

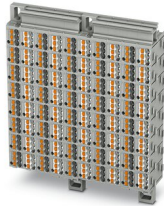
Marshalling patchboard - PTMC 1,5/80-3



3270324

<https://www.phoenixcontact.com/us/products/3270324>

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Marshalling patchboard, Labeled from 1 - 80, nom. voltage: 500 V, nominal current: 17.5 A, connection method: Push-in connection, cross section: 0.14 mm² - 2.5 mm², mounting: Wall mounting, color: gray, color of connection elements: gray/white

Your advantages

- Clear representation of actuation and terminal points through vertical conductor routing
- Tool-free wiring in a confined space thanks to compact size
- For mounting in a panel cutout
- High contact quality thanks to push-in technology as a replacement for Wire-Wrap®, TERMI-POINT®, etc.

Marshalling patchboard - PTMC 1,5/80-3



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Commercial Data

Item number	3270324
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	B02
Product Key	BE6212
Catalog Page	Page 59 (C-1-2019)
GTIN	4055626058429
Weight per Piece (including packing)	368.78 g
Weight per Piece (excluding packing)	368.78 g
Customs tariff number	85369010
Country of origin	PL

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Technical Data

Notes

General	Labeled from 1 - 80
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Product properties

Product type	Marshalling terminal
Number of positions	80
Number of connections	480
Number of rows	1

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	6 kV
Maximum power dissipation for nominal condition	0.56 W

Connection data

Number of connections per level	480
Nominal cross section	1.5 mm ²
Rated cross section AWG	14
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A1
Conductor cross section solid	0.14 mm ² ... 2.5 mm ²
Cross section AWG	26 ... 14
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section, flexible [AWG]	26 ... 14
Flexible conductor cross section flexible (ferrule, w/o plastic sleeve)	0.14 mm ² ... 1.5 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm ² ... 1.5 mm ²
Nominal current	17.5 A
Maximum load current	24 A (in case of a 2.5 mm ² 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 ² conductor cross section, the maximum load current must not be exceeded by the total current of all connected conductors.)
Nominal voltage	500 V

Connection cross sections directly pluggable

Conductor cross section solid	0.34 mm ² ... 2.5 mm ²
Conductor cross section, solid [AWG]	20 ... 14
Flexible conductor cross section flexible (ferrule, w/o plastic sleeve)	0.34 mm ² ... 1.5 mm ²

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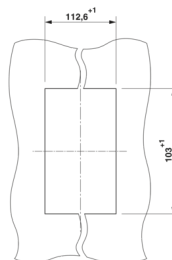
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Flexible conductor cross section (ferrule with plastic sleeve)

0.34 mm² ... 1.5 mm²

Dimensions

Dimensional drawing



Width

110 mm

Height

30 mm

Length

102 mm

Material specifications

Color

gray

Color of connection elements

gray/white

Flammability rating according to UL 94

V0

Insulating material group

I

Insulating material

PA

Static insulating material application in cold

-60 °C

Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))

125 °C

Relative insulation material temperature index (Elec., UL 746 B)

130 °C

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

Calorimetric heat release NFPA 130 (ASTM E 1354)

27,5 MJ/kg

Surface flammability NFPA 130 (ASTM E 162)

passed

Specific optical density of smoke NFPA 130 (ASTM E 662)

passed

Smoke gas toxicity NFPA 130 (SMP 800C)

passed

Electrical tests

Surge voltage test

Test voltage setpoint

7.3 kV

Result

Test passed

Temperature-rise test

Requirement temperature-rise test

Increase in temperature ≤ 45 K

Result

Test passed

Short-time withstand current 1.5 mm²

0.18 kA

Short-time withstand current 2.5 mm²

0.3 kA

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Result	Test passed
Power-frequency withstand voltage	
Test voltage setpoint	1.89 kV
Result	Test passed

Mechanical properties

Mechanical data	
Open side panel	No

Mechanical tests

Mechanical strength	
Result	Test passed

Attachment on the carrier	
DIN rail/fixing support	NS 35
Test force setpoint	1 N
Result	Test passed

Test for conductor damage and slackening	
Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	0.14 mm ² / 0.2 kg
	1.5 mm ² / 0.4 kg
	2.5 mm ² / 0.7 kg
Result	Test passed

