


XB IEC Terminal Blocks

Screw Type Spring Cage Type Insulation Displacement Connection Type



Powering Business Worldwide



***XB* IEC Terminal Blocks.**
Versatility, quality,
and reliability.



Sometimes it's the little things...

Eaton knows that sometimes it's the little things that make a world of difference. That's why Eaton's complete line of motor control solutions for OEMs includes everything from sophisticated drives and power control to logic components like pushbuttons and terminal blocks—all the latest in technology. Each piece comes together to give Eaton the edge when it comes to OEM centric solutions—every piece of the puzzle from a supplier you can trust.



XB IEC Terminal Blocks are the difference

Offering a complete line of reliable feature-rich terminal blocks is Eaton's way of demonstrating it cares about the entire control system, from protection and control to wiring and termination. Eaton's new IEC terminal

blocks include screw type, spring cage and insulation displacement connection (IDC) technologies. Hybrid terminal blocks offer the best of both worlds with IDC or spring cage technology on one side and a universal screw

connection on the other, giving you the options you need, while common profiles and accessories help keep your business efficient.

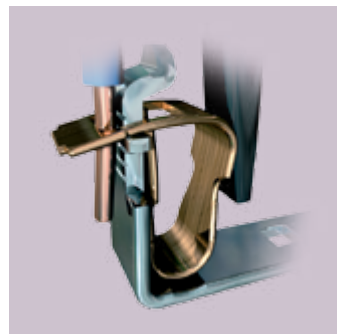
Screw Type

- Low contact resistance.
- Nickel-plated copper alloy for corrosive environments.
- Suited for material handling, petrochemical, water and wastewater, pulp and paper and most other industries.



Spring Cage Type

- Rugged contact spring for high vibration environments.
- Suited for mass transportation/railroad, elevator/escalator, shipbuilding, and machine building industries.



Insulation Displacement (IDC)

- High volume applications where speed of termination is critical.
- Hybrid blocks with IDC on one side for factory wiring and screw or spring technology on the other for field wiring are also available.



Flexibility for your business

With three terminal block technologies, Eaton gives you flexible options. Your business is what matters—the new IEC line of **XB** Terminal Blocks allows you the versatility you need to optimize your products and processes efficiently and effectively.

Not only can you choose between screw type, spring cage or IDC terminal blocks, but Eaton is also offering value-added services that make this product line easy to customize to your business.

Application engineering to help select products for a control cabinet and the capability to build customized rail assemblies with everything from terminal blocks, supplemental protection, and power supplies to motor control are a few of the elements that will allow you to meet the level of efficiency you require for your business.

ECHART, Eaton's Cutler-Hammer Assembled Rail Tool, is a valuable and

complementary software package that lets you build DIN-rail assemblies right on your PC. ECHART makes designing custom assemblies easier than ever by providing dimensionally accurate drawings and a bill of materials. You can export this data into AutoCAD, Excel, or numerous other programs for complete versatility.

A product line that exceeds expectations, with the flexibility your business demands—Eaton offers it all with **XB**.

The reliability and quality you expect

XB IEC Terminal Blocks fill Eaton's basket of reliable quality solutions for your business. International approvals, vibration and shock resistance and explosion and fire protection are just some of the features the **XB** line offers you and your customers.

XB Terminal Blocks are tested and approved for a wide range of certifications, including

EN and IEC standards, cULus, and CE, providing a globally rated connection and termination system for shipping panels and machines around the world.

All three connection systems guarantee the highest contact reliability on the market, even in the case of high vibration environments. Tested in accordance with railway standard EN 50 155,

