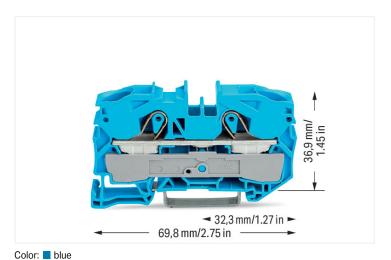
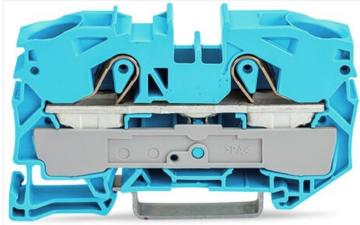
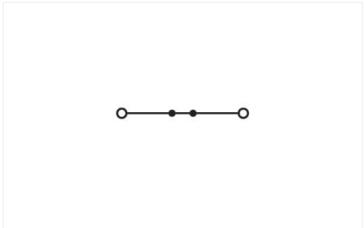
2-conductor through terminal block; 16 mm²; for Ex e II and Ex i applications; side and center marking; for DIN-rail 35 x 15 and 35 x 7.5; Push-in CAGE CLAMP®; 16,00 mm²; blue



https://www.wago.com/2016-1204







Similar to illustration

Electrical data			
Ratings per	IEC	/EN 60947-	7-1
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	800 V	-	-
Rated surge voltage	8 kV	-	-
Rated current	76 A	-	-
Current at conductor cross-section (max.) mm ²	90 A	-	-

Approvals per		UL 1059	
Use group	В	С	D
Rated voltage	600 V	600 V	-
Rated current	85 A	85 A	-

Ratings per IEC/EN – Notes	
Rated current (note)	15 mm high DIN-35 rails shall be used for a current load higher than 76 A!

Approvals per	CS	SA 22.2 No 1	58
Use group	В	С	D
Rated voltage	600 V	600 V	-
Rated current	80 A	80 A	-

Data Sheet | Item Number: 2016-1204 https://www.wago.com/2016-1204



Ex information	
Reference hazardous areas	See application instructions in section "Knowledge and Downloads – Documentation – Additio- nal Information: Technical Section; Tech- nical Explications"
Ratings per	ATEX: PTB 05 ATEX 1031 U / IECEx: PTB 05.0015U (Ex eb IIC Gb)
Rated voltage EN (Ex e II)	550 V
Rated current (Ex e II)	70 A
Rated current (Ex e II) with jumper	67 A

Power Loss	
Power loss, per pole (potential)	2.4259 W
Rated current I_N for specified power loss	76 A
Resistance value for specified, current- dependent power loss	0.00042 Ω

Connection data				
Clamping units	2		Connection 1	
Total number of potentials	1		Connection technology	Push-in CAGE CLAMP®
lumber of levels	1		Actuation type	Operating tool
lumber of jumper slots	2		Connectable conductor materials	Copper
			Nominal cross-section	16 mm²
			Solid conductor	0.5 16 mm² / 20 6 AWG
	Solid conductor; push-in termination	6 16 mm² / 14 6 AWG		
			Fine-stranded conductor	0.5 25 mm² / 20 4 AWG
	Fine-stranded conductor; with insulated ferrule	0.5 16 mm² / 20 6 AWG		
			Fine-stranded conductor; with ferrule; push-in termination	6 16 mm² / 10 6 AWG
	Note (conductor cross-section)	Depending on the conductor characte stic, a conductor with a smaller cross- section can also be inserted via push- termination. AWG ratings were converted accordin to IEC.		
	Strip length	18 20 mm / 0.71 0.79 inches		
			Wiring direction	Front-entry wiring

Discolard data		
Physical data		
Width	12 mm / 0.472 inches	
Height	69.8 mm / 2.748 inches	
Depth from upper-edge of DIN-rail	36.9 mm / 1.453 inches	
Depth	43.5 mm / 1.713 inches	

Mechanical data	
Mounting type	DIN-35 rail
Marking level	Center/side marking

Material data	
Note (material data)	Information on material specifications can be found here
Color	blue
Material group	
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.391 MJ
Weight	21.7 g



Environmental requirements

-35 ... +85 °C Processing temperature Continuous operating temperature -60 ... +105 °C **Environmental Testing (Environmental Conditions)**

Test specification Railway applications -Rolling stock -Electronic equipment

DIN EN 50155 (VDE 0115-200):2022-06

Test procedure DIN EN 61373 (VDE 0115-0106):2011-04

Railway applications -Rolling stock equipment -Shock and vibration tests

Frequency

Service life test, Category 1, Class A/B

Spectrum/Installation location Function test with noise-like vibration Test passed according to Section 8 of the standard

 $f_1 = 5 \text{ Hz to } f_2 = 150 \text{ Hz}$

 $f_1' = 5 \text{ Hz to } f_2' = 150 \text{ Hz}$

Acceleration 0.101g (highest test level used for all axes)

0.572g (highest test level used for all axes) 5g (highest test level used for all axes)

Test passed according to Section 9 of

Test passed according to Section 10 of

10 min. Test duration per axis 5 h

Test directions X. Y and Z axes X, Y and Z axes X, Y and Z axes

Monitoring for contact faults/interrupti-Passed

Voltage drop measurement before and

Passed after each axis

Simulated service life test through incre-

ased levels of noise-like vibration Extended test scope: Monitoring for con-

tact faults/interruptions Extended test scope: Voltage drop mea-

surement before and after each axis Shock test

the standard Half sine Shock form

Shock duration Number of shocks per axis

Vibration and shock stress for rolling stock equipment

Passed

30 ms

3 pos. und 3 neg.

the standard

Passed

Passed

Passed

Passed

Commercial data **Product Group** 22 (TOPJOBS) eCl@ss 10.0 27-14-11-20 eCl@ss 9.0 27-14-11-20 ETIM 9.0 EC000897 **ETIM 8.0** EC000897 PU (SPU) 20 pcs Packaging type Box Country of origin 4017332076647 **GTIN** Customs tariff number 85369010000



Environmental Product Compliance

RoHS Compliance Status Compliant, No Exemption

Approvals / Certificates

General approvals







Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL-7881
CSA DEKRA Certification B.V.	C22.2 No. 158	1579112
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-119271
UL Underwriters Laboratories Inc.	UL 1059	E45172

Declarations of conformity and manufacturer's declarations



Approval	Standard	Certificate Name
ATEX-Attestation of Conformity WAGO GmbH & Co. KG	-	-
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
Railway WAGO GmbH & Co. KG	-	Railway Ready
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications





Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	20-HG1941090-PDA
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2

Approvals for hazardous areas





Approval	Standard	Certificate Name
AEx UL International Germany GmbH c/o Physikalisch Technische Bundesanstalt	UL 60079	E185892 (AEx eb IIC resp. Ex eb IIC)
ATEX Physikalisch Technische Bundesanstalt (PTB)	EN 60079	PTB 05 ATEX 1031 U (II 2 G Ex eb IIC Gb bzw. I M2 Ex eb I Mb)
CCC CQST/CNEx	GB/T 3836.3	2020312313000162 (Ex eb IIC Gb, Ex eb I Mb)
EAC Brjansker Zertifizierungs- stelle	TP TC 012/2011	RU C-DE.AM02. B.00127/19 (Ex e IIC Gb U)
IECEx Physikalisch Technische Bundesanstalt (PTB)	IEC 60079	IECEx PTB 05.0015 U (Ex eb IIC Gb and Ex eb I Mb)
INMETRO TÜV Rheinland do Brasil	IEC 60079	TÜV 12.1313 U

Downloads

Environmental Product Compliance

Compliance Search

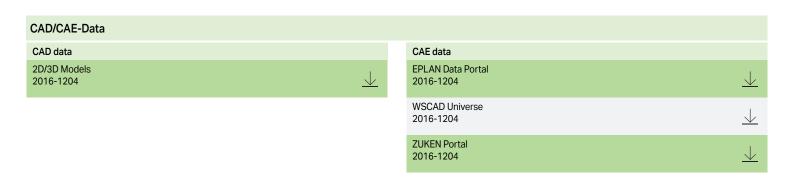
Environmental Product Compliance 2016-1204



https://www.wago.com/2016-1204









1.2 Optional Accessories

1.2.1 Cover

1.2.1.1 Cover



Item No.: 2016-100

Finger guard; touchproof cover protects unused conductor entries; yellow

1.2.2 DIN-rail

Item No.: 210-196

60715; silver-colored

1.2.2.1 Mounting accessories



Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm

thick; 2 m long; unslotted; similar to EN





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



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



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

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1.2.2.1 Mounting accessories



Item No.: 210-118

Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored



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; silver-colored



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; silver-colored



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

1.2.3 Ferrule

1.2.3.1 Ferrule



Item No.: 216-284 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



Item No.: 216-289

Ferrule; Sleeve for 10 mm² / AWG 8; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



Item No.: 216-210

Ferrule; Sleeve for 16 mm² / AWG 6; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



Item No.: 216-286

Ferrule; Sleeve for 2.5 mm2 / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue

Item No.: 216-287

Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



Ferrule; Sleeve for 6 mm² / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; yellow

1.2.4 Installation

1.2.4.1 Cover



Item No.: 709-156

Cover; Type 3; suitable for cover carrier, type 3; 1 m long; transparent

1.2.4.2 Cover carrier



Item No.: 709-169

Cover carrier; Type 3; incl. fixing/retaining screws and knurled nut; suitable for 279 to 282 and 880 Series rail-mounted terminal blocks; suitable for 264 Series miniature rail-mounted terminal blocks; suitable for 270 Series sensor and actuator terminal blocks; gray

1.2.5 Jumper

1.2.5.1 Jumper

Item No.: 2016-402





Jumper; 2-way; insulated; light gray



Item No.: 2016-403

Jumper; 3-way; insulated; light gray



Item No.: 2016-404

Jumper; 4-way; insulated; light gray



Item No.: 2016-405

Jumper; 5-way; insulated; light gray



Item No.: 2016-433 Jumper; from 1 to 3; insulated; light gray



Item No.: 2016-434 Jumper; from 1 to 4; insulated; light gray Item No.: 2016-435

Jumper; from 1 to 5; insulated; light gray

Item No.: 2016-405/011-000

Star point jumper; 3-way; insulated; light gray

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1.2.5.1 Jumper



Item No.: 2016-499

Step-down jumper; from 2016/2010 to 2010/2006/2004/2002 series; from 2216/2210 to 2210/2206/2204/2202 series; insulated; light gray

Item No.: 285-430

Step-down jumper; from 285 (35mm²) to 2016/2010 series; insulated; gray

1.2.6 Marking

1.2.6.1 Group marker carrier



Item No.: 2009-191

Group marker carrier; gray



Item No.: 2009-192

Group marker carrier; gray



Item No.: 2009-193

Group marker carrier; gray

1.2.6.2 Marker

Item No.: 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.: 2009-145/000-007

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray

Item No.: 2009-145/000-023

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green

Item No.: 2009-145/000-012

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

Item No.: 2009-145/000-005

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red



Item No.: 2009-145/000-024

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet

Item No.: 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

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



Item No.: 248-501/000-006

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



Item No.: 248-501/000-007

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



Item No.: 248-501/000-023

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



Item No.: 248-501/000-017

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



Item No.: 248-501/000-012

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



Item No.: 248-501/000-005

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



Item No.: 248-501/000-024

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



Item No.: 248-501

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



Item No.: 248-501/000-002

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

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



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



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



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



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



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



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



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



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



Item No.: 793-501/000-006

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



Item No.: 793-501/000-007

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



Item No.: 793-501/000-023

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

Item No.: 793-501/000-017

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

Item No.: 793-501/000-012

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



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

https://www.wago.com/2016-1204



1.2.6.2 Marker









Item No.: 793-501/000-024

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

Item No.: 793-501

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

Item No.: 793-501/000-002

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

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







•

•

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

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

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

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



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

Item No.: 2009-115

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

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

1.2.6.3 Marker carrier



Item No.: 2009-198 Adaptor; gray

1.2.6.4 Marking strip



Item No.: 2009-110

Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

1.2.7 Protective warning marker

1.2.7.1 Cover



Item No.: 2016-115

Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

1.2.8 Screwless end stop

1.2.8.1 Mounting accessories





Item No.: 249-117

Screwless end stop; 10 mm wide; for DINrail 35 x 15 and 35 x 7.5; gray

Item No.: 249-116

Screwless end stop; 6 mm wide; for DINrail 35 x 15 and 35 x 7.5; gray



1.2.9 Test and measurement

1.2.9.1 Testing accessories



Item No.: 2016-511

Modular TOPJOB®S connector; modular; for jumper contact slot; 1-pole; 4,00 mm²; gray



Item No.: 2016-549

Spacer module; modular; e.g., for bridging commoned terminal blocks; gray

Item No.: 2009-174

Test plug adapter; for 4 mm Ø test plugs; for testing TOPJOB®S rail-mounted terminal blocks; gray

Item No.: 2009-182

Testing tap; for max. 2.5 mm²; tool-free connection for individual test wires 0.08 - 2.5 mm; gray

1.2.10 Tool

1.2.10.1 Operating tool

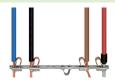


Item No.: 210-721

Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured

Installation Notes

Conductor termination



All conductor types at a glance



Inserting a conductor via push-in termination.

Solid conductors with cross-sections from either one size above, or up to two sizes below, the rated cross-section can be simply pushed in – no tools needed.



Removing a solid conductor.

Conductor removal is performed with an operating tool, just like CAGE CLAMP®.



Inserting a conductor via operating tool.

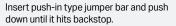
Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® – just use an operating tool.

The smart feature:

To open the clamp, the operating tool is inserted vertically. The conductor entry is less than 15 degrees for easier wiring.

Commoning







Removing a push-in type jumper bar:

Insert the operating tool between the jumper and partition wall of the dual jumper slots, then lift up the jumper.

Place the operating tool in the center of jumpers for up to five contacts (see above), or alternately on both sides for jumpers with more than five contacts.

https://www.wago.com/2016-1204

W/AGO

Commoning



This star point jumper has been specially developed to create a "star point" and is used on motor terminal boards equipped with Rail-Mount Terminal Blocks TOPJOB® S

Commoning



Step-down jumpers common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drop can be a problem. A large conductor can be easily connected to smaller conductors at the distribution point.

Commoning may be made in either direction using the special thin end plate to cover the open side. Additional through terminal blocks having a smaller cross-section may be commoned using push-in type jumper bars.



Using step-down jumpers, an end plate must be inserted between the terminal blocks to be commoned.



Step-down jumper (Item No. 