Push-X Technology[P]

Designed by Phoenix Contact

Push-X technology

The new milestone in connection technology

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Push-X technology

A new concept in tool-free conductor connection: Push-X can accommodate all types of conductors with direct wiring without the need for force or tools. A pretensioned contact spring lies at the heart of this new technology. This spring enables the connection of rigid and flexible conductors with or without ferrules. Even the smallest flexible conductors trigger the connection. Lightly tapping the release surface inside the clamping chamber causes the conductor to be contacted without any effort.

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Status indicator

The spring on the pusher ensures that the pusher is always flush with the clamping surface when the clamping chamber is triggered. This makes it easy to see from the outside which clamping chamber is closed or open.

Flexible conductor types

The Push-X terminal blocks accommodate flexible and rigid conductors with or without ferrules. Even the smallest flexible conductors trigger the release mechanism and are properly clamped.

Effortless wiring

The spring used for the Push-X connection technology enables effortless wiring. Due to the shape of the spring and the connected clamping mechanism, you are not working against the force of the contact spring during conductor entry.
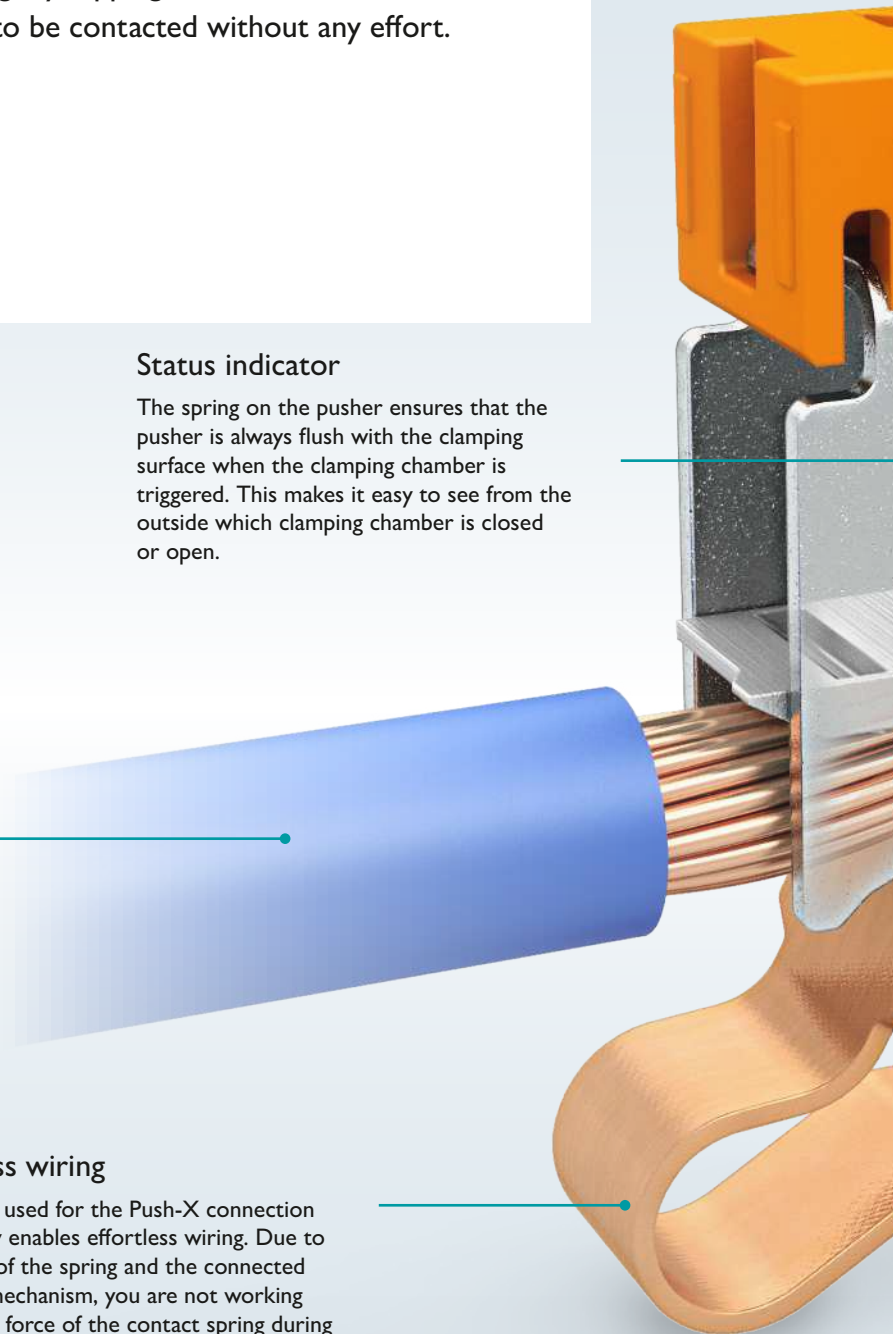
The X on the pusher