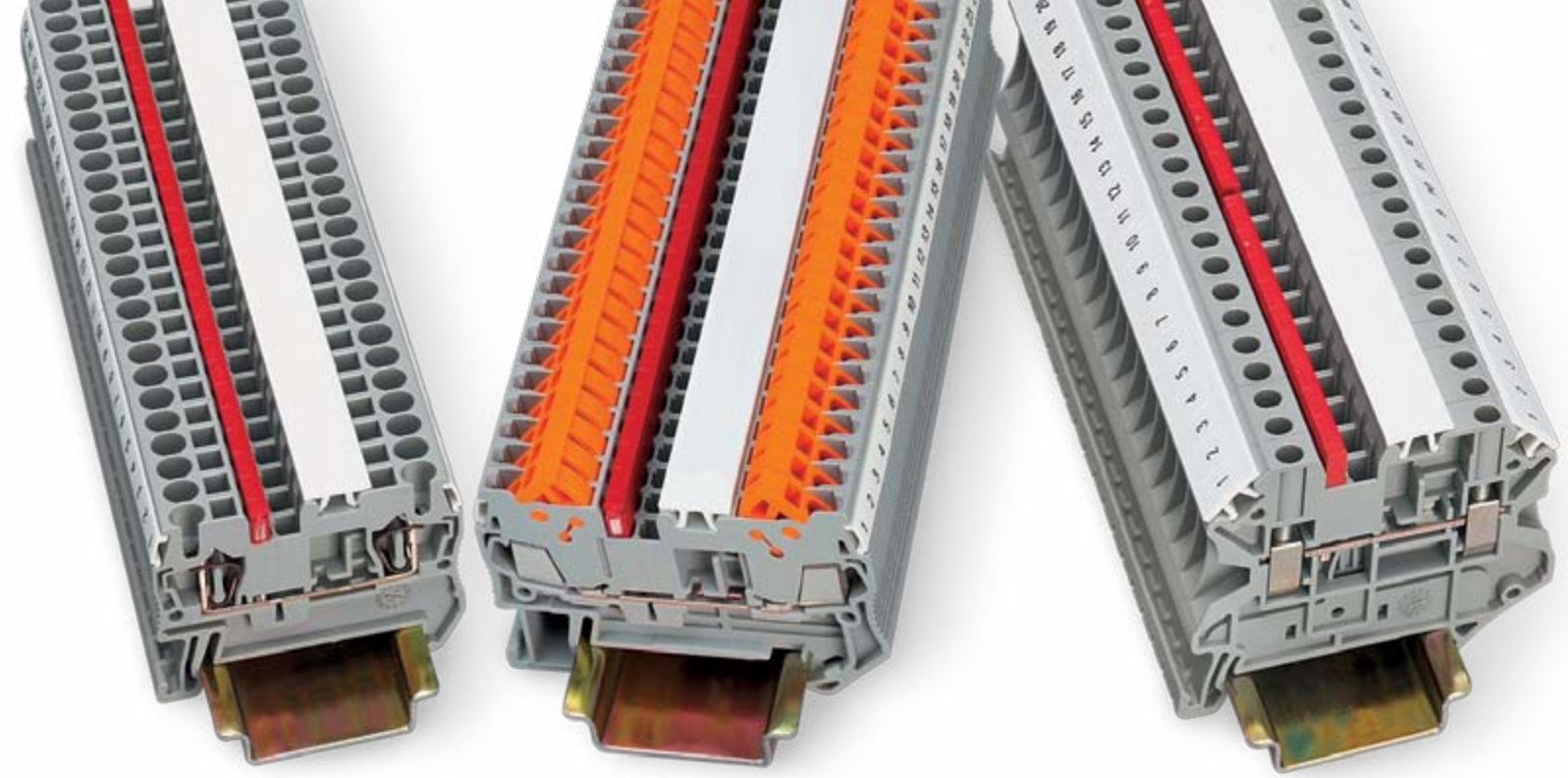
XB Terminal Blocks are suited for use in safety-relevant applications where vibration stressing occurs.

The highest level of safety is standard because of routine testing in accordance with the ATEX-100a guideline. Standard **XB** Terminal Blocks are approved and certified for use in potentially explosive areas. Maximum safety is assured because high-quality

material is used exclusively for the insulation housing. This highly durable material is non-flammable and fulfills the highest requirements of classification V0 in accordance with UL 94.

Any application, anywhere...
XB IEC Terminal Blocks.





Spring Cage

Insulation Displacement Connection

Screw

Three connection methods, one complete line

Designed to meet market needs for time and labor savings, all **XB** Terminal Block types—screw, spring cage and IDC—have a dual bridge shaft with the same shape and common accessories, reducing inventory and simplifying engineering efforts. No matter what your application or which connection system is used,

XB always offers the best solution for bridging, marking, and simplified testing.

All **XB** Terminal Blocks have two bridge shafts for fast and effective potential distribution. Arranged in a line over all the terminal blocks, these shafts permit the connections systems to be combined.

To have clearly structured wiring and start-up, easy to read markings are a must. All the terminal points of **XB** Terminal Blocks have a large area available for marking, facilitating identification during testing and maintenance work. Also available are snap-on, large-area marker carriers for group and terminal strip marking.

No need to worry about using only one connection style, **XB** allows you to mix it up. With compatible geometry and identical accessories you can use screw, spring cage or IDC terminals blocks in whatever combinations fit your application needs.

Insertion Bridges



Marking Accessories



Testing Accessories



XB Terminal Block accessories help you save time and money.

Universal Screw Terminal Connection

XB screw type terminal blocks, catalog prefix XBUT, are the universal choice for most applications. The technology features a multi-conductor connection and maximum contact forces. The style combines the advantages of a screw connection system with the benefit of spring-loaded contacts. The snap-fit ground (PE) terminal block and standard plug-in bridges allow for critical time-savings when assembling terminal strips. The product range also includes fuse and disconnect terminal blocks in addition to feed-through terminal blocks of various levels.

