

# Marshalling patchboard - PTMC 1,5/80-2 /BU - 3270330

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Marshalling patchboard, nom. voltage: 500 V, nominal current: 17.5 A, cross section: 0.14 mm<sup>2</sup> - 2.5 mm<sup>2</sup>, AWG: 14 - 26, connection method: Push-in connection, number of positions: 8, number of connections: 320, width: 110 mm, length: 73.2 mm, color: gray, color of connection elements: blue, mounting: Wall mounting

## Your advantages

- ✓ Clear representation of actuation and terminal points through vertical conductor routing
- ✓ Tool-free wiring in a confined space thanks to compact size
- ✓ High contact quality thanks to push-in technology as a replacement for Wire-Wrap®, TERMI-POINT®, etc.
- ✓ Blue version for using in intrinsically safe circuits in potentially explosive areas (type of protection Ex i)
- ✓ For mounting in a panel cutout



## Key Commercial Data

Packing unit	6 pc
GTIN	 4 055626 058467
GTIN	4055626058467

## Technical data

### General

Note	Labeled from 1 - 80
Number of positions	8
Number of levels	1
Number of connections	320
Nominal cross section	1.5 mm <sup>2</sup>
Color	gray
Color of connection elements	blue
Insulating material	PA
Flammability rating according to UL 94	V0
Rated surge voltage	6 kV
Degree of pollution	3

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## Technical data

### General

Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	0.56 W (the value is based on one connection block and is multiplied according to the pin assignment)
Maximum load current	24 A (in case of a 2.5 mm <sup>2</sup> conductor cross section, the maximum load current must not be exceeded by the total current of all connected conductors.)
	12 A (in case of a 2.5 mm <sup>2</sup> conductor cross section, the maximum load current must not be exceeded by the total current of all connected conductors.)
Nominal current I <sub>N</sub>	17.5 A
Nominal voltage U <sub>N</sub>	500 V
Open side panel	No
Ambient temperature (operation)	-60 °C ... 85 °C
Ambient temperature (storage/transport)	-25 °C ... 55 °C (For a short time, not exceeding 24 h, -60 to +70 °C)
Permissible humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Shock protection test specification	DIN EN 50274 (VDE 0660-514):2002-11
Back of the hand protection	guaranteed
Finger protection	guaranteed
Result of surge voltage test	Test passed
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	1.89 kV
Result of the test for mechanical stability of terminal points (5 x conductor connection)	Test passed
Result of bending test	Test passed
Bending test rotation speed	10 rpm
Bending test turns	135
Bending test conductor cross section/weight	0.14 mm <sup>2</sup> / 0.2 kg
	1.5 mm <sup>2</sup> / 0.4 kg
	2.5 mm <sup>2</sup> / 0.7 kg
Tensile test result	Test passed
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35
Setpoint	1 N
Result of voltage-drop test	Test passed
Result of temperature-rise test	Test passed
Requirement temperature-rise test	Increase in temperature ≤ 45 K
Short circuit stability result	Test passed
Conductor cross section short circuit testing	1.5 mm <sup>2</sup>
Short-time current	0.18 kA

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## Technical data

### General

Conductor cross section short circuit testing	2.5 mm <sup>2</sup>
Short-time current	0.3 kA
Result of thermal test	Test passed
Ageing test for screwless modular terminal block temperature cycles	192
Proof of thermal characteristics (needle flame) effective duration	30 s
Result of aging test	Test passed
Oscillation, broadband noise test result	Test passed
Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2008-03
Test spectrum	Service life test category 1, class B, body mounted
Test frequency	f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 150 Hz
ASD level	0.964 (m/s <sup>2</sup> ) <sup>2</sup> /Hz
Acceleration	0.58 g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Shock test result	Test passed
Test specification, shock test	DIN EN 50155 (VDE 0115-200):2008-03
Shock form	Half-sine
Acceleration	5g
Shock duration	30 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	125 °C
Static insulating material application in cold	-60 °C
Surface flammability NFPA 130 (ASTM E 162)	passed
Specific optical density of smoke NFPA 130 (ASTM E 662)	passed
Calorimetric heat release NFPA 130 (ASTM E 1354)	27,5 MJ/kg
Smoke gas toxicity NFPA 130 (SMP 800C)	passed
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R26	HL 1 - HL 3

