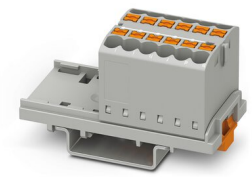
Distribution block - PTFIX 12X2,5-NS35 GY

3273022

https://www.phoenixcontact.com/us/products/3273022

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, Block with vertical alignment, nom. voltage: 690 V, nominal current: 24 A, connection method: Push-in connection, cross section: 0.14 mm^2 - 4 mm^2, mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- Flexible use, thanks to DIN rail mounting, direct mounting or adhesive mounting
- Clear wiring, thanks to eleven different color variants
- Time-saving conductor connection, thanks to tool-free Push-in direct connection technology
- Time savings of up to 80 %, thanks to ready-to-mount blocks without manual bridging
- Space savings of up to 50 % on the DIN rail, thanks to transverse mounting

Commercial Data

Item number	3273022
Packing unit	1 pc
Minimum order quantity	8 pc
Sales Key	B02
Product Key	BEA114
Catalog Page	Page 441 (C-1-2019)
GTIN	4055626390659
Weight per Piece (including packing)	27.475 g
Weight per Piece (excluding packing)	27.37 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	8 kV
Maximum power dissipation for nominal condition	0.77 W

Connection data

Number of connections per level	12
Nominal cross section	2.5 mm²
Rated cross section AWG	14
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid	0.14 mm² ... 4 mm²
Cross section AWG	26 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.14 mm² ... 2.5 mm²
Conductor cross section, flexible [AWG]	26 ... 14 (converted acc. to IEC)
Flexible conductor cross section flexible (ferrule, w/o plastic sleeve)	0.14 mm² ... 2.5 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm² ... 2.5 mm²
Nominal current	24 A
Maximum load current	32 A
Maximum total current	48 A
Nominal voltage	690 V

Connection cross sections directly pluggable

Conductor cross section solid	0.34 mm² ... 4 mm²
Conductor cross section, solid [AWG]	24 ... 12 (converted acc. to IEC)

Flexible conductor cross section flexible (ferrule, w/o plastic sleeve)	0.34 mm² ... 2.5 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.34 mm² ... 2.5 mm²

Dimensions

Width	28.6 mm
Height NS 15	30.4 mm
Height NS 35/7,5	32.4 mm
Length	58.1 mm

Material specifications

Color	gray
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))	130 °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)	28 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	9.8 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 2.5 mm²	0.3 kA
Short-time withstand current 4 mm²	0.48 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
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
	2.5 mm² / 0.7 kg
	4 mm² / 0.9 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	Service life test category 2, bogie-mounted
Frequency	f_1 = 5 Hz to f_2 = 250 Hz
ASD level	6.12 $(m/s^2)^2/Hz$
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2008-03
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

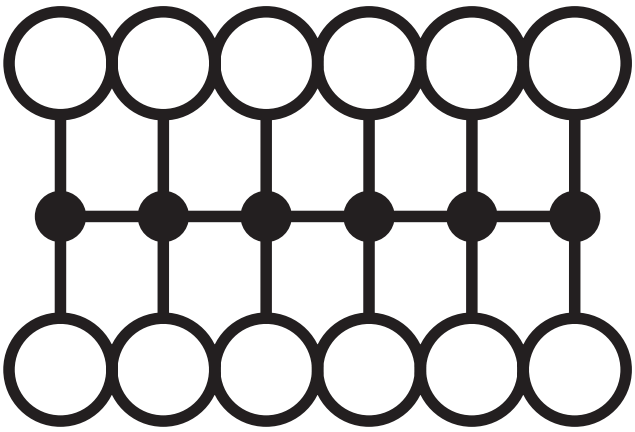
Connection in acc. with standard	IEC 60947-7-1

Mounting

Mounting type	NS 35/7,5
	NS 35/15

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				
	300 V	20 A	26 - 12	-
Use group D				
	600 V	5 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
	690 V	24 A	-	-

