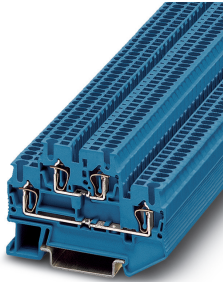


Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

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Double-level spring-cage terminal block, connection method: Spring-cage connection, cross section: 0.08 mm² - 1.5 mm², AWG: 28 - 16, width: 4.2 mm, color: blue, mounting type: NS 35/7,5, NS 35/15

Your advantages

- ✓ Compact design for maximum space savings
- ✓ Tested for railway applications
- ✓ Connect the levels using FBS ...-PV bridges



Key Commercial Data

Packing unit	1 pc
Minimum order quantity	50 pc
GTIN	 4 017918 186715
GTIN	4017918186715
Weight per Piece (excluding packing)	8.924 g
Custom tariff number	85369010
Country of origin	Germany

Technical data

General

Number of levels	2
Number of connections	4
Nominal cross section	1.5 mm ²
Color	blue
Insulating material	PA

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

Technical data

General

Flammability rating according to UL 94	V0
Area of application	Railway industry
	Machine building
	Plant engineering
	Process industry
Rated surge voltage	6 kV
Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	0.56 W (the value is multiplied when connecting multiple levels)
Connection in acc. with standard	IEC 60947-7-1
Nominal current I_N	17.5 A
Maximum load current	17.5 A (with 1.5 mm ² conductor cross section)
Nominal voltage U_N	500 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
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	1.89 kV
Checking the 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	0.08 mm ² / 0.1 kg
	1.5 mm ² / 0.4 kg
Tensile test result	Test passed
Result of tight fit on support	Test passed
Setpoint	1 N
Result of voltage-drop test	Test passed
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	1.5 mm ²
Short-time current	0.18 kA
Result of aging test	Test passed

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Technical data

General

Ageing test for screwless modular terminal block temperature cycles	192
Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s
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	$f_1 = 5 \text{ Hz}$ 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	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
Smoke gas toxicity NFPA 130 (SMP 800C)	passed
Calorimetric heat release NFPA 130 (ASTM E 1354)	27,5 MJ/kg
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	4.2 mm
End cover width	2.2 mm
Length	67.5 mm
Height NS 35/7,5	47.5 mm
Height NS 35/15	55 mm

Connection data

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

Technical data

Connection data

Connection method	Spring-cage connection
Conductor cross section solid min.	0.08 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section flexible min.	0.08 mm ²
Conductor cross section flexible max.	1.5 mm ²
Conductor cross section AWG min.	28
Conductor cross section AWG max.	16
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.14 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve max.	1.5 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.14 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve max.	1.5 mm ²
Two conductors with the same cross section, flexible, with TWIN ferrules, with plastic sleeve, maximum	0.5 mm ²
Stripping length	10 mm
Internal cylindrical gage	A1

Ambient conditions

Operating temperature	-60 °C ... 105 °C (max. short-term operating temperature 130°C)
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

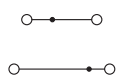
Connection in acc. with standard	CSA
	IEC 60947-7-1
Flammability rating according to UL 94	V0

Environmental Product Compliance

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

Drawings

Circuit diagram



Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

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

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

Approvals

DNV GL / CSA / BV / LR / KR / NK / UL Recognized / cUL Recognized / IECCE CB Scheme / RS / VDE Zeichengenehmigung / cULus Recognized

Ex Approvals

IECEX / EAC Ex / NEPSI / ATEX / CCC

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

Approvals

Approval details

DNV GL		https://approvalfinder.dnvgl.com/	TAE00001CS
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CSA		http://www.csagroup.org/services-industries/product-listing/	13631
	B	C	
Nominal voltage UN	300 V	300 V	
Nominal current IN	15 A	15 A	
mm ² /AWG/kcmil	26-14	26-14	

BV		http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials	13403/D0 BV
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LR		http://www.lr.org/en	LR2014888TA
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KR		http://www.krs.co.kr/eng/main/main.aspx	HMB17372-EL002
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NK		http://www.classnk.or.jp/hp/en/	09 ME 140
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UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	B	C	
Nominal voltage UN	300 V	300 V	
Nominal current IN	15 A	15 A	
mm ² /AWG/kcmil	26-14	26-14	

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

Approvals

cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	B	C	
Nominal voltage UN	300 V	300 V	
Nominal current IN	15 A	15 A	
mm ² /AWG/kcmil	26-14	26-14	

IECEE CB Scheme		http://www.iecee.org/	DE1-63027
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RS		http://www.rs-head.spb.ru/en/index.php	17.00013.272
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VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40009031
Nominal voltage UN	500 V		
Nominal current IN	17.5 A		
mm ² /AWG/kcmil	0.2-1.5		

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

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

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

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

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

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

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

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

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

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

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



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

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



DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

Accessories

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



DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Aluminum, uncoated, length: 2000 mm, color: silver

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



DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

Accessories

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Copper, uncoated, length: 2000 mm, color: copper-colored

End cap - NS 35/15 CAP - 1206573



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

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



DIN rail, unperforated, Standard profile 2.3 mm, width: 35 mm, height: 15 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

Documentation

Mounting material - ST-IL - 3039900

Operating decal for the ST terminal block



End block

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

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

Accessories

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

End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

End clamp - E/UK - 1201442



End clamp, width: 9.5 mm, height: 35.3 mm, material: PA, length: 50.5 mm, Mounting on a DIN rail NS 32 or NS 35, color: gray

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

End cover

End cover - D-STTB 2,5 - 3030459



End cover, length: 67.6 mm, width: 2.2 mm, height: 39.7 mm, color: gray

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

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 3-4 - 3030129



Plug-in bridge, pitch: 4.2 mm, number of positions: 3, color: red

Plug-in bridge - FBS 4-4 - 3030132



Plug-in bridge, pitch: 4.2 mm, number of positions: 4, color: red

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

Accessories

Plug-in bridge - FBS 5-4 - 3030145



Plug-in bridge, pitch: 4.2 mm, number of positions: 5, color: red

Plug-in bridge - FBS 10-4 - 3030158



Plug-in bridge, pitch: 4.2 mm, number of positions: 10, color: red

Plug-in bridge - FBS 20-4 - 3030352



Plug-in bridge, pitch: 4.2 mm, number of positions: 20, color: red

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



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

Plug-in bridge - FBS 3-4 BU - 3030130



Plug-in bridge, pitch: 4.2 mm, number of positions: 3, color: blue

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

Accessories

Plug-in bridge - FBS 4-4 BU - 3030133



Plug-in bridge, pitch: 4.2 mm, number of positions: 4, color: blue

Plug-in bridge - FBS 5-4 BU - 3030146



Plug-in bridge, pitch: 4.2 mm, number of positions: 5, color: blue

Plug-in bridge - FBS 10-4 BU - 3036851



Plug-in bridge, pitch: 4.2 mm, number of positions: 10, color: blue

Plug-in bridge - FBS 20-4 BU - 3030353



Plug-in bridge, pitch: 4.2 mm, number of positions: 20, color: blue

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



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

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

Accessories

Plug-in bridge - FBS 3-4 GY - 3030131



Plug-in bridge, pitch: 4.2 mm, number of positions: 3, color: gray

Plug-in bridge - FBS 4-4 GY - 3030134



Plug-in bridge, pitch: 4.2 mm, number of positions: 4, color: gray

Plug-in bridge - FBS 5-4 GY - 3030147



Plug-in bridge, pitch: 4.2 mm, number of positions: 5, color: gray

Labeled terminal marker

Warning cover - WST 1,5 - 3030958



Warning cover, Strip, yellow, labeled, mounting type: plug in, for terminal block width: 4.25 mm, lettering field size: 4.25 x 3.55 mm, Number of individual labels: 5

Zack Marker strip, flat - ZBF 4 CUS - 0825023



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: 4.2 mm, lettering field size: 4.2 x 5.2 mm, Number of individual labels: 10

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

Accessories

Zack Marker strip, flat - ZBF 4,LGS:FORTL.ZAHLEN - 0808626



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snap into flat marker groove, for terminal block width: 4 mm, lettering field size: 4.2 x 5.2 mm, Number of individual labels: 10

Zack Marker strip, flat - ZBF 4,QR:FORTL.ZAHLEN - 0808820



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snap into flat marker groove, for terminal block width: 4 mm, lettering field size: 4.2 x 5.2 mm, Number of individual labels: 10

Zack Marker strip, flat - ZBF 4,LGS:GERADE ZAHLEN - 0810818



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: consecutive numbers 2 ... 20, 22 ... 40, etc. up to 82 ... 100, mounting type: snap into flat marker groove, for terminal block width: 4 mm, lettering field size: 5.15 x 4.15 mm, Number of individual labels: 10

Zack Marker strip, flat - ZBF 4,LGS:UNGERADE ZAHLEN - 0810850



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: Odd numbers 1 - 19, 21 - 39, etc. up to 81 - 99, mounting type: snap into flat marker groove, for terminal block width: 4 mm, lettering field size: 5.15 x 4.15 mm, Number of individual labels: 10

Marker for terminal blocks - UC-TMF 4 CUS - 0824630



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: 4.2 mm, lettering field size: 3.6 x 5.1 mm, Number of individual labels: 120

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

Accessories

Marker for terminal blocks - UCT-TMF 4 CUS - 0829651



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: 4.2 mm, lettering field size: 3.4 x 4.7 mm, Number of individual labels: 90

Marker carriers

Marker carriers - STP 4-2 - 0810575



Marker carriers, gray, unlabeled, mounting type: plug in, lettering field size: 4 x 10.5 mm

Partition plate

Partition plate - ATP-STTB 4 - 3030747



Partition plate, length: 88.7 mm, width: 2 mm, height: 53 mm, color: gray

Spacer plate - DP PS-4 - 3036712



Spacer plate, length: 22.4 mm, width: 4.2 mm, height: 29 mm, number of positions: 1, color: red

Screwdriver tools

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

Accessories

Screwdriver - SZF 0-0,4X2,5 - 1204504



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.4 x 2.5 x 75 mm, 2-component grip, with non-slip grip

Terminal marking

Zack Marker strip, flat - ZBF 4:UNBEDRUCKT - 0808587



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into flat marker groove, for terminal block width: 4 mm, lettering field size: 4.2 x 5.2 mm, Number of individual labels: 10

Marker for terminal blocks - UC-TMF 4 - 0818166



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: 4.2 mm, lettering field size: 3.6 x 5.1 mm, Number of individual labels: 120

Marker for terminal blocks - UCT-TMF 4 - 0828742



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: 4.2 mm, lettering field size: 3.4 x 4.7 mm, Number of individual labels: 90

Test plug terminal block

Test plugs - PS-4 - 3030970



Test plugs, Modular test plug, color: red

Double-level spring-cage terminal block - STTB 1,5 BU - 3031160

Accessories

Test socket

Test adapter - PAI-4 - 3030925



Test adapter, for 4 mm test plug and terminal blocks with 4.2 mm ... 8.2 mm pitch, color: gray
