BIS M-411-068-001-00-S115
(C1007-232-01)
Installation Guide

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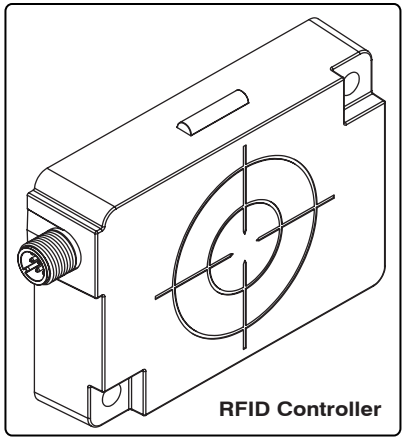
This document provides instructions and information designed to assist users in the hardware setup and configuration of the RFID Controller.

Installing the RFID Controller

Select a suitable location to mount the RFID Controller. The Unit may be mounted to wood, plastic fixtures and metal plate surfaces. However, do not recess the controller in metal. For optimal performance, allow 60 mm (2.5 inches) clearance from metallic objects around the sides of the controller.

To secure the controller to the mounting surface, use two M5 (#10) diameter screws and two washers. The Unit may be mounted horizontally or vertically, but should be aligned in such a manner that the LED indicators can be seen during operation.


RFID Controller

1. Fasten the Unit to the mounting surface using two screws (place one washer on each screw before insertion). Tighten screws to between 1.3 and 1.7 Nm (12-15 lbs per inch).
2. Connect the 8-pin, female M12 connector from a compatible serial interface cable (CBL-1478) to the 8-pin, male M12 connector on the Unit. Connect the serial interface cable's DE9F D-Sub connector to a COM port on the host computer. Tighten the cable's two locking thumbscrews.
3. Provide a power supply for the controller that is capable of delivering 10~30 V DC, 3.6 W (150 mA @ 24 V DC).
4. Connect the 2.5 mm DC power plug on the power supply transformer to the DC power jack receptacle on the serial interface cable. Tighten the locking ring to prevent power from becoming disconnected during use.
5. Plug the power supply transformer into a suitable AC power source. Apply power to the controller after all cable connections have been made. The LEDs on the unit should flash. The amber colored LED 2^0 will remain lit to indicate that the controller is in RS232 mode (see Figure 4).
6. On the host computer, set COM port parameters to: 9600 baud, 8 data bits, 1 stop bit, no parity and no handshaking.
7. To verify operations, download the serial version of the HF Dashboard Utility. The HF Dashboard Utility allows users to configure and control their controllers and send RFID commands for testing purposes.

Controller Dimensions

Millimeters
[Inches]

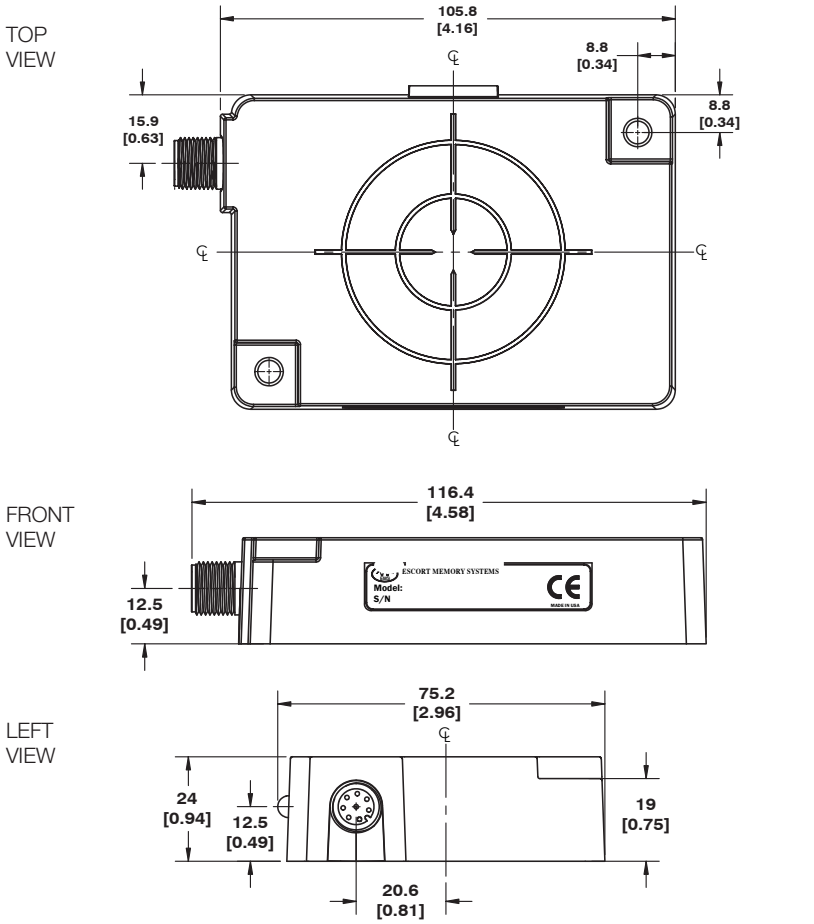


Figure 1: Controller Dimensions

Installation Guidelines

- Do not recess the controller in metal and allow 60 mm (2.5 inches) clearance from metallic objects around the sides of the controller.
- Avoid mounting the RFID controller near sources of EMI (electro-magnetic interference) or near devices that generate high ESD (electro-static discharge) levels.
- If electrical interference is encountered (as indicated by a significant reduction in read/write performance), relocate the controller to an area free from potential sources of interference.
- Route cables away from motors, solenoids, unshielded cables and any wiring that carries high voltage or high current.
- When installing multiple RFID controllers that operate at the same frequency (13.56 MHz), maintain a minimum distance of 20 cm (8 inches) between adjacent RF devices.