EAC
Approval ID: RU C-DE.AI30.B.01102

LR
Approval ID: LR2002627TA

BV
Approval ID: 59146/A0 BV

EAC
Approval ID: RU C-DE.BL08.B.00644

VDE Zeichengenehmigung
Approval ID: 40047797

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	690 V	24 A	-	-

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				
	300 V	20 A	26 - 12	-
Use group D				
	600 V	5 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 2-5 - 3030161

https://www.phoenixcontact.com/us/products/3030161



Plug-in bridge, pitch: 5.2 mm, color: red

Max. current carrying capacity: 24 A

Plug-in bridge

Plug-in bridge - FBS 2-5 GN - 3032143

https://www.phoenixcontact.com/us/products/3032143



Plug-in bridge, pitch: 5.2 mm, color: green

Max. current carrying capacity: 24 A

Plug-in bridge

Plug-in bridge - FBS 2-5 BU - 3036877

https://www.phoenixcontact.com/us/products/3036877



Plug-in bridge, pitch: 5.2 mm, color: blue

Max. current carrying capacity: 24 A

Plug-in bridge

Plug-in bridge - FBS 2-5 GY - 3038969

https://www.phoenixcontact.com/us/products/3038969



Plug-in bridge, pitch: 5.2 mm, color: gray

Max. current carrying capacity: 24 A

Test plugs

Test plugs - MPS-MT 1-S - 1944372

https://www.phoenixcontact.com/us/products/1944372

Test plug, consisting of 1.0 mm Ø test pin and 2.0 mm Ø socket



DIN rail perforated

DIN rail perforated - NS 35/ 7,5 PERF 2000MM - 0801733

https://www.phoenixcontact.com/us/products/0801733



DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 25 (50 m)

DIN rail, unperforated

DIN rail, unperforated - NS 35/ 7,5 UNPERF 2000MM - 0801681

https://www.phoenixcontact.com/us/products/0801681



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 25 (50 m)

DIN rail perforated

DIN rail perforated - NS 35/ 7,5 WH PERF 2000MM - 1204119

https://www.phoenixcontact.com/us/products/1204119



DIN rail perforated, acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver, Pack of 25 (50 m)

DIN rail, unperforated

DIN rail, unperforated - NS 35/ 7,5 WH UNPERF 2000MM-VPE 10 - 1204122

https://www.phoenixcontact.com/us/products/1204122



DIN rail, unperforated, acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver, Pack of 10 (20 m)

DIN rail, unperforated

DIN rail, unperforated - NS 35/ 7,5 AL UNPERF 2000MM - 0801704

https://www.phoenixcontact.com/us/products/0801704



DIN rail, unperforated, acc. to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver, Pack of 25 (50 m)

DIN rail perforated

DIN rail perforated - NS 35/ 7,5 ZN PERF 2000MM - 1206421

https://www.phoenixcontact.com/us/products/1206421



DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver, Pack of 25 (50 m)

DIN rail, unperforated

DIN rail, unperforated - NS 35/ 7,5 ZN UNPERF 2000MM - 1206434

https://www.phoenixcontact.com/us/products/1206434



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver, Pack of 25 (50 m)

DIN rail, unperforated

DIN rail, unperforated - NS 35/ 7,5 CU UNPERF 2000MM-VPE 10 - 0801762

https://www.phoenixcontact.com/us/products/0801762



DIN rail, unperforated, acc. to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored, Pack of 10 (20 m)

End cap

End cap - NS 35/ 7,5 CAP - 1206560

https://www.phoenixcontact.com/us/products/1206560

DIN rail end piece, for DIN rail NS 35/7.5



DIN rail perforated

DIN rail perforated - NS 35/15 PERF 2000MM - 1201730

https://www.phoenixcontact.com/us/products/1201730



DIN rail perforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 25 (50 m)

DIN rail, unperforated

DIN rail, unperforated - NS 35/15 UNPERF 2000MM - 1201714

https://www.phoenixcontact.com/us/products/1201714



DIN rail, unperforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 25 (50 m)

DIN rail perforated

DIN rail perforated - NS 35/15 WH PERF 2000MM - 0806602

https://www.phoenixcontact.com/us/products/0806602



DIN rail perforated, similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: white, Pack of 25 (50 m)

DIN rail, unperforated

DIN rail, unperforated - NS 35/15 WH UNPERF 2000MM-VPE 10 - 1204135

https://www.phoenixcontact.com/us/products/1204135



DIN rail, unperforated, similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver, Pack of 10 (20 m)

DIN rail, unperforated

DIN rail, unperforated - NS 35/15 AL UNPERF 2000MM - 1201756

https://www.phoenixcontact.com/us/products/1201756



DIN rail, unperforated, similar to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

