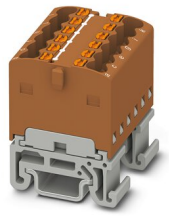
Distribution block - PTFIX 12X1,5-NS15A BN

3002971

https://www.phoenixcontact.com/us/products/3002971

Please be informed that the data shown in this PDF document is generated from our Online Catalog. Please find the complete data in the user documentation. Our General Terms of Use for Downloads are valid.



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 mm^2 - 2.5 mm^2, mounting type: NS 15, color: brown

Your advantages

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

Commercial Data

Item number	3002971
Packing unit	1 pc
Minimum order quantity	20 pc
Note	Made to Order (non-returnable)
Sales Key	B02
Product Key	BEA114
Catalog Page	Page 433 (C-1-2019)
GTIN	4055626433790
Weight per Piece (including packing)	12.56 g
Weight per Piece (excluding packing)	12.56 g
Customs tariff number	85369010
Country of origin	PL

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

General

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

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 mm²
Rated cross section AWG	14
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A1 / B1
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid	0.14 mm² ... 2.5 mm²
Cross section AWG	26 ... 14 (converted acc. to IEC)
Conductor cross section flexible	0.14 mm² ... 1.5 mm²
Conductor cross section, flexible [AWG]	24 ... 14 (converted acc. to IEC)
Flexible conductor cross section flexible (ferrule, w/o plastic sleeve)	0.14 mm² ... 1.5 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm² ... 1.5 mm²
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 mm² ... 2.5 mm²
Conductor cross section, solid [AWG]	26 ... 14 (converted acc. to IEC)

Flexible conductor cross section flexible (ferrule, w/o plastic sleeve)	0.34 mm² ... 1.5 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.34 mm² ... 1.5 mm²

Dimensions

Width	24.9 mm
Height NS 15	27.4 mm
Length	21.6 mm

Material specifications

Color	brown
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
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/NS 15
Test force setpoint	1 N
Result	Test passed
Note	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.
	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.
	When using the DIN rail adapter PTFIX-NS35, an aligned block must not protrude by more than a half.

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	0.14 mm² / 0.2 kg
	1.5 mm² / 0.4 kg
	2.5 mm² / 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 Hz to f_2 = 250 Hz
ASD level	6.12 (m/s²)²/Hz
Acceleration	3.12g
Test duration per axis	0.0013888888889 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2018-05
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

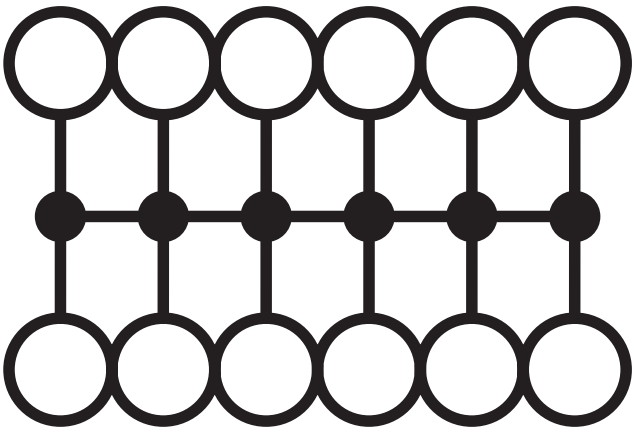
Connection in acc. with standard	IEC 60947-7-1

Mounting

Mounting type	NS 15

Drawings

Circuit diagram



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	-

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

LR
Approval ID: LR2002627TA

BV
Approval ID: 59146/A0 BV

VDE Zeichengenehmigung
Approval ID: 40047797

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	-

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	-

Classifications

ECLASS

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

ETIM

ETIM 8.0	EC000897

UNSPSC

UNSPSC 21.0	39121400

Environmental Product Compliance

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

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

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



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

https://www.phoenixcontact.com/us/products/3031034

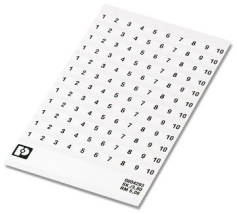


Insulating sleeve, color: gray

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

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

Marking foil for zack marker strip

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

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

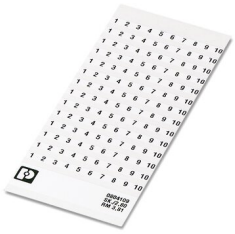


Marking foil for zack marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 30000 mm, lettering field size: 30000 x 2. 8 mm, Number of individual 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

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

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

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

Phoenix Contact 2022 © - all rights reserved
https://www.phoenixcontact.com

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com