

Marshalling panels

Marshalling terminals, potential distributors, and marshalling patchboards

Phoenix Contact terminal blocks

Whichever type of marshalling panel you decide upon, you can rest assured that Phoenix Contact distributors deliver reliable connections with a very high quality. To ensure that we are always able to fulfill this promise, quality comes first for us. This is why quality is not just tested on the finished product, but is ensured responsibly during every step of the manufacturing process.



1 Marshalling panels

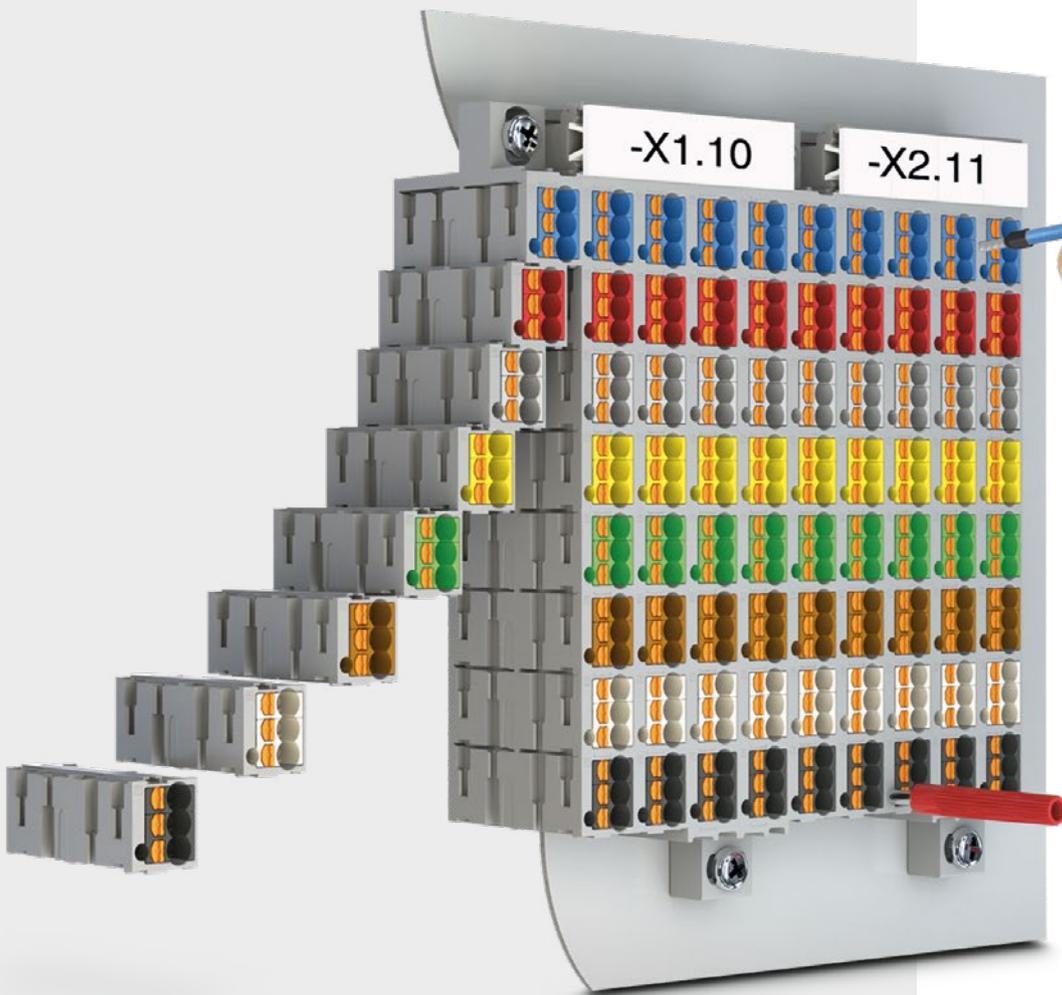
The marshalling panels allow you to distribute signals easily and clearly. The product family is comprised of marshalling terminals and potential distributors for simple DIN rail mounting.

➤ More information starting on page 6

2 Marshalling patchboards

The marshalling patchboards help you to marshal signals easily. The marshalling patchboards are suitable for direct mounting, DIN rail mounting, and mounting in a 19-inch rack. The high-level modularity of the patchboards means you can realize exactly the right number of positions.

➤ More information starting on page 14



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Marshalling panels and marshalling patchboards in comparison

Marshalling panels

The PTRV... marshalling panels are available in three versions. They are made up of marshalling terminals, potential distributors, and potential distributors with feed-in. The versions differ in that the marshalling terminals feature four connections per position. The potential distributors, on the other hand, have just one position, in which all connections are connected together. Moreover, the PTRVB potential distributors can be bridged with the adjacent distributor via a standard plug-in bridge.

Whichever version you decide upon, each version is available in two sizes. The marshalling panels are available with four or eight levels. Depending on the number of levels, the marshalling panels thus have 16 or 32 distribution connections. The potential distributors with feed-in are an exception to this. In this version, two distribution connections are replaced with a feed-in.

The marshalling panels can be secured conveniently to a DIN rail. They thus enable you to realize your potential distribution quickly and clearly.

Moreover, an online configurator is available which allows you to create your own tailored solution.

