

## Installation

### Install the Safety Label

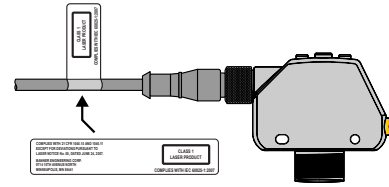
The safety label must be installed on Q4X sensors that are used in the United States.



**Note:** Position the label on the cable in a location that has minimal chemical exposure.

1. Remove the protective cover from the adhesive on the label.
2. Wrap the label around the Q4X cable, as shown.
3. Press the two halves of the label together.

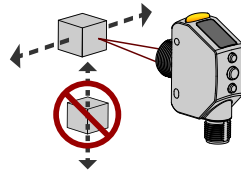
Figure 4. Safety Label Installation



### Sensor Orientation

Optimize detection reliability and performance with correct sensor-to-target orientation. To ensure reliable detection, orient the sensor as shown in relation to the target to be detected.

Figure 5. Optimal Orientation of Target to Sensor



See the following figures for examples of correct and incorrect sensor-to-target orientation as certain placements may pose problems for sensing some targets.

Figure 6. Orientation by a wall

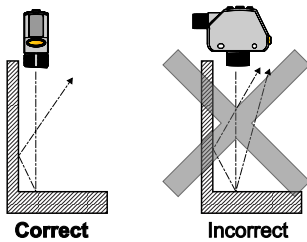


Figure 7. Orientation for a turning object

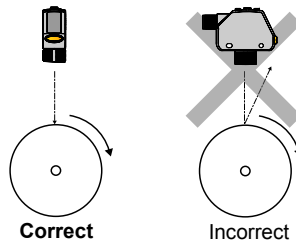


Figure 8. Orientation for a height difference

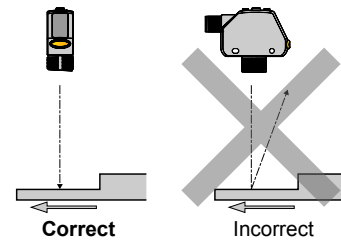


Figure 9. Orientation for a color or luster difference

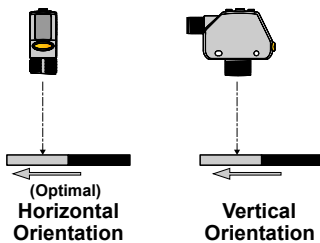
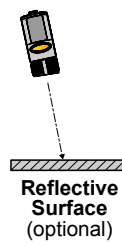


Figure 10. Orientation for highly reflective target<sup>‡</sup>

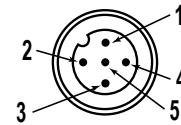
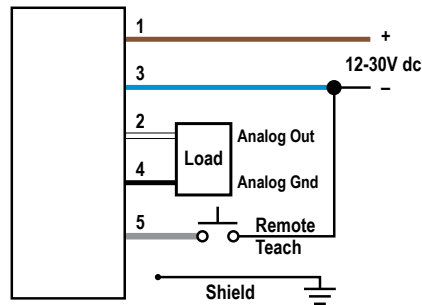


### Mount the Device

1. If a bracket is needed, mount the device onto the bracket.
2. Mount the device (or the device and the bracket) to the machine or equipment at the desired location. Do not tighten the mounting screws at this time.
3. Check the device alignment.
4. Tighten the mounting screws to secure the device (or the device and the bracket) in the aligned position.

<sup>‡</sup> Applying tilt to sensor may improve performance on reflective targets. The direction and magnitude of the tilt depends on the application, but a 15° tilt is often sufficient.

## Wiring Diagram



### Key

- 1 = Brown
- 2 = White
- 3 = Blue
- 4 = Black
- 5 = Gray



**Note:** Open lead wires must be connected to a terminal block.



**Note:** The input wire function is user-selectable; see the Instruction Manual for details. The default for the input wire function is off (disabled).



**Note:** Shielded cordsets are recommended for all models with quick disconnect fittings. It is recommended that the shield wire be connected to -V dc (the blue wire).

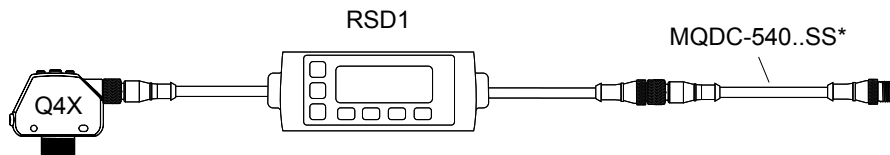
## Cleaning and Maintenance

Handle the sensor with care during installation and operation. Sensor windows soiled by fingerprints, dust, water, oil, etc. may create stray light that may degrade the peak performance of the sensor. Blow the window clear using filtered, compressed air, then clean as necessary using only water and a lint-free cloth.

## Connecting to RSD1

The following diagram depicts the connection of the Q4XTULAF600, Q4XTILAF600, Q4XTULAF610, or Q4XTILAF610 to the optional RSD1 accessory.

Figure 11. Q4X to RSD1



\*Optional Extension Cordset: MQDEC3-5..SS

## Sensor Programming

Program the sensor using the buttons on the sensor or the remote input (limited programming options).

In addition to programming the sensor, use the remote input to disable the buttons for security, preventing unauthorized or accidental programming changes. See the Instruction Manual, p/n 185624 for more information.

## Setup Mode

1. Access Setup mode and the sensor menu from Run mode by pressing and holding **MODE** for longer than 2 seconds.
2. Use **+** and **-** to navigate through the menu.
3. Press **SELECT** to select a menu option and access the submenus.
4. Use **+** and **-** to navigate through the submenus.
5. Select a submenu option.
  - Press **SELECT** to select a submenu option and return to the top menu.
  - Press and hold **SELECT** for longer than 2 seconds to select a submenu option and return immediately to Run mode.

To exit Setup mode and return to Run mode, navigate to **End** and press **SELECT**.