

Data sheet | Item number: 870-685

3-conductor through terminal block; 2.5 mm²; side and center marking; for
DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm²; black



www.wago.com/870-685



Subject to changes. Please also observe the further product documentation!

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Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.



Data Notes

Safety information

Max. insulation diameter: 4.4 mm

Electrical data

Ratings per IEC/EN

Ratings per	IEC/EN 60947-7-1
Nominal voltage (III/3)	500 V
Rated impulse voltage (III/3)	6 kV
Rated current	24 A
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

Power Loss

Power loss, per pole (potential)	0.766 W
Rated current I_N for specified power loss	24 A
Resistance value for specified, current-dependent power loss	0.001 Ω

Connection data

Connection points	3
Total number of potentials	1
Number of levels	1

Connection 1

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 4 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.08 ... 1.5 mm ² / 28 ... 14 AWG
Strip length	6 ... 7 mm / 0.24 ... 0.28 inches
Wiring direction	Front-entry wiring

Subject to changes. Please also observe the further product documentation!



Physical data

Width	5 mm / 0.197 inches
Height	49 mm / 1.929 inches
Depth from upper-edge of DIN-rail	27.5 mm / 1.083 inches

Mechanical Data

Design	horizontal type
Mounting type	DIN-35 rail
Marking level	Side marking

Material Data

Note (material data)	Information on material specifications can be found here
Color	black
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.108 MJ
Weight	6.2 g

Environmental requirements

Processing temperature	-35 ... +85 °C
Continuous operating temperature	-60 ... +105 °C

Commercial data

eCl@ss 10.0	27-14-11-20
eCl@ss 9.0	27-14-11-20
ETIM 8.0	EC000897
ETIM 7.0	EC000897
PU (SPU)	100 pcs
Packaging type	box
Country of origin	DE
GTIN	4045454094591
Customs tariff number	85369010000

Subject to changes. Please also observe the further product documentation!

**Environmental Product Compliance**RoHS Compliance Status Compliant, No Exemption**Approvals / Certificates****General approvals**

Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	EN 60947	2189801.01
	CCA DEKRA Certification B.V.	EN 60947	NTR NL 7468
	cURus UL International Germany GmbH	UL 1059	E45172

Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
	UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	20- HG1941090- PDA
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2

Required accessories**End plate**

End plate	
Item no.: 870-934 End and intermediate plate; 1 mm thick; orange	www.wago.com/870-934
Item no.: 870-933 End and intermediate plate; 1 mm thick; gray	www.wago.com/870-933

Subject to changes. Please also observe the further product documentation!



Optional accessories

Insulation stop

Insulation stop	
Item no.: 280-472 Insulation stop; 0.75 - 1 mm ² ; 5 pieces/strip; black	www.wago.com/280-472
Item no.: 280-470 Insulation stop; 0.08 - 0.2 mm ² "s" (0.14 mm ² "f-st"); 5 pieces/strip; white	www.wago.com/280-470
Item no.: 280-471 Insulation stop; 0.25 - 0.5 mm ² ; 5 pieces/strip; light gray	www.wago.com/280-471

End plate

End plate	
Item no.: 870-947 Separator plate; 1 mm thick; orange	www.wago.com/870-947
Item no.: 870-946 Separator plate; 1 mm thick; gray	www.wago.com/870-946

Tool

Operating tool	
Item no.: 210-657 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured	www.wago.com/210-657
Item no.: 210-658 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured	www.wago.com/210-658
Item no.: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured	www.wago.com/210-720

Jumpers

Jumper	
Item no.: 870-402 Jumper; 2-way; insulated; light gray	www.wago.com/870-402
Item no.: 870-404 Jumper; 4-way; insulated; light gray	www.wago.com/870-404
Item no.: 870-405 Jumper; 5-way; insulated; light gray	www.wago.com/870-405
Item no.: 870-407 Jumper; 7-way; insulated; light gray	www.wago.com/870-407
Item no.: 870-408 Jumper; 8-way; insulated; light gray	www.wago.com/870-408
Item no.: 870-403 Jumper; 3-way; insulated; light gray	www.wago.com/870-403
Item no.: 870-409	

Subject to changes. Please also observe the further product documentation!



Jumper; 9-way; insulated; light gray	www.wago.com/870-409
Item no.: 870-406 Jumper; 6-way; insulated; light gray	www.wago.com/870-406
Item no.: 870-433 Jumper; from 1 to 3; insulated; light gray	www.wago.com/870-433
Item no.: 870-435 Jumper; from 1 to 5; insulated; light gray	www.wago.com/870-435
Item no.: 870-410 Jumper; 10-way; insulated; light gray	www.wago.com/870-410
Item no.: 870-434 Jumper; from 1 to 4; insulated; light gray	www.wago.com/870-434
Item no.: 870-436 Jumper; from 1 to 6; insulated; light gray	www.wago.com/870-436
Item no.: 870-440 Jumper; from 1 to 10; insulated; light gray	www.wago.com/870-440
Item no.: 870-437 Jumper; from 1 to 7; insulated; light gray	www.wago.com/870-437
Item no.: 870-439 Jumper; from 1 to 9; insulated; light gray	www.wago.com/870-439
Item no.: 870-438 Jumper; from 1 to 8; insulated; light gray	www.wago.com/870-438
Item no.: 870-406/020-000 Delta jumper; insulated; light gray	www.wago.com/870-406/020-000

Ferrule

Ferrule

Item no.: 216-123 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-123
Item no.: 216-122 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-122
Item no.: 216-124 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated	www.wago.com/216-124
Item no.: 216-132 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-132
Item no.: 216-121 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-121

Subject to changes. Please also observe the further product documentation!



Item no.: 216-131 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-131
Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-223
Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-222
Item no.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-221
Item no.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-224
Item no.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-321
Item no.: 216-322 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; light turquoise	www.wago.com/216-322
Marking accessories	
Marking strip	
Item no.: 709-196 Marking strips; for laser printer; translucent	www.wago.com/709-196
Item no.: 709-178 Marking strips; on reel; 7.5 mm wide; not stretchable; plain; snap-on type; white	www.wago.com/709-178
Item no.: 709-177 Marking strips; on reel; 7.5 mm wide; not stretchable; plain; snap-on type; translucent	www.wago.com/709-177
Marker	
Item no.: 2009-115/000-002 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow	www.wago.com/2009-115/000-002
Item no.: 2009-115/000-007 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray	www.wago.com/2009-115/000-007
Item no.: 2009-115/000-017 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green	www.wago.com/2009-115/000-017
Item no.: 2009-115/000-023 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green	www.wago.com/2009-115/000-023
Item no.: 2009-115/000-024 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet	www.wago.com/2009-115/000-024

Subject to changes. Please also observe the further product documentation!



Item no.: 2009-145/000-006 www.wago.com/2009-145/000-006
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue

Item no.: 2009-145 www.wago.com/2009-145
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

Item no.: 2009-145/000-002 www.wago.com/2009-145/000-002
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

Item no.: 2009-145/000-007 www.wago.com/2009-145/000-007
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray

Item no.: 2009-145/000-005 www.wago.com/2009-145/000-005
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red

Item no.: 2009-145/000-012 www.wago.com/2009-145/000-012
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

Item no.: 2009-145/000-023 www.wago.com/2009-145/000-023
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green

Item no.: 2009-145/000-024 www.wago.com/2009-145/000-024
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet

Item no.: 2009-115 www.wago.com/2009-115
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

Item no.: 248-501/000-006 www.wago.com/248-501/000-006
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue

Item no.: 248-501/000-007 www.wago.com/248-501/000-007
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray

Item no.: 248-501/000-002 www.wago.com/248-501/000-002
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow

Item no.: 248-501/000-012 www.wago.com/248-501/000-012
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange

Item no.: 248-501 www.wago.com/248-501
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

Subject to changes. Please also observe the further product documentation!



Item no.: 248-501/000-017

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green

www.wago.com/248-501/000-017

Item no.: 248-501/000-005

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red

www.wago.com/248-501/000-005

Item no.: 248-501/000-024

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet

www.wago.com/248-501/000-024

Item no.: 248-501/000-023

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green

www.wago.com/248-501/000-023

Item no.: 793-5501/000-007

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray

www.wago.com/793-5501/000-007

Item no.: 793-5501/000-012

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; orange

www.wago.com/793-5501/000-012

Item no.: 793-5501/000-017

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; light green

www.wago.com/793-5501/000-017

Item no.: 793-5501/000-023

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; green

www.wago.com/793-5501/000-023

Item no.: 793-5501/000-024

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; violet

www.wago.com/793-5501/000-024

Item no.: 793-501/000-002

WMB marking card; as card; not stretchable; plain; snap-on type; yellow

www.wago.com/793-501/000-002

Item no.: 793-501/000-007

WMB marking card; as card; not stretchable; plain; snap-on type; gray

www.wago.com/793-501/000-007

Item no.: 793-501/000-017

WMB marking card; as card; not stretchable; plain; snap-on type; light green

www.wago.com/793-501/000-017

Item no.: 793-501/000-012

WMB marking card; as card; not stretchable; plain; snap-on type; orange

www.wago.com/793-501/000-012

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Item no.: 793-501/000-023
WMB marking card; as card; not stretchable; plain; snap-on type; green

www.wago.com/793-501/000-023

Item no.: 793-501/000-006
WMB marking card; as card; not stretchable; plain; snap-on type; blue

www.wago.com/793-501/000-006

Item no.: 793-501/000-005
WMB marking card; as card; not stretchable; plain; snap-on type; red

www.wago.com/793-501/000-005

Item no.: 793-501
WMB marking card; as card; not stretchable; plain; snap-on type; white

www.wago.com/793-501

Item no.: 793-501/000-024
WMB marking card; as card; not stretchable; plain; snap-on type; violet

www.wago.com/793-501/000-024

Item no.: 793-5501/000-005
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; red

www.wago.com/793-5501/000-005

Item no.: 793-5501/000-002
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

www.wago.com/793-5501/000-002

Item no.: 793-5501/000-006
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; blue

www.wago.com/793-5501/000-006

Item no.: 793-5501
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white

www.wago.com/793-5501

Item no.: 2009-115/000-012
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

www.wago.com/2009-115/000-012

Item no.: 2009-115/000-006
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue

www.wago.com/2009-115/000-006

Group marker carrier

Item no.: 870-183
Adaptor; gray

www.wago.com/870-183

Item no.: 870-182
Adaptor; gray

www.wago.com/870-182

Item no.: 870-184
Adaptor; gray

www.wago.com/870-184

Testing and measuring

Testing accessories

Subject to changes. Please also observe the further product documentation!



Item no.: 870-425 Tap-off module; with anti-rotation protection; modular; suitable for 870 Series terminal blocks with jumper slots in the current bar; gray	www.wago.com/870-425
Item no.: 870-426 Tap-off module; modular; suitable for 870 Series terminal blocks with jumper slots in the current bar; gray	www.wago.com/870-426
Item no.: 870-427 Spacer module; modular; bridging commoned terminal blocks; gray	www.wago.com/870-427

Mounting

Mounting accessories

Item no.: 209-106 Mounting carrier; for isolated mounting on DIN 35 rails; gray	www.wago.com/209-106
Item no.: 249-116 Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray	www.wago.com/249-116
Item no.: 249-117 Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray	www.wago.com/249-117

Protective warning marker

Cover

Item no.: 280-405 Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow	www.wago.com/280-405
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Carrier rail

Mounting accessories

Item no.: 210-197 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored	www.wago.com/210-197
Item no.: 210-198 Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored	www.wago.com/210-198
Item no.: 210-504 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored	www.wago.com/210-504
Item no.: 210-505 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored	www.wago.com/210-505
Item no.: 210-506 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored	www.wago.com/210-506
Item no.: 210-508 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored	www.wago.com/210-508
Item no.: 210-113 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	www.wago.com/210-113
Item no.: 210-118	

Subject to changes. Please also observe the further product documentation!



Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored www.wago.com/210-118

Item no.: 210-112

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; www.wago.com/210-112
silver-colored

Item no.: 210-114

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored www.wago.com/210-114

Item no.: 210-115

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm; www.wago.com/210-115
silver-colored

Item no.: 210-196

Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored www.wago.com/210-196

Downloads

Documentation

Additional Information

pdf
2.2 MB [Download](#)

CAD/CAE-Data

CAE data

EPLAN Data Portal 870-685 [URL](#) [Download](#)

WSCAD Universe 870-685 [URL](#) [Download](#)

CAD data

2D/3D Models 870-685 [URL](#) [Download](#)

Environmental Product Compliance

Compliance Search

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3-conductor through terminal block; 2.5 mm²; side and center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm²; black

Installation Notes

Subject to changes. Please also observe the further product documentation!

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Installation



Snapping a rail-mount terminal block onto DIN-35 rail.



Removing a terminal block from the assembly.

Conductor termination



CAGE CLAMP® connection

Inserting a conductor via operating tool (0.08 ... 4 mm² "f-st").

With ferruled conductors, it is necessary to use a terminal block one size smaller than the conductor's nominal cross-section.



Inserting insulation stops into conductor entry holes of terminal strip.

Commoning

Subject to changes. Please also observe the further product documentation!



Push jumper bars down firmly until fully inserted. When using multipole bars, push alternately on the right and then left side until installed.

Push-in type jumper bars 1 – 3 – 5 – 7 or
1 – – 4 – – 7

upon request



Commoning with push-in type jumper bars:

Two parallel jumper slots are accommodated in one terminal block.



Commoning terminal blocks of different sizes via step-down jumpers.

Testing

Subject to changes. Please also observe the further product documentation!



Testing with phase testing device, also possible with single-pole voltage tester.



Testing is also possible using a pre-wired tap-off module assembly in the very same way as test plugs.

Cover



Protective warning markers (280-405), with a black high-voltage symbol

Marking



WMB markers in Mini-WSB marker slots

Translucent marking strip

Mini-WSB markers



Translucent marking strip (709-196) – jumpers below may be visible.

Subject to changes. Please also observe the further product documentation!



In addition to the plastic marker strips, group marker carriers are now available for the WMB and WSB marking systems. They can be mounted in parallel to a push-in type jumper bar via the open jumper contact slot. It is also very useful if the marker slots on the side of the terminal block are hidden. The carriers are available in the following widths: 5 mm (0.197 inch), 10 mm (0.394 inch) and 15 mm (0.591 inch).

Notice:

Group marker carriers are not suitable for ground conductor terminal blocks and double potential terminal blocks as they have no jumper contact slots.

Subject to changes. Please also observe the further product documentation!