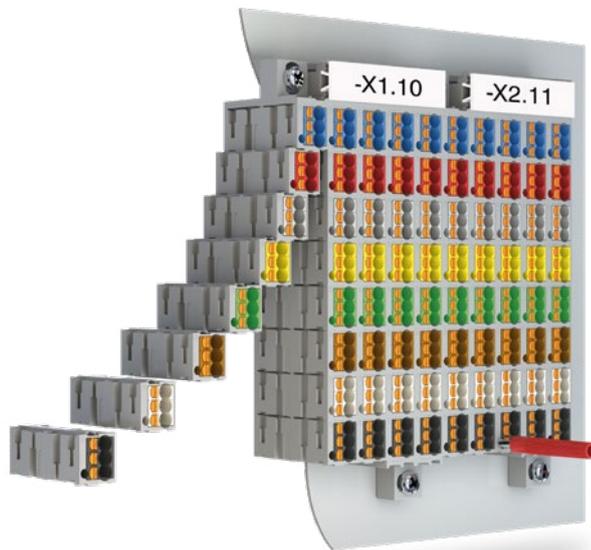


Marshalling patchboards

The PTMC marshalling patchboards are constructed modularly from various individual patchboards. The individual patchboards are available with two or three connection points on each side, each carrying one potential. The modular composition of individual patchboards enables you to create a space-saving marshalling panel with exactly the right number of positions.

When it comes to mounting, the patchboards can be plugged together easily and mounted in a 19-inch rack using mounting adapters or by direct mounting. Preconfigured patchboards for 19-inch rack or direct mounting are also available for the fast and easy installation of marshalling patchboards.

An online configurator is also available for creating marshalling patchboards with exactly the right number of positions. The configurator thus enables you to create a tailored and space-saving solution.



Differences at a glance

Characteristics	Marshalling panels	Marshalling patchboards
Push-in connection technology	●	●
DIN rail mounting	●	●
Direct mounting		●
19-inch rack mounting		●
Comprehensive marking accessories	●	●
Wide range of color versions	●	●
Online configurator	●	●
Nominal cross-section	1.5 mm ²	1.5 mm ²
AWG	26 ... 24	26 ... 24
Nominal voltage	250 V	500 V
Number of connections	16, 32	4 ... ∞
Number of connections per potential	4, 16, 32	4, 6
Potential extension via plug-in bridge	●	

PT Push-in connection

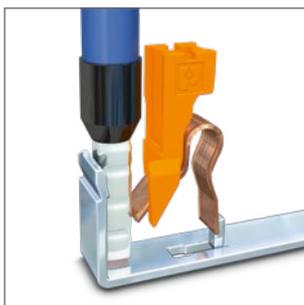
The Push-in connection is a direct conductor connection. Rigid conductors and conductors with ferrules can be inserted directly without using any tools. The special spring profile allows the easy insertion of conductors with ferrules from 0.34 mm² and higher. With the PT Push-in connection, the contact spring is opened automatically when the conductor is inserted.

This provides the required pressure force against the current bar. The spring is opened

by an actuating push button, either to release conductors or to connect flexible conductors without a ferrule, starting from 0.14 mm². This is done easily and without direct contact with live parts. The button can be operated with all standard screwdrivers.



phoenixcontact.com/
PT-connection-video



Clamping part of a
Push-in terminal block

Your advantages

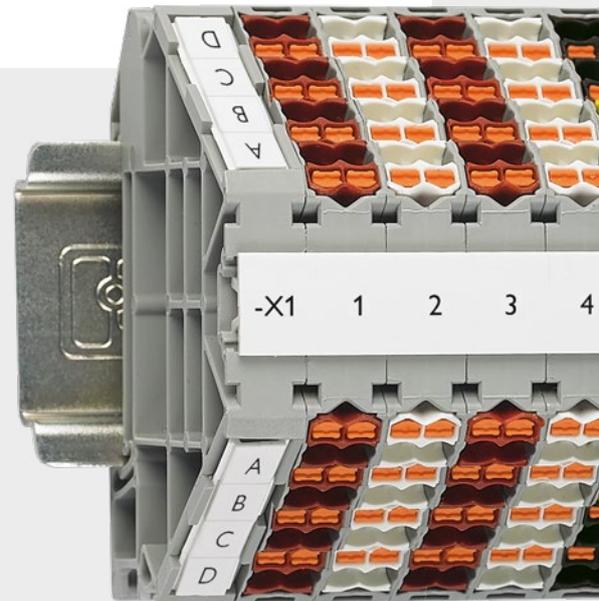
- ✓ Time-saving conductor connection of pretreated and rigid conductors with tool-free direct connection technology
- ✓ Convenient plugging with lower insertion force
- ✓ Safe wiring and operation with the color-coded actuating push button
- ✓ Connection of all conductor types with convenient front connection
- ✓ The conductor can be easily released without special tools

Marshalling panels

1

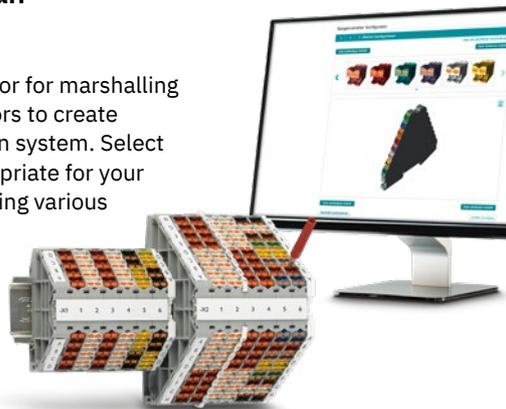
Marshal sensors and actuators easily and clearly with a compact solution. The configurable color coding ensures quick orientation and safe wiring.

Large marker carriers that can be inserted individually enable matrix identification and provide the best possible overview in the control cabinet. Potential distributors of the same shape and a comprehensive range of accessories complete the product range.