Environmental and real-life conditions

Aging	
Temperature cycles	192
Result	Test passed

Needle-flame test	
Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise	
Specification	DIN EN 50155 (VDE 0115-200):2008-03
Spectrum	Service life test category 1, class B, body mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
ASD level	0.964 (m/s ²) ² /Hz
Acceleration	0.58g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

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Shocks

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Pulse shape	Half-sine
Acceleration	5g
Shock duration	30 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed

Ambient conditions

Ambient temperature (operation)	-60 °C ... 105 °C (max. short-term operating temperature RTI Elec.)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Permissible humidity (storage/transport)	30 % ... 70 %

Standards and regulations

Connection in acc. with standard	IEC 60947-7-1
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Mounting

Mounting type	Wall mounting
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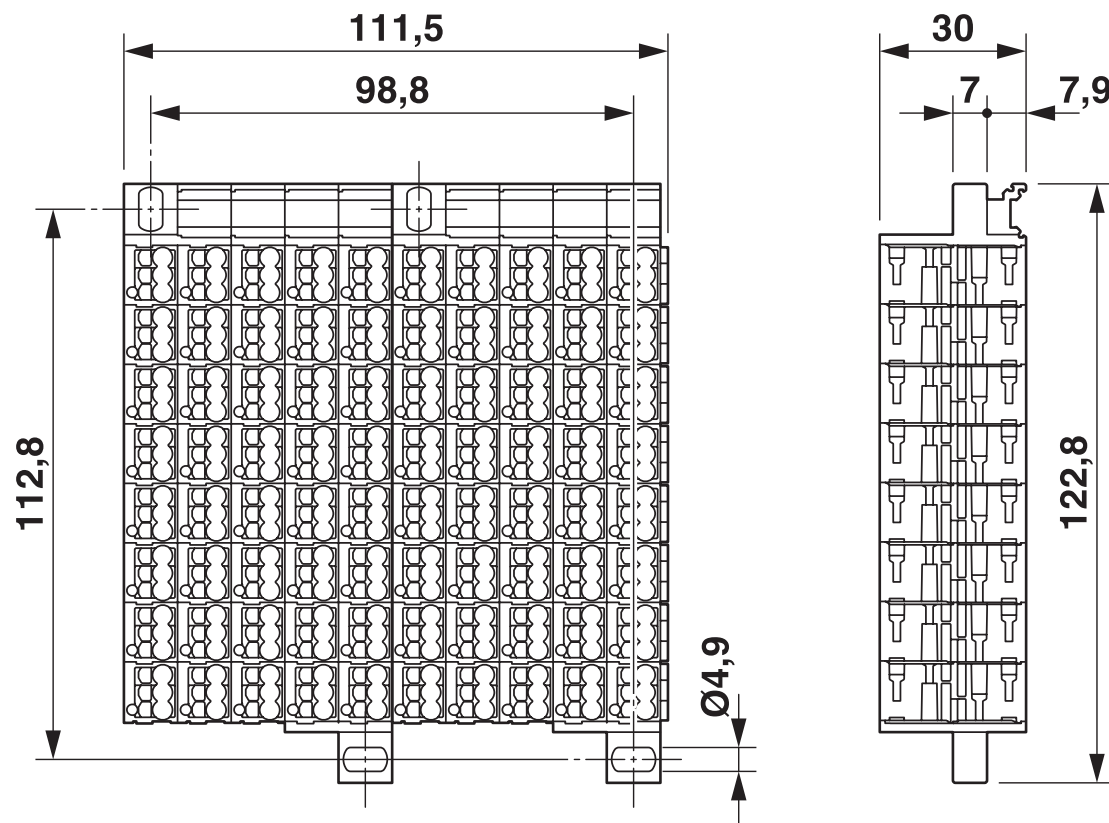
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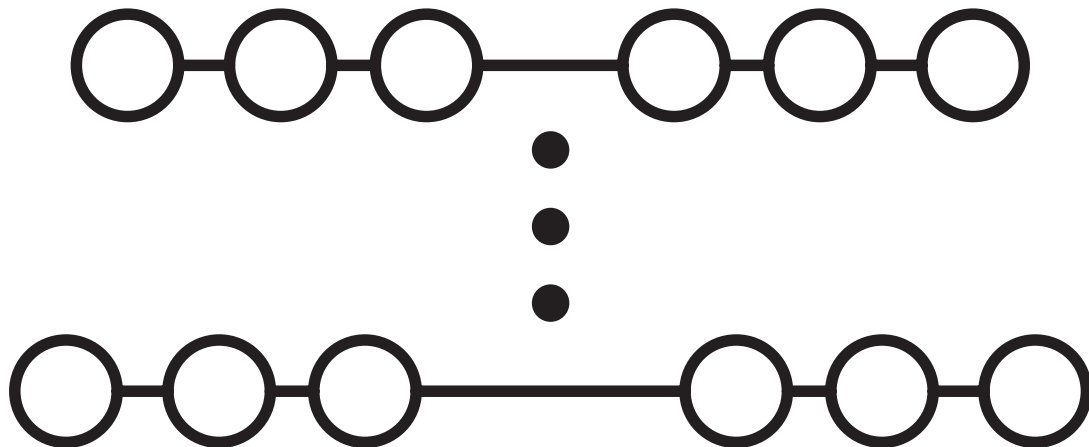


