












Description	Illustration	Applications and Features	Page
Through-Type Terminals		Through-type terminals from 25A to 410A in a single-pole and blocks of three or ten poles. Terminal colors include beige, blue, red, orange, green/yellow and black.	754-755
Double-Tier Through-Type Terminals		Double-tier terminals for limited space applications. Also available with ground connection.	756
Ground Terminals		Green/yellow terminals with ground connection to standard mounting rails.	757-758
Neutral Isolating Terminals		Provides mounting and connection to 6×6 mm (0.23×0.23 inch) neutral bus bar for international applications.	758-759
Toggle Switch and Sliding-Link Disconnect Terminals		Terminals for disconnecting incoming and outgoing circuits without removing conductors.	759-760
Fuse Terminal		Fuse terminal with fuseholder makes fuse replacement easy. Provision for spare fuse built in.	760
Diode Terminal		Diode terminal with screw terminals on both sides and holes for test plugs.	761
Components Terminal		Terminal with removable printed circuit board plug ready for soldering integral solid state components for custom circuits.	761
Circuit Breaker Terminal		Terminal for line protection in auxiliary circuits. 1000A interrupting capacity at 120VAC.	761

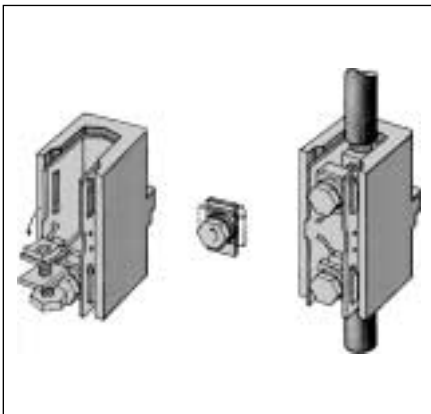
## Type 8WA1

### Design

8WA1 terminal blocks meet or exceed the requirements of NEMA, UL, CSA, IEC, VDE and other international standards. Meeting these requirements, combined with worldwide acceptability and availability, enables 8WA1 terminal blocks to be used domestically; and, incorporated into equipment which will be exported.

The terminal body is insulated (except double-tier through-type terminals) eliminating the need for barriers and end plates. The terminal body is designed to be distorted elastically by the tensile stresses resulting from the tightening of the terminal screws. This feature compensates for conductor creepage. The distortion of the threaded section also prevents the terminal screw from loosening, even when subjected to severe mechanical and thermal stresses (i.e., vibration up to 10G's and thermal cycling). Self-rising, pressure plate terminals (except circuit breaker and fuse block types) provide easy conductor access. Solid, stranded and finely stranded conductors may be used. Terminal Sizes 95 and 185 use a swing-out conductor assembly design as illustrated.

#### Conductor insertion into Size 95 and Size 185 terminal blocks.



Terminal blocks through Size 70 are made of Polyamid 6.6 thermoplastic. Sizes 95 and 185 are made of duroplastic.

Mounted on a standard 35mm DIN rail, terminal blocks can be snapped onto the rail either individually or in groups. Once assembled, individual blocks can be added or removed without interfering with adjacent blocks or existing wiring.

Terminal types include the following:

#### Through-Type Terminals

The standard color of through-type terminals is beige and other colored versions are available. Many sizes are available in blocks of three and ten points for cost savings and less mounting time.

#### Double-Tier Terminals

8WA1 double-tier terminal blocks can save up to 50% of the width required by standard Size 4 through-type terminal blocks. In addition to the two-pole double-tier terminal there is also a single-pole double-tier terminal having two points of connection on each side.

Double-tier terminals are also available with 24 VDC LED for indication of voltage presence.

Double-tier terminals can offer additional space savings when a ground connection is required. The 8WA 1011-3JF12 terminal block provides two through connections and a ground connection to the mounting rail.

#### Ground Terminals

In international application or distribution and control systems the steel mounting rails for the terminal blocks are frequently used as a ground bus. The ground terminals provide the connection to the mounting rail. Color is standard green/yellow.

#### Isolating Terminals

Neutral isolating terminals used in international applications allow an insulation test to be performed without disconnection of the neutral conductor in accordance with VDE 0108 and VDE 0100 (rules for the installation of electric power equipment).

#### Disconnect Terminals

Toggle switch and sliding-link disconnect terminals permit easy isolation of a circuit without removing conductors.

#### Fuse Terminal

The fuse terminal block has been designed for fuse links 5×20mm (0.19×0.78 inch) and 5×25mm (0.19×0.98 inch). The fuse holder allows for easy fuse replacement and has a spare fuse provision.

#### Diode Terminal

The diode terminal block contains a 1N4007 diode. The diode direction is externally marked.