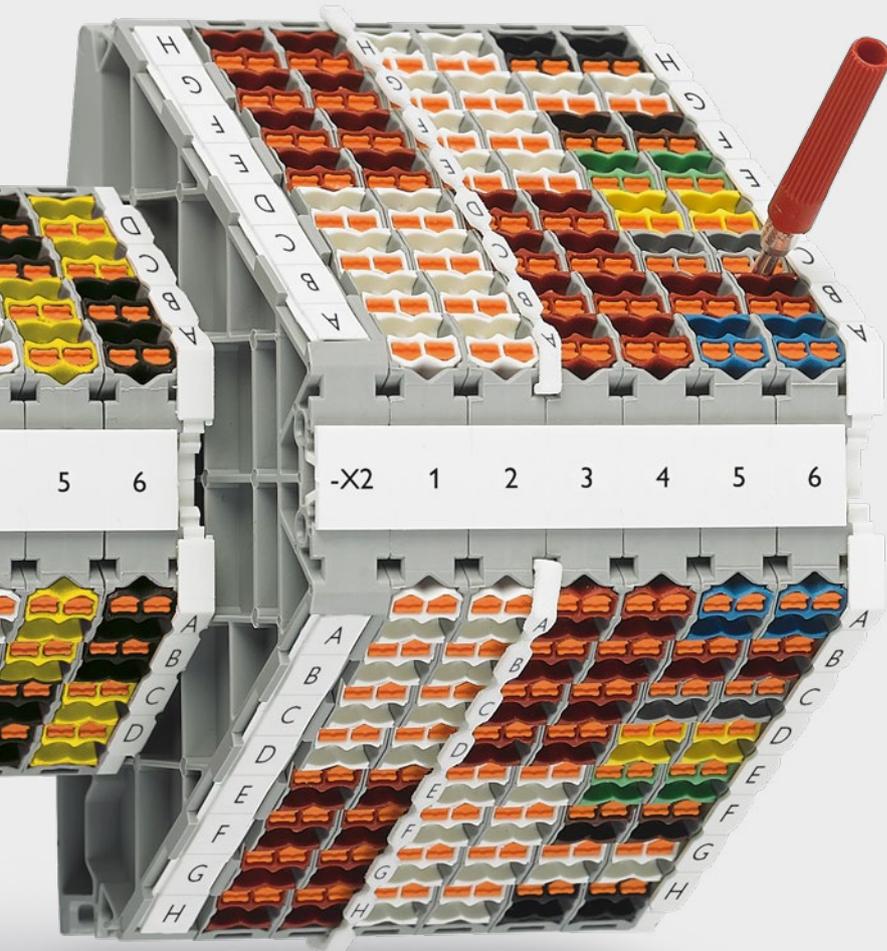


Were you unable to find an appropriate solution?

You can use the online configurator for marshalling terminals and potential distributors to create your tailored potential distribution system. Select the number of connections appropriate for your solution and code them by selecting various colors.



➤ phoenixcontact.com/configurator_marshalling_panels



Potential distributors

In contrast to the marshalling terminals, the potential distributors connect all connections together. Potential distributors with feed-in are also available, in addition to the simple potential distributors.

➤ More information starting on page 10

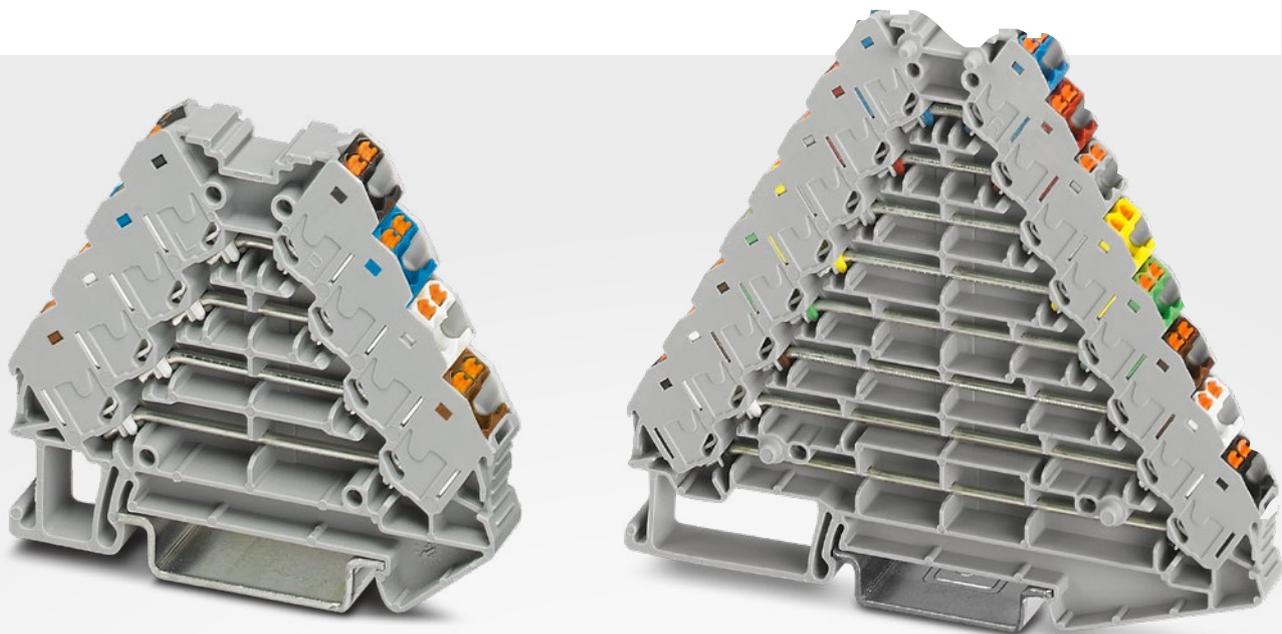
Marshalling terminals

The marshalling terminals are designed for the simple marshalling of signals. They connect the opposite connections of each level together so that four connections carry a common potential.

