

RIVO MULTITRADE OPTICAL SYSTEMS

Long cylindrical distribution box



Overview

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Key Takeaways

A long cylindrical distribution box is a specialized electrical enclosure designed to house and protect circuit components while allowing power distribution in a compact, tubular form factor.

Overview
A long cylindrical distribution box serves the same fundamental purpose as standard DB boxes: it safely distributes electrical power from a single input source to multiple circuits, protecting against overloads, short circuits, and environmental hazards . Its cylindrical shape is particularly useful in applications where space is constrained, or where a tubular form allows easier routing of cables along poles, pipelines, or confined industrial spaces.

Materials and Construction

These enclosures are typically made from high-strength thermoplastics such as polycarbonate (PC) or ABS, or from powder-coated or epoxy-coated metals for enhanced durability . The cylindrical design often includes:

- Knockouts or pre-drilled entry points for cable connections
- Sealed end caps to maintain IP66/IP67 waterproof ratings
- Internal mounting rails or brackets for circuit breakers, fuses, or terminal blocks

- Optional transparent windows or portholes for monitoring meters or indicators The cylindrical form can improve impact resistance and reduce stress points compared to rectangular boxes, making it suitable for outdoor or industrial environments.

Applications

Long cylindrical distribution boxes are commonly used in:

- Industrial installations where space is limited or linear cable runs are required
- Outdoor electrical systems, including street lighting or solar panel arrays
- High-voltage or HVDC systems, where isolating multiple lines in a compact enclosure is advantageous
- Decentralized smart building installations, where modular components and pluggable connections are needed

Advantages

- Space-efficient design for narrow or elongated installation areas
- Enhanced environmental protection due to cylindrical shape and sealing
- Modular and customizable for different numbers of circuits or monitoring devices
- Durable and impact-resistant, suitable for harsh conditions

Installation Considerations

- Ensure proper ventilation or heat dissipation if high-power components are installed
 - Verify IP rating for outdoor or wet environments
 - Use DIN rails or mounting brackets compatible with the cylindrical interior
 - Consider accessibility for maintenance, as cylindrical boxes may require specialized end-cap removal or hinged covers
- In summary, a long cylindrical distribution box is a robust, space-saving alternative to traditional rectangular DB boxes, offering flexibility for industrial, outdoor, and specialized electrical installations while maintaining safety and modularity .

Article Content

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