The distinctive X on the pusher makes it easy to identify the Push-X connection technology. The X shape also makes it easy to use a bladed or Phillips screwdriver to release the conductor.

Pretensioning the contact spring

The recess on the sliding piece is responsible for pretensioning the contact spring. As soon as the sliding piece has been pushed to the limit position via the orange pusher, the bottom part hooks onto the spring. This holds the sliding piece in the limit position and thus keeps the contact spring pushed away from the current bar. The spring is pretensioned for rewiring.

Triggering the clamping mechanism

This part of the spring is responsible for pretensioning and releasing the contact spring. As soon as the sliding piece reaches the limit position, this part springs into the recess on the sliding piece. This holds the sliding piece in the limit position. Now, when a conductor is inserted all the way into the clamping chamber, the conductor pushes the spring out of the recess on the sliding piece. This causes the sliding piece and pusher to spring up and the contact spring clamps the conductor in a flash.

High quality

The current bar is made from a hard-faced copper alloy. This ensures maximum current transfer.
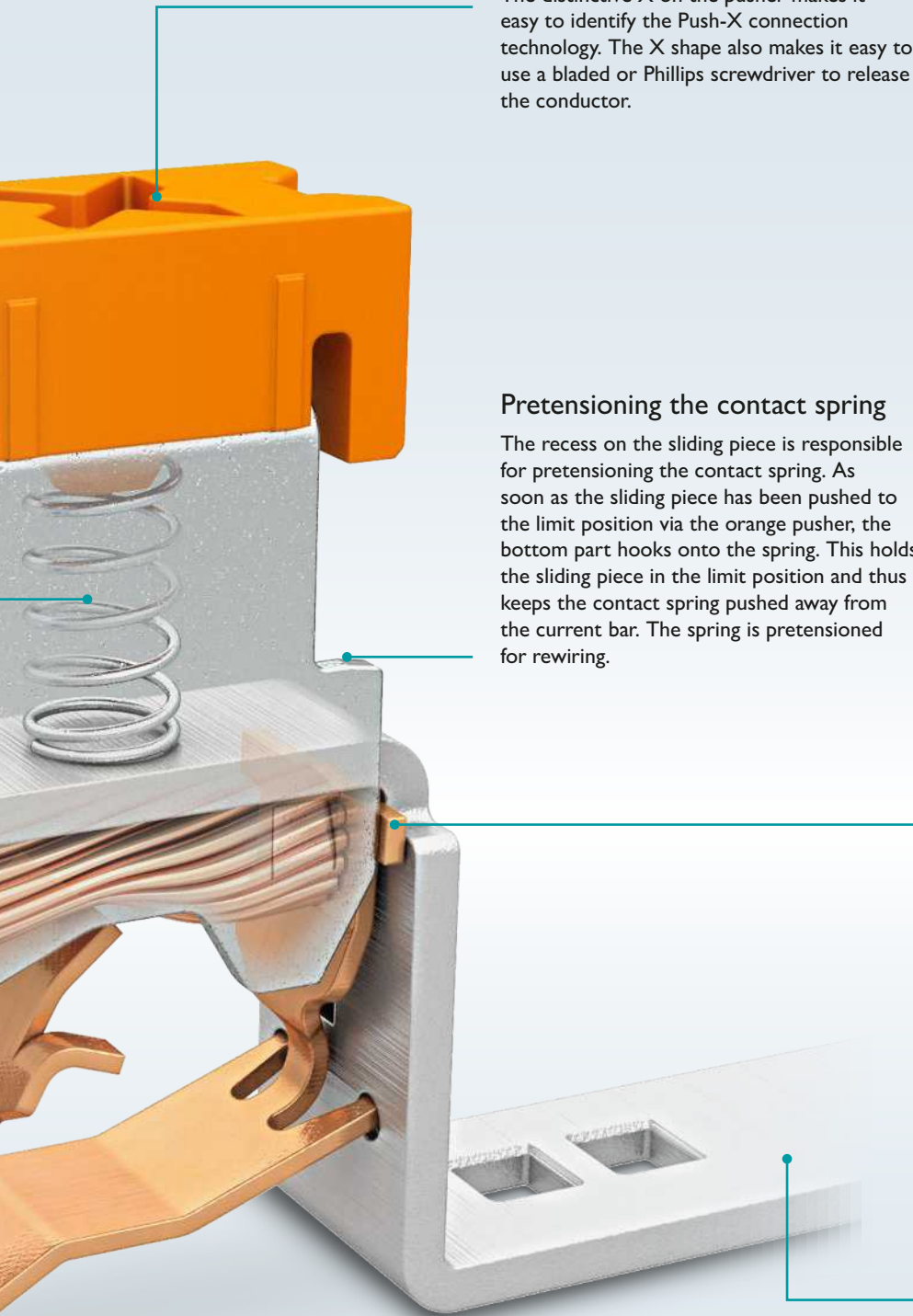
Feed-through and multi-conductor terminal blocks