DIN rail perforated

DIN rail perforated - NS 35/15 ZN PERF 2000MM - 1206599

https://www.phoenixcontact.com/us/products/1206599



DIN rail perforated, similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver, Pack of 25 (50 m)

DIN rail, unperforated

DIN rail, unperforated - NS 35/15 ZN UNPERF 2000MM - 1206586

https://www.phoenixcontact.com/us/products/1206586



DIN rail, unperforated, similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver, Pack of 25 (50 m)

DIN rail, unperforated

DIN rail, unperforated - NS 35/15 CU UNPERF 2000MM-VPE 10 - 1201895

https://www.phoenixcontact.com/us/products/1201895



DIN rail, unperforated, similar to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored, Pack of 10 (20 m)

End cap

End cap - NS 35/15 CAP - 1206573

https://www.phoenixcontact.com/us/products/1206573

DIN rail end piece, for DIN rail NS 35/15



Test adapter

Test adapter - PAI-4-N GY - 3032871

https://www.phoenixcontact.com/us/products/3032871

4 mm test adapter, for terminal blocks with 5.2 mm, 6.2 mm and 8.2 mm pitch



Test plugs

Test plugs - MPS-MT - 0201744

https://www.phoenixcontact.com/us/products/0201744



Test plugs, with solder connection up to 1 mm^2 conductor cross section, color: gray

Insulating sleeve

Insulating sleeve - MPS-IH WH - 0201663

https://www.phoenixcontact.com/us/products/0201663

Insulating sleeve, color: white



Insulating sleeve

Insulating sleeve - MPS-IH RD - 0201676

https://www.phoenixcontact.com/us/products/0201676

Insulating sleeve, color: red

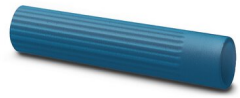


Insulating sleeve

Insulating sleeve - MPS-IH BU - 0201689

https://www.phoenixcontact.com/us/products/0201689

Insulating sleeve, color: blue



Insulating sleeve

Insulating sleeve - MPS-IH YE - 0201692

https://www.phoenixcontact.com/us/products/0201692

Insulating sleeve, color: yellow



Insulating sleeve

Insulating sleeve - MPS-IH GN - 0201702

https://www.phoenixcontact.com/us/products/0201702

Insulating sleeve, color: green



Insulating sleeve

Insulating sleeve - MPS-IH GY - 0201728

https://www.phoenixcontact.com/us/products/0201728

Insulating sleeve, color: gray



Insulating sleeve

Insulating sleeve - MPS-IH BK - 0201731

https://www.phoenixcontact.com/us/products/0201731

Insulating sleeve, color: black



Insulating sleeve

Insulating sleeve - ISH 2,5/0,2 - 3002843

https://www.phoenixcontact.com/us/products/3002843



Insulating sleeve, color: white

Insulating sleeve

Insulating sleeve - ISH 2,5/0,5 - 3002856

https://www.phoenixcontact.com/us/products/3002856



Insulating sleeve, color: gray

Insulating sleeve

Insulating sleeve - ISH 2,5/1,0 - 3002869

https://www.phoenixcontact.com/us/products/3002869



Insulating sleeve, color: black

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

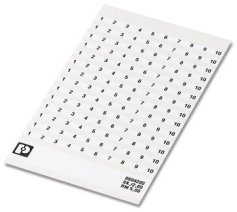


Marking foil for zack marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 30000 mm, lettering field size: 30000 x 2. 8 mm, Number of individual labels: 1

Marker card

Marker card - SK 2,8 REEL P5,2 WH CUS - 8199986

https://www.phoenixcontact.com/us/products/8199986

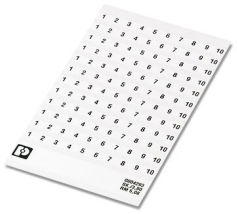


Marker card, can be ordered: by card, white, labeled according to customer specifications, mounting type: adhesive, for terminal block width: 5.2 mm, lettering field size: continuous x 2.8 mm

Marker card

Marker card - SK 3,8 REEL P5,2 WH CUS - 8199989

https://www.phoenixcontact.com/us/products/8199989



Marker card, can be ordered: by card, white, labeled according to customer specifications, mounting type: adhesive, for terminal block width: 5.2 mm, lettering field size: continuous x 3.8 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