### Dimensions

Width	110 mm
Length	73.2 mm
Height	30 mm

### Connection data

Connection method	Push-in connection
Stripping length	8 mm ... 10 mm

# Marshalling patchboard - PTMC 1,5/80-2 /BU - 3270330

## Technical data

### Connection data

Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	26
Conductor cross section AWG max.	14
Conductor cross section flexible min.	0.14 mm <sup>2</sup>
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Min. AWG conductor cross section, flexible	26
Max. AWG conductor cross section, flexible	14
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	1.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	1.5 mm <sup>2</sup>
Connection cross sections directly pluggable	0.34 mm <sup>2</sup> 2.5 mm <sup>2</sup> 20 14
Conductor cross section solid min.	0.34 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.34 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	1.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.34 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	1.5 mm <sup>2</sup>
Internal cylindrical gage	A1

### Standards and Regulations

Connection in acc. with standard	IEC 60947-7-1
Flammability rating according to UL 94	V0

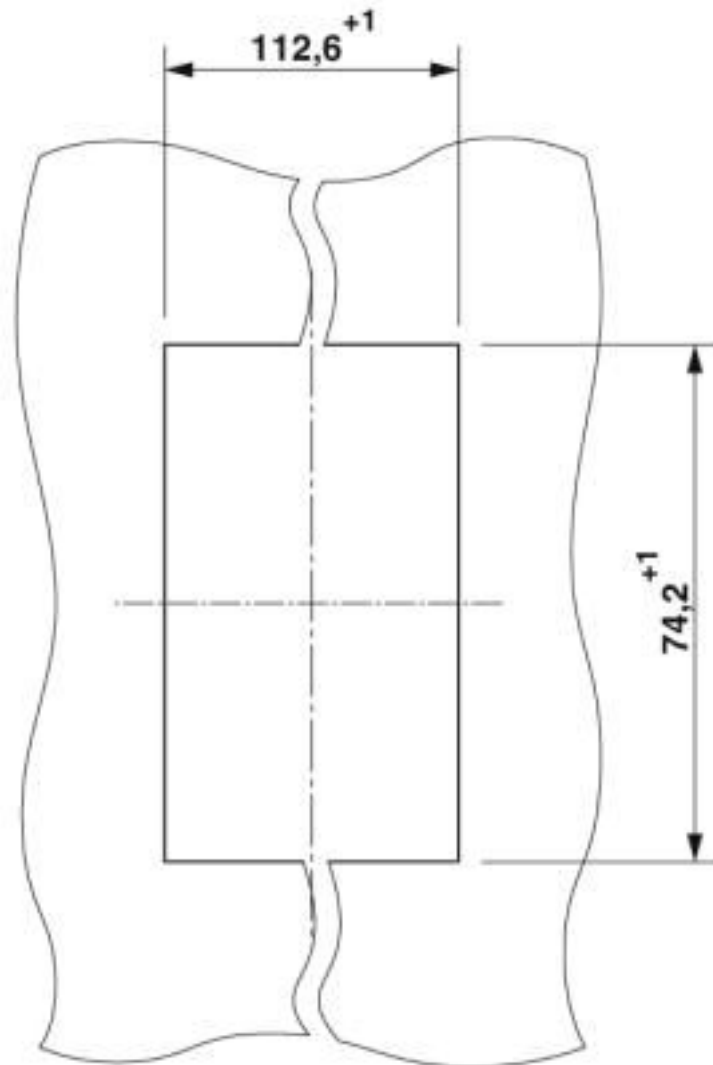
### Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

