

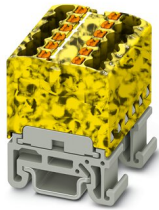
Distribution block - PTFIX 12X1,5-NS15A-FE



3002981

<https://www.phoenixcontact.com/us/products/3002981>

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Distribution block, the blocks can be bridged with one another via the conductor shaft, for corresponding plug-in bridges, see accessories, bridged internally, nom. voltage: 500 V, nominal current: 17.5 A, connection method: Push-in connection, cross section: 0.14 mm² - 2.5 mm², mounting type: NS 15, color: black/yellow

Your advantages

- Space-saving, thanks to the compact design
- Flexible use, thanks to DIN rail and direct mounting
- Space-saving potential distribution, thanks to compact micro potential distributors
- Convenient test options, thanks to test openings at every terminal point
- Clear arrangement thanks to marking of all terminal points

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Commercial Data

Item number	3002981
Packing unit	1 pc
Minimum order quantity	20 pc
Sales Key	B02
Product Key	BEA114
Catalog Page	Page 433 (C-1-2019)
GTIN	4055626433882
Weight per Piece (including packing)	12.463 g
Weight per Piece (excluding packing)	10.875 g
Customs tariff number	85369010
Country of origin	PL

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Technical Data

Notes

Notes on operation	the blocks can be bridged with one another via the conductor shaft, for corresponding plug-in bridges, see accessories
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General

Note	The maximum load current of a single clamping unit must not be exceeded.
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Product properties

Product type	Distributor terminal block
Number of connections	12
Number of rows	1
Potentials	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	12
Nominal cross section	1.5 mm ²
Rated cross section AWG	14
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A1 / B1
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]	24 ... 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	22 A
Maximum total current	26 A
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]	26 ... 14
Flexible conductor cross section flexible (ferrule, w/o plastic	0.34 mm ² ... 1.5 mm ²

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

Dimensions

Width	24.9 mm
Height NS 15	27.4 mm
Length	21.6 mm

Material specifications

Color	black/yellow
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
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/NS 15
Test force setpoint	1 N
Result	Test passed
Note	<p>When aligning several blocks, it is recommended to either place a DIN rail adapter underneath the connection point or a flange element between the blocks.</p> <p>For versions with 6 or 7 connections, it is enough to place one DIN rail adapter centrally per block and place flange elements after every other block.</p> <p>When using the DIN rail adapter PTFIX-NS35, an aligned block must not protrude by more than a half.</p>

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):2018-05
Spectrum	Service life test category 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	6.12 (m/s ²) ² /Hz
Acceleration	3.12g
Test duration per axis	0.00138888888889 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2018-05
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Pulse shape	Half-sine
Acceleration	30g
Shock duration	18 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	NS 15
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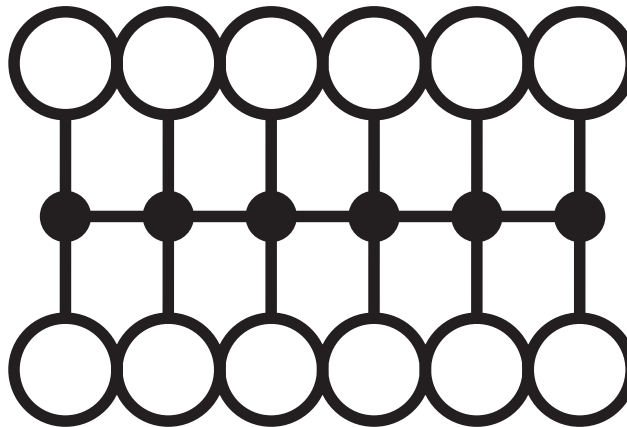
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Drawings

Circuit diagram



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Approvals

DNV Approval ID: TAE00002TT				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	500 V	24 A	-	-

CSA Approval ID: 13631				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B	300 V	20 A	26 - 12	-
Use group C	150 V	20 A	26 - 12	-
Use group D	300 V	10 A	26 - 12	-

CB IECEE CB Scheme Approval ID: DE1-62701				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	500 V	17.5 A	-	- 1.5

EAC Approval ID: RU C-DE.BL08.B.00644				
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LR Approval ID: LR2002627TA				
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BV Approval ID: 59146/A0 BV				
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VDE Zeichengenehmigung Approval ID: 40047797				
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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	20 A	26 - 12	-

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Use group C				
	150 V	20 A	26 - 12	-
Use group F				
	500 V	20 A	26 - 12	-
Use group D				
	300 V	10 A	26 - 12	-

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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.

