

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 and the highest 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 your 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

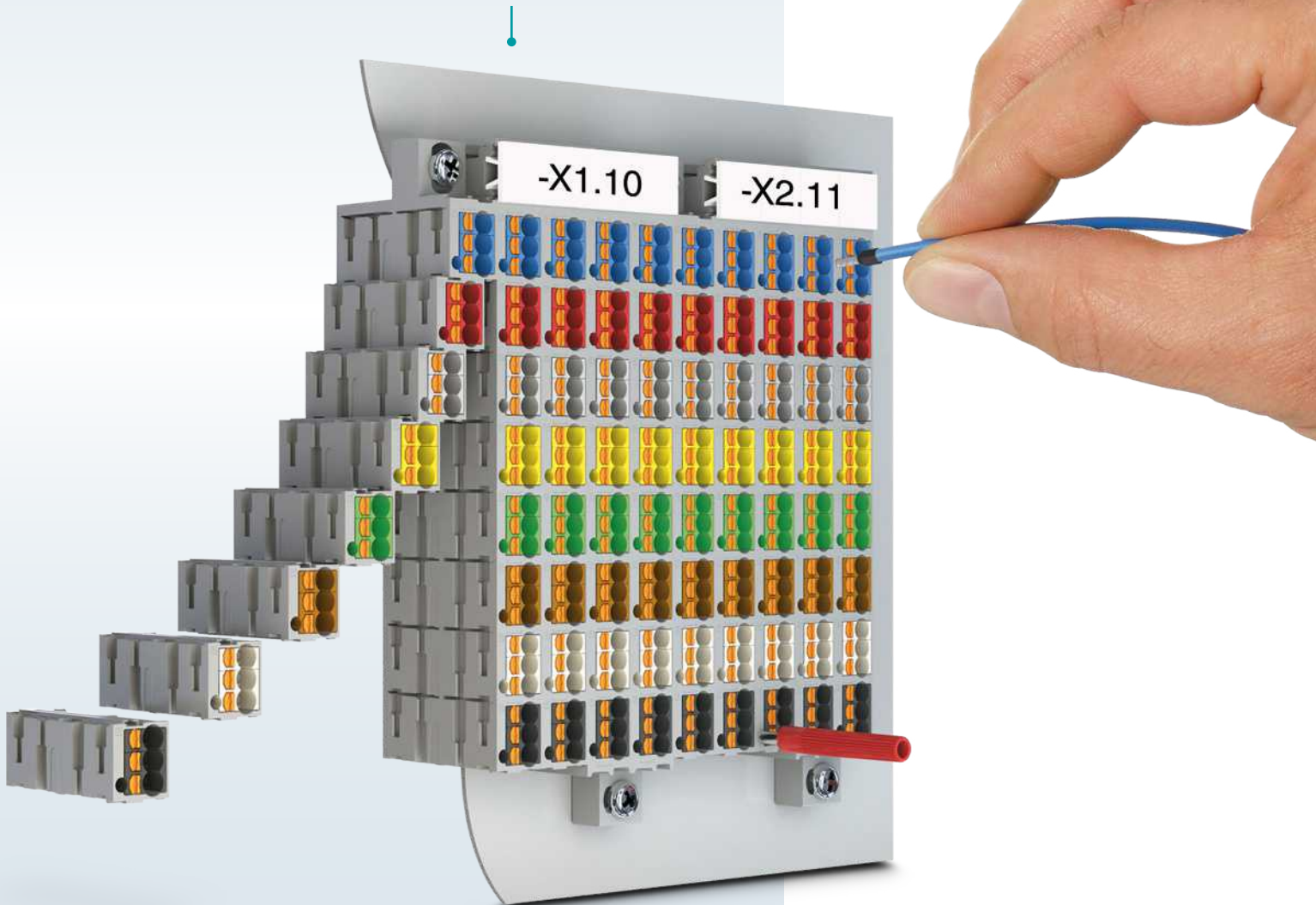
Marshalling patchboards

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 12

Contents

Marshalling panels and marshalling patchboards in comparison	4
Marshalling panels	6
Marshalling terminals	8
Potential distributors	10
Marshalling patchboards	14



Marshalling panels and marshalling patchboards in comparison

Marshalling panels

The PTRV... marshalling panels are available in three different versions. The three versions 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.

