

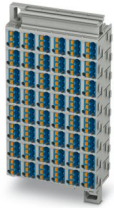
PTMC 1,5/48-3 /BU - Marshalling patchboard



3270320

<https://www.phoenixcontact.com/us/products/3270320>

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Marshalling patchboard, Labeled from 1 - 48, nom. voltage: 500 V, nominal current: 17.5 A, connection method: Push-in connection, cross section: 0.14 mm² - 2.5 mm², mounting: Panel mounting, color: gray, color of connection elements: blue

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

Commercial data

Item number	3270320
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	BE62
Product key	BE6212
GTIN	4055626058399
Weight per piece (including packing)	243.4 g
Weight per piece (excluding packing)	243.4 g
Customs tariff number	85369010
Country of origin	PL

Technical data

Notes

General	Labeled from 1 - 48
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Product properties

Product type	Marshalling terminal
Number of positions	48
Number of connections	288
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	288
Nominal cross section	1.5 mm ²
Rated cross section AWG	14
Connection method	Push-in connection
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A1
Connection in acc. with standard	IEC 60947-7-1
Conductor cross-section rigid	0.14 mm ² ... 2.5 mm ²
Cross section AWG	26 ... 14 (converted acc. to IEC)
Conductor cross-section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross-section, flexible [AWG]	26 ... 16 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without 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 rigid	0.34 mm ² ... 2.5 mm ²
Conductor cross-section, rigid [AWG]	20 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.34 mm ² ... 1.5 mm ²

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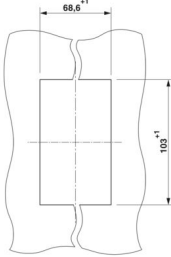


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Flexible conductor cross-section (ferrule with plastic sleeve)	0.34 mm ² ... 1.5 mm ²
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Dimensions

Dimensional drawing	
Width	66 mm
Height	102 mm
Depth	30 mm

Material specifications

Color	gray (RAL 7042)
Color of connection elements	blue
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 mm ²	0.18 kA
Short-time withstand current 2.5 mm ²	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
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Mechanical tests

Mechanical strength

Result	Test passed
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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	Long 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)/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	Panel mounting
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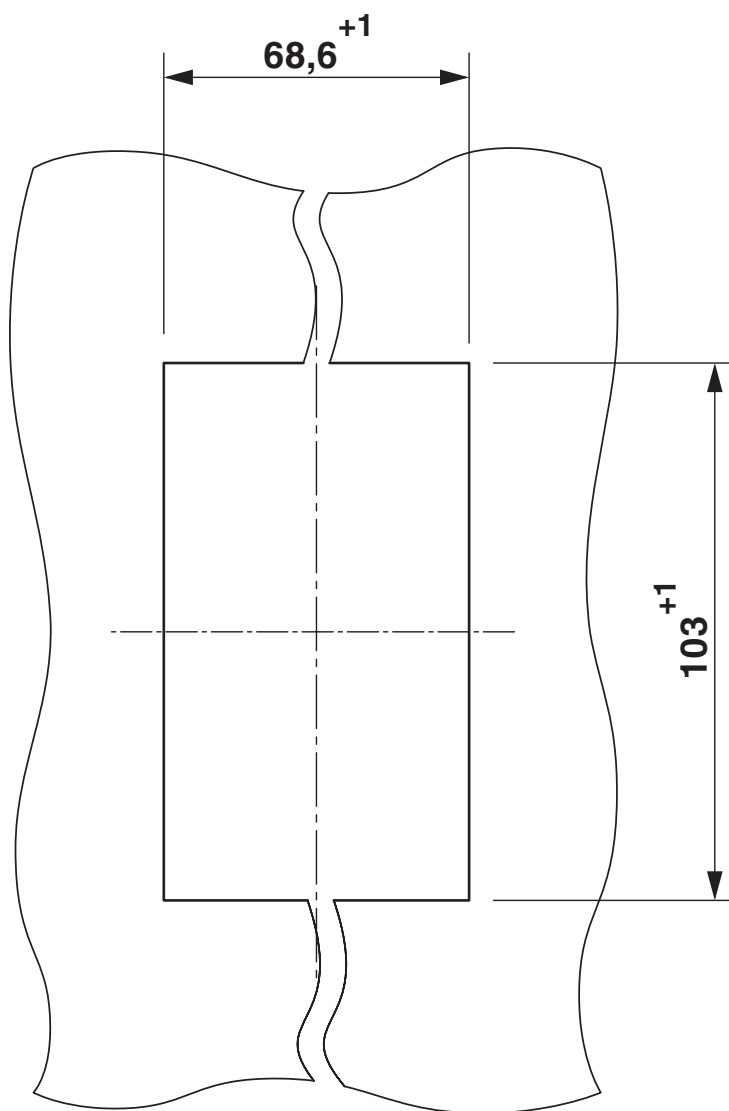