XBUT Available Product

Feed-through terminal blocks
2-, 3- and 4-conductor modular terminal blocks
Multiple level terminal blocks
Knife disconnect terminals
Fuse terminal blocks
Disconnect and component terminal blocks
Diode terminal blocks
Wide variety of available accessories

A screw type connection is characterized by three main features:

- Metals made of high-strength copper alloys.
- Multi-conductor connection.
- Unique maintenance-free design prevents screw backout when properly torqued.

Ground terminal blocks of the same shape are simply snapped onto the DIN rail in order to make contact. This mechanically and electrically efficient contacting meets all the requirements of IEC 60947-7-2.

Standardized plug-in bridges allow potential distribution to be implemented quickly. Two bridge shafts make flexible chain and skip bridging, or bridging between non-adjacent terminal blocks possible.



Spring Cage Terminal Connection

Featuring a new smaller spring technology, the spring cage terminal style of the new **XB** line, catalog prefix XBPT, saves significant space, without giving up features like a large surface marking and generous wire entrance, as well as its flexible push-in bridging system. **XB** spring cage terminal blocks are available for rated conductor cross sections from 1.5–35 mm². A large number of multi-level spring-cage, fuse and disconnect terminal blocks are available with an extensive range of accessories.

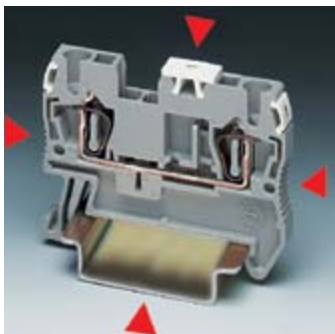
XBPT Available Product

Feed-through terminal blocks
2-, 3- and 4-conductor modular terminal blocks
3-conductor hybrid modular terminal blocks (spring cage to screw terminals)
Double-level terminal blocks
Double-level 3-conductor terminal blocks
Three-level terminal blocks
Disconnect terminal blocks
Fuse terminal blocks
Diode terminal blocks
Pluggable terminal blocks for disconnect, fuse and component plugs
Wide variety of available accessories

Front entry spring cage terminal blocks are ideally suited to control systems where space is restricted because the wire and screwdriver come in parallel from above.

Due to the large amount of connection space, **XB** spring cage terminal blocks offer a fast wiring option for solid and stranded conductors, with or without the use of ferrules.

Large-area marking offers clear identification at the terminal center—a prerequisite for safe, time-saving installation and end marking for labeling each terminal point.



Insulation Displacement Connection (IDC)

The new IDC style, catalog prefix XBQT, is designed for critical time saving applications. Connect the conductor without having to strip it first—amounting to up to a 60% time-savings. With the patented insulation displacement contact, this style of terminal block ensures a reliable electrical connection with a simple, audible click.

The IDC style of **XB** Terminal Blocks is also available in a hybrid version, with the fast, time-saving IDC connection for wiring in the control cabinet and screw terminals for field wiring of the conductors that come from outside. The hybrid version allows you to profit from the fast IDC connection and still offer your customers their preferred connection system.

Conductors of 0.25 – 2.5 mm² and 24A are connected using a compact insulation displacement contact. High-grade special alloys and snap fittings of the switching statuses ensure a reliable electrical connection, and large-surface, spring-loaded contact points guarantee a current carrying capacity of 17.5A (IEC).

Stripping and fitting splicing protection is no longer necessary with **XB** IDC terminal blocks. Simply cut the conductors to the correct length, actuate the lever and the connection is made. Plus, IDC is operated with a standard screwdriver, so no need for special tools.

XBQT Available Product:

