

# Distribution block - PTFIX 12X1,5-NS15A-FE - 3002981

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Distribution block, bridged internally. The blocks can be bridged with one another via the conductor shaft. For corresponding plug-in bridges, see accessories, nom. voltage: 500 V, nominal current: 17.5 A, connection method: Push-in connection, number of connections: 12, cross section: 0.14 mm<sup>2</sup> - 2.5 mm<sup>2</sup>, AWG: 26 - 14, width: 24.9 mm, color: black/yellow, mounting type: NS 15

## 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



## Key Commercial Data

Packing unit	20 pc
GTIN	 4 055626 433882
GTIN	4055626433882

## Technical data

### General

Note	Notes on operation The blocks can be bridged with one another via the conductor shaft. For corresponding plug-in bridges, see accessories
	Notes on operation The D-PTFIX 1,5 cover (accessory) must be placed on the end of the terminal strip
Number of levels	1
Number of connections	12
Potentials	1
Nominal cross section	1.5 mm <sup>2</sup>
Color	black/yellow
Insulating material	PA
Flammability rating according to UL 94	V0
Rated surge voltage	6 kV

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## Technical data

### General

Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	0.56 W
Maximum load current	22 A
Maximum total current	26 A
Nominal current I <sub>N</sub>	17.5 A
Nominal voltage U <sub>N</sub>	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 <sup>2</sup> / 0.2 kg
	1.5 mm <sup>2</sup> / 0.4 kg
	2.5 mm <sup>2</sup> / 0.7 kg
Tensile test result	Test passed
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35/NS 15
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 <sup>2</sup>
Short-time current	0.18 kA
Conductor cross section short circuit testing	2.5 mm <sup>2</sup>
Short-time current	0.3 kA
Result of thermal test	Test passed

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## Technical data

### General

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):2018-05
Test spectrum	Service life test category 2, bogie-mounted
Test frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	$6.12 \text{ (m/s}^2\text{)}^2\text{/Hz}$
Acceleration	3.12 g
Test duration per axis	0.00138888888889 h
Test directions	X-, Y- and Z-axis
Shock test result	Test passed
Test specification, shock test	DIN EN 50155 (VDE 0115-200):2018-05
Shock form	Half-sine
Acceleration	30g
Shock duration	18 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	24.9 mm
Length	21.6 mm
Height NS 15	27.4 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 <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>

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### Technical data

#### Connection data

Conductor cross section AWG min.	26
Conductor cross section AWG max.	14
Conductor cross section flexible min.	0.14 mm <sup>2</sup>
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Min. AWG conductor cross section, flexible	24
Max. AWG conductor cross section, flexible	14
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	1.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	1.5 mm <sup>2</sup>
Connection cross sections directly pluggable	0.34 mm <sup>2</sup> 2.5 mm <sup>2</sup> 26 14
Conductor cross section solid min.	0.34 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.34 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	1.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.34 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	1.5 mm <sup>2</sup>
Internal cylindrical gage	A1 / B1