Drawings

Dimensional drawing



Circuit diagram



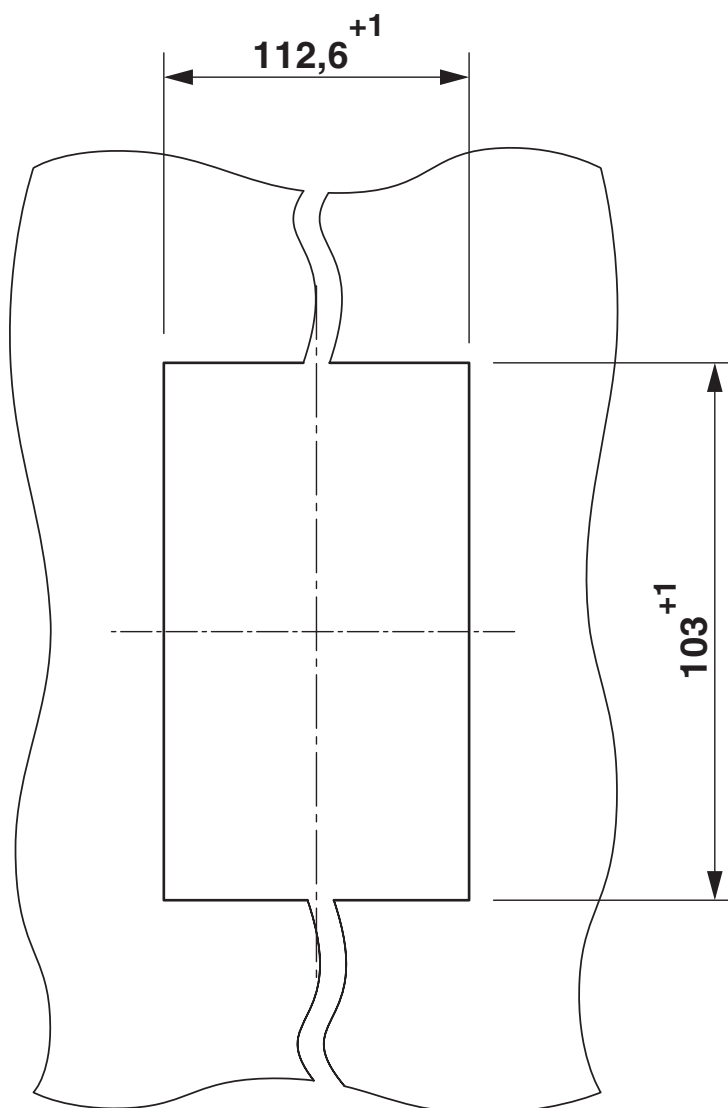
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Dimensional drawing



Panel cutout

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Approvals

 CSA Approval ID: 13631				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B				
	300 V	10 A	24 - 16	-
Use group C				
	300 V	10 A	24 - 16	-
Use group D				
	300 V	10 A	24 - 16	-

 EAC Approval ID: RU C-DE.AI30.B.01102				
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 cULus Recognized Approval ID: E60425				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B				
	300 V	10 A	24 - 16	-
Use group C				
	300 V	10 A	24 - 16	-

 EAC Approval ID: RU C-DE.BL08.B.00682				
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Classifications

ECLASS

ECLASS-9.0	27141120
ECLASS-10.0.1	27141120
ECLASS-11.0	27141120

ETIM

ETIM 8.0	EC000897
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UNSPSC

UNSPSC 21.0	39121400
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Environmental Product Compliance

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

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Accessories



Note: Applying some accessories below might limit this product.