2-, 3- and 4-conductor modular terminal blocks

Double-level modular terminal blocks

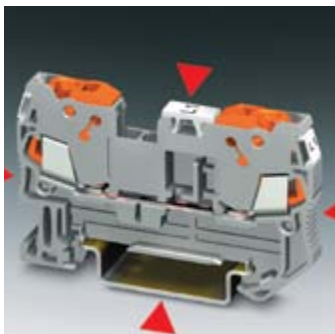
Disconnect terminal blocks

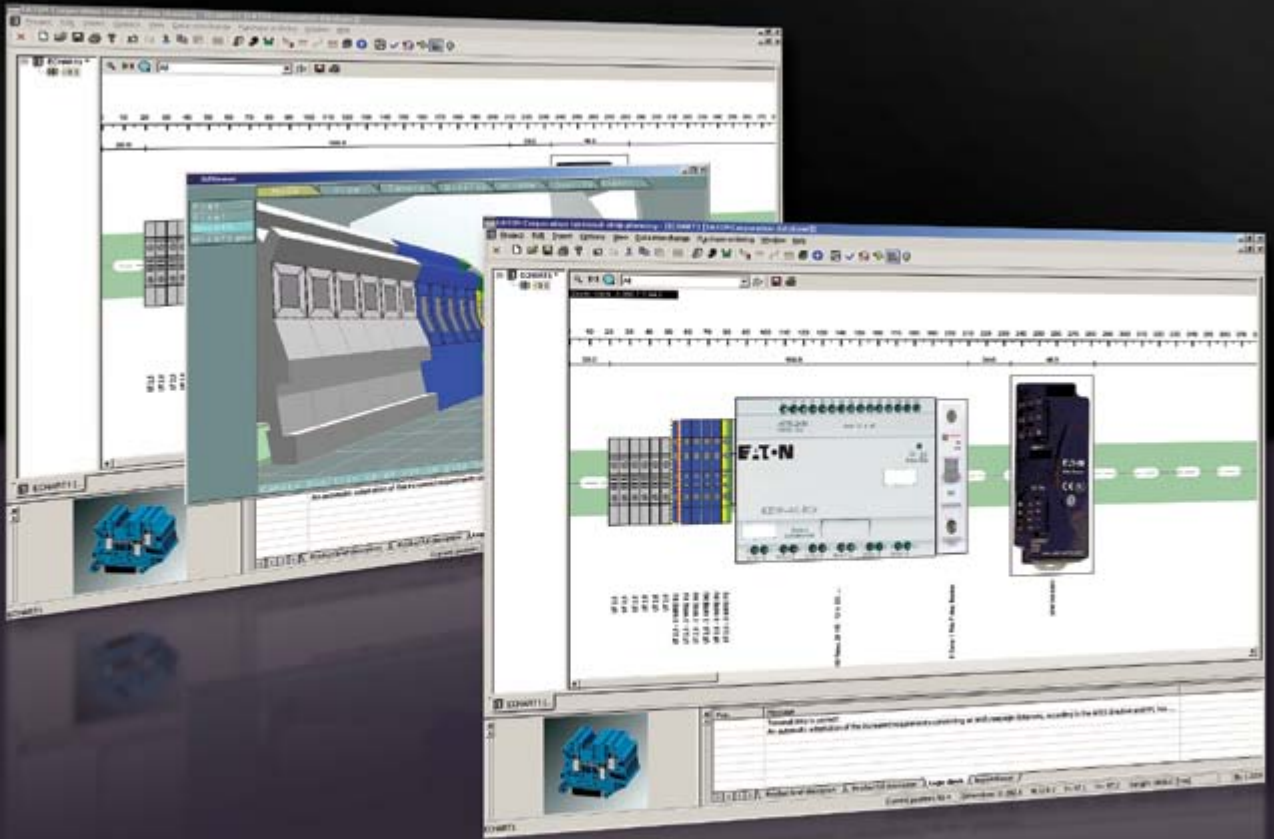
Disconnect, fuse and component plugs

Hybrid terminal blocks with screw connections

Wide variety of available accessories

The universal concept of the design ensures that feed-through, multi-conductor, disconnect and double-level terminal blocks are equipped with a dual bridge channel and are therefore not only compatible with each other, but also with XBPT spring cage terminal blocks.





ECHART Configuration Software for DIN-rail assemblies

Now you can design accurate, customized DIN-rail assemblies on your PC with Eaton's Cutler-Hammer Assembled Rail Tool. Design with **XB** Terminal Blocks and other rail-mountable products such as WMT supplemental protectors, **XT** IEC motor control and power supplies. ECHART helps select components, graphically populates the rail, and automatically corrects the spacing of components and accessories to meet worldwide standards. New products will be added to ensure you're incorporating the most technologically advanced products Eaton has to offer.

ECHART key features

- Generate dimensionally accurate drawings of DIN-rail assemblies.
- Product photos and specifications assist the design process.
- Search by part type, catalog number, product family, wire gauge size or approvals.
- Auto-correction feature ensures design accuracy.
- Save files in a variety of formats.
- Print rail assembly, bill of materials, mounting and jumper lists.
- Transfer data to CAD, Microsoft Word or Microsoft Excel.
- Conveniently transfer marking data to XBPLT plotter system.

Eaton's Electrical Sector is a global leader in power distribution, power quality, control and automation, and monitoring products. When combined with Eaton's full-scale engineering services, these products provide customer-driven PowerChain Management® solutions to serve the power system needs of the data center, industrial, institutional, public sector, utility, commercial, residential, IT, mission critical, alternative energy and OEM markets worldwide.

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