# Marshalling patchboard - PTMC 1,5/80-2 /BU - 3270330

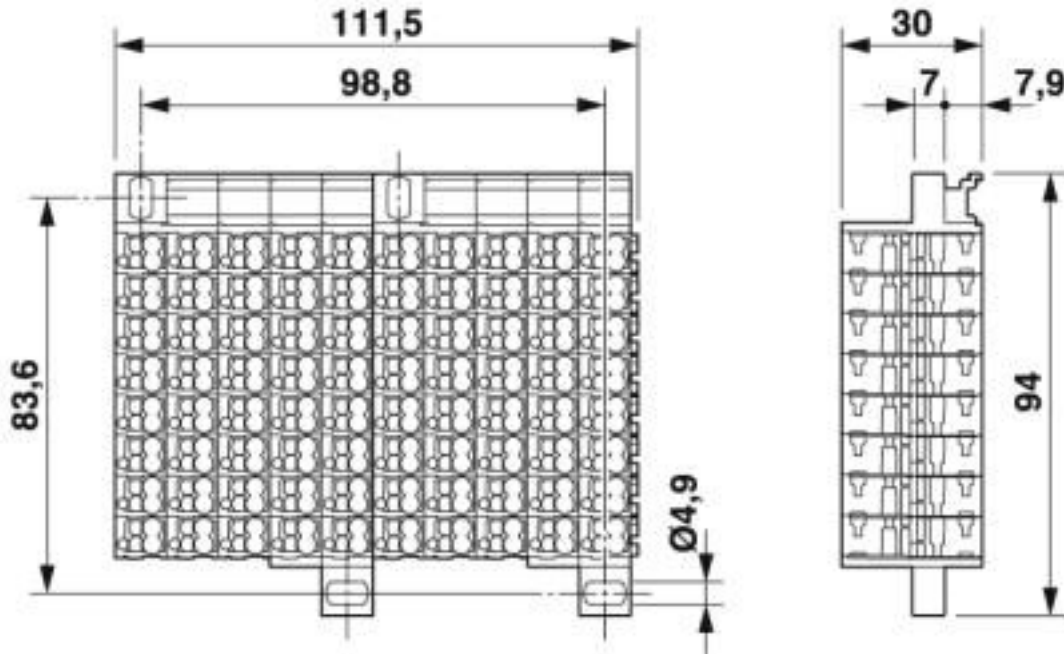
Dimensional drawing



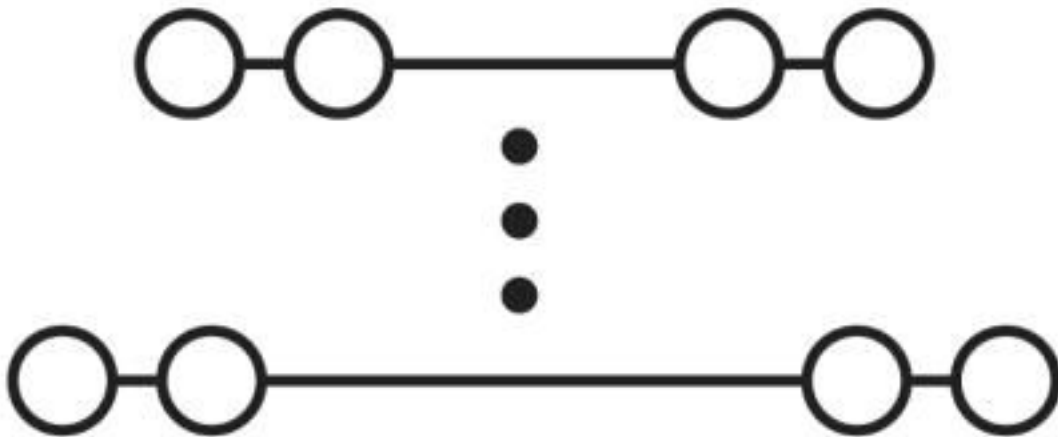
Panel cutout

# Marshalling patchboard - PTMC 1,5/80-2 /BU - 3270330

Dimensional drawing



Circuit diagram



## Classifications

eCl@ss

eCl@ss 10.0.1	27141120
eCl@ss 4.0	27141100
eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
eCl@ss 5.1	27141100
eCl@ss 6.0	27141100
eCl@ss 7.0	27141120

# Marshalling patchboard - PTMC 1,5/80-2 /BU - 3270330

## Classifications

### eCl@ss

eCl@ss 8.0	27141120
eCl@ss 9.0	27141120

### ETIM

ETIM 5.0	EC000897
ETIM 6.0	EC000897
ETIM 7.0	EC000897

### UNSPSC

UNSPSC 13.2	39121410
UNSPSC 18.0	39121410
UNSPSC 19.0	39121410
UNSPSC 20.0	39121410
UNSPSC 21.0	39121410

## Approvals


### Approvals


#### Approvals

CSA / UL Recognized / cUL Recognized / EAC / EAC / cULus Recognized

#### Ex Approvals

### Approval details

CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
	B	C	D
Nominal voltage UN	300 V	300 V	300 V
Nominal current IN	10 A	10 A	10 A
mm <sup>2</sup> /AWG/kcmil	24-16	24-16	24-16