➤ More information starting on page 8

Marshalling terminals

The PTRV marshalling terminals are available in several versions. The connectors are available with four or eight levels, meaning that versions with 16 or 32 connection points are available. The distribution connections are designed for conductors between 0.14 and 2.5 mm². The marshalling terminals carry one potential for each four connection points, meaning that you have the choice between four and eight potentials.



Your advantages

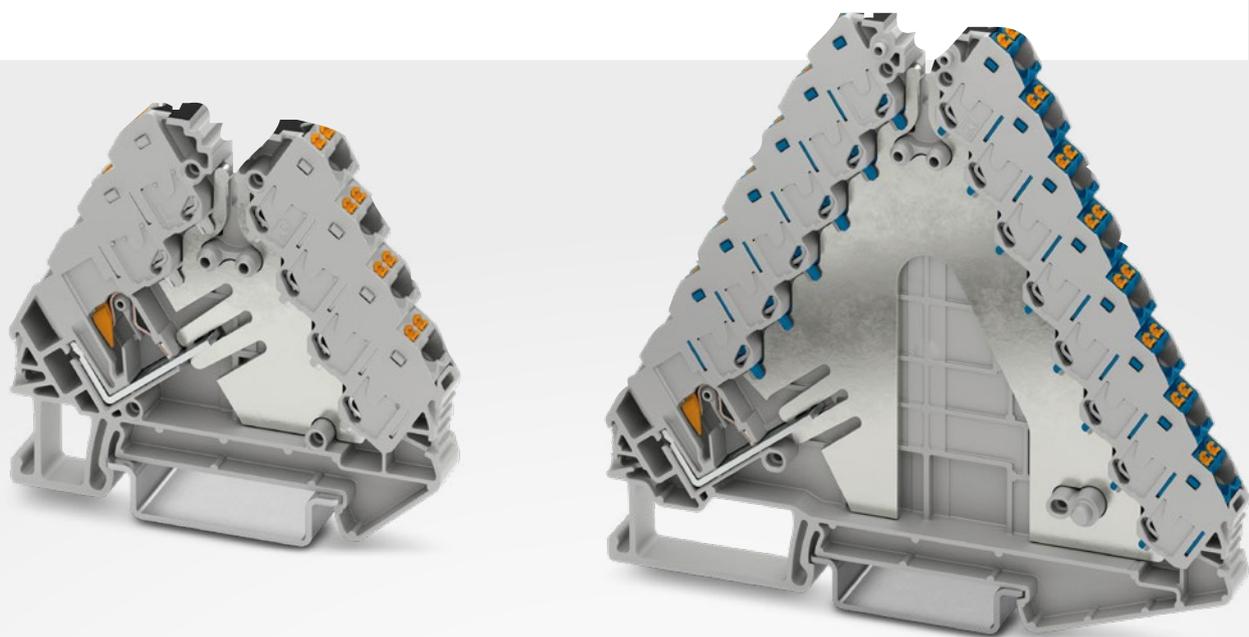
- ✓ Maximum signal density and up to 20% less space required due to the compact design
- ✓ Freely configurable color assignment for conductors and terminal points, facilitating intuitive and safe installation
- ✓ Convenient testing by means of freely accessible 2.3 mm test points centered between the connection points
- ✓ Large-surface, pitch-free marking

Marshalling terminals product overview

Marshalling terminals				Color versions		
				Color Housing/connection	Type	Item no.
	Type	Item no.	PTRV 4 /GY	3270117		
	Connection		Push-in connection			
	Levels		4			
	Number of connections		16			
	Color		Gray / gray			
	Current / voltage		10 A / 250 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			
				Gray/red	PTRV 4 /RD	3270121
			Gray/white	PTRV 4 /WH	3270115	
			Gray/green	PTRV 4 /GN	3270122	
			Gray/yellow	PTRV 4 /YE	3270123	
			Blue/blue	PTRV 4 BU/BU	3270118	
			Blue/red	PTRV 4 BU/RD	3270120	
			Blue/white	PTRV 4 BU/WH	3270119	
	Type	Item no.	PTRV 4 /SENSOR 4POL	1162613		
	Connection		Push-in connection			
	Levels		4			
	Number of connections		16			
	Color		Gray / multicolored			
	Current / voltage		10 A / 250 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			
		Type	Item no.	PTRV 8 /GY	3270140	
Connection			Push-in connection			
Levels			8			
Number of connections			32			
Color			Gray / gray			
Current / voltage			8 A / 250 V			
Cross-section range / AWG			0.14 mm ² ... 2.5 mm ² / 26 ... 14			
				Gray/blue	PTRV 8 /BU	3270233
			Gray/black	PTRV 8 /BK	1061722	
			Gray/white	PTRV 8 /WH	1061721	
			Gray/red	PTRV 8 /RD	3270231	
			Gray/green	PTRV 8 /GN	3270232	
			Blue/blue	PTRV 8 BU/BU	3270136	
	Type	Item no.	PTRV 8 /RDWH	3270137		
	Connection		Push-in connection			
	Levels		8			
	Number of connections		32			
	Color		Gray / red/white			
	Current / voltage		8 A / 250 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			
				Gray/white-red	PTRV 8 /WHRD	3270133
			Blue/red-white	PTRV 8 BU/RDWH	3270135	
			Blue/white-red	PTRV 8 BU/WHRD	3270134	
	Type	Item no.	PTRV 8 /VDE 0815	3270230		
	Connection		Push-in connection			
	Levels		8			
	Number of connections		32			
	Color		Gray /			
	Current / voltage		8 A / 250 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			
				Gray	PTRV 8 /VDE 0815-WHBK	3270250
			Blue	PTRV 8 BU/VDE 0815	1049773	