The new XTV terminal blocks are the first terminal blocks on the market with integrated Push-X technology. The quick and effortless connection technology enables you to connect conductors in no time at all. The new terminal block family consists of feed-through terminal blocks and multi-conductor terminal blocks in nominal cross-sections of 6, 10, and 16 mm². This enables you to wire conductor cross-sections between 1.5 and 25 mm². For consistent lateral spring wiring, a larger conductor cross-section range of 0.14 to 185 mm² is possible thanks to the PTV and PTPOWER terminal block families.
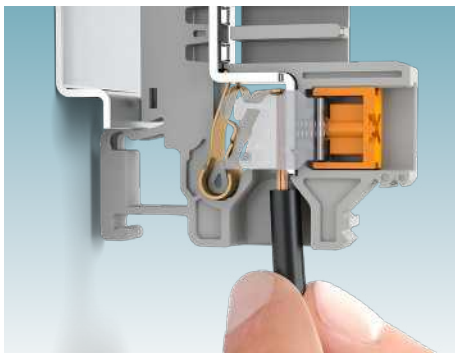
Highly convenient operation

Thanks to the ingenious structure of the clamping chamber, the Push-X technology enables direct and almost effortless conductor connection.

Greater flexibility

Owing to the little effort needed, Push-X makes it possible to wire rigid and flexible conductors with or without ferrule. Even the smallest flexible conductors can be wired quickly and easily without ferrules.