Plug-in bridge

Plug-in bridge - FBS 2-4 - 3030116

<https://www.phoenixcontact.com/us/products/3030116>



Plug-in bridge, pitch: 4.2 mm, color: red



Max. current carrying capacity: 17.5 A

Plug-in bridge

Plug-in bridge - FBS 2-4 BU - 3030117

<https://www.phoenixcontact.com/us/products/3030117>



Plug-in bridge, pitch: 4.2 mm, color: blue



Max. current carrying capacity: 17.5 A

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Plug-in bridge

Plug-in bridge - FBS 2-4 GY - 3030118

<https://www.phoenixcontact.com/us/products/3030118>



Plug-in bridge, pitch: 4.2 mm, color: gray

 Max. current carrying capacity: 17.5 A

Accessories

Accessories - MPS-MT 1-S4-B RD - 1982800

<https://www.phoenixcontact.com/us/products/1982800>

Test plug terminal block, Accessories



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Insulating sleeve

Insulating sleeve - ISH 1,5/0,2 - 3206131

<https://www.phoenixcontact.com/us/products/3206131>



Insulating sleeve, color: white

Insulating sleeve

Insulating sleeve - ISH 1,5/0,5 - 3031034

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Insulating sleeve, color: gray

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Marker card

Marker card - SK 3,8 REEL P4,15 WH CUS - 0825990

<https://www.phoenixcontact.com/us/products/0825990>



Marker card, can be ordered: by card, white, labeled according to customer specifications, mounting type: adhesive, for terminal block width: 4.15 mm, lettering field size: continuous x 3.8 mm

Marking foil for zack marker strip

Marking foil for zack marker strip - TML (EX3,8)R - 0801837

<https://www.phoenixcontact.com/us/products/0801837>



Marking foil for zack marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMaster 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 30000 mm, lettering field size: 30000 x 3.8 mm, Number of individual labels: 1

Distribution block - PTFIX 12X1,5-NS15A-FE



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Marking foil for zack marker strip

Marking foil for zack marker strip - TML (104X3,8)R - 0801833

<https://www.phoenixcontact.com/us/products/0801833>



Marking foil for zack marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 104 mm, lettering field size: 104 x 3.8 mm, Number of individual labels: 2500

Marking foil for zack marker strip

Marking foil for zack marker strip - TML (104X2,8)R - 0801832

<https://www.phoenixcontact.com/us/products/0801832>



Marking foil for zack marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 104 mm, lettering field size: 104 x 2.8 mm, Number of individual labels: 2500

Distribution block - PTFIX 12X1,5-NS15A-FE



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Marking foil for zack marker strip

Marking foil for zack marker strip - TML (EX2,8)R - 0801836

<https://www.phoenixcontact.com/us/products/0801836>

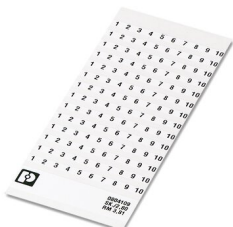


Marking foil for zack marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMaster 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 30000 mm, lettering field size: 30000 x 2.8 mm, Number of individual labels: 1

Marker card

Marker card - SK 2,8 REEL P4,15 WH CUS - 8199987

<https://www.phoenixcontact.com/us/products/8199987>



Marker card, can be ordered: by card, white, labeled according to customer specifications, mounting type: adhesive, for terminal block width: 4.15 mm, lettering field size: continuous x 2.8 mm

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Marker for terminal blocks

Marker for terminal blocks - US-TML (104X3,8) - 0830768

<https://www.phoenixcontact.com/us/products/0830768>



Marker for terminal blocks, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: adhesive, lettering field size: 104 x 3.8 mm, Number of individual labels: 22

Marker for terminal blocks

Marker for terminal blocks - US-TML (104X2,8) - 0830767

<https://www.phoenixcontact.com/us/products/0830767>



Marker for terminal blocks, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: adhesive, lettering field size: 104 x 2.8 mm, Number of individual labels: 26

Distribution block - PTFIX 12X1,5-NS15A-FE



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<https://www.phoenixcontact.com/us/products/3002981>

Marker card

Marker card - SK U/3,8 WH:UNBEDRUCKT - 0803906

<https://www.phoenixcontact.com/us/products/0803906>



Marker card, Sheet, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 3.8 mm, Number of individual labels: 1440

Marker card

Marker card - SK U/2,8 WH:UNBEDRUCKT - 0803883

<https://www.phoenixcontact.com/us/products/0803883>



Marker card, Sheet, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 2.8 mm, Number of individual labels: 3600

Distribution block - PTFIX 12X1,5-NS15A-FE



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Label

Label - MM-TML (EX3,8)R C1 WH/BK - 1092026

<https://www.phoenixcontact.com/us/products/1092026>



Label, Roll, white, unlabeled, can be labeled with: THERMOFOX, THERMOMARK GO, THERMOMARK GO.K, mounting type: adhesive, for terminal block width: 8000 mm, lettering field size: continuous x 2.8 mm

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