

## Sensor Orientation

Correct sensor-to-object orientation is important to ensure proper sensing. See the following figures for examples of correct and incorrect sensor-to-object orientation as certain placements may pose problems for sensing distances.

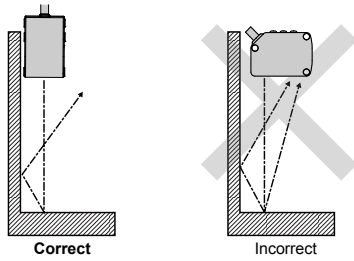


Figure 4. Orientation by a wall

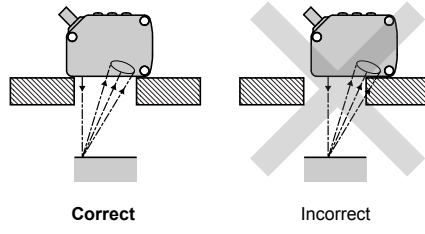


Figure 5. Orientation in an opening

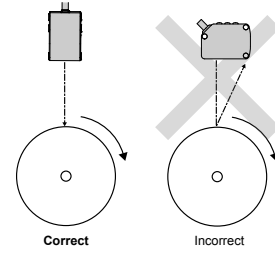


Figure 6. Orientation for a turning object

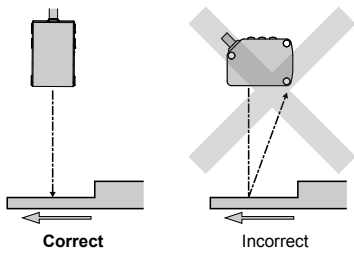


Figure 7. Orientation for a height difference

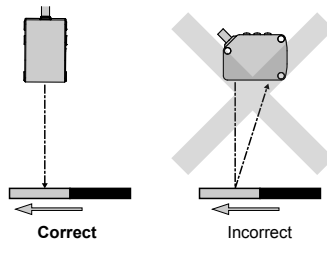


Figure 8. Orientation for a color or luster difference

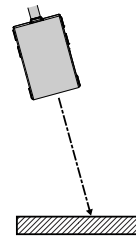


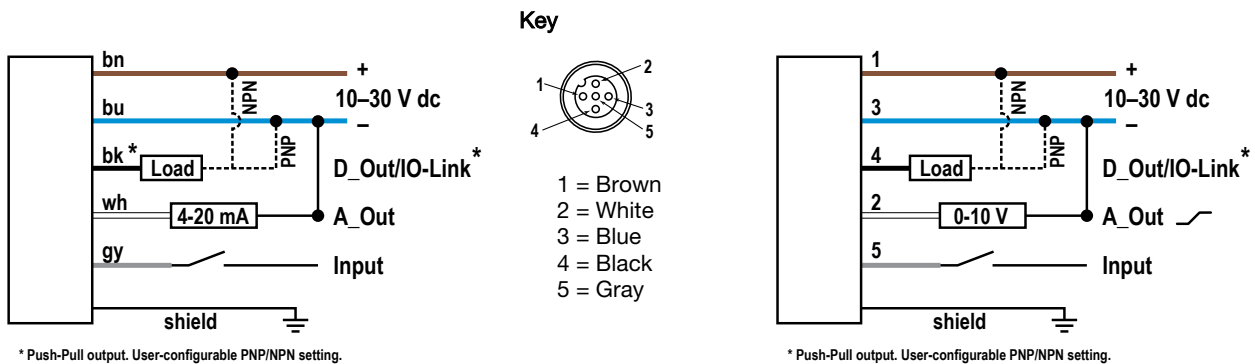
Figure 9. Orientation for a highly reflective target

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.

## 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.

## Wiring Diagrams



The bare shield wire is connected internally to the sensor housing and should be connected as follows:

- If the sensor housing is mounted so that it is in continuity with both the machine frame and earth ground, connect the bare wire (also) to earth ground.
- If the sensor housing is mounted so that it is insulated from the machine frame and you are experiencing noise, connecting the bare wire to -V dc (together with the blue wire), may help.
- If the sensor is mounted so that it is in continuity with the machine frame, but not with earth ground, do not connect the bare wire (e.g. cut off the bare wire).

## Configuration Instructions

### Sensor Programming

Program the sensor using the buttons on the RSD1 remote sensor display accessory, via IO-Link, or the remote input (limited programming options).

If you are using the RSD1 for programming, from Run mode, use the buttons to access the Quick Menu and the Sensor Menu. See the instruction manual (p/n 205812) for more information on the options available from each menu. For TEACH options, follow the TEACH instructions in the instruction manual.

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 for more information.

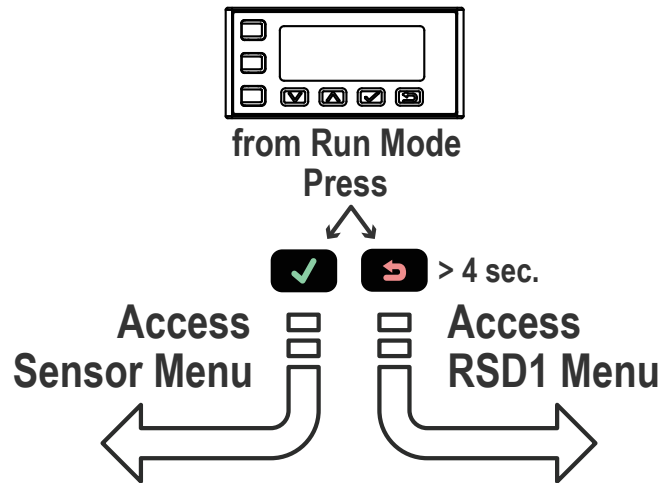


Figure 10. Accessing the Menus

### Remote Display Buttons and the LM

Use the RSD1 buttons **Down**, **Up**, **Enter**, and **Escape** to view or change RSD1 settings and information and to program a connected sensor.



#### Down and Up Buttons



Press **Down** and **Up** to:

- Access the Quick Menu from Run mode
- Navigate the menu systems
- Change programming settings
- Change individual digit values in distance based settings

When navigating the menu systems, the menu items loop.

Press **Down** and **Up** to change setting values. Press and hold the buttons to cycle through numeric values. After changing a setting value, the value slowly flashes until the change is saved using the **Enter** button.



#### Enter Button

Press **Enter** to:

- Access the Sensor Menu from Run mode
- Access the submenus
- Move right one digit in distance based settings
- Save changes

In the RSD1 Menu, a check mark "✓" in the lower right corner of the display indicates that pressing **Enter** accesses a submenu.

Press **Enter** to save changes. New values flash rapidly, and the sensor returns to the parent menu.