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Interface Connector - Pinout

The controller has one 8-pin, male M12 interface connector.

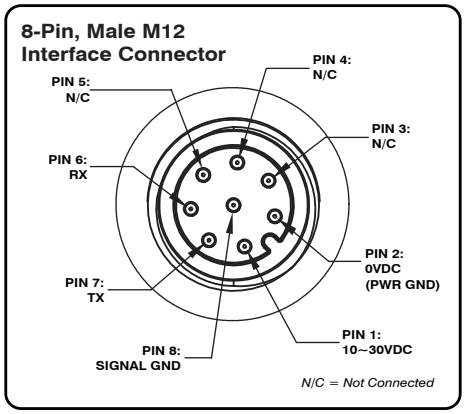

Figure 2: Interface Connector - Pinout

RS232 Serial Interface Cable Schematic

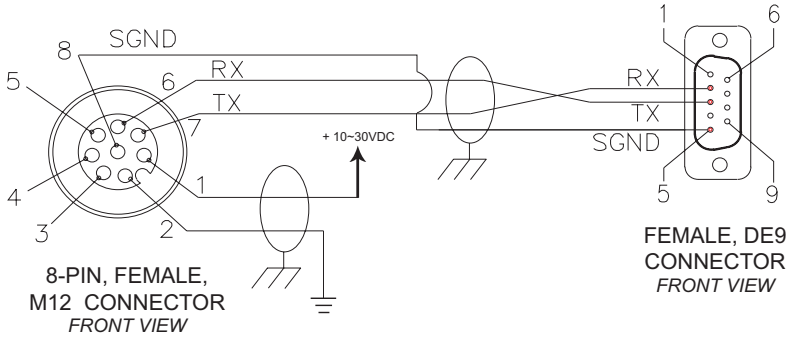

Figure 3: RS232 Serial Interface Cable Schematic

Power Requirements

The Unit requires an electrical supply voltage of 10~30 V DC and has a power draw of 3.6 W (150 mA @ 24 V DC, 1 Amp peak). Use a regulated power supply that is capable of delivering these requirements.

Cabling Part Numbers

- **CBL-1478:** Cable Assembly (8-pin, female M12 to RS232; with 2.5 mm DC power jack, 2 m)
- **CBL-1488-XX:** Cable (8-pin, female M12 to bare wire leads)
- **CBL-1492-XX:** Cable (8-pin, right-angle female M12 to bare wire leads)
- **CBL-1493:** Connector (8-pos, straight female M12, field mountable)

(XX = Cable Length in Meters)

LEDs

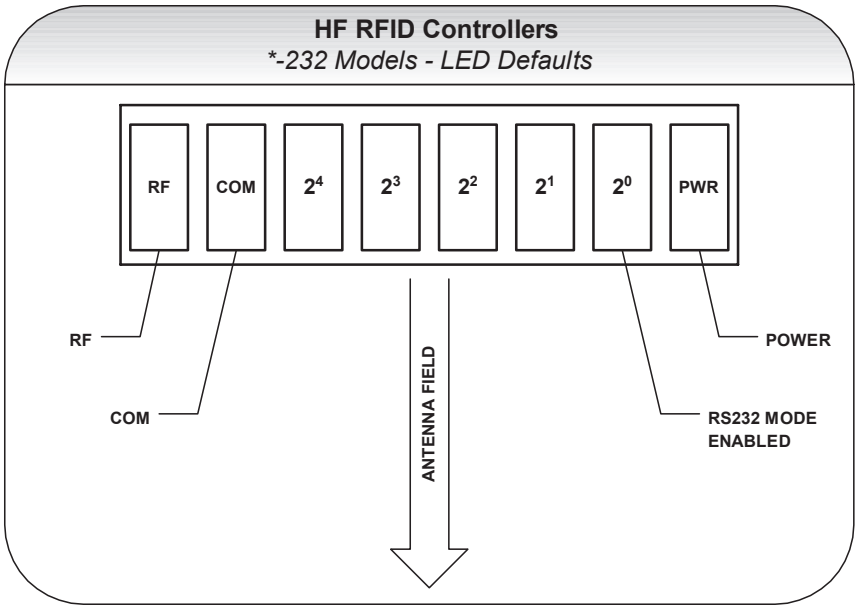

Figure 4: LEDs

Final Notes

For complete operating instructions for the RFID Controller refer to the:

BIS M-411-Series RFID Controllers - Operator's Manual

Also available online are HF Dashboard™ and C-MacroBuilder™ software utilities.

The HF Dashboard is a Windows-based application that provides users with the ability to control, configure and test their RFID hardware.

C-MacroBuilder is an easy to use GUI-driven utility for Windows. This software utility allows users to build their own macro programs (which are stored internally on and executed directly by RFID Controllers).

When C-MacroBuilder is used in conjunction with the HF Dashboard Utility, users have the ability to design, save and execute custom macros from any supported RFID controller without the need of a host computer to issue routine commands.

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