

Double-layer terminal block of distribution box



Overview

VIOX TBD Terminal Block VIOX Electric's TBD Terminal Block series offers industry-leading double-layer screw terminal blocks specifically designed for 1Pc.

Key Takeaways

Double-layer terminal blocks allow two levels of wiring in a single compact unit, enabling efficient space utilization and flexible electrical connections in distribution boxes.

Overview and Functionality

Double-layer terminal blocks, also known as two-level or multi-level terminal blocks, are designed to accommodate two separate wiring levels within the same terminal unit. This allows multiple conductors to be connected on the same potential or separated potentials, which is particularly useful in control cabinets, distribution boxes, and switchgear. They are ideal for power, signal, and data distribution in compact spaces, reducing the need for additional terminal blocks and saving panel space.

Key Specifications

- **Rated Voltage and Current:** Typical double-layer blocks support voltages from 500V to 600V and currents from 22A to 25A, depending on the model.
- **Wire Cross-Section:** They can accommodate conductors ranging from 0.14 mm² to 4 mm² for standard blocks, with some industrial models supporting up to 185 mm².

- **Mounting:** Most double-layer terminal blocks are DIN rail mounted (NS 35/7.5 or NS 35/15), allowing easy installation and modular expansion .

- **Connection Methods:** Options include push-in connections for fast, tool-free wiring, or screw/cage clamp connections for secure, vibration-resistant contacts .

Advantages

- **Space Efficiency:** Two levels of wiring in a single block reduce panel footprint and allow higher wiring density .

- **Ease of Maintenance:** Many blocks feature lateral wire entry and integrated test points, making troubleshooting and maintenance easier without disconnecting wires .

- **Flexibility:** Multi-pole assemblies are possible, and blocks can be combined with transparent or protective covers, marker strips, and accessories for labeling and safety .

- **Compatibility:** Suitable for power distribution, signal routing, and grounding, with options for PE (protective earth) connections and modular expansion .

Applications

Double-layer terminal blocks are widely used in:

- Industrial control panels for machinery and automation systems

- Electrical distribution boxes in commercial and residential buildings

- Switchgear and power distribution systems

- Compact installations where space-saving and high wiring density are critical .

Summary

Double-layer terminal blocks provide a compact, flexible, and reliable solution for connecting multiple conductors in distribution boxes. Their multi-level design, DIN rail compatibility, and versatile connection methods make them ideal for modern electrical installations, improving wiring efficiency, safety, and maintainability .

Article Content

Terminal Blocks & Strips | Electrical & Phoenix Contact Terminal Blocks ...

Power distribution blocks: Designed for high-current applications to distribute power across circuits. Connector strips: Common for

Contact Us

Continue your research online:

Website: <https://thegalleryselfcatering.co.za>

Technical inquiry: <https://thegalleryselfcatering.co.za/contact.html>

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

