

## Feed-through terminal block - UT 10 - 3044160

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Feed-through terminal block, nom. voltage: 1000 V, nominal current: 57 A, connection method: Screw connection, Rated cross section: 10 mm<sup>2</sup>, cross section: 0.5 mm<sup>2</sup> - 16 mm<sup>2</sup>, mounting type: NS 35/7,5, NS 35/15, color: gray

### Your advantages

- The large wiring space enables the connection of solid and stranded conductors without ferrules, even above the nominal cross section
- As well as saving space, the compact design enables user-friendly wiring in a small amount of space
- Optimum screwdriver guidance through closed screw shafts
- The cable entry funnel enables the use of conductors with ferrules and plastic collars within the nominal cross section
- Tested for railway applications



### Key Commercial Data

Packing unit	1 pc
Minimum order quantity	50 pc
GTIN	 4 017918 960445
GTIN	4017918960445
Weight per Piece (excluding packing)	17.600 g
Custom tariff number	85369010
Country of origin	Germany

### Technical data

#### General

Number of rows	1
Number of connections	2
Potentials	1
Nominal cross section	10 mm <sup>2</sup>

# Feed-through terminal block - UT 10 - 3044160

## Technical data

### General

Color	gray
Insulating material	PA
Flammability rating according to UL 94	V0
Area of application	Railway industry
	Machine building
	Plant engineering
	Process industry
Mounting type	NS 35/7,5
Rated surge voltage	8 kV
Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	1.82 W
Maximum load current	76 A (with 16 mm <sup>2</sup> conductor cross section)
Nominal current I <sub>N</sub>	57 A
Nominal voltage U <sub>N</sub>	1000 V
Open side panel	Yes
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
Surge voltage test setpoint	9.6 kV
Result of power-frequency withstand voltage test	Test passed
Result of the test for mechanical stability of terminal points (5 x conductor connection)	Test passed
Result of flexion and pull-out test	Test passed
Bending test rotation speed	10 rpm
Bending test turns	135
Bending test conductor cross section/weight	0.5 mm <sup>2</sup> / 0.3 kg
	10 mm <sup>2</sup> / 2 kg
	16 mm <sup>2</sup> / 2.9 kg
Tensile test result	Test passed
Conductor cross section tensile test	0.5 mm <sup>2</sup>
Tractive force setpoint	20 N
Conductor cross section tensile test	10 mm <sup>2</sup>
Tractive force setpoint	90 N
Conductor cross section tensile test	16 mm <sup>2</sup>

# Feed-through terminal block - UT 10 - 3044160

## Technical data

### General

Tractive force setpoint	100 N
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35
Setpoint	5 N
Result of voltage-drop test	Test passed
Requirements, voltage drop	$U_1 \leq 3.2 \text{ mV}$ ; $U_2 \leq 1.5 \times U_1$
Result of temperature-rise test	Test passed
Requirement temperature-rise test	Increase in temperature $\leq 45 \text{ K}$
Short circuit stability result	Test passed
Conductor cross section short circuit testing	10 mm <sup>2</sup>
Short-time current	1.2 kA
Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s
Ageing test for screwless modular terminal block temperature cycles	192
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 (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
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

# Feed-through terminal block - UT 10 - 3044160

## Technical data

### General

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	10.2 mm
End cover width	2.2 mm
Length	47.7 mm
Height	46.9 mm
Height NS 35/7,5	47.5 mm
Height NS 35/15	55 mm

### Connection data

Connection method	Screw connection
Screw thread	M4
Stripping length	10 mm
Tightening torque, min	1.5 Nm
Tightening torque max	1.8 Nm
Connection in acc. with standard	IEC 60947-7-1
Note	Note: Product releases, connection cross sections and notes on connecting aluminum cables can be found in the download area.
Conductor cross section solid min.	0.5 mm <sup>2</sup>
Conductor cross section solid max.	16 mm <sup>2</sup>
Conductor cross section AWG min.	20
Conductor cross section AWG max.	6
Conductor cross section flexible min.	0.5 mm <sup>2</sup>
Conductor cross section flexible max.	16 mm <sup>2</sup>
Min. AWG conductor cross section, flexible	20
Max. AWG conductor cross section, flexible	6
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	10 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	10 mm <sup>2</sup>
2 conductors with same cross section, solid min.	0.5 mm <sup>2</sup>
2 conductors with same cross section, solid max.	4 mm <sup>2</sup>
2 conductors with same cross section, stranded min.	0.5 mm <sup>2</sup>
2 conductors with same cross section, stranded max.	4 mm <sup>2</sup>
Two conductors with the same cross section, flexible, with TWIN ferrules, with plastic sleeve, minimum	0.5 mm <sup>2</sup>

