

Installing the RFID Controller

1. Attach the controller to the mounting bracket using the two sets of M4 screws, washers and nuts provided. Place the nuts in each of the hex-shaped recessed cavities at the rear of the Unit.
2. Align the mounting bracket with the two mounting holes on the controller, then insert both M4 screws (with washers) into the controller from the underside and secure completely using a standard Phillips #2 head screwdriver. Tighten screws to 0.7 Nm (6 lbs / inch) ±10%.
3. Fasten the other end of the mounting bracket to your work area. 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.
4. Connect the 8-pin, female M12 connector from your serial interface cable (CBL-1478) to the 8-pin, male M12 connector on the Unit.
5. Connect the 9-pin, female D-sub connector on the serial interface cable to a COM port on the host computer. Tighten the cable's two locking thumbscrews.
6. 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. The Controller requires a power supply capable of providing 10~30 V DC, 2.4 W (100 mA @ 24 V DC).
7. 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 will flash.
8. On the host computer, set COM port parameters to: 9600 baud, 8 data bits, 1 stop bit, no parity and no handshaking.
9. 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.

Figure 1: Controller, Mounting Bracket and Hardware

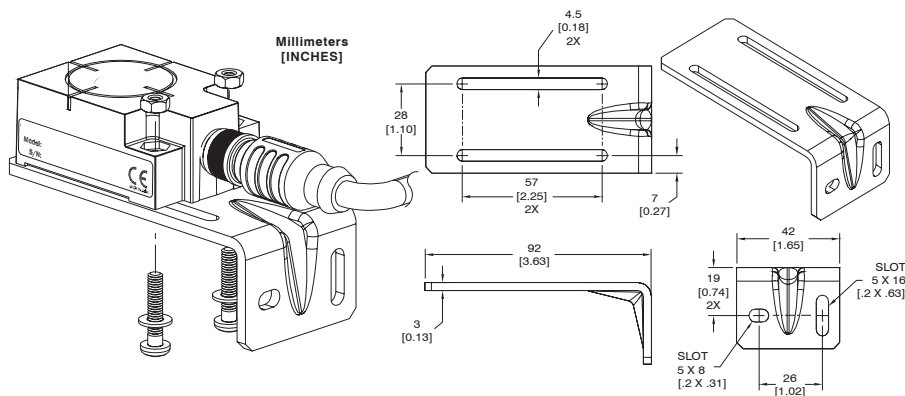
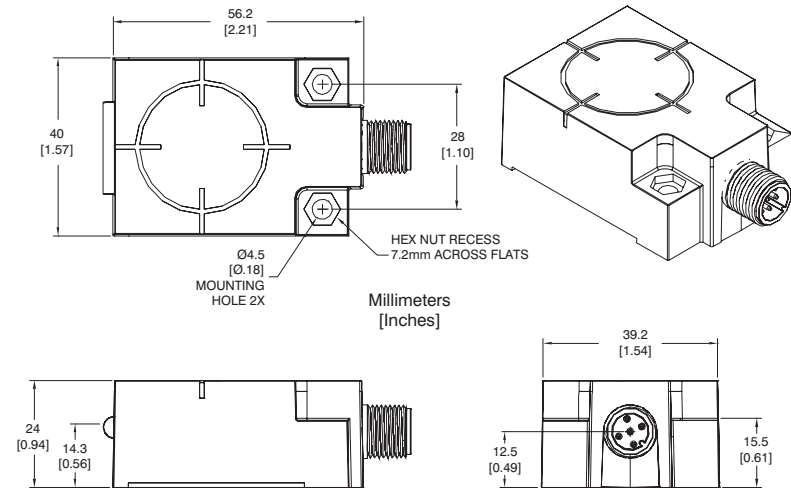


Figure 2: Dimensions



Power Requirements

The Unit requires an electrical supply voltage of 10~30 V DC and has a power draw of 2.4 W (100 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)

Installation Guidelines

- RFID devices can be negatively affected by the presence of metallic objects near its RF field. Avoid mounting the unit within 5 cm (two inches) of metallic surfaces.
- Locate the unit away from sources of EMI (electro-magnetic interference) and away from devices that generate high ESD (electro-static discharge) levels.
- Do not route the Unit's cables near unshielded cables or near wiring that is carrying high voltage or high current (such as for motors or solenoids). Cross cables only at perpendicular intersections.
- Use the included polycarbonate mounting bracket or a similar non-metallic bracket. The bracket is provided to help reduce electrically conducted spurious noise by isolating the RFID controller from metallic surfaces.
- If multiple RFID controllers operating at the same frequency (13.56 MHz) are to be installed, maintain a minimum distance of 20 cm (8 inches) between adjacent RF devices.

Figure 3: Interface Connector - Pinout

The Balluff RFID Controller has one 8-pin, male M12 connector that is used for data and power.

