

Marshalling patchboard - FTMC 1,5/48-3 19Z - 3270359

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Marshalling patchboard, without actuation lever, nom. voltage: 500 V, nominal current: 17.5 A, cross section: 0.14 mm² - 2.5 mm², AWG: 14 - 26, connection method: Push-in connection, number of positions: 48, number of connections: 288, width: 66 mm, length: 111 mm, color: gray, color of connection elements: gray/white, mounting: Wall mounting, 19" rack

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 19" racks
- ✓ High contact quality thanks to push-in technology as a replacement for Wire-Wrap®, TERMI-POINT®, etc.

RoHS

COMPLETE RoHS

Key Commercial Data

Packing unit	10 pc
GTIN	 4 055626 058627
GTIN	4055626058627

Technical data

General

Note	Labeled from 1 - 48
Number of positions	48
Number of levels	1
Number of connections	288
Nominal cross section	1.5 mm ²
Color	gray
Color of connection elements	gray/white
Insulating material	PA
Flammability rating according to UL 94	V0
Rated surge voltage	6 kV
Degree of pollution	3
Overvoltage category	III

Marshalling patchboard - FTMC 1,5/48-3 19Z - 3270359

Technical data

General

Insulating material group	I
Maximum power dissipation for nominal condition	0.56 W
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 current I _N	17.5 A
Nominal voltage U _N	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 ² / 0.2 kg
	1.5 mm ² / 0.4 kg
	2.5 mm ² / 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 ²
Short-time current	0.18 kA
Conductor cross section short circuit testing	2.5 mm ²
Short-time current	0.3 kA

Marshalling patchboard - FTMC 1,5/48-3 19Z - 3270359

Technical data

General

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	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
ASD level	$0.964 \text{ (m/s}^2\text{)}^2/\text{Hz}$
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	66 mm
Length	111 mm
Height	30 mm

Connection data

Connection method	Push-in connection
Stripping length	8 mm ... 10 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	0.14 mm ²

Marshalling patchboard - FTMC 1,5/48-3 19Z - 3270359

Technical data

Connection data

Conductor cross section solid max.	2.5 mm ²
Conductor cross section AWG min.	26
Conductor cross section AWG max.	14
Conductor cross section flexible min.	0.14 mm ²
Conductor cross section flexible max.	1.5 mm ²
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 ²
Conductor cross section flexible, with ferrule without plastic sleeve max.	1.5 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.14 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve max.	1.5 mm ²
Connection cross sections directly pluggable	0.34 mm ² 2.5 mm ² 20 14
Conductor cross section solid min.	0.34 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.34 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve max.	1.5 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.34 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve max.	1.5 mm ²
Internal cylindrical gage	A1