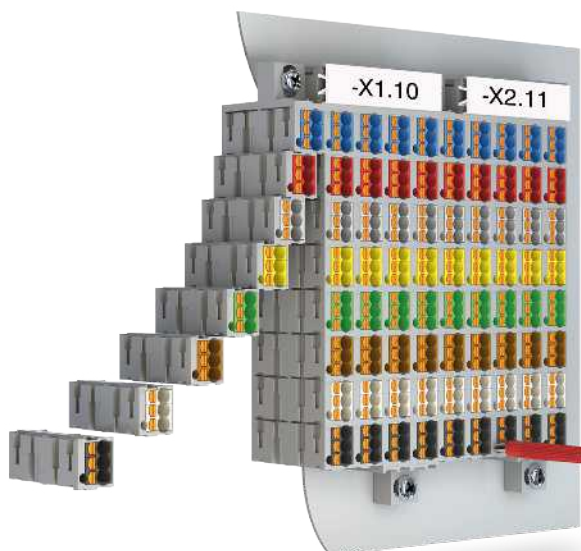


Marshalling patchboards

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" 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 a 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

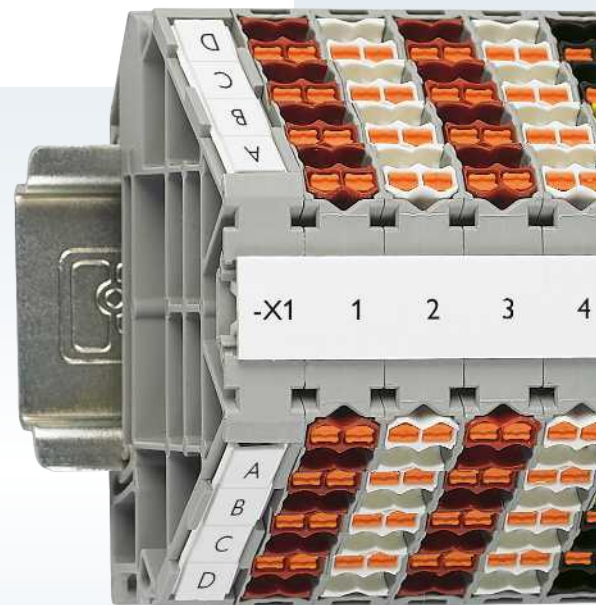
- ✓ Time-saving conductor connection of pretreated and rigid conductors with tool-free direct-connection technology
- ✓ Convenient plugging with lower insertion force
- ✓ Safe wiring and operation with color-coded push button
- ✓ Connection of all conductor types with convenient front connection
- ✓ 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