Potential distributors

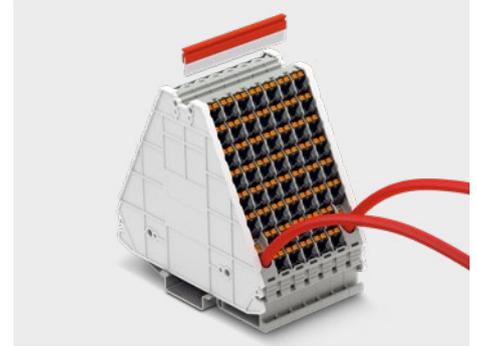
As with the marshalling terminals, the potential distributors are also available with up to 32 distribution connections. The difference compared to the marshalling panels is the number of potentials. The connectors have one potential per level. This potential thus connects four connections. The potential distributors, on the other hand, carry one single potential across all connections.



Your advantages

- ✓ Maximum signal density and up to 20% less space required due to the compact design
- ✓ Freely configurable color assignment for conductors and terminal points, facilitating intuitive and safe installation
- ✓ Convenient testing by means of freely accessible 2.3 mm test points centered between the connection points
- ✓ Large-surface, pitch-free marking

Potential distributors product overview



Potential distributors with feed-in

Along with the simple potential distributors, the PTRV family also includes distributors with feed-in contact (PTRVB...-FI). The feed-in contact is designed for conductor cross-sections between 0.2 and 6 mm² and replaces four distribution connections. These versions thus feature 12 or 28 distribution connections and one feed-in.

Potential distributors without feed-in

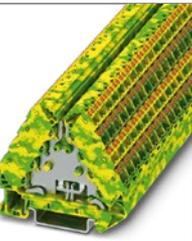
The potential distributors without feed-in are available in two versions. One version features four levels, and the other features six. Depending on the version, the distributors have 16 or 32 distributor connections.

Bridging option

In contrast to the other versions, the PTRVB... potential distributors feature a bridge shaft. This bridge shaft enables easy potential distribution between the individual distributors. This means you can extend the respective potential as you wish. The FBST... bridges are available for simple bridging.

Potential distributors with feed-in				Color versions			
				Color Housing/connection	Type	Item no.	
	Type	Item no.	PTRVB 4-FI /GY	3270138	Gray/blue Gray/red Gray/black	PTRVB 4-FI /BU PTRVB 4-FI /RD PTRVB 4-FI /BK	3270221 3270220 3270158
	Connection	Push-in connection					
	Levels	4					
	Number of connections	13					
	Color	Gray / gray					
	Current / voltage	17.5 A / 250 V					
	Cross-section range / AWG	0.14 mm ² ... 2.5 mm ² / 26 ... 14					
	Feed-in: cross-section range / AWG	0.2 mm ² ... 6 mm ² / 24 ... 10					
	Type	Item no.	PTRVB 8-FI /BU	3270225	Gray/red Gray/black	PTRVB 8-FI /RD PTRVB 8-FI /BK	3270224 3270160
	Connection	Push-in connection					
	Levels	8					
	Number of connections	29					
	Color	Gray / blue					
	Current / voltage	17.5 A / 250 V					
	Cross-section range / AWG	0.14 mm ² ... 2.5 mm ² / 26 ... 14					
	Feed-in: cross-section range / AWG	0.2 mm ² ... 6 mm ² / 24 ... 10					

Potential distributors product overview

Potential distributors				Color versions		
				Color Housing/connection	Type	Item no.
	Type	Item no.	PTRV 4-PV /BU	Gray/red Gray/black Blue/black	PTRV 4-PV /RD PTRV 4-PV /BK PTRV 4-PV BU/BK	3270247 3270246 3270125 3270126
	Connection		Push-in connection			
	Levels		4			
	Number of connections		16			
	Color		Gray / blue			
	Current / voltage		17.5 A / 250 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			
	Type	Item no.	PTRV 8-PV /BU	Gray/red Gray/black Blue/black	PTRV 8-PV /RD PTRV 8-PV /BK PTRV 8-PV BU/BK	3270249 3270248 3270142 3270145
	Connection		Push-in connection			
	Levels		8			
	Number of connections		32			
	Color		Gray / blue			
	Current / voltage		17.5 A / 250 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			
	Type	Item no.	PTRVB 4-PV /GY	Gray/blue Gray/red Gray/black	PTRVB 4-PV /BU PTRVB 4-PV /RD PTRVB 4-PV /BK	1252660 3270223 3270222 3270157
	Connection		Push-in connection			
	Levels		4			
	Number of connections		16			
	Color		Gray / gray			
	Current / voltage		17.5 A / 250 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			
	Type	Item no.	PTRVB 4-PE			1070018
	Connection		Push-in connection			
	Levels		4			
	Number of connections		16			
	Color		Green-yellow			
	Current / voltage		- / -			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			
	Type	Item no.	PTRVB 8-PV /BU	Gray/red Gray/black	PTRVB 8-PV /RD PTRVB 8-PV /BK	3270227 3270226 3270159
	Connection		Push-in connection			
	Levels		8			
	Number of connections		32			
	Color		Gray / blue			
	Current / voltage		17.5 A / 250 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			

Signal marshalling for I/O systems

I/O signal marshalling

Along with marshalling terminals and potential distributors, we also provide a variety of further solutions in the field of I/O signal marshalling.

