

INVENTRONICS

Installation Guidelines—Prevention of Moisture Ingress for Outdoor Applications

Inventronics “IP67 rated” drivers are designed to take on the additional electrical, thermal, and moisture related challenges of the outdoor world. The IP67 design standard conforms to IEC-60529 for moisture ingress protection.

Per this standard, IP67 rated drivers must *withstand immersion in 1 meter of water for 30 minutes*. All Inventronics IP67 rated drivers meet this standard. However, meeting IP67 is not sufficient to withstand all environmental applications. IEC-60529 does not account for the effects of humidity, thermal cycling, airborne pollutants, or UV damage. In summary, real world applications are frequently more demanding than IP67.

The long-term reliability of the driver is dependent on the installation method used.

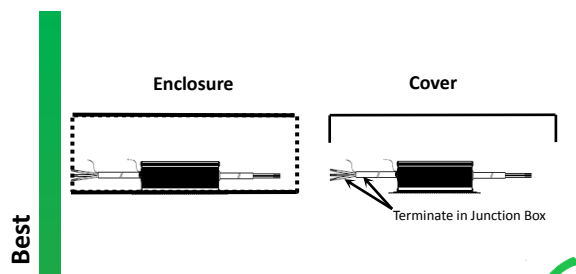


Figure 1. Best Practice – Protective Enclosure or Cover

Best Practice

- Mount driver in waterproof enclosure or at least beneath a cover to prevent direct exposure to rain or moving water
- Properly terminate wire leads and cable jacket:
 - In a waterproof junction box
 - With waterproof connectors
- Keep cables straight or at least provide adequate strain relief to prevent gaps between the cables and grommet
- Provide a drainage system with holes or at least a path to move water away from the driver

Note: Consider thermal performance for every design and application.

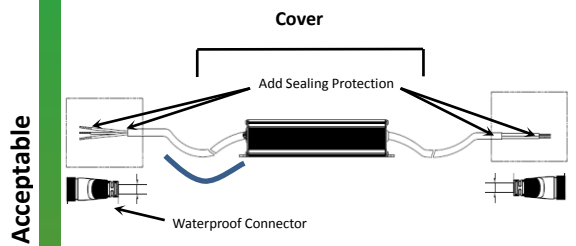


Figure 2. Acceptable Alternative – Dip Cable Lower than Driver

Acceptable Alternative Method

- Mount driver horizontally
- Route cable to dip or loop lower than driver to prevent water from flowing to junction areas

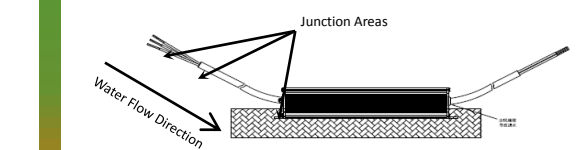


Figure 3. Not Recommended – Exposed + Cable Above Driver

Things to Avoid

- Direct exposure to rain or moving water
- Cables bent or looped above driver
- Wire leads or end of cable jacket directly exposed to moisture, enabling moisture to eventually wick into driver
- Moisture build up, or pooling, around driver
- Vertical mounting, enabling water to collect at junction areas

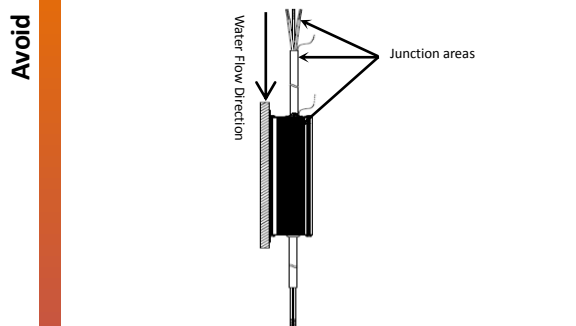
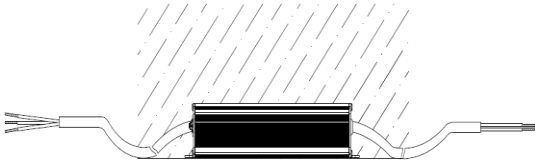
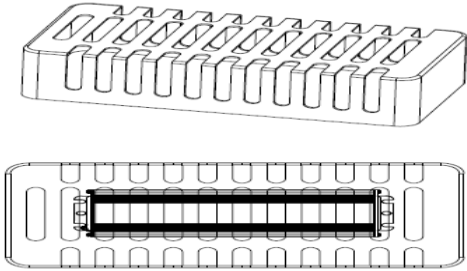
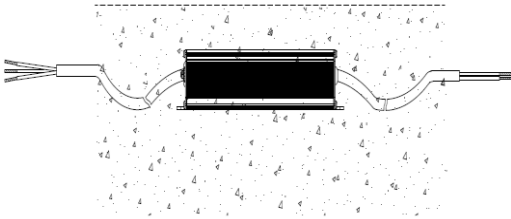
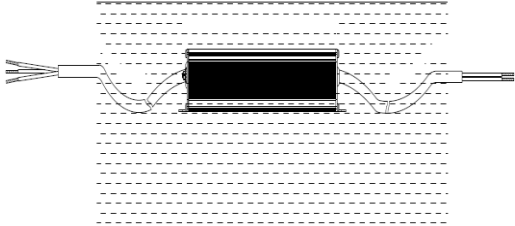


Figure 4. Not Recommended – Exposed + Vertical Mounting

Inventronics is committed to concurrent engineering with our customers to develop the world’s most reliable drivers for the toughest applications. Please contact us with any comments, questions, or concerns at: <https://chinaleddriver.com/>

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Not recommended installation

<p>Exposure</p>  <p>X</p>	<p>Through-holes on top cover of fixture</p>  <p>X</p>
<p>Underground</p>  <p>X</p>	<p>Soak in water</p>  <p>X</p>