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



Potential distributors

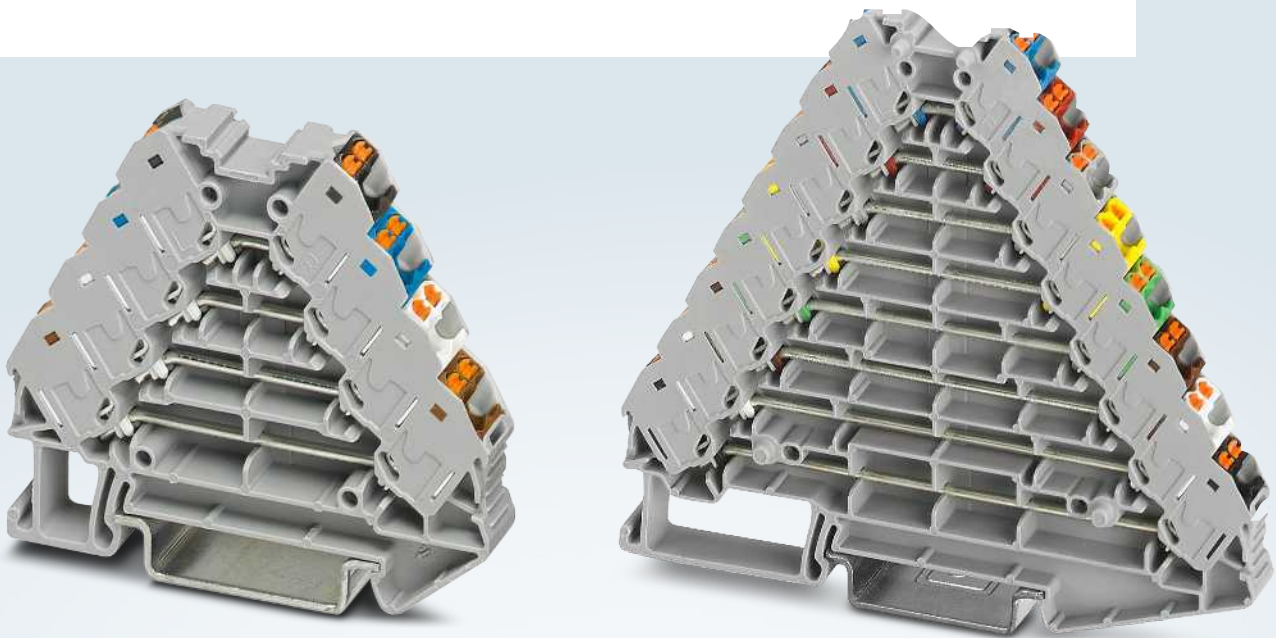
In contrast to the marshalling terminals, the potential distributors connect all connections together. Potential distributors with feed-in are also available, in addition to the simple potential distributors.

More information starting on page 10

Marshalling panels

Marshalling terminals

The PTRV marshalling terminals are available in different 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 mm² 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