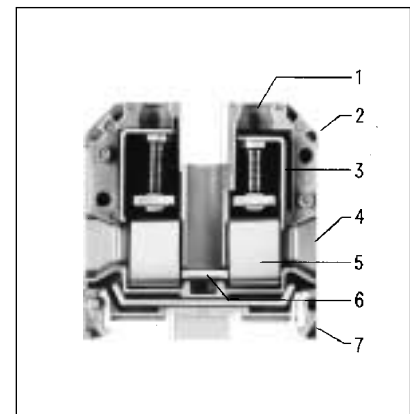
Diode terminals can be used for limiting the voltage spikes of DC coils, or lamp test circuits or diode gates.

#### Components Terminal

This terminal is designed for adding custom solid state circuitry. A plug with solder-ready printed circuit board can be utilized for mounting solid state components and inserted in the terminal body. The plug and terminal body are ordered separately.

#### Circuit-Breaker Terminals

These terminals are intended to provide line protection in auxiliary circuits. They are mainly used in control circuits for control devices, solenoid valves and similar items. They meet the growing demand for auxiliary circuit protection and for fuseless switchgear.



8WA1 through-type terminal with screw terminals on both sides (terminal body with pressure pad cross-section):

1. Screwdriver guide
2. Slot for labeling strip
3. Shutter
4. Wire entry funnel
5. Terminal body
6. Tapped hole for link rails
7. Elastic snap-on lugs

## Type 8WA1

## Features

- UL Recognized, CSA Certified. Meets or exceeds other International Standards.
- Mount on standard 35mm DIN rail. Same mounting as contactors and relays.
- Terminals available for Wire Sizes 22 AWG through 500 MCM; Current ratings up to 410 Amperes.
- A variety of colors for 2.5mm and 4mm Terminal Sizes.
- Three pole and ten pole terminal blocks are available.
- Terminal screws are captive and clamps are supplied in the open position.
- Screwdriver guides and funnel-shaped wire entries speed up connection time.
- Jumper wires are unnecessary. The terminal connecting bars are tapped to accept link rails for up to ten terminals.
- Through-type terminals are symmetrical. It does not matter how they are snapped on the rail.
- Spring pressure plates that flex during tightening ensure high reliability in low voltage and low current circuits when copper conductors deform due to pressure, heat changes or vibration.
- Double-tier terminals provide 50% space savings and can be ordered with solid state components.
- Standard labels fit all terminals. Blank or numbered labels in either vertical or horizontal configurations are available. Labels can be supplied in consecutively numbered strips and easily snapped into place on the terminals after installation.

## Description

**End Plate (Figure 1)**

End plates are used with Through-Type Double-Tier and Double-Tier LED terminals. They are used at the end of a terminal block run where a physical barrier is required to prevent contact with electrical parts.

**Barrier (Figure 2)**

Barriers are yellow in color and extend 5mm beyond the contour of the terminal block. They are used to provide visual separation between terminal groups and electrical isolation between adjacent parallel link groups. A knockout is provided to allow the use of a neutral busbar when required.

If two groups of terminal blocks are at different potentials, a barrier matching the largest terminal block must be inserted to provide electrical isolation.

**Separator (Figure 3)**

Separators are used with Terminal Sizes 2.5 through 35 to provide electrical isolation between adjacent parallel links. These separators do not increase the width of the terminal group and can be fitted after the terminal group is assembled.

**Link Rail (Figure 4a)**

Link rails are available for 2, 3 and 10 terminals. Links are screwed into the terminals from the top and enable up to 10 terminals (Terminal Sizes 2.5 to 35) to be connected in parallel.

The 10-pole links can be shortened as required. Above Terminal Size 70, they are two-pole. On Terminal Size 95 and 185, they are mounted in the points of connection.

**Link Rail, Upper Tier (Figure 4b)**

Through-Type Double-Tier terminals can be linked in both the upper (4b) and lower (4a) tier. The upper tier and the lower tier of the 2-pole terminal remain isolated even when the links are used on the lower tier. This makes it possible for two different potentials to be used on the same terminal.

**Link Bridge (Figure 5)**

Link bridges allow two or more link rails to be physically connected to form a continuous chain.

**Disconnecting Link Bridge (Figure 6)**

Disconnecting link bridges allow two or more link rails to be physically disconnected without removal of the link assembly.

**Test Socket (Figure 7)**

Test sockets can be fitted to Terminal Sizes 2.5, 4 and 6. The test socket allows the use of instruments with 2.3mm diameter test plugs. 2.3mm diameter test plugs are also available for customizing instrument leads.

**Cover (Figure 8)**

The cover with warning arrow assists in the identification of power input terminals and provides an additional physical protection against contact with live conductors. Blank white covers are also available for on-site inscription.

**End Retainer and End Labels**

End retainers with end labels (optional) are used with double-tier terminal blocks with an end plate. They are used to lock the terminal blocks and end plates in place.

**Labeling Accessories**

Labels are available with a variety of alpha or numeric characters. Inscription height is 2mm and may be ordered as vertical or horizontal.

Labels are provided in card form. Strips are available with consecutive numerals of twenty per strip typical.

Blank caps and strips are also available for custom marking with indelible pen.