Standards and Regulations

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

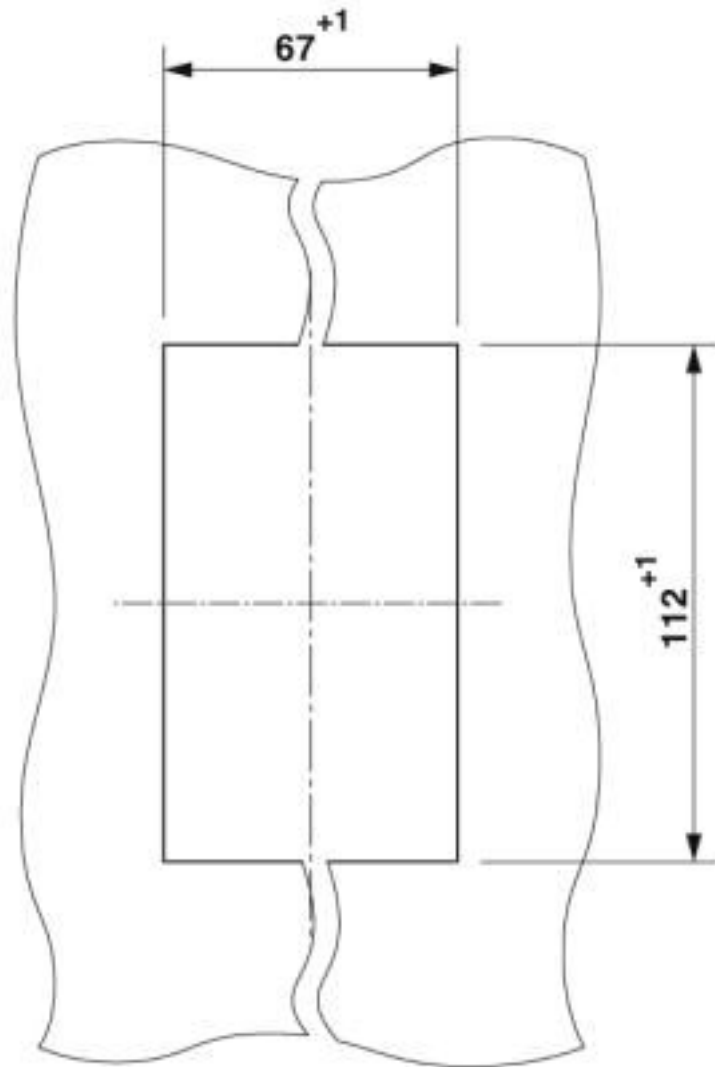
Environmental Product Compliance

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

Drawings

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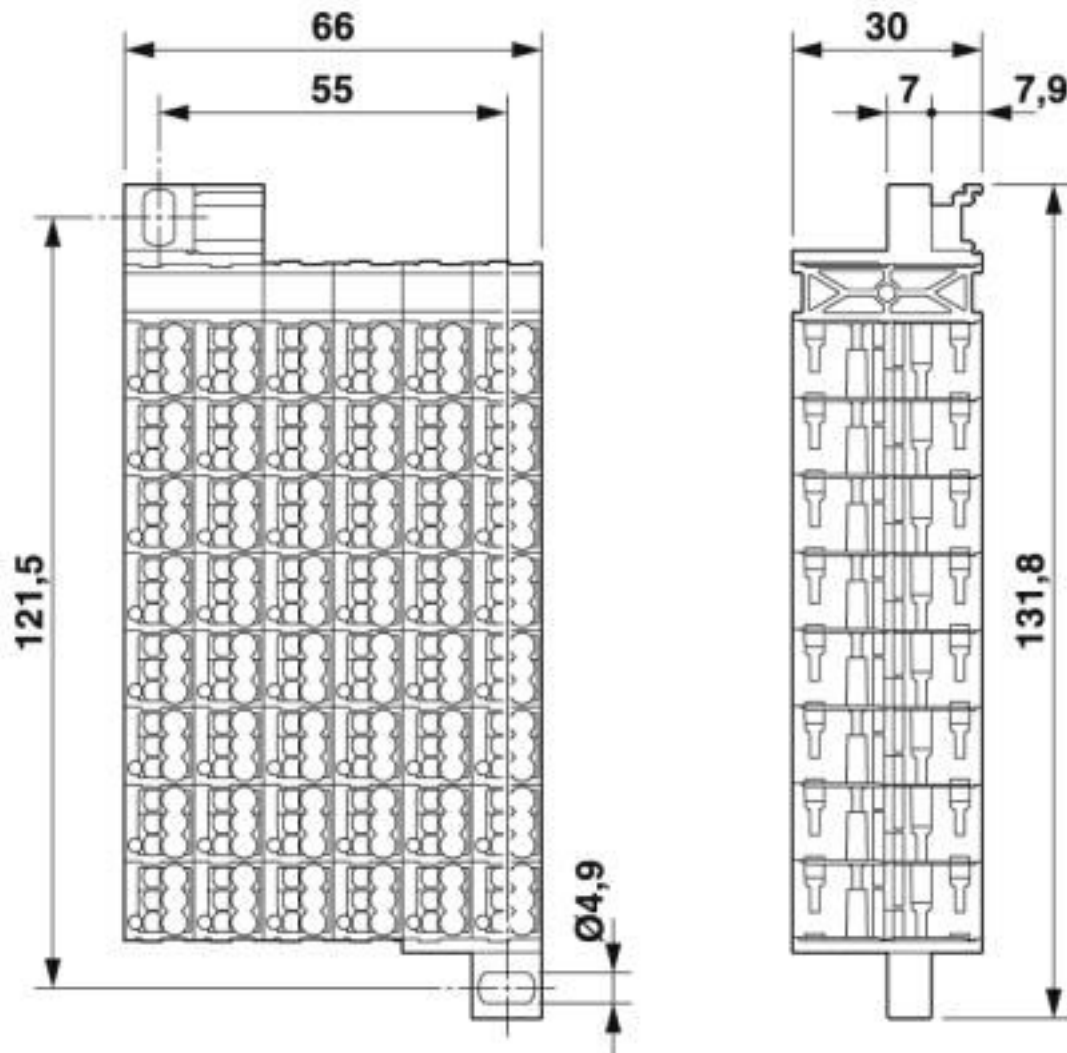
Dimensional drawing