1

2

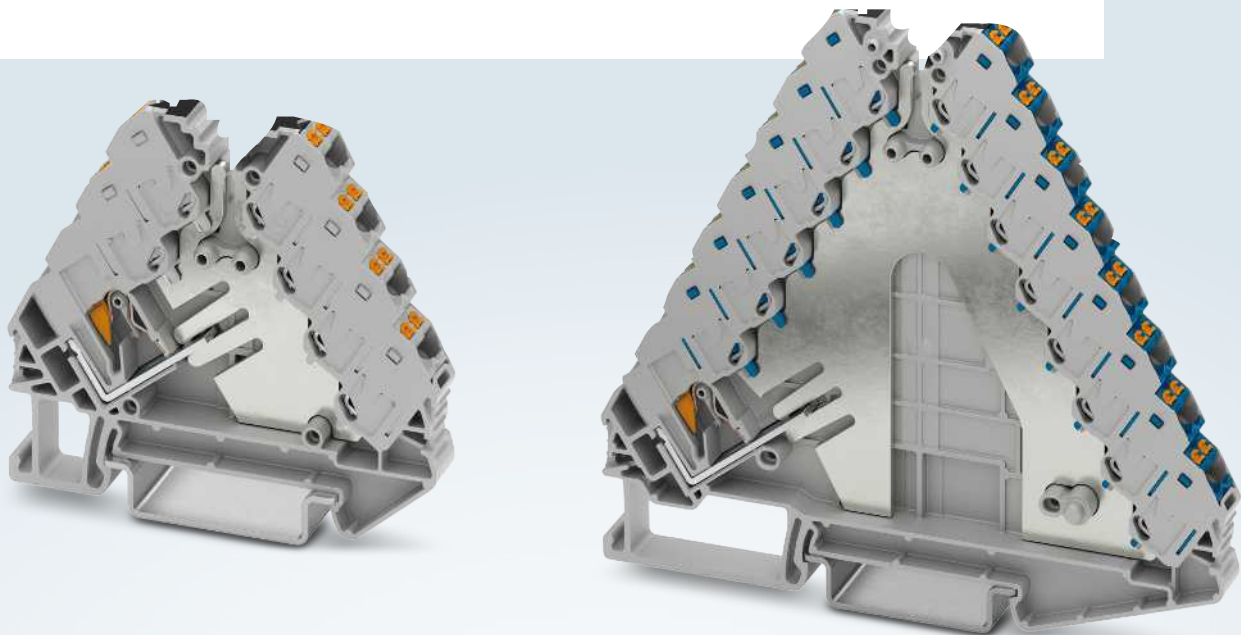
Marshalling panels

Marshalling terminals				Color versions		
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTRV 4 /GY			3270117
	Connection		Push-in connection			
	Levels		4	Gray/red	PTRV 4 /RD	3270121
	Number of connections		16	Gray/white	PTRV 4 /WH	3270115
	Color		Gray / gray	Gray/green	PTRV 4 /GN	3270122
	Current / voltage		10 A / 250 V	Gray/yellow	PTRV 4 /YE	3270123
	Cross-section range / AWG		0.14 mm² ... 2.5 mm² / 26 ... 14	Blue/blue	PTRV 4 BU/BU	3270118
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTRV 4 /SENSOR 4POL			1162613
	Connection		Push-in connection			
	Levels		4			
	Number of connections		16			
	Color		Gray / white			
	Current / voltage		10 A / 250 V			
	Cross-section range / AWG		0.14 mm² ... 2.5 mm² / 26 ... 14			
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTRV 8 /GY			3270140
	Connection		Push-in connection			
	Levels		8	Gray/blue	PTRV 8 /BU	3270233
	Number of connections		32	Gray/black	PTRV 8 /BK	1061722
	Color		Gray / gray	Gray/white	PTRV 8 /WH	1061721
	Current / voltage		8 A / 250 V	Gray/red	PTRV 8 /RD	3270231
	Cross-section range / AWG		0.14 mm² ... 2.5 mm² / 26 ... 14	Gray/green	PTRV 8 /GN	3270232
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTRV 8 /RDWH			3270137
	Connection		Push-in connection			
	Levels		8			
	Number of connections		32	Gray/white/red	PTRV 8 /WHRD	3270133
	Color		Gray / red/white	Blue/red/white	PTRV 8 BU/RDWH	3270135
	Current / voltage		8 A / 250 V	Blue/white/red	PTRV 8 BU/WHRD	3270134
	Cross-section range / AWG		0.14 mm² ... 2.5 mm² / 26 ... 14			
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTRV 8 /VDE 0815			3270230
	Connection		Push-in connection			
	Levels		8	Gray	PTRV 8 /VDE 0815-WHBK	3270250
	Number of connections		32	Blue	PTRV 8 BU/VDE 0815	1049773
	Color		Gray			
	Current / voltage		8 A / 250 V			
	Cross-section range / AWG		0.14 mm² ... 2.5 mm² / 26 ... 14			

Marshalling panels

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				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	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 mm² ... 2.5 mm² / 26 ... 14			
				Color (housing/connection)	Type	Item no.
	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	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 mm² ... 2.5 mm² / 26 ... 14			
				Color (housing/connection)	Type	Item no.
	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	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 mm² ... 2.5 mm² / 26 ... 14			
				Color (housing/connection)	Type	Item no.
	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 mm² ... 1.5 mm² / 26 ... 14			
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTRVB 8-PV /BU	Gray/red Gray/black	PTRVB 8-PV /RD PTRVB 8-PV /BK	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 mm² ... 2.5 mm² / 26 ... 14			

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.

