

## Feed-through terminal block - ST 35 BU - 3036181

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Feed-through terminal block, nom. voltage: 1000 V, nominal current: 125 A, connection method: Spring-cage connection, number of connections: 2, cross section: 2.5 mm<sup>2</sup> - 35 mm<sup>2</sup>, AWG: 14 - 2, width: 16 mm, color: blue, mounting type: NS 35/7,5, NS 35/15

### Your advantages

- ✓ The double bridge shaft not only enables individual chain bridging, but also reducing bridging to spring-cage terminal blocks with smaller cross sections
- ✓ The flexible options for reducing bridging in the CLIPLINE complete system can be found in "Accessories for the CLIPLINE complete modular terminal block system"



### Key Commercial Data

Packing unit	10 pc
GTIN	
GTIN	4017918821050

### Technical data

#### General

Number of levels	1
Number of connections	2
Potentials	1
Nominal cross section	35 mm <sup>2</sup>
Color	blue
Insulating material	PA
Flammability rating according to UL 94	V0
Rated surge voltage	8 kV
Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	4.06 W

# Feed-through terminal block - ST 35 BU - 3036181

## Technical data

### General

Maximum load current	125 A (with 35 mm <sup>2</sup> conductor cross section)
Nominal current I <sub>N</sub>	125 A
Nominal voltage U <sub>N</sub>	1000 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
Result of surge voltage test	Test passed
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	2.2 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	2.5 mm <sup>2</sup> / 0.7 kg
	35 mm <sup>2</sup> / 6.8 kg
Tensile test result	Test passed
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35
Setpoint	10 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	35 mm <sup>2</sup>
Short-time current	4.2 kA
Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s
Result of aging test	Test passed
Ageing test for screwless modular terminal block temperature cycles	192
Oscillation, broadband noise test result	Test passed
Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2008-03
Test spectrum	Service life test category 2, bogie-mounted
Test frequency	f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 250 Hz
ASD level	6.12 (m/s <sup>2</sup> )/Hz
Acceleration	3.12 g

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## Technical data

### General

Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Shock test result	Test passed
Test specification, shock test	DIN EN 50155 (VDE 0115-200):2008-03
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	16 mm
Length	100 mm
Height NS 35/7,5	59 mm
Height NS 35/15	66.5 mm

### Connection data

Connection	1 level
Connection method	Spring-cage connection
Stripping length	25 mm
Connection in acc. with standard	IEC 60947-7-1
Note	The supply from the ST 35 terminal block to the ST 16 TWIN terminal block with the RB-ST 35 reducing bridge is single-sided only. In the case of a central supply, the D-ST 16-TWIN cover cannot be bridged via the reducing bridge.
Conductor cross section solid min.	2.5 mm <sup>2</sup>
Conductor cross section solid max.	35 mm <sup>2</sup>
Conductor cross section AWG min.	14
Conductor cross section AWG max.	2
Conductor cross section flexible min.	2.5 mm <sup>2</sup>
Conductor cross section flexible max.	35 mm <sup>2</sup>

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## Technical data

### Connection data

Min. AWG conductor cross section, flexible	14
Max. AWG conductor cross section, flexible	2
Conductor cross section flexible, with ferrule without plastic sleeve min.	2.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	35 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	2.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	35 mm <sup>2</sup>
Two conductors with the same cross section, flexible, with TWIN ferrules, with plastic sleeve, minimum	2.5 mm <sup>2</sup>
Two conductors with the same cross section, flexible, with TWIN ferrules, with plastic sleeve, maximum	10 mm <sup>2</sup>
Connection in acc. with standard	IEC/EN 60079-7
Conductor cross section solid min.	2.5 mm <sup>2</sup>
Conductor cross section solid max.	35 mm <sup>2</sup>
Conductor cross section AWG min.	14
Conductor cross section AWG max.	2
Conductor cross section flexible min.	2.5 mm <sup>2</sup>
Conductor cross section flexible max.	35 mm <sup>2</sup>
Internal cylindrical gage	A8