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 60425
	B	C	
Nominal voltage UN	300 V	300 V	
Nominal current IN	10 A	10 A	

# Marshalling patchboard - PTMC 1,5/80-2 /BU - 3270330

## Approvals

	B	C
mm²/AWG/kcmil	24-16	24-16

cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 60425
	B	C	
Nominal voltage UN	300 V	300 V	
Nominal current IN	10 A	10 A	
mm²/AWG/kcmil	24-16	24-16	

EAC		RU C- DE.AI30.B.01102
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EAC		RU C- DE.BL08.B.00682
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cULus Recognized		
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## Accessories

### Accessories

#### Insulating sleeve

Insulating sleeve - MPS-IH WH - 0201663

Insulating sleeve, color: white



Insulating sleeve - MPS-IH RD - 0201676

Insulating sleeve, color: red





## Marshalling patchboard - PTMC 1,5/80-2 /BU - 3270330

### Accessories

Insulating sleeve - MPS-IH BU - 0201689

Insulating sleeve, color: blue



Insulating sleeve - MPS-IH YE - 0201692

Insulating sleeve, color: yellow



Insulating sleeve - MPS-IH GN - 0201702

Insulating sleeve, color: green



Insulating sleeve - MPS-IH GY - 0201728

Insulating sleeve, color: gray



Insulating sleeve - MPS-IH BK - 0201731

Insulating sleeve, color: black



Loop bridge

## Marshalling patchboard - PTMC 1,5/80-2 /BU - 3270330

### Accessories

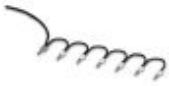
Wire bridge - DB 50- 90 BU - 2821180

Flexible wire loop bridge, 50-pos., conductor cross-section: 0.5 mm<sup>2</sup>, loop length: 90 mm, ferrule length: 8 mm, color: blue



Wire bridge - DB 50- 90 BK - 2820916

Flexible wire loop bridge, 50-pos., conductor cross-section: 0.5 mm<sup>2</sup>, loop length: 90 mm, ferrule length: 8 mm, color: black



Wire bridge - DB 50- 90 GY - 2820929

Flexible wire loop bridge, 50-pos., conductor cross-section: 0.5 mm<sup>2</sup>, loop length: 90 mm, ferrule length: 8 mm, color: gray



Wire bridge - DB 50- 90 RD - 2864639

Flexible wire loop bridge, 50-pos., conductor cross-section: 0.5 mm<sup>2</sup>, loop length: 90 mm, ferrule length: 8 mm, color: red



### Mounting material

Flange cover - DF-PTMC-O - 3270400



Flange cover, for direct mounting on top and for accommodating the marking, length: 30 mm, width: 22 mm, height: 13 mm, color: gray

## Marshalling patchboard - PTMC 1,5/80-2 /BU - 3270330

### Accessories

Flange cover - DF-PTMC-U - 3270401



Flange cover, for direct mounting below, length: 29.1 mm, width: 22 mm, height: 12.8 mm, color: gray

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Adapter - DF-PTMC-NS - 3270403



Adapter, for mounting on a DIN rail, length: 64 mm, width: 22 mm, color: gray

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Marker adapter - DF-PTMC-ZB - 3270410



Marker adapter, for direct mounting on top and for accommodating the marking, length: 30 mm, width: 11 mm, height: 13 mm, color: gray

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### Screwdriver tools

Screwdriver - SZF 0-0,4X2,5 - 1204504



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.4 x 2.5 x 75 mm, 2-component grip, with non-slip grip

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Actuation tool - ST-BW 0 - 1200135



Actuation tool, for all 1.5 mm<sup>2</sup> spring cages from PT 1,5/S and FT 1,5/S

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### Test plug terminal block

## Marshalling patchboard - PTMC 1,5/80-2 /BU - 3270330

### Accessories

Reducing plug - RPS - 0201647



Reducing plug, color: gray

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Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm<sup>2</sup> conductor cross section, color: gray

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