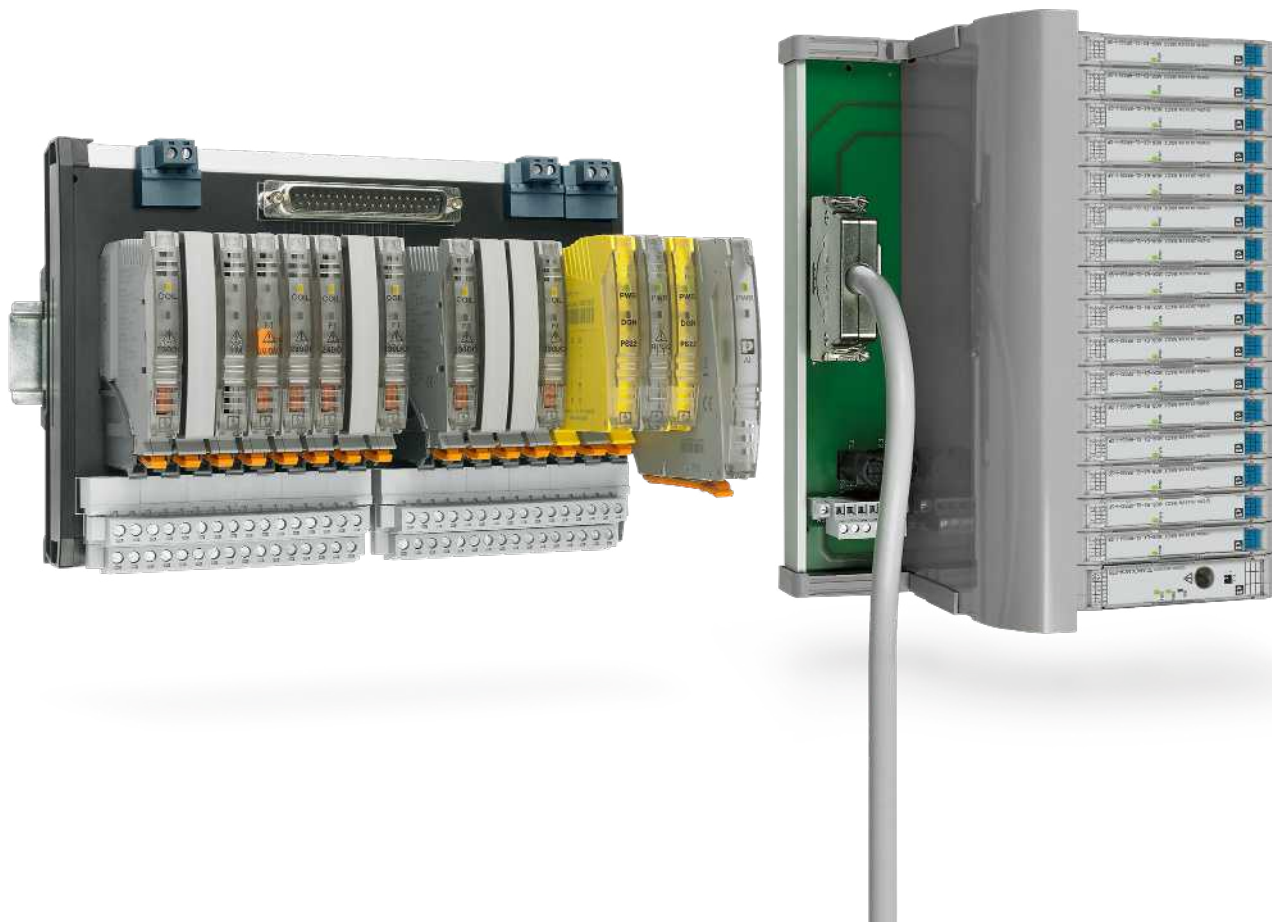
Signal marshalling for Universal I/O systems

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, which can be configured to the precise number of positions and features color matrix elements, ensures space-saving, clear, and error-free wiring.