Actuation tool

Actuation tool - ST-BW 0 - 1200135

<https://www.phoenixcontact.com/us/products/1200135>



Actuation tool, for all 1.5 mm² spring cages from PT 1,5/S and FT 1,5/S

Screwdriver

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

<https://www.phoenixcontact.com/us/products/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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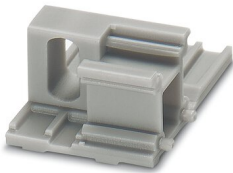
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Flange cover

Flange cover - DF-PTMC-O - 3270400

<https://www.phoenixcontact.com/us/products/3270400>



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

Flange cover

Flange cover - DF-PTMC-U - 3270401

<https://www.phoenixcontact.com/us/products/3270401>



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

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Reducing plug

Reducing plug - RPS - 0201647

<https://www.phoenixcontact.com/us/products/0201647>



Reducing plug, color: gray

Wire bridge

Wire bridge - DB 50- 90 BU - 2821180

<https://www.phoenixcontact.com/us/products/2821180>

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



 Max. current carrying capacity: 8 A

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Wire bridge

Wire bridge - DB 50- 90 BK - 2820916

<https://www.phoenixcontact.com/us/products/2820916>

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



 Max. current carrying capacity: 8 A

Wire bridge

Wire bridge - DB 50- 90 GY - 2820929

<https://www.phoenixcontact.com/us/products/2820929>

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



 Max. current carrying capacity: 8 A

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Wire bridge

Wire bridge - DB 50- 90 RD - 2864639

<https://www.phoenixcontact.com/us/products/2864639>

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



 Max. current carrying capacity: 8 A

Insulating sleeve

Insulating sleeve - MPS-IH WH - 0201663

<https://www.phoenixcontact.com/us/products/0201663>

Insulating sleeve, color: white



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Insulating sleeve

Insulating sleeve - MPS-IH RD - 0201676

<https://www.phoenixcontact.com/us/products/0201676>

Insulating sleeve, color: red

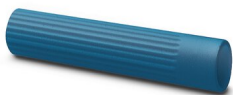


Insulating sleeve

Insulating sleeve - MPS-IH BU - 0201689

<https://www.phoenixcontact.com/us/products/0201689>

Insulating sleeve, color: blue



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Insulating sleeve

Insulating sleeve - MPS-IH YE - 0201692

<https://www.phoenixcontact.com/us/products/0201692>

Insulating sleeve, color: yellow



Insulating sleeve

Insulating sleeve - MPS-IH GN - 0201702

<https://www.phoenixcontact.com/us/products/0201702>

Insulating sleeve, color: green



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Insulating sleeve

Insulating sleeve - MPS-IH GY - 0201728

<https://www.phoenixcontact.com/us/products/0201728>

Insulating sleeve, color: gray



Insulating sleeve

Insulating sleeve - MPS-IH BK - 0201731

<https://www.phoenixcontact.com/us/products/0201731>

Insulating sleeve, color: black



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Adapter

Adapter - DF-PTMC-NS - 3270403

<https://www.phoenixcontact.com/us/products/3270403>

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

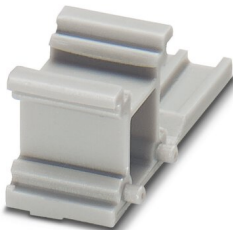


Marker adapter

Marker adapter - DF-PTMC-ZB - 3270410

<https://www.phoenixcontact.com/us/products/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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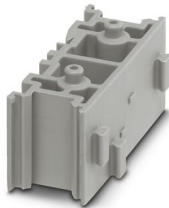
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Marker adapter

Marker adapter - DF-PTMC-3-ZB - 3270405

<https://www.phoenixcontact.com/us/products/3270405>



Marker adapter, for accommodating the marking, length: 30 mm, width: 12.2 mm, height: 13 mm, color: gray

Test plugs

Test plugs - MPS-MT - 0201744

<https://www.phoenixcontact.com/us/products/0201744>



Test plugs, with solder connection up to 1 mm² conductor cross section, color: gray

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