### Standards and Regulations

Connection in acc. with standard	CSA
	IEC 60947-7-1
	IEC/EN 60079-7
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

Circuit diagram



## Classifications

eCl@ss

eCl@ss 10.0.1	27141120
eCl@ss 11.0	27141120
eCl@ss 4.0	27141100

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## Classifications

### eCl@ss

eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
eCl@ss 5.1	27141100
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

### 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

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#### Approvals

DNV GL / CSA / BV / LR / KR / NK / UL Recognized / cUL Recognized / IECCEB Scheme / VDE Gutachten mit Fertigungsüberwachung / EAC / RS / cULus Recognized

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#### Ex Approvals

IECEX / ATEX / EAC Ex

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### Approval details

# Feed-through terminal block - ST 35 BU - 3036181

## Approvals

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAE00001CS
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CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	115 A	115 A	
mm <sup>2</sup> /AWG/kcmil	14-2	14-2	

BV		<a href="http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials">http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials</a>	13403/D0 BV
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LR		<a href="http://www.lr.org/en">http://www.lr.org/en</a>	LR2014888TA
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KR		<a href="http://www.krs.co.kr/eng/main/main.aspx">http://www.krs.co.kr/eng/main/main.aspx</a>	HMB17372-EL002
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NK		<a href="http://www.classnk.or.jp/hp/en/">http://www.classnk.or.jp/hp/en/</a>	09 ME 140
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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	
Nominal voltage UN	600 V	600 V	
Nominal current IN	115 A	115 A	
mm <sup>2</sup> /AWG/kcmil	14-2	14-2	

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	
Nominal voltage UN	600 V	600 V	
Nominal current IN	115 A	115 A	

# Feed-through terminal block - ST 35 BU - 3036181

## Approvals

	B	C
mm <sup>2</sup> /AWG/kcmil	14-2	14-2

IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	DE1-62909
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VDE Gutachten mit Fertigungsüberwachung		<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>	40009041
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Nominal voltage UN	1000 V
Nominal current IN	125 A
mm <sup>2</sup> /AWG/kcmil	2.5-35

EAC		RU C-DE.A*30.B.01742
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RS		<a href="http://www.rs-head.spb.ru/en/index.php">http://www.rs-head.spb.ru/en/index.php</a>	17.00013.272
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cULus Recognized	
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## Accessories

### Accessories

#### DIN rail

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



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

## Feed-through terminal block - ST 35 BU - 3036181

### Accessories

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Aluminum, uncoated, length: 2000 mm, color: silver

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



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

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# Feed-through terminal block - ST 35 BU - 3036181

## Accessories

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Copper, uncoated, length: 2000 mm, color: copper-colored

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



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

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## Documentation

Mounting material - ST-IL - 3039900

Operating decal for the ST terminal block



## End block

End clamp - E/AL-NS 35 - 1201662



End clamp, for end support of UKH 50 to UKH 240, is pushed onto DIN rail NS 35 and fixed with 2 screws, width: 10 mm, color: aluminum

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## Insulating sleeve

## Feed-through terminal block - ST 35 BU - 3036181

### Accessories

Insulating sleeve - MPS-IH WH - 0201663

Insulating sleeve, color: white



Insulating sleeve - MPS-IH RD - 0201676

Insulating sleeve, color: red



Insulating sleeve - MPS-IH BU - 0201689

Insulating sleeve, color: blue



Insulating sleeve - MPS-IH YE - 0201692

Insulating sleeve, color: yellow



Insulating sleeve - MPS-IH GN - 0201702

Insulating sleeve, color: green



## Feed-through terminal block - ST 35 BU - 3036181

### Accessories

Insulating sleeve - MPS-IH GY - 0201728

Insulating sleeve, color: gray



Insulating sleeve - MPS-IH BK - 0201731

Insulating sleeve, color: black



### Jumper

Plug-in bridge - FBS 2-16 - 3005963



Plug-in bridge, pitch: 16 mm, length: 43.7 mm, width: 25.9 mm, number of positions: 2, color: red