Your advantages

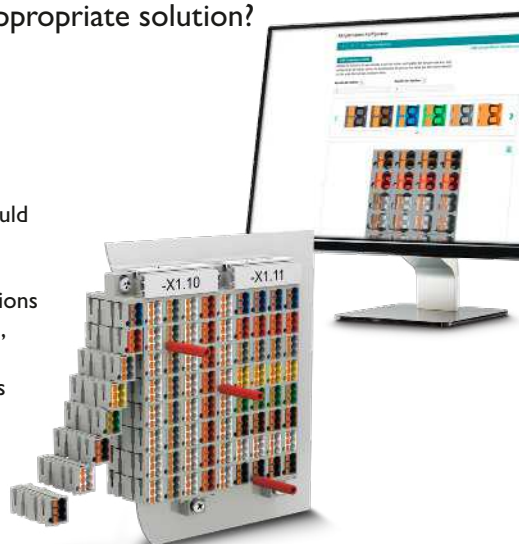
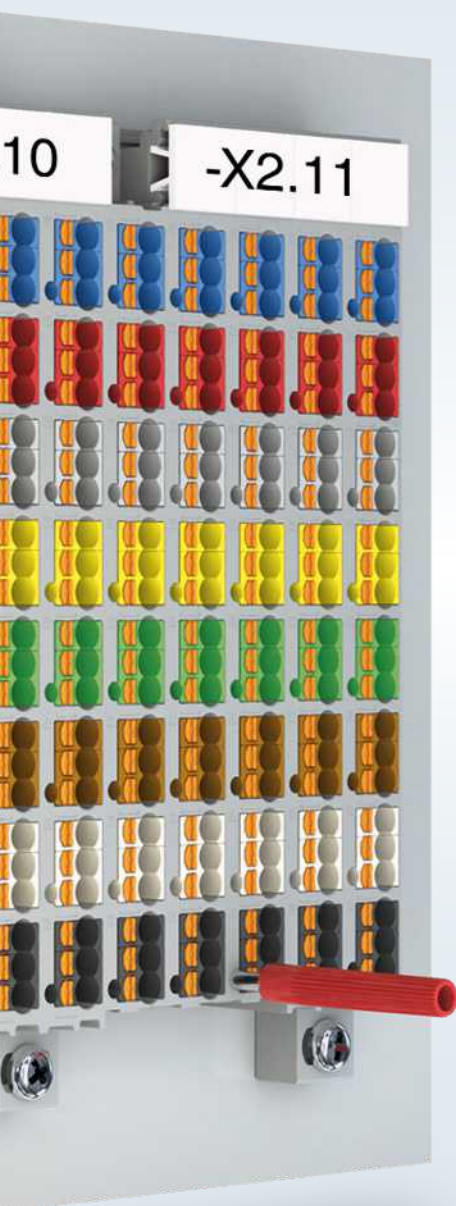
- ✓ Up to 20% higher signal density with the compact design
- ✓ The modular design allows the exact number of positions to be configured for a specific application
- ✓ Convenient testing with 2.3 mm test points
- ✓ Flexible use with direct mounting, 19-inch rack, or DIN rail mounting
- ✓ Large-surface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

Marshalling patchboards (individual patchboard)				Color versions		
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTMC 1,5-2 /GY			3270302
	Connection	Push-in connection		Gray/white	PTMC 1,5-2 /WH	3270303
	Number of positions	1		Gray/blue	PTMC 1,5-2 /BU	3270430
	Number of connections	4		Gray/red	PTMC 1,5-2 /RD	3270431
	Color	Gray / gray		Gray/green	PTMC 1,5-2 /GN	3270432
	Current / voltage	17.5 A / 500 V		Gray/brown	PTMC 1,5-2 /BN	3270433
	Cross-section range / AWG	0.14 mm ² ... 2.5 mm ² / 26 ... 14		Gray/black	PTMC 1,5-2 /BK	3270434
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTMC 1,5-3 /GY			3270300
	Connection	Push-in connection		Gray/white	PTMC 1,5-3 /WH	3270301
	Number of positions	1		Gray/blue	PTMC 1,5-3 /BU	3270420
	Number of connections	6		Gray/red	PTMC 1,5-3 /RD	3270421
	Color	Gray / gray		Gray/green	PTMC 1,5-3 /GN	3270422
	Current / voltage	17.5 A / 500 V		Gray/brown	PTMC 1,5-3 /BN	3270423
	Cross-section range / AWG	0.14 mm ² ... 2.5 mm ² / 26 ... 14		Gray/black	PTMC 1,5-3 /BK	3270424
				Gray/violet	PTMC 1,5-3 /VT	3270425
				Gray/orange	PTMC 1,5-3 /OG	3270426
				Gray/yellow	PTMC 1,5-3 /YE	3270427
				Gray/pink	PTMC 1,5-3 /PK	3270428