## Feed-through terminal block - UT 10 - 3044160

### Technical data

#### Connection data

Two conductors with the same cross section, flexible, with TWIN ferrules, with plastic sleeve, maximum	6 mm <sup>2</sup>
Two conductors with the same cross section stranded, with ferrule and without plastic sleeve, minimum	0.5 mm <sup>2</sup>
Two conductors with the same cross section stranded, with ferrule and without plastic sleeve, maximum	2.5 mm <sup>2</sup>
Internal cylindrical gage	A6

#### Ambient conditions

Operating temperature	-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)
Permissible humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C

#### Standards and Regulations

Connection in acc. with standard	IEC 60947-7-1
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#### 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
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 9.0	27141120

## Feed-through terminal block - UT 10 - 3044160

### Classifications

#### ETIM

ETIM 2.0	EC000897
ETIM 3.0	EC000897
ETIM 4.0	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

CSA / PRS / RS / IEC66 CB Scheme / VDE Zeichengenehmigung / cULus Recognized / DNV

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#### Ex Approvals

IECEx / EAC Ex / NEPSI / ATEX / CCC

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#### 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	
Nominal voltage UN	600 V	600 V	
Nominal current IN	65 A	65 A	
mm <sup>2</sup> /AWG/kcmil	20-6	20-6	

## Feed-through terminal block - UT 10 - 3044160

### Approvals

PRS		<a href="http://www.prs.pl/">http://www.prs.pl/</a>	TE/2156/880590/17
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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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IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	DE1-63061
Nominal voltage UN		1000 V	
Nominal current IN		57 A	
mm <sup>2</sup> /AWG/kcmil		10	

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>	40013658
Nominal voltage UN		1000 V	
Nominal current IN		57 A	
mm <sup>2</sup> /AWG/kcmil		0.5-10	

cULus 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>	E60425
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	65 A	65 A	
mm <sup>2</sup> /AWG/kcmil	20-6	20-6	

DNV	<a href="https://approvalfinder.dnv.com/">https://approvalfinder.dnv.com/</a>	TAE00001S9
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### Accessories

#### Accessories

DIN rail

## Feed-through terminal block - UT 10 - 3044160

### Accessories

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

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

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



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

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



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

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



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

## Feed-through terminal block - UT 10 - 3044160

### Accessories

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



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

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



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

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



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

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

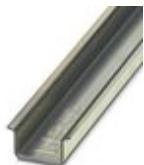


DIN rail perforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 25 (50 m)

## Feed-through terminal block - UT 10 - 3044160

### Accessories

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

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



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

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



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

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



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

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



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

## Feed-through terminal block - UT 10 - 3044160

### Accessories

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



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

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



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

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End cap - NS 35/15 CAP - 1206573



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

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DIN rail, unperforated - NS 35/15-2,3 UNPERF 2000MM-VPE 10 - 1201798



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile 2.3 mm, color: silver, Pack of 10 (20 m)

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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

## Feed-through terminal block - UT 10 - 3044160

### Accessories

End clamp - E/UK - 1201442



End clamp, material: PA, color: gray, Mounting on a DIN rail NS 32 or NS 35

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End clamp - E/UK 1 - 1201413



End clamps, for supporting the ends of double-level and three-level terminal blocks, width: 10 mm, color: gray

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End clamp - CLIPFIX 35 - 3022218



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

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End clamp - CLIPFIX 35-5 - 3022276



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5.15 mm, color: gray

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End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

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End cover

## Feed-through terminal block - UT 10 - 3044160

### Accessories

End cover - D-UT 2,5/10 - 3047028



End cover, length: 47 mm, width: 2.2 mm, height: 39.8 mm, color: gray

### Jumper

Plug-in bridge - FBS 2-10 - 3005947



Plug-in bridge, pitch: 10.2 mm, color: red

Plug-in bridge - FBS 5-10 - 3005948



Plug-in bridge, pitch: 10.2 mm, color: red

Plug-in bridge - FBS 5-10 BU - 1040620



Plug-in bridge, pitch: 10.2 mm, color: blue

### Labeled terminal marker

Zack marker strip - ZB 10 CUS - 0824941



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, lettering field size: 10.15 x 10.5 mm, Number of individual labels: 10