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### Labeled terminal marker

Zack marker strip - ZB 16 CUS - 0827463



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 16 mm, lettering field size: 10.5 x 16 mm, Number of individual labels: 5

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Zack marker strip - ZB 16,LGS:L1-N,PE - 0827462



Zack marker strip, Strip, white, labeled, printed horizontally: L1, L2, L3, N, PE, mounting type: snap into tall marker groove, for terminal block width: 16.3 mm, lettering field size: 10.5 x 16.25 mm, Number of individual labels: 5

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## Feed-through terminal block - ST 35 BU - 3036181

### Accessories

#### Marker for terminal blocks - UC-TM 16 CUS - 0824621



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 16 mm, lettering field size: 15.45 x 10.5 mm, Number of individual labels: 32

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#### Marker for terminal blocks - UCT-TM 16 CUS - 0829637



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 16 mm, lettering field size: 14.8 x 9.6 mm, Number of individual labels: 18

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#### Zack Marker strip, flat - ZBF 16 CUS - 0827465



Zack Marker strip, flat, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into flat marker groove, for terminal block width: 16 mm, lettering field size: 5.15 x 16 mm, Number of individual labels: 5

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#### Marker for terminal blocks - UC-TMF 16 CUS - 0824678



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into flat marker groove, for terminal block width: 16 mm, lettering field size: 15.45 x 5.1 mm, Number of individual labels: 32

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#### Marker for terminal blocks - UCT-TMF 16 CUS - 0829693



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into flat marker groove, for terminal block width: 16 mm, lettering field size: 15.2 x 4.7 mm, Number of individual labels: 24

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### Planning and marking software

## Feed-through terminal block - ST 35 BU - 3036181

### Accessories

Software - CLIP-PROJECT ADVANCED - 5146040



Multilingual software for convenient configuration of Phoenix Contact products on standard DIN rails.

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Software - CLIP-PROJECT PROFESSIONAL - 5146053



Multilingual software for terminal strip configuration. A marking module enables the professional marking of markers and labels for identifying terminal blocks, conductors and cables, and devices.

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### Reducing bridge

Reducing bridge - RB ST 35-(2,5/4) - 3030899



Reducing bridge, pitch: 11 mm, number of positions: 2, color: red

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Reducing bridge - RB 35-16 - 3032169



Reducing bridge, pitch: 14 mm, number of positions: 2, color: red

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### Screwdriver tools

Screwdriver - SZF 3-1,0X5,5 - 1206612



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 1.0 x 5.5 x 150 mm, 2-component grip, with non-slip grip

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### Terminal marking

## Feed-through terminal block - ST 35 BU - 3036181

### Accessories

#### Zack marker strip - ZB 16:UNPRINTED - 0827461



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 16 mm, lettering field size: 16 x 10.5 mm, Number of individual labels: 50

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#### Marker for terminal blocks - UC-TM 16 - 0819217



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 16 mm, lettering field size: 15.45 x 10.5 mm, Number of individual labels: 32

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#### Marker for terminal blocks - UCT-TM 16 - 0829146



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into tall marker groove, for terminal block width: 16 mm, lettering field size: 14.8 x 9.6 mm, Number of individual labels: 18

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#### Zack Marker strip, flat - ZBF 16:UNPRINTED - 0827464



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 16 mm, lettering field size: 16.25 x 10.5 mm, Number of individual labels: 50

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#### Marker for terminal blocks - UC-TMF 16 - 0819262



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 16 mm, lettering field size: 15.45 x 5.1 mm, Number of individual labels: 32

## Feed-through terminal block - ST 35 BU - 3036181

### Accessories

Marker for terminal blocks - UCT-TMF 16 - 0829218



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into flat marker groove, for terminal block width: 16 mm, lettering field size: 15.2 x 4.7 mm, Number of individual labels: 24

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Test plug terminal block

Test plugs - MPS-MT - 0201744



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

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Test socket

Test adapter - PAI-ST 35/1000MM - 3029994



Test adapter, color: red

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