6 cm with tag keychain.

POWER SUPPLY

Powered by the Switch (power over Ethernet)
from 36Vdc to 57Vdc following IEEE802.3af .
External power supply (terminal block) from 8 to 28 Vdc (2 W).

COMMUNICATION

Ethernet 10/100 T base (RJ45 connection).
Protocols: Modbus-TCP, SNMP, Web server.

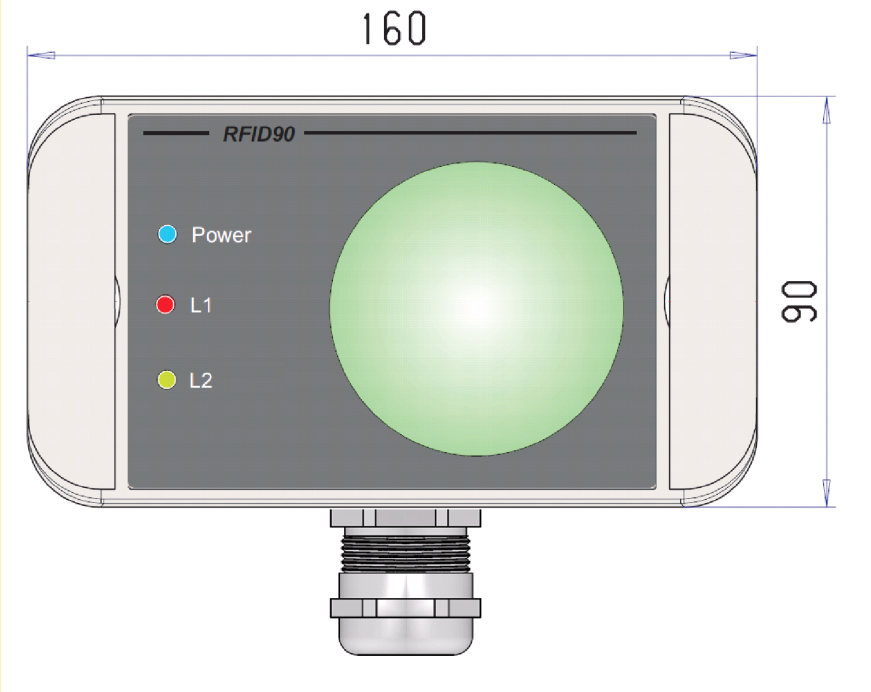
ENVIRONMENT

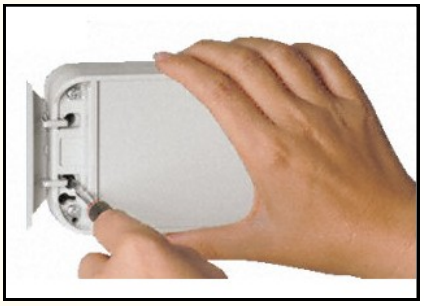
Operating temperature	-20 to 60 °C.
Storage temperature	-40 to 85 °C.
Humidity	95 % not condensed.
Weight	~350 g.
Protection rating	IP 66 indoor/outdoor use.
MTBF (MIL HDBK 217F)	> 500 000 Hrs @ 25°C.
Life time	> 100 000 Hrs @ 30°C.

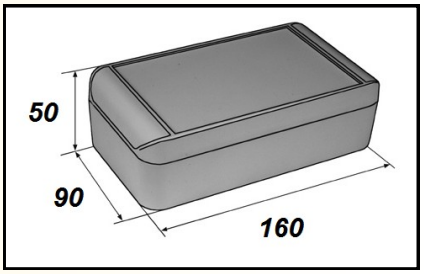
Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE

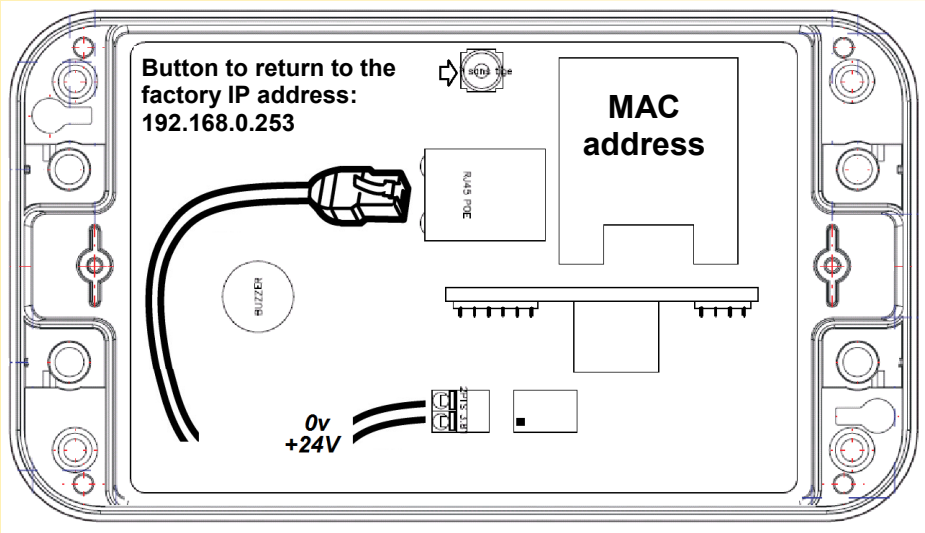
Immunity standard for industrial environments EN 61000-6-2		Emission standard for industrial environments EN 61000-6-4	
EN 61000-4-2 ESD	EN 61000-4-8 AC MF	EN 55011 group 1 class A	CE
EN 61000-4-3 RF	EN 61000-4-9 pulse MF		
EN 61000-4-4 EFT	EN 61000-4-11 AC dips		
EN 61000-4-5 CWG	EN 61000-4-12 ring wave		
EN 61000-4-6 RF	EN 61000-4-29 DC dips		

WIRING , OUTLINE DIMENSION , MOUNTING :





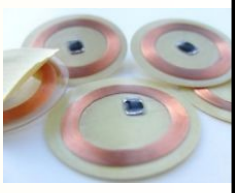




Other format of TAG RFID

Glass capsule
3mm diameter
13mm width

Coin tag
25mm diameter
thickness 0.7mm



Adhesive label tag
38 x 38 mm