Reduced installation times

With the open connection chamber and the elimination of conductor pretreatment, Push-X is one of the fastest and most flexible connection technologies on the market.
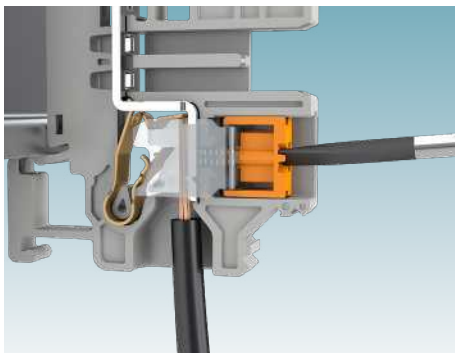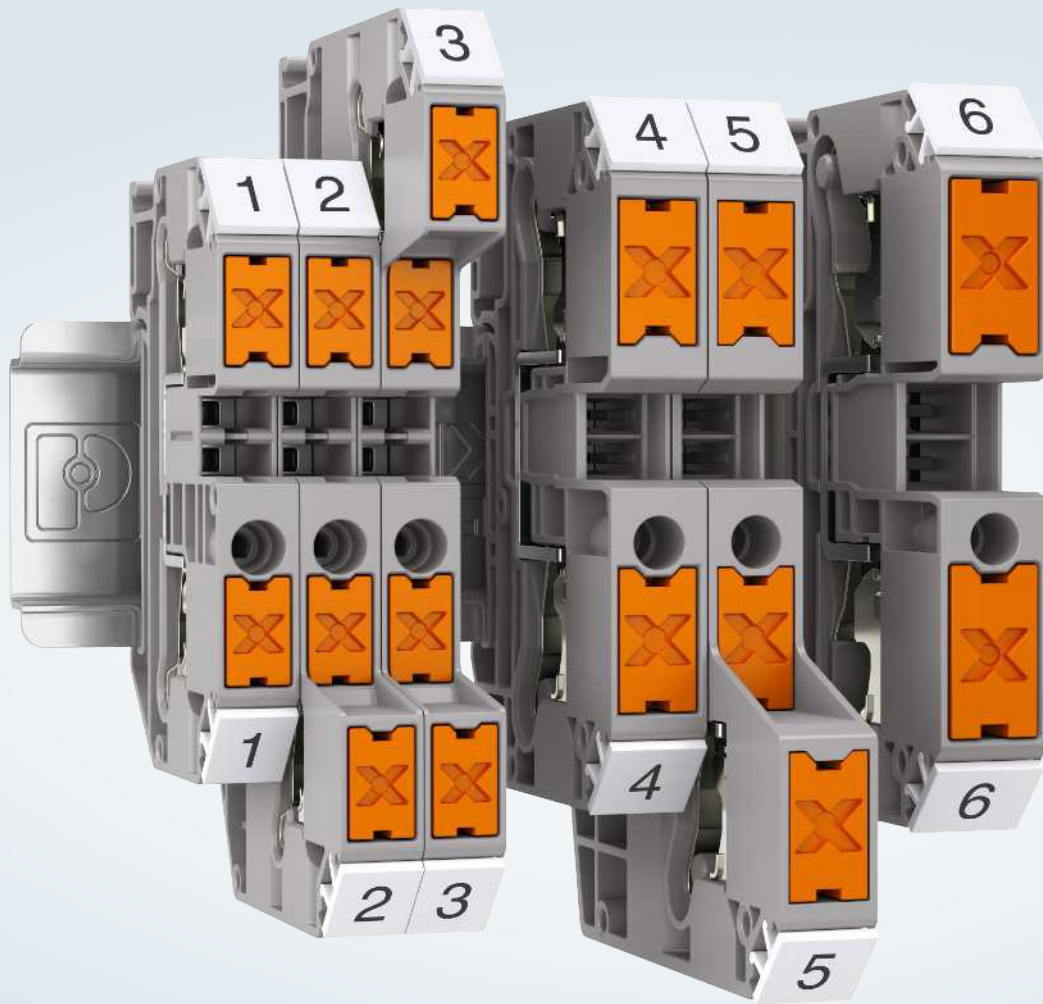
Easy release and tensioning

By pressing down the orange pusher, the conductor can be released quickly and easily. At the same time, the contact spring is pretensioned for rewiring.

Clear overview

Clear identification of the conductor connection by means of the force-guided pusher element and a clear overview of the terminal marking due to the lateral conductor connection.
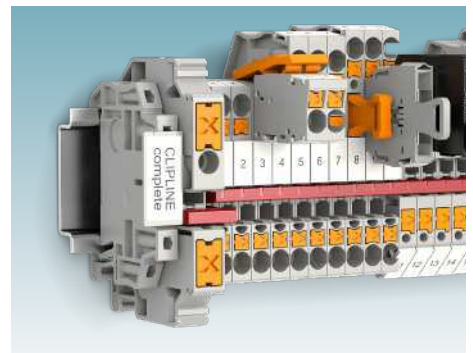
Highly compatible

The XTV terminal blocks with integrated Push-X technology are part of the CLIPLINE complete system. This enables the comprehensive use of standardized bridging, marking, and test accessories.

Further information

In-process quality tests

General

When a new technology arrives on the market, many will welcome it while others will be more skeptical. To dispel any doubts you may have, our products undergo a wide range of quality control checks throughout the entire manufacturing process. These include mechanical and electrical tests, as well as material tests. Examples include tumbling barrel tests, vibration tests, voltage drop tests, and aging tests. For more information on quality tests, visit our "Quality tests for terminal blocks" web page.

Pretensioned clamping chamber

To guarantee extremely quick and easy wiring, the contact chamber must not be triggered even on challenging transport routes. We ensure this by really focusing on this aspect during the development process and in the laboratory. This is why, in addition to the various standard tests such as the tumbling barrel test or the various vibration tests, we also resort to conventional methods. One such example

is dropping the terminal blocks from various heights. For example, this simulates possible inattention when mounting at the control cabinet.