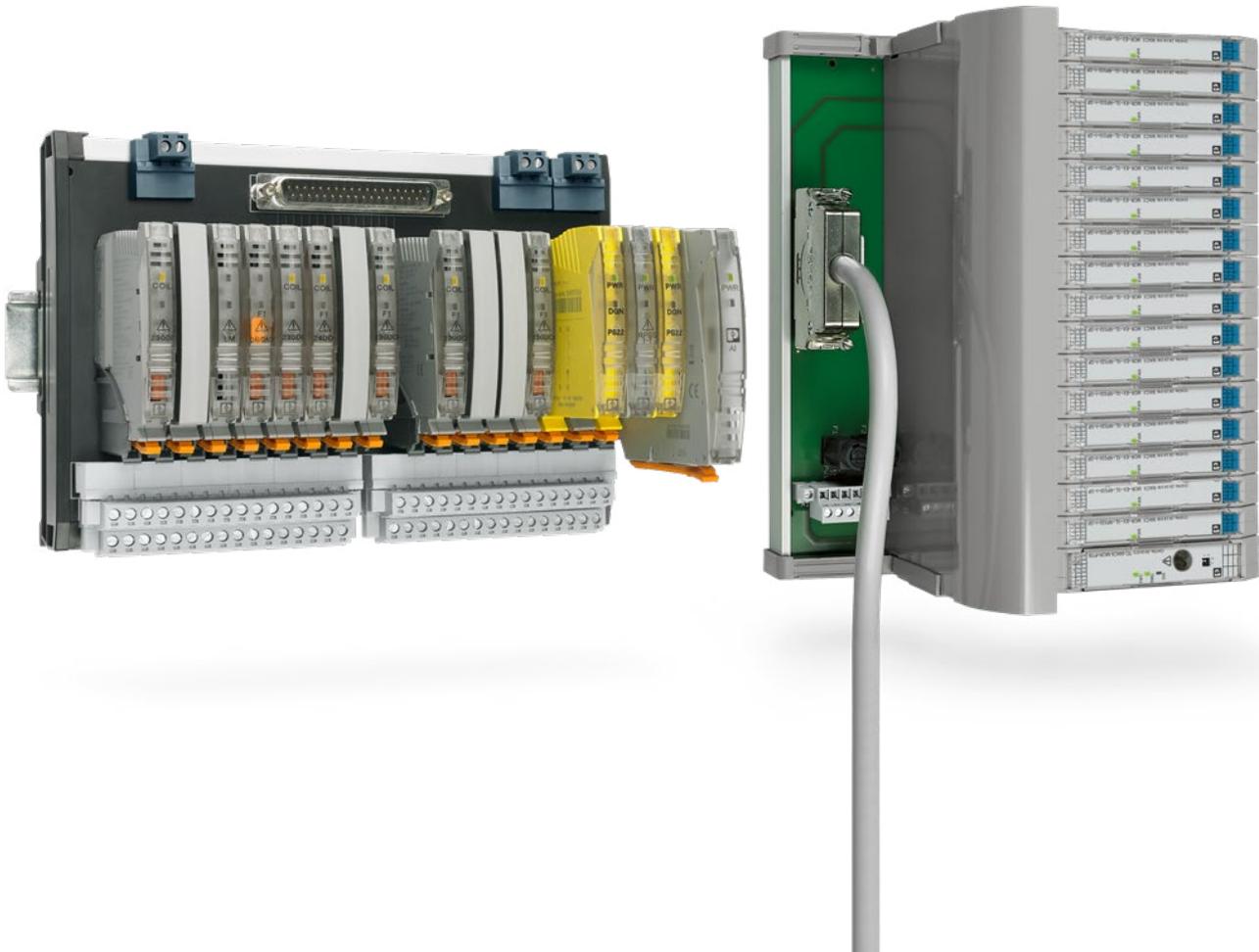
Signal marshalling for Universal I/O systems

I/O signal marshalling for Universal I/O systems becomes truly universal with VIP I/O marshalling. The flexible I/O signal marshalling system is a controller-independent solution that combines I/O signal marshalling and processing in one system. The flexible plug-in function modules allow you to configure the channels individually and consistently from the field to the control level.

Signal marshalling for standard I/O systems

For your standard I/O signal marshalling, we offer you a space-saving Plug and Play solution: our Termination Carriers help you to quickly connect classic DIN rail signal conditioners and safety relays to the standard input and output cards of automation systems without errors using preassembled system cabling. By using our Termination Carriers you get particularly compact module carrier systems for standard I/O signal marshalling.

Are you also interested in this subject? For further information on this, see our website and the “Signal conditioning and explosion protection” selection guide.