Marshalling patchboards (complete patchboards for direct mounting)				Color versions		
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTMC 1,5/18	3270390		
	Connection	Push-in connection				
	Number of positions	18				
	Number of connections	72				
	Color	Gray / gray/white				
	Current / voltage	17.5 A / 500 V				
	Cross-section range / AWG	0.14 mm² ... 2.5 mm² / 26 ... 14				
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTMC 1,5/32-2	3270314		
	Connection	Push-in connection				
	Number of positions	32				
	Number of connections	128				
	Color	Gray / gray/white				
	Current / voltage	17.5 A / 500 V				
	Cross-section range / AWG	0.14 mm² ... 2.5 mm² / 26 ... 14				
				Gray/blue	PTMC 1,5/32-2 /BU	3270315

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	Gray/blue	PTMC 1,5/32-3 /BU	3270310
	Connection		Push-in connection			
	Number of positions		32			
	Number of connections		192			
	Color		Gray / gray/white			
	Current / voltage		17.5 A / 500 V			
	Cross-section range / AWG		0.14 mm² ... 2.5 mm² / 26 ... 14			
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTMC 1,5/48-2	Gray/blue	PTMC 1,5/48-2 /BU	3270322
	Connection		Push-in connection			
	Number of positions		48			
	Number of connections		192			
	Color		Gray / gray/white			
	Current / voltage		17.5 A / 500 V			
	Cross-section range / AWG		0.14 mm² ... 2.5 mm² / 26 ... 14			
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTMC 1,5/48-3	Gray/blue	PTMC 1,5/48-3 /BU	3270318
	Connection		Push-in connection			
	Number of positions		48			
	Number of connections		288			
	Color		Gray / gray/white			
	Current / voltage		17.5 A / 500 V			
	Cross-section range / AWG		0.14 mm² ... 2.5 mm² / 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 (complete patchboards for direct mounting)				Color versions		
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTMC 1,5/80-2	Gray/blue	PTMC 1,5/80-2 /BU	3270330
	Connection		Push-in connection			
	Number of positions		80			
	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			
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTMC 1,5/80-3	Gray/blue	PTMC 1,5/80-3 /BU	3270326
	Connection		Push-in connection			
	Number of positions		80			
	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			
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTMC 1,5/54			
	Connection		Push-in connection			
	Number of positions		54			
	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			
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTMC 1,5/24-3 VDE0815			
	Connection		Push-in connection			
	Number of positions		24			
	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 (complete marshalling patchboards for 19-inch rack)				Color versions		
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTMC 1,5/32-2H 19Z	3270316		
	Connection	Push-in connection		Gray/blue	PTMC 1,5/32-2H /BU 19Z	3270317
	Number of positions	32		Gray/gray/white	PTMC 1,5/32-2H 19Z A-H	3270392
	Number of connections	128		Gray	PTMC 1,5/32-2H VDE0815 19Z	3270395
	Color	Gray / gray/white		Gray	PTMC 1,5/32-2H VDE0815 19Z A-H	3270393
	Current / voltage	17.5 A / 500 V				
	Cross-section range / AWG	0.14 mm² ... 2.5 mm² / 26 ... 14				
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTMC 1,5/32-3 19Z	3270311		
	Connection	Push-in connection		Gray/blue	PTMC 1,5/32-3 /BU 19Z	3270313
	Number of positions	32		Gray/blue	PTMC 1,5/32-3 /BU 19Z	3270313
	Number of connections	192		Gray	PTMC 1,5/32-3 VDE0815 19Z	3270394
	Color	Gray / gray/white				
	Current / voltage	17.5 A / 500 V				
	Cross-section range / AWG	0.14 mm² ... 2.5 mm² / 26 ... 14				
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTMC 1,5/48-3 19Z	3270319		
	Connection	Push-in connection				
	Number of positions	48				
	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 mm² ... 2.5 mm² / 26 ... 14				
				Color (housing/connection)	Type	Item no.
	Type	Item no.	PTMC 1,5/80-3 19Z	3270325		
	Connection	Push-in connection				
	Number of positions	80				
	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 mm² ... 2.5 mm² / 26 ... 14				