However, if a clamping chamber is ever triggered unexpectedly, the connection can simply be pretensioned again using a screwdriver. The terminal block is not damaged.

In addition to simulating the transport route and possible inattention when mounting, various tests regarding the tight fit of the terminal block, conductor pull-out, and ease of wiring are of course also performed.

XTV terminal blocks

General

The new XTV terminal blocks are the first terminal blocks on the market with integrated Push-X technology. The quick and effortless connection technology allows you to connect your conductors in no time at all. The lateral conductor connection of the terminal blocks also reduces the bending radii. This in turn promotes particularly clear wiring. This is especially advantageous when wire markings are used.

Furthermore, the terminal blocks close the gap in the PTV and PTPOWER lateral spring-cage terminal block range. The space-saving wiring of all conductor cross-sections between 0.14 and 185 mm² is now possible thanks to the new XTV terminal blocks. The new terminal block family consists of feed-through terminal blocks and multi-conductor terminal blocks in cross-sections of 6, 10, and 16 mm². In addition to the standard gray terminal blocks, the product family includes other color versions and ground terminals.

QR code

The XTV series features a QR code in the product marking for the first time. This allows users to always directly access all the information, services, and support they need to use the product – even with mobile end devices. All product information is thus

available worldwide in multiple languages, and is always up to date.

Product information

Feed-through terminal blocks

Colors						
	Gray	XTV 6	1329493	XTV 10	1329547	XTV 16	1329672
	Blue	XTV 6 BU	1329494	XTV 10 BU	1329549	XTV 16 BU	1329673
PE version		XTV 6-PE	1329495	XTV 10-PE	1329550	XTV 16-PE	1329674
Width / length / height		8.2 mm / 62.8 mm / 36.2 mm		10.2 mm / 72.0 mm / 42.8 mm		12.2 mm / 77.2 mm / 43.8 mm	
Current / voltage // UL		41 A / 1000 V // 40 A / 600 V		57 A / 1000 V // 55 A / 600 V		76 A / 1000 V // 75 A / 1000 V	
Rigid / flexible [mm²] // AWG		0.5 ... 10 / 1.5 ... 10 // 20 ... 8		1.0 ... 16 / 2.5 ... 16 // 16 ... 6		1.5 ... 25 / 4 ... 25 // 14 ... 4	

Multi-conductor terminal blocks (three-conductor terminal blocks)

Colors						
	Gray	XTV 6-TWIN	1329499	XTV 10-TWIN	1329603	XTV 6-QUATTRO	1329511
	Blue	XTV 6-TWIN BU	1329506	XTV 10-TWIN BU	1329605	XTV 6-QUATTRO BU	1329512
PE version		XTV 6-TWIN-PE	1329507	XTV 10-TWIN-PE	1329606	XTV 6-QUATTRO-PE	1329513
Width / length / height		8.2 mm / 76.7 mm / 51.4 mm		10.2 mm / 89.1 mm / 62.5 mm		8.2 mm / 90.6 mm / 51.4 mm	
Current / voltage // UL		41 A / 1000 V // 40 A / 600 V		57 A / 1000 V // 55 A / 600 V		41 A / 1000 V // 40 A / 600 V	
Rigid / flexible [mm²] // AWG		0.5 ... 10 / 1.5 ... 10 // 20 ... 8		1.0 ... 16 / 2.5 ... 16 // 16 ... 6		0.5 ... 10 / 1.5 ... 10 // 20 ... 8	

Further information

Are you interested in this new connection technology?

Then visit our web page for Push-X.

Here you will find further information, videos, and contact details.

We look forward to seeing you!

phoenixcontact.com/push-x

Open communication with customers and partners worldwide

Phoenix Contact is a global market leader based in Germany. We are known for producing future-oriented products and solutions for the electrification, networking, and automation of all sectors of the economy and infrastructure. With a global network reaching across more than 100 countries with over 20,000 employees, we maintain close relationships with our customers, something we believe is essential for our common success.

Our wide range of innovative products makes it easy for our customers to implement the latest technology in a variety of applications and industries. This especially applies to the target markets of energy, infrastructure, industry, and mobility.

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