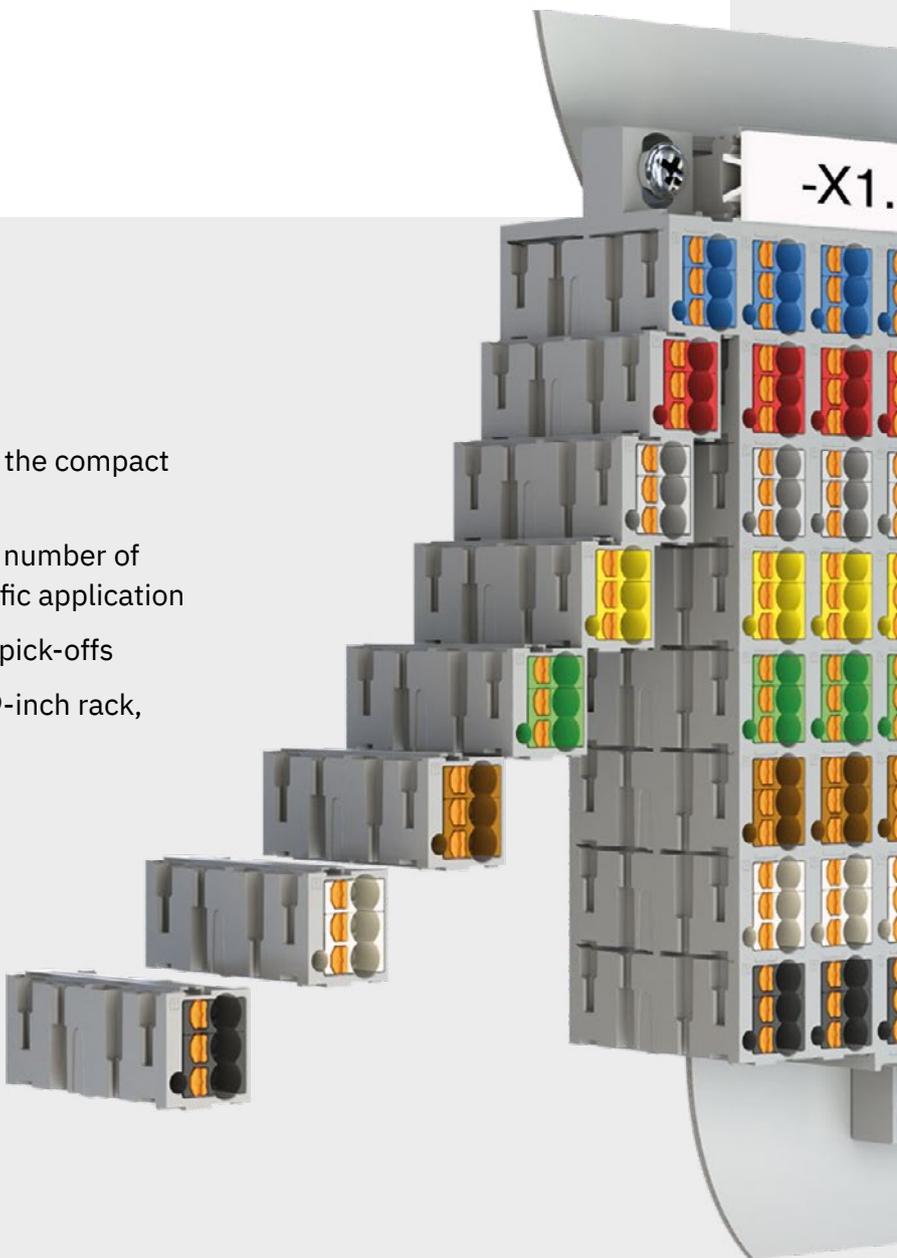
Marshalling patchboards

2

Due to its design, the PTMC marshalling patchboard provides you with the highest signal density during marshalling in automation applications. The modular structure, accurate to the number of poles and with colored matrix elements, ensures space-saving, clearly arranged, and error-free wiring.

Your advantages

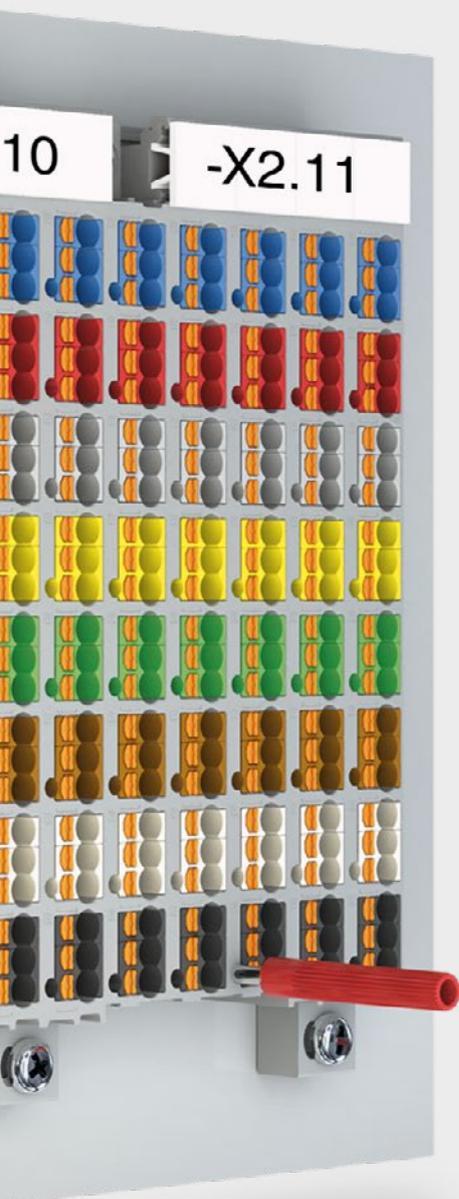
- ✓ Up to 20% higher signal density with the compact design
- ✓ The modular design allows the exact number of positions to be configured for a specific application
- ✓ Convenient testing with 2.3 mm test pick-offs
- ✓ Flexible use with direct mounting, 19-inch rack, or DIN rail mounting
- ✓ Large-surface marking options



Were you unable to find an appropriate solution?