#### Standards and Regulations

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

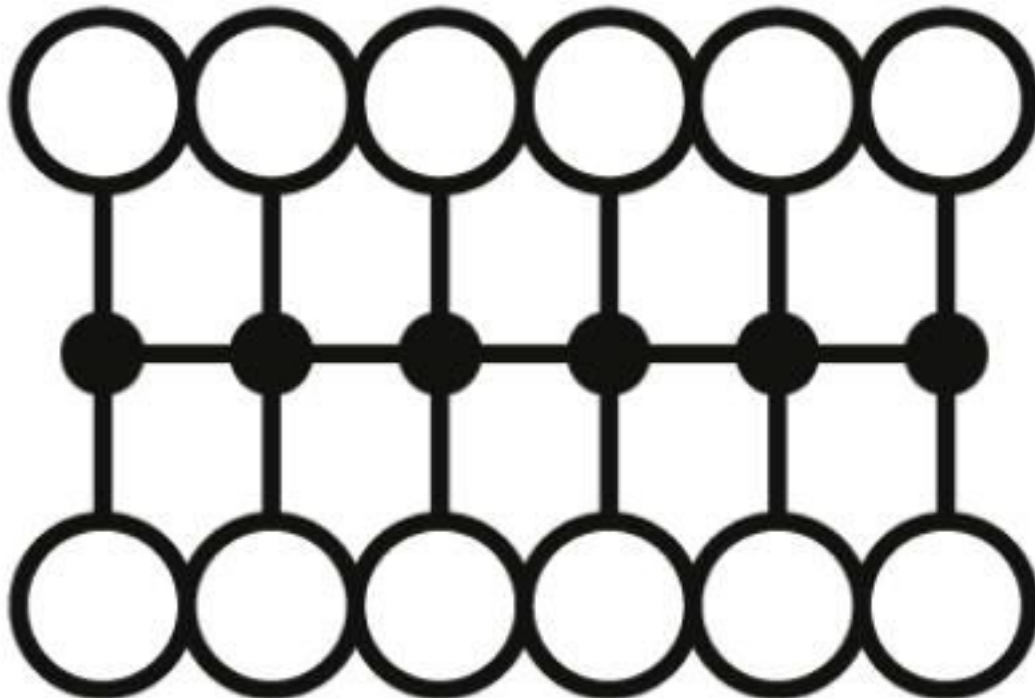
#### Environmental Product Compliance

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

### Drawings

# Distribution block - PTFIX 12X1,5-NS15A-FE - 3002981

Circuit diagram



## Classifications

### eCl@ss

eCl@ss 10.0.1	27141120
eCl@ss 4.0	27141120
eCl@ss 4.1	27141120
eCl@ss 5.0	27141120
eCl@ss 5.1	27141120
eCl@ss 6.0	27141100
eCl@ss 7.0	27141120
eCl@ss 8.0	27141120
eCl@ss 9.0	27141120

### ETIM

ETIM 2.0	EC000897
ETIM 3.0	EC000897
ETIM 4.0	EC000897
ETIM 5.0	EC000897
ETIM 6.0	EC000897
ETIM 7.0	EC000897

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## Classifications

### UNSPSC

UNSPSC 6.01	30211811
UNSPSC 7.0901	39121410
UNSPSC 11	39121410
UNSPSC 12.01	39121410
UNSPSC 13.2	39121410
UNSPSC 18.0	39121410
UNSPSC 19.0	39121410
UNSPSC 20.0	39121410
UNSPSC 21.0	39121410

## Approvals


### Approvals

#### Approvals


CSA / EAC / EAC / LR / UL Recognized / cUL Recognized / cUL Recognized / DNV GL / IECCEB Scheme / VDE Zeichengenehmigung / BV


#### Ex Approvals

### Approval details

CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
	B	C	D
Nominal voltage UN	300 V	150 V	300 V
Nominal current IN	20 A	20 A	10 A
mm <sup>2</sup> /AWG/kcmil	26-12	26-12	26-12

EAC		RU C- DE.AI30.B.01102
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EAC		RU C- DE.BL08.B.00644
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LR		<a href="http://www.lr.org/en">http://www.lr.org/en</a>	LR2002627TA
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## Approvals

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 60425
	B	C	D
Nominal voltage UN	300 V	150 V	300 V
Nominal current IN	20 A	20 A	10 A
mm <sup>2</sup> /AWG/kcmil	26-12	26-12	26-12

cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 60425
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cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 60425
	B	C	D
Nominal voltage UN	300 V	150 V	300 V
Nominal current IN	20 A	20 A	10 A
mm <sup>2</sup> /AWG/kcmil	26-12	26-12	26-12

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAE00002TT
Nominal voltage UN	500 V		
Nominal current IN	24 A		

IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	DE1-62701
Nominal voltage UN	500 V		
Nominal current IN	17.5 A		
mm <sup>2</sup> /AWG/kcmil	1.5		

VDE Zeichengenehmigung		<a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a>	40047797
Nominal voltage UN	500 V		
Nominal current IN	17.5 A		

## Distribution block - PTFIX 12X1,5-NS15A-FE - 3002981

### Approvals

mm²/AWG/kcmil	0.2-1.5
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BV		<a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a>	59146/A0 BV
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### Accessories

#### Accessories

##### Insulating sleeve

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



Insulating sleeve, color: white

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



Insulating sleeve, color: gray

##### Jumper

Plug-in bridge - FBS 2-4 - 3030116



Plug-in bridge, pitch: 4.2 mm, number of positions: 2, color: red

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



Plug-in bridge, pitch: 4.2 mm, number of positions: 2, color: blue



## Distribution block - PTFIX 12X1,5-NS15A-FE - 3002981

### Accessories

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



Plug-in bridge, pitch: 4.2 mm, number of positions: 2, color: gray

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### Labeled terminal marker

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



Marker card, 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

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



Marker card, 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 card - SK 3,8 REEL P4,15 WH CUS - 8199988



Marker card, 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

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### Terminal marking

Marking foil for zack marker strip - TML (EX3,8)R - 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 - 3002981

### Accessories

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

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

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

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

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

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## Distribution block - PTFIX 12X1,5-NS15A-FE - 3002981

### Accessories

Marker card - SK U/3,8 WH:UNBEDRUCKT - 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 - SK U/2,8 WH:UNBEDRUCKT - 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 - MM-TML (EX3,8)R C1 WH/BK - 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 3.8#mm

Test plug terminal block

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



Accessories, number of positions: 1, pitch: 0 mm

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