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Drawings

Dimensional drawing



Panel cutout

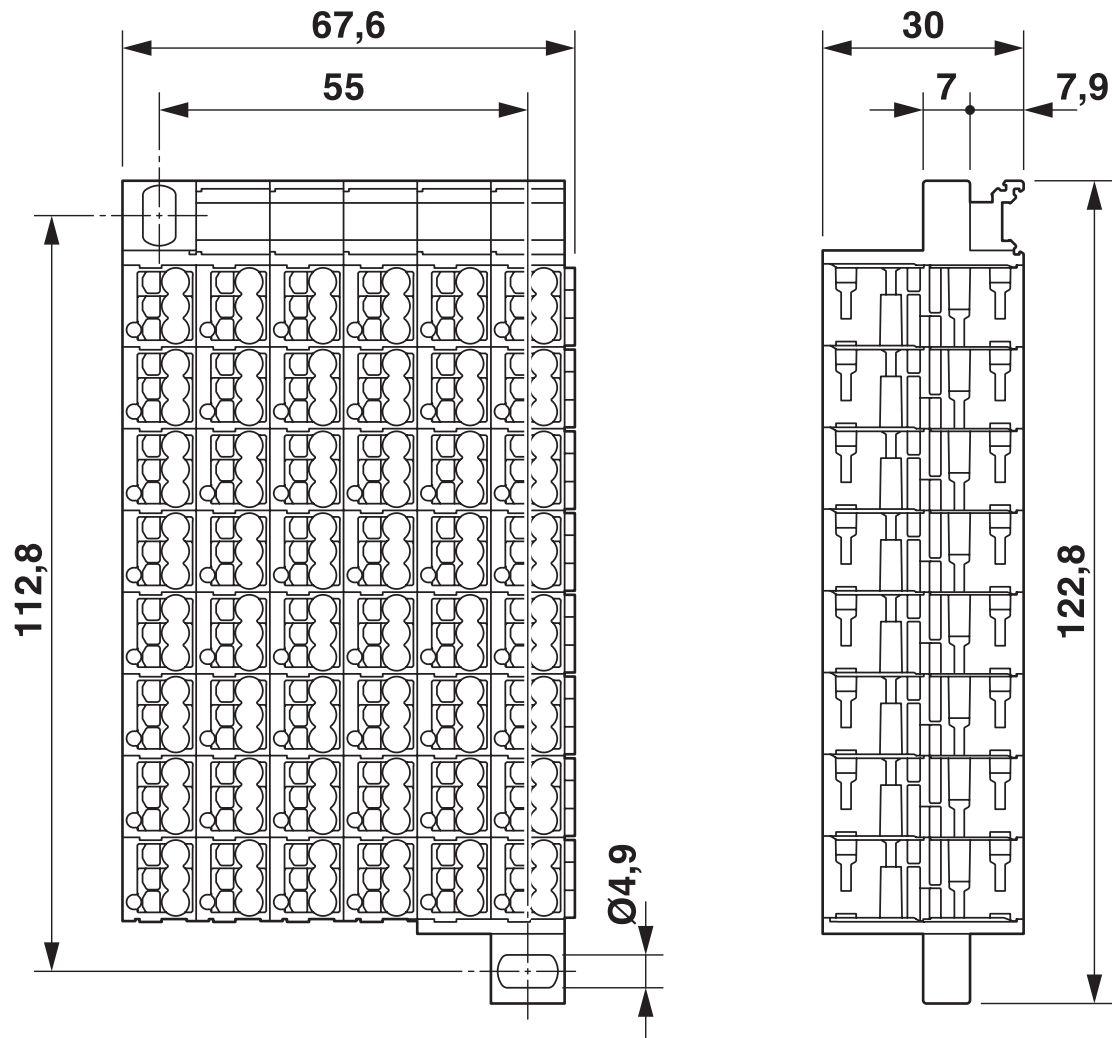
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Dimensional drawing



Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3270320>

 CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B	300 V	10 A	24 - 16	-
C	300 V	10 A	24 - 16	-
D	300 V	10 A	24 - 16	-

 EAC Approval ID: RU C-DE.BL08.B.00682				
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 cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B	300 V	10 A	24 - 16	-
C	300 V	10 A	24 - 16	-

 EAC Approval ID: KZ7500651131219505				
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Classifications

ECLASS

ECLASS-13.0	27250106
ECLASS-15.0	27250106

ETIM

ETIM 10.0	EC000897
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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