

General Information

BAPI recommends using twisted pair of at least 22AWG and sealant filled connectors for all wire connections. Larger gauge wire may be required for long runs. All wiring must comply with the National Electric Code (NEC) and local codes. Do NOT run this device's wiring in the same conduit as AC power wiring of NEC class 1, NEC class 2, NEC class 3 or with wiring used to supply highly inductive loads such as motors, contactors and relays.

BAPI's tests show that fluctuating and inaccurate signal levels are possible when AC power wiring is present in the same conduit as the signal lines. If you are experiencing any of these difficulties, please contact your BAPI representative



BAPI does not recommend wiring the sensor with power applied as accidental arcing may damage the product and will void the warranty

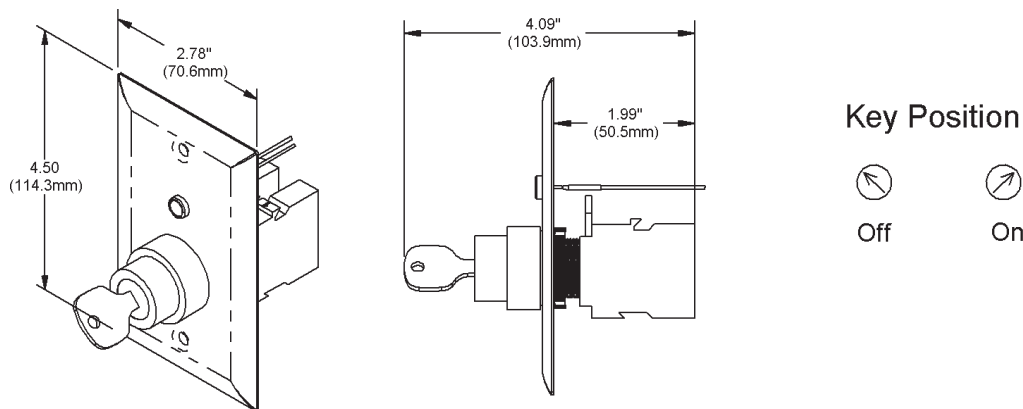


Figure 1: BA/SP-OWD-L1, Plate with key-switch and optional light sensor

Termination of Optional Switch

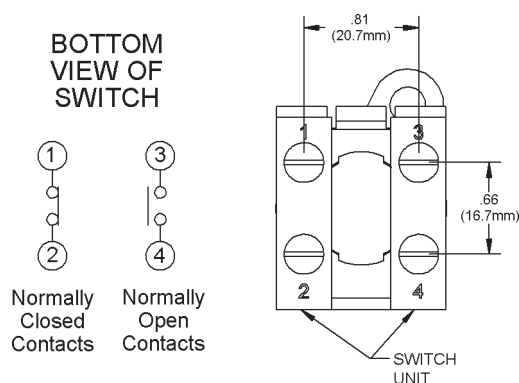


Figure 2: Bottom view of key-switch

Contact ratings
 24 VAC - 10 A Inductive - 10 A Resistive
 110 VAC - 5 A Inductive - 10 A Resistive
 220 VAC - 3 A Inductive - 6 A Resistive

Microload
 1mA at 5 VDC Minimum

The contacts are shown with the key in the "off" position. In the "on" position the connection of the contacts is reversed. Install wiring using either forked crimp terminals or ferrules. Insert wire termination under keeper plate on switch contact screw. Tighten screw firmly, do not over tighten. Give a gentle pull on the wire when finished to be certain the connection is secure.

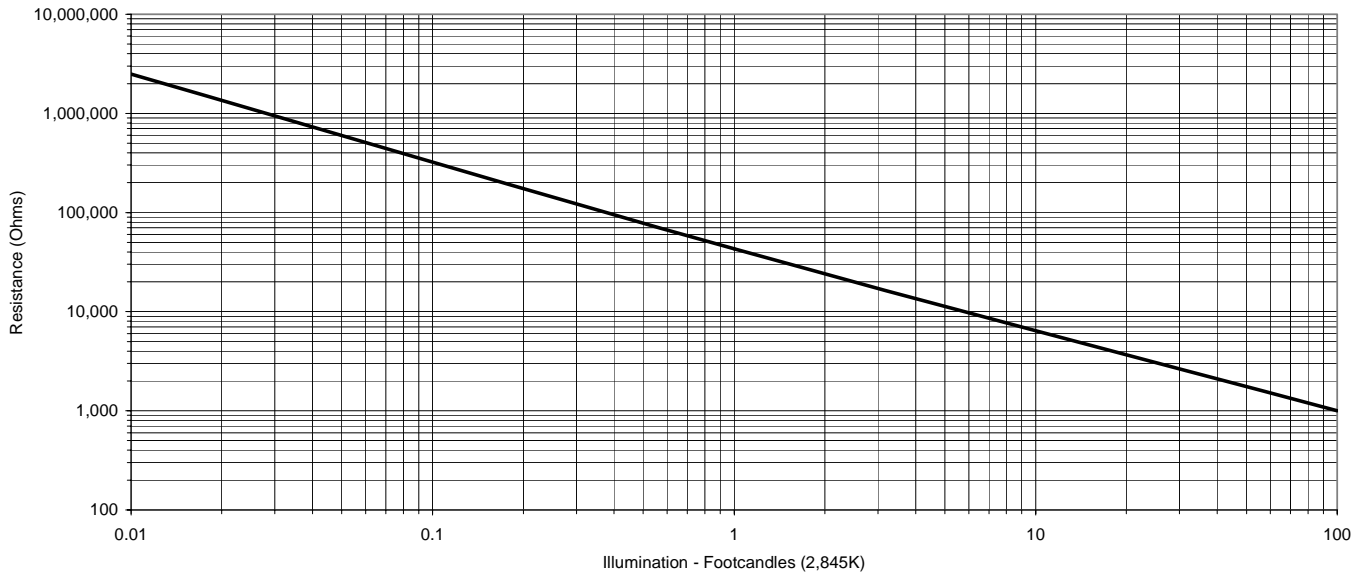
Termination of the Optional Light Sensor**Light Sensor Resistance versus Light Intensity**

Figure 3: Light Sensor Resistance versus Light Intensity

One red and one blue 22 gauge wire terminate the light sensor. The sensor is a purely resistive device and is NOT polarity sensitive. Connect the sensor to your control system using BAPI sealant filled connectors.

Note: The term foot candle is a measurement of light intensity. For example most 60-watt incandescent bulbs are rated at 840 lumens. If a reflector is placed behind a 60-watt bulb so that an area of 420 square feet is evenly illuminated then the light intensity is;

$$840 \text{ lumens} / 420 \text{ square feet} = 2 \text{ foot candles.}$$

Troubleshooting Key-switch**Problems:**

Circuit does not energize when key is turned.

Cannot remove key

Possible Solutions:

Check for proper wiring, did you wire one side of your circuit to one switch and the other side to the second switch?

Key can only be removed in the "off" position, the key is captivated in the "on" position.

Troubleshooting Light Sensor

Problems:

Sensor doesn't work

Possible Solutions:

Is the face of the sensor clean and clear of debris?

Is the sensor in shadow?

Is there an obstruction in front of the sensor?

Remove the wire connection from the light sensor to the control system. Connect an ohmmeter across the sensor. Place your thumb across the window of the sensor, the resistance should increase. Shine a light on the sensor, the resistance should decrease.

Mounting

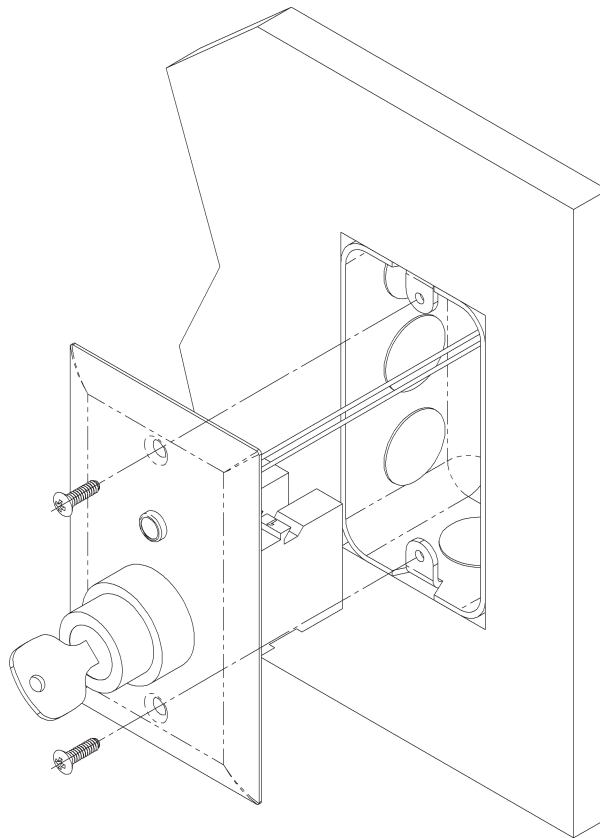


Figure 4: BA/SP-OWD-L1 mounting in a wall plate

Because this product contains a power switch BAPI only recommends mounting in a junction box.

1. Pull the wire through the wall and out of the junction box, leaving about six inches free.
2. Terminate the unit according to the guidelines in **Termination** on page 1.
3. Secure the plate to the junction box using the #6-32 x 1/2 inch mounting screws provided.

