

# PTFIX 2X2,5 BK - Monoblock



1028074

<https://www.phoenixcontact.com/us/products/1028074>

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Monoblock, Basic terminal block, nom. voltage: 450 V, nominal current: 24 A, number of connections: 2, connection method: Push-in connection, cross section: 0.14 mm<sup>2</sup> - 4 mm<sup>2</sup>, mounting type: for snapping onto a DIN rail adapter, Direct mounting with flange, Free-hanging, color: black

## Your advantages

- Time-saving conductor connection, thanks to tool-free Push-in direct connection technology
- Space savings of up to 50 % on the DIN rail, thanks to transverse mounting
- Flexible use, thanks to DIN rail mounting, direct mounting or adhesive mounting
- Clear wiring, thanks to eleven different color variants

## Commercial data

Item number	1028074
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE09
Product key	BEA111
Catalog page	Page 439 (C-1-2019)
GTIN	4055626524863
Weight per piece (including packing)	3.706 g
Weight per piece (excluding packing)	3.333 g
Customs tariff number	85369010
Country of origin	PL

# PTFIX 2X2,5 BK - Monoblock



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## Technical data

### Product properties

Product type	Distributor terminal block
Number of connections	2
Number of rows	1
Potentials	1

### Data management status

Article revision	03
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### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Electrical properties

Rated surge voltage	6 kV
Maximum power dissipation for nominal condition	0.77 W

### Connection data

Number of connections per level	2
Nominal cross section	2.5 mm <sup>2</sup>
Rated cross section AWG	12
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 60998-2-2
Conductor cross section rigid	0.14 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Cross section AWG	26 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section, flexible [AWG]	26 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Nominal current	24 A
Maximum load current	27 A
Nominal voltage	450 V

### Connection cross sections directly pluggable

Conductor cross section rigid	0.34 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section, rigid [AWG]	24 ... 12 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.34 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Flexible conductor cross section (ferrule with plastic sleeve)	0.34 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>

### Dimensions

Width	5.2 mm
Height	28.6 mm

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Depth	21.7 mm
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## Material specifications

Color	black (RAL 9005)
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 $\leq$ 45 K
Result	Test passed
Short-time withstand current 2.5 mm <sup>2</sup>	0.3 kA
Short-time withstand current 4 mm <sup>2</sup>	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
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## Mechanical tests

### Mechanical strength

Result	Test passed
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### Attachment on the carrier

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DIN rail/fixing support	NS 35
Test force setpoint	1 N
Result	Test passed
Note	<p>When aligning several blocks, the foot elements should be placed in a way that maximum 5 blocks are free-hanging in between. Flange elements should be placed after every 9 blocks.</p> <p>Depending on the application case and mechanical load, other arrangements of the mounting accessory can also be chosen.</p> <p>One DIN rail adapter PTFIX-NS35 is intended for maximum 11 blocks.</p>

## Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	<p>0.14 mm<sup>2</sup> / 0.2 kg</p> <p>2.5 mm<sup>2</sup> / 0.7 kg</p> <p>4 mm<sup>2</sup> / 0.9 kg</p>
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	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	6.12 (m/s <sup>2</sup> ) <sup>2</sup> /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

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## Ambient conditions

Ambient temperature (operation)	-60 °C ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, no longer than 24 h, -60°C to +70°C)
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Permissible humidity (operation)	20 % ... 90 %
Permissible humidity (storage/transport)	30 % ... 70 %

## Standards and regulations

Connection in acc. with standard	IEC 60998-2-2
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## Mounting

Mounting type	for snapping onto a DIN rail adapter
	Direct mounting with flange
	Free-hanging

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## Drawings

### Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1028074>

DNV Approval ID: TAE00002TT-04				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	500 V	24 A	-	-

CSA Approval ID: 13631				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
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	-

CB IECEE CB Scheme Approval ID: DE1-63085				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	450 V	24 A	-	- 2.5

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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EAC Approval ID: RU C-DE.BE.B.03378				
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VDE Zeichengenehmigung Approval ID: 40047798				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	450 V	24 A	-	0.2 - 2.5

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 <b>cULus Recognized</b> Approval ID: E60425		Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B		300 V	20 A	26 - 12	-
Use group C		300 V	20 A	26 - 12	-
Use group F		600 V	20 A	26 - 12	-
Use group D		600 V	5 A	26 - 12	-



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## Classifications

### ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250118

### ETIM

ETIM 9.0	EC000897
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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## Accessories

 Note: Applying some accessories below might limit this product.


### FBS 2-5 - Plug-in bridge

3030161

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



Plug-in bridge, pitch: 5.2 mm, number of positions: 2, length: 23 mm, color: red

 Max. current carrying capacity: 24 A

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

3036877

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



Plug-in bridge, pitch: 5.2 mm, number of positions: 2, color: blue

 Max. current carrying capacity: 24 A

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<https://www.phoenixcontact.com/us/products/1028074>




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

3038969

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



Plug-in bridge, pitch: 5.2 mm, number of positions: 2, color: gray

 Max. current carrying capacity: 24 A

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## PTFIX-NS35 - DIN rail adapter

3274054

<https://www.phoenixcontact.com/us/products/3274054>

DIN rail adapter, depth: 11 mm, width: 28.6 mm, height: 58.1 mm, color: gray,  
mounting type: NS 35/7,5



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## PTFIX-NS35A - DIN rail adapter

3274056

<https://www.phoenixcontact.com/us/products/3274056>

DIN rail adapter, depth: 11.9 mm, width: 10.3 mm, height: 45.7 mm, color: gray, mounting type: NS 35/7,5



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## PTFIX-NS35A-FIX - DIN rail adapter