## Feed-through terminal block - UT 10 - 3044160

### Accessories

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Zack marker strip - ZB10,LGS:FORTL.ZAHLEN - 1053014



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, lettering field size: 10.15 x 10.5 mm, Number of individual labels: 10

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Zack marker strip - ZB10,QR:FORTL.ZAHLEN - 1053027



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, lettering field size: 10.15 x 10.5 mm, Number of individual labels: 10

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Marker for terminal blocks - ZB10,LGS:L1-N,PE - 1053412



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, horizontal: L1, L2, L3, N, PE, L1, L2, L3, N, PE, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, lettering field size: 10.15 x 10.5 mm, Number of individual labels: 10

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Marker for terminal blocks - ZB10,LGS:U-N - 1053438



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, horizontal: U, V, W, N, GND, U, V, W, N, GND, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, lettering field size: 10.15 x 10.5 mm, Number of individual labels: 10

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Marker for terminal blocks - UC-TM 10 CUS - 0824605



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: 10.2 mm, lettering field size: 9.6 x 10.5 mm, Number of individual labels: 48

## Feed-through terminal block - UT 10 - 3044160

### Accessories

Marker for terminal blocks - UCT-TM 10 CUS - 0829623



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: 10.2 mm, lettering field size: 8.9 x 9.6 mm, Number of individual labels: 36

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Marker for terminal blocks - TMT 10 R CUS - 0824500



Marker for terminal blocks, can be ordered: by line, white, labeled according to customer specifications, mounting type: snap into universal marker groove, snap into flat marker groove, for terminal block width: 10.2 mm, lettering field size: 6.35 x 10.15 mm

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Marker pen

Marker pen - X-PEN 0,35 - 0811228



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

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Partition plate

Partition plate - ATP-UT - 3047167



Partition plate, length: 53.4 mm, width: 2.2 mm, height: 45.7 mm, color: gray

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Pick-off terminal block

## Feed-through terminal block - UT 10 - 3044160

### Accessories

Pick-off terminal block - AGK 4-UT 10 - 3047112



Pick-off terminal block, nom. voltage: 1000 V, nominal current: 32 A, connection method: Screw connection, cross section: 0.14 mm<sup>2</sup> - 6 mm<sup>2</sup>, mounting type: on base element, color: gray

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### Planning and marking software

Software - PROJECT COMPLETE - 1050453



Intuitive planning and marking software for configuring terminal strips and for professional marking of marking materials for terminal blocks, conductors, cables, devices, and systems. The software is available for download

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### Reducing bridge

Reducing bridge - RB UT 35-10 - 3032168



Reducing bridge, pitch: 13.2 mm, color: red

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Reducing bridge - RB UT 10-(2,5/4) - 3047060



Reducing bridge, pitch: 10.2 mm, color: red

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Reducing bridge - RB UT 10-ST(2,5/4) - 3047086



Reducing bridge, pitch: 10.2 mm, color: red

## Feed-through terminal block - UT 10 - 3044160

### Accessories

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#### Screwdriver tools

Screwdriver - SZS 1,0X4,0 VDE - 1205066



Screwdriver, slot-headed, VDE insulated, size: 1.0 x 4.0 x 100 mm, 2-component grip, with non-slip grip

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#### Terminal marking

Zack marker strip - ZB 10:UNBEDRUCKT - 1053001



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap in, for terminal block width: 10.2 mm, lettering field size: 10.5 x 10.15 mm, Number of individual labels: 10

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#### Marker for terminal blocks - UC-TM 10 - 0818069



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 in, for terminal block width: 10.2 mm, lettering field size: 9.6 x 10.5 mm, Number of individual labels: 48

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#### Marker for terminal blocks - UCT-TM 10 - 0829142



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 in, for terminal block width: 10.2 mm, lettering field size: 8.9 x 9.6 mm, Number of individual labels: 36

## Feed-through terminal block - UT 10 - 3044160

### Accessories

Marker for terminal blocks - TMT 10 R - 0816210



Marker for terminal blocks, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK S1.1, perforated, mounting type: snap in, snap into flat marker groove, for terminal block width: 10.2 mm, lettering field size: 6.35 x 10.15 mm, Number of individual labels: 10000

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Warning label printed

Warning label - WS UT 10 - 3047361

Warning sign for UT terminal blocks