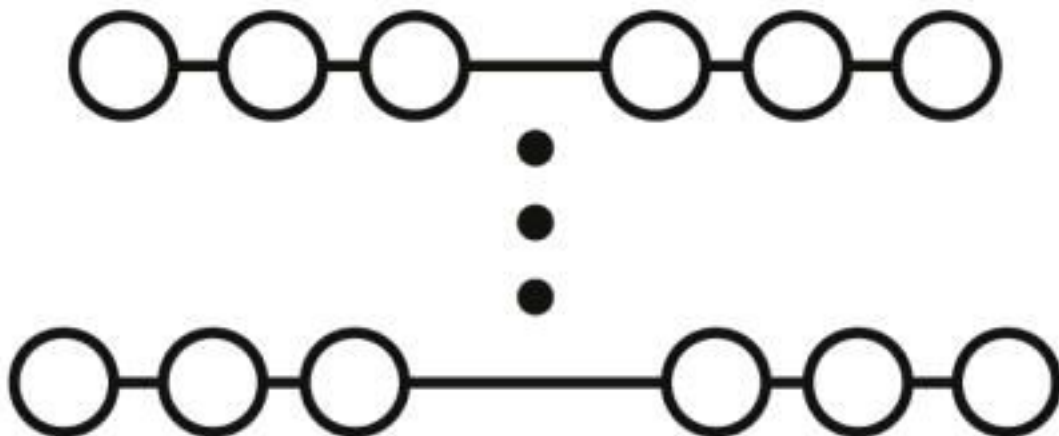
Panel cutout

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Dimensional drawing



Circuit diagram



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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
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

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

Ex Approvals

Approval details

CSA		http://www.csagroup.org/services-industries/product-listing/	13631
	B	C	D
Nominal voltage UN	300 V	300 V	300 V
Nominal current IN	10 A	10 A	10 A
mm²/AWG/kcmil	24-16	24-16	24-16

Marshalling patchboard - FTMC 1,5/48-3 19Z - 3270359

Approvals

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	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	

cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	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.A*30.B.01742
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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



Marshalling patchboard - FTMC 1,5/48-3 19Z - 3270359

Accessories

Insulating sleeve - MPS-IH RD - 0201676

Insulating sleeve, color: red



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



Marshalling patchboard - FTMC 1,5/48-3 19Z - 3270359

Accessories

Insulating sleeve - MPS-IH BK - 0201731

Insulating sleeve, color: black



Loop bridge

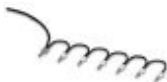
Wire bridge - DB 50- 90 BU - 2821180

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



Mounting material

Marshalling patchboard - FTMC 1,5/48-3 19Z - 3270359

Accessories

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

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

Adapter - DF-PTMC-NS - 3270403



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

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

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

Marshalling patchboard - FTMC 1,5/48-3 19Z - 3270359

Accessories

Actuation tool - ST-BW 0 - 1200135



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

Test plug terminal block

Reducing plug - RPS - 0201647



Reducing plug, color: gray

Test plugs - MPS-MT - 0201744



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

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PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>

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