3274057

<https://www.phoenixcontact.com/us/products/3274057>

DIN rail adapter, with end stop function, depth: 12 mm, width: 10.3 mm, height: 45.7 mm, color: gray, mounting type: NS 35/7,5



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<https://www.phoenixcontact.com/us/products/1028074>

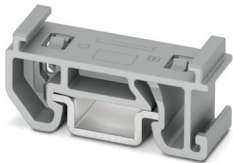


## PTFIX-NS15A - DIN rail adapter

3274058

<https://www.phoenixcontact.com/us/products/3274058>

DIN rail adapter, depth: 10.8 mm, width: 10.3 mm, height: 28.6 mm, color: gray, mounting type: NS 15



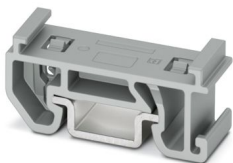
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## PTFIX-NS15A-FIX - DIN rail adapter

3274059

<https://www.phoenixcontact.com/us/products/3274059>

DIN rail adapter, with end stop function, depth: 10.8 mm, width: 10.3 mm, height: 28.6 mm, color: gray, mounting type: NS 15



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## PTFIX-F - Flange

3274060

<https://www.phoenixcontact.com/us/products/3274060>



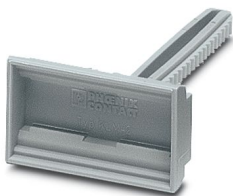
Flange, with screw-on fixing, depth: 21.7 mm, width: 8.6 mm, height: 28.6 mm, color: gray, mounting type: Screw mounting

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## KLM 2 - Terminal strip marker carrier

0807575

<https://www.phoenixcontact.com/us/products/0807575>



Terminal strip marker carrier, adjustable height, for CLIPFIX 15, CLIPFIX 35, and CLIPFIX 35-5 end brackets, can be marked using snap-in labels

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## KLM 3-L - Terminal strip marker carrier

0814788

<https://www.phoenixcontact.com/us/products/0814788>



Terminal strip marker carrier, adjustable height, for CLIPFIX 15, CLIPFIX 35, and CLIPFIX 35-5 end brackets, can be marked using labels in 20 x 8 mm format

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## MPS-MT 1-S - Test plug

1944372

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

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





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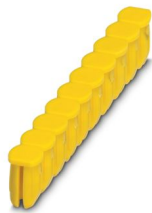
<https://www.phoenixcontact.com/us/products/1028074>



## CEC 2,5 - Filler plug

3062757

<https://www.phoenixcontact.com/us/products/3062757>



Cover for conductor shaft, 10-pos., for spring cage terminal blocks (ST) and terminal blocks with push-in technology (PT) with a width of 5.2 mm

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## PTFIX 2,5-RZ - Mounting adapter

1632417

<https://www.phoenixcontact.com/us/products/1632417>



Securing pin adapter, for direct mounting of 2.5 mm<sup>2</sup>, 4 mm<sup>2</sup>, and 10 mm<sup>2</sup> FIX blocks, color: gray

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<https://www.phoenixcontact.com/us/products/1028074>



## PAI-4-N GY - Test adapter

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

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## MPS-MT - Test plug

0201744

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



Test plug, with solder connection up to 1 mm<sup>2</sup> conductor cross section, number of positions: 1, color: gray

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<https://www.phoenixcontact.com/us/products/1028074>



## MPS-IH WH - Insulating sleeve

0201663

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

Insulating sleeve, color: white



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## MPS-IH RD - Insulating sleeve

0201676

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

Insulating sleeve, color: red



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<https://www.phoenixcontact.com/us/products/1028074>

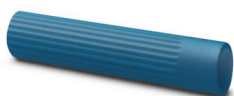


## MPS-IH BU - Insulating sleeve

0201689

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

Insulating sleeve, color: blue



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## MPS-IH YE - Insulating sleeve

0201692

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

Insulating sleeve, color: yellow



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## MPS-IH GN - Insulating sleeve

0201702

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

Insulating sleeve, color: green



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## MPS-IH GY - Insulating sleeve

0201728

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

Insulating sleeve, color: gray



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## MPS-IH BK - Insulating sleeve

0201731

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

Insulating sleeve, color: black



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

3002843

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

Insulating sleeve, color: white



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

3002856

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



Insulating sleeve, color: gray

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

3002869

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



Insulating sleeve, color: black

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## TML (EX3,8)R - Marker strip

0801837

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



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, lettering field size: continuous x 3.8 mm, Number of individual labels: 12

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## TML (104X3,8)R - Marker strip

0801833

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



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), 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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## TML (104X2,8)R - Marker strip

0801832

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



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), 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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## TML (EX2,8)R - Marker strip

0801836

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



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), 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: continuous x 2.8 mm, Number of individual labels: 14

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

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

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

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

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

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

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

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

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

0803906

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



Marker card, Din A4, 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

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

0803883

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



Marker card, Din A4, 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

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<https://www.phoenixcontact.com/us/products/1028074>



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

1092026

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



Label, Roll, white/black, unlabeled, can be labeled with: THERMOFOX, THERMOMARK GO, THERMOMARK GO.K, mounting type: adhesive, lettering field size: continuous x 2.8 mm, Number of individual labels: 1

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## MPS-MT SN - Test plug

3212251

<https://www.phoenixcontact.com/us/products/3212251>



Test plug, with solder connection up to 1 mm<sup>2</sup> conductor cross section, tin-plated surface, number of positions: 1, color: silver

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<https://www.phoenixcontact.com/us/products/1028074>



## SZF 1-0,6X3,5 - Screwdriver

1204517

<https://www.phoenixcontact.com/us/products/1204517>



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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