The online configurator for marshalling patchboards enables you to configure your individual marshalling panel. First, select the appropriate mounting type. Once determined, specify how many connections your marshalling panel should have. To do this, select the number of rows and columns for the marshalling patchboard and the number of connections per marshalling element. Once selected, you can color code the individual elements in eleven different colors. This allows you to design the marshalling patchboard according to your personal requirements, thus providing you with an optimum overview of the entire marshalling panel. So you can skip the configuration process when reordering an item, you will receive a code at the end of each configuration. You can then use

this code to access and reorder your marshalling patchboard at any time. Get your finished products quickly and reliably in just a few clicks.



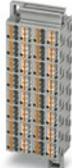
➤ phoenixcontact.com/configurator_marshalling_patchboards

Marshalling patchboards product overview

1

2

Marshalling patchboards

Marshalling patchboards (complete patchboards for direct mounting)				Color versions		
				Color Housing/connection	Type	Item no.
	Type	Item no.	PTMC 1,5/32-3	3270310	Gray/blue	PTMC 1,5/32-3 /BU 3270312
	Connection		Push-in connection			
	Number of positions		132			
	Number of connections		192			
	Color		Gray / gray/white			
	Current / voltage		17.5 A / 500 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			
	Type	Item no.	PTMC 1,5/48-2	3270322	Gray/blue	PTMC 1,5/48-2 /BU 3270323
	Connection		Push-in connection			
	Number of positions		148			
	Number of connections		192			
	Color		Gray / gray/white			
	Current / voltage		17.5 A / 500 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			
	Type	Item no.	PTMC 1,5/48-3	3270318	Gray/blue	PTMC 1,5/48-3 /BU 3270320
	Connection		Push-in connection			
	Number of positions		148			
	Number of connections		288			
	Color		Gray / gray/white			
	Current / voltage		17.5 A / 500 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			
	Type	Item no.	PTMC 1,5/80-2	3270329	Gray/blue	PTMC 1,5/80-2 /BU 3270330
	Connection		Push-in connection			
	Number of positions		180			
	Number of connections		320			
	Color		Gray / gray/white			
	Current / voltage		17.5 A / 500 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			

Important note

The technical data in the product tables relates to the specified reference item. It may differ slightly for connection versions in some cases.

You will find the exact and complete data for the individual items in our online shop. There is also a list of corresponding accessories provided for each item.



Marshalling patchboards product overview

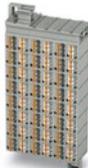
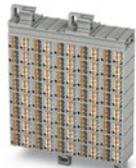
Marshalling patchboards (complete patchboards for direct mounting)				Color versions		
				Color Housing/connection	Type	Item no.
	Type	Item no.	PTMC 1,5/80-3	Gray/blue	PTMC 1,5/80-3 /BU	3270324
	Connection		Push-in connection			
	Number of positions		180			
	Number of connections		480			
	Color		Gray / gray/white			
	Current / voltage		17.5 A / 500 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			
	Type	Item no.	PTMC 1,5/54			3270391
	Connection		Push-in connection			
	Number of positions		154			
	Number of connections		216			
	Color		Gray / gray/white			
	Current / voltage		17.5 A / 500 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			
	Type	Item no.	PTMC 1,5/24-3 VDE0815			3270396
	Connection		Push-in connection			
	Number of positions		124			
	Number of connections		144			
	Color		Gray			
	Current / voltage		17.5 A / 500 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			

Marshalling patchboards product overview

1

2

Marshalling patchboards

Marshalling patchboards (complete marshalling patchboards for 19-inch rack)				Color versions		
				Color	Type	Item no.
	Type	Item no.	PTMC 1,5/32-2H 19Z	3270316		
	Connection		Push-in connection			
	Number of positions		132			Gray/blue PTMC 1,5/32-2H /BU 19Z 3270317
	Number of connections		128			Gray/gray/white PTMC 1,5/32-2H 19Z A-H 3270392
	Color		Gray / gray/white			Gray PTMC 1,5/32-2H VDE0815 19Z 3270395
	Current / voltage		17.5 A / 500 V			Gray PTMC 1,5/32-2H VDE0815 19Z A-H 3270393
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			
	Type	Item no.	PTMC 1,5/32-3 19Z	3270311		
	Connection		Push-in connection			
	Number of positions		132			Gray/blue PTMC 1,5/32-3 /BU 19Z 3270313
	Number of connections		192			Gray/blue PTMC 1,5/32-3 /BU 19Z 3270313
	Color		Gray / gray/white			Gray PTMC 1,5/32-3 VDE0815 19Z 3270394
	Current / voltage		17.5 A / 500 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			
	Type	Item no.	PTMC 1,5/48-3 19Z	3270319		
	Connection		Push-in connection			
	Number of positions		148			
	Number of connections		288			Gray/blue PTMC 1,5/48-3 /BU 19Z 3270321
	Color		Gray / gray/white			
	Current / voltage		17.5 A / 500 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			
	Type	Item no.	PTMC 1,5/80-3 19Z	3270325		
	Connection		Push-in connection			
	Number of positions		180			
	Number of connections		480			Gray/blue PTMC 1,5/80-3 /BU 19Z 3270327
	Color		Gray / gray/white			
	Current / voltage		17.5 A / 500 V			
	Cross-section range / AWG		0.14 mm ² ... 2.5 mm ² / 26 ... 14			



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 21,000 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.

You can find your local partner at
phoenixcontact.com

