

- Before using this product, the user must read and understand this document.
- For additional information regarding this product, refer to the user guide and technical specifications.
- All examples and diagrams are intended to aid understanding, and do not guarantee operation. Unitronics accepts no responsibility for actual use of this product based on these examples.
- Please dispose of this product according to local and national standards and regulations.
- Only qualified service personnel should open this device or carry out repairs.



Failure to comply with appropriate safety guidelines can cause severe injury or property damage.



- Do not attempt to use this device with parameters that exceed permissible levels.
- To avoid damaging the system, do not connect/disconnect the device when power is on.

## Environmental Considerations



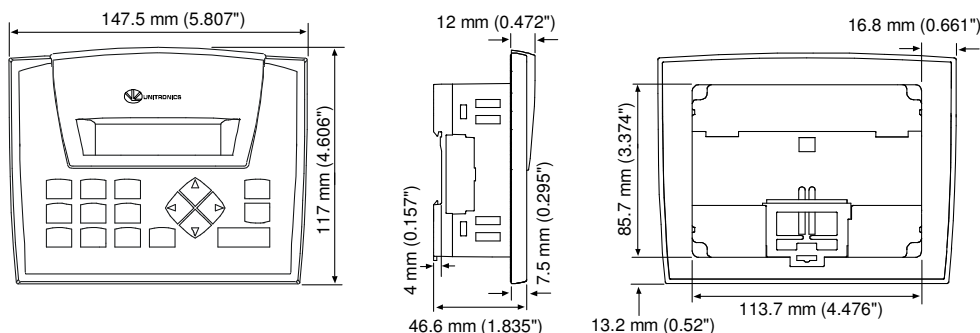
- Do not install in areas with: excessive or conductive dust, corrosive or flammable gas, moisture or rain, excessive heat, regular impact shocks or excessive vibration.



- Ventilation: 10mm space required between the OPLCs' top/bottom edges & enclosure walls.
- Do not place in water or let water leak onto the unit.
- Do not allow debris to fall inside the unit during installation.

## Mounting

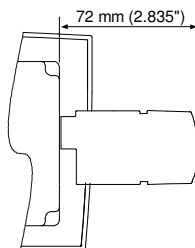
### Dimensions



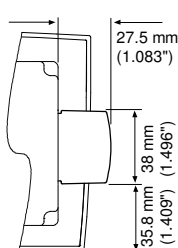
### Add-on modules

Take into account that installing an add-on module requires sufficient clearance space.

### During installation

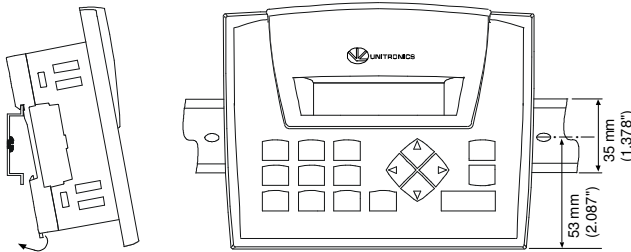


### After installation



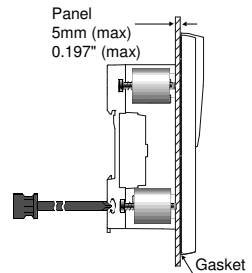
### DIN-rail mounting

Snap PLC onto the DIN rail



### Panel mounting

Cut-out: 117 x 89mm (WxH)  
4.606"x 3.504"



## Wiring

**Note:** All diagrams are based on the rear view of the OPLC.



- Do not touch live wires.



- Install an external circuit breaker. Guard against short-circuiting in external wiring.
- Use appropriate circuit protection devices.
- Unused pins should not be connected. Ignoring this directive may damage the device.
- Double-check all wiring before turning on the power supply.

- To avoid damaging the wire, do not exceed a maximum torque of 0.5 N·m (5 kgf·cm).
- Do not use tin, solder, or any substance on stripped wire that might cause the wire strand to break.
- Install at maximum distance from high-voltage cables and power equipment.

Use crimp terminals for wiring; use 26-12 AWG wire (0.13 mm<sup>2</sup>–3.31 mm<sup>2</sup>).

- Strip the wire to a length of 7±0.5mm (0.250-0.300 inches).
- Unscrew the terminal to its widest position before inserting a wire.
- Insert the wire completely into the terminal to ensure a proper connection.
- Tighten enough to keep the wire from pulling free.

- Input or output cables should not be run through the same multi-core cable or share the same wire.
- Allow for voltage drop and noise interference with input lines used over an extended distance. Use wire that is properly sized for the load.

## Inputs

- Both JZ10-11-R10 and JZ10-11-R16/V comprise I0-I5; these digital inputs are arranged in a single group. Via wiring, the entire group may be set to either pnp or npn.

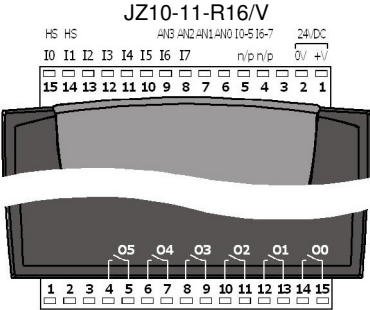
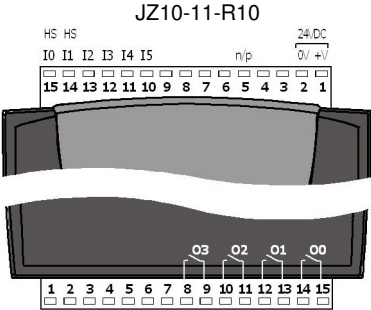
The following information concerns JZ10-11-R16/V. In addition to I0-I5, these comprise the following:

- I6 and I7 may be wired as either digital or analog inputs. These may be wired as either:
  - nnp digital inputs
  - pnp digital inputs
  - analog (voltage) inputs

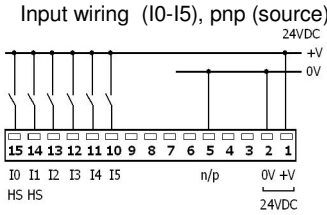
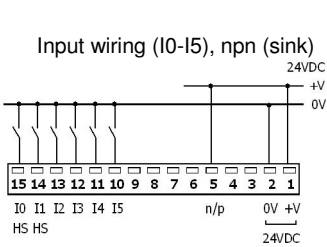
In addition, 1 input may be wired as a pnp input, while the other is wired as an analog input. Note that if 1 input is wired as an npn input, the other may not be wired as an analog input.

- AN0 and AN1 are analog (voltage) inputs.

I/O Configuration

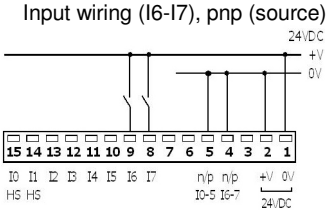
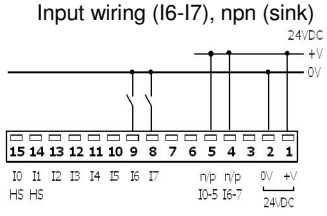
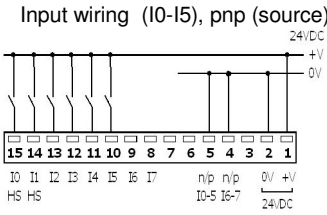
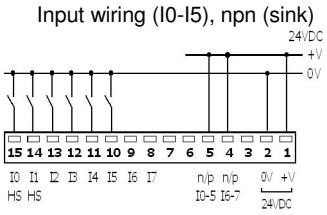


Digital Inputs, Controller's Power Supply



JZ10-11-R16/V

**Note:** The inputs are arranged in two groups. You can wire one group as npn and the other as pnp, or wire both groups as npn or as pnp. In either case, the npn/pnp pins **must be connected**.

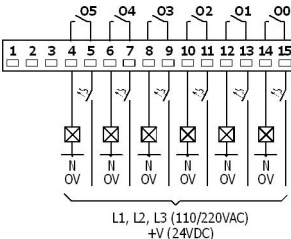
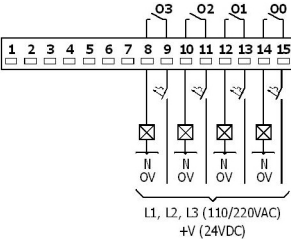


Digital Outputs

JZ10-11-R10

JZ10-11-R16/V

Output wiring



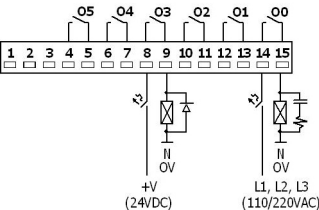
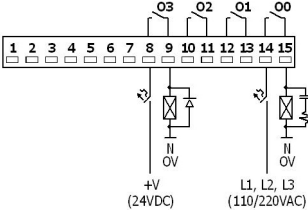
Increasing contact life span

To increase the life span of your contacts and protect the unit from potential damage by reverse-EMF, connect:

- A clamping diode in parallel with each inductive DC load
- An RC snubber circuit in parallel with each inductive AC load

JZ10-11-R10

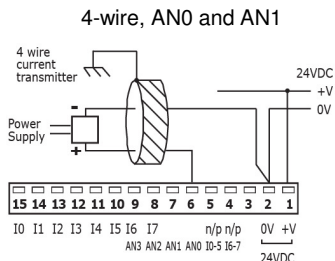
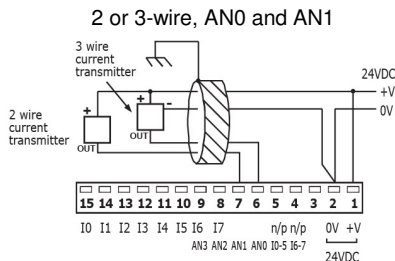
JZ10-11-R16/V



## Analog inputs

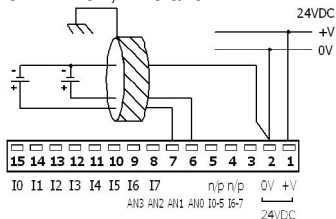
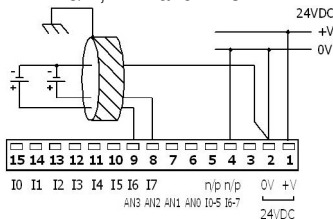
**Note:** Shields should be connected at the signal source.

### Analog Input wiring, current (JZ10-11-R16 only)



## Analog Input wiring, voltage

**Note:** If either I6 or I7 is wired as an npn digital input, the remaining input may not be wired as an analog input.



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