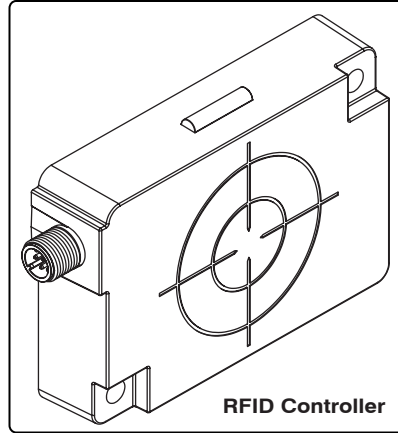


This document provides instructions and information designed to assist users in the hardware setup and configuration of the RFID Controller.

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.



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 5-pin, female end of a Subnet16™ compatible (ThinNet) cable to the 5-pin, male M12 interface connector on the Unit. Connect the opposite end of this cable to an Subnet16 Gateway or Subnet16 Hub interface module. Connect the Gateway or Hub to a host computer via Category 5E Ethernet cabling*.
3. Turn the power supply ON. The green power LED on the unit will illuminate when power is applied to the unit. The five amber colored Node LEDs, when lit, display the Node ID value (in binary format from right to left) currently assigned to the RFID Controller (see Figure 3). Note: the factory default Node ID value is Node 00 - in which case none of the amber Node LEDs will be lit.
4. 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.

*For more information regarding the installation of a Subnet16 Gateway or Subnet16 Hub, refer to the Operator's Manual for each product.

Controller Dimensions

Millimeters
[Inches]

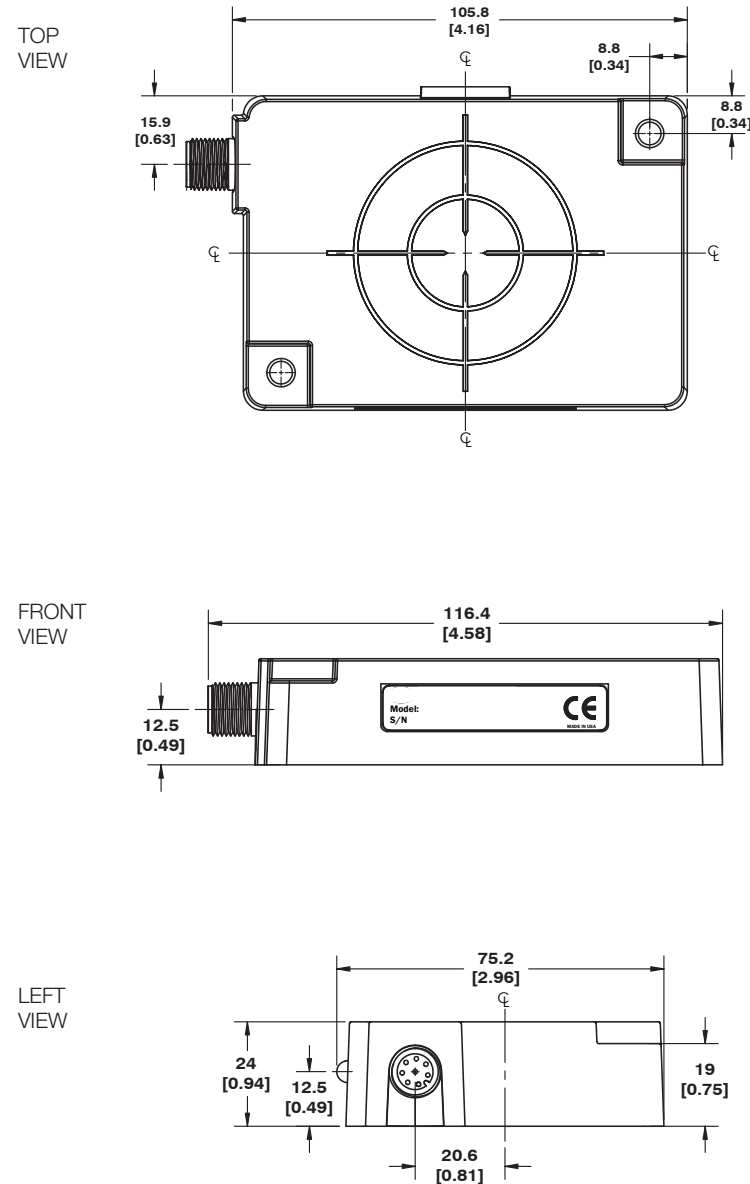


Figure 1: Controller Dimensions

Interface Connector - Pinout

The controller has one 5-pin, male M12 interface connector.

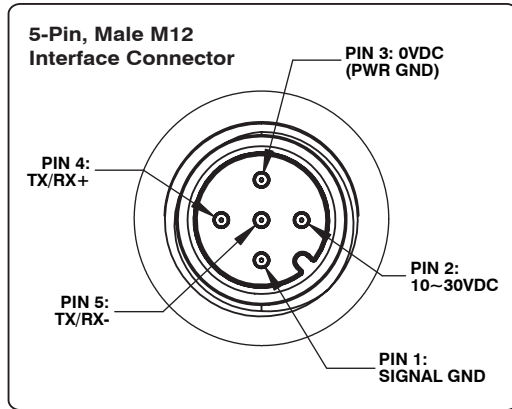


Figure 2: Interface Connector - Pinout

Installation Guidelines

- Do not recess the BIS M-411 in metal and allow 60 mm (2.5 inches) clearance from metallic objects around the sides of the BIS M-411.
- 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.

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.

LEDs

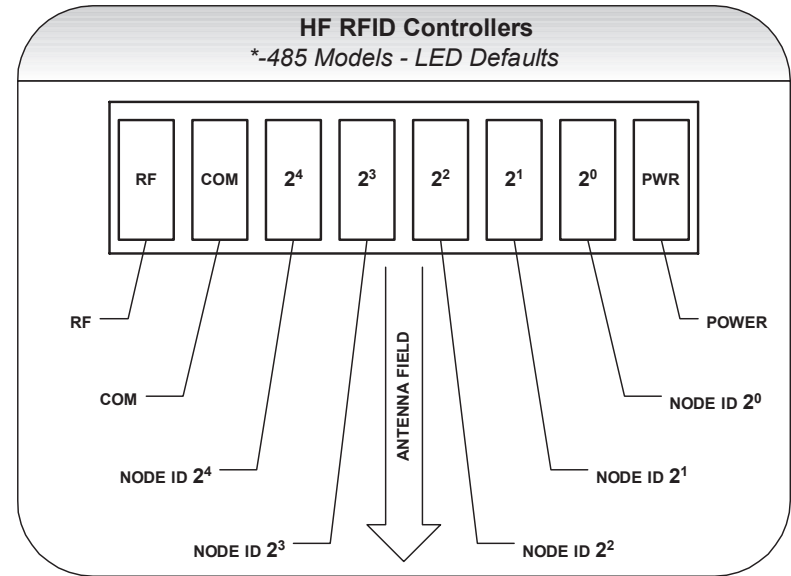


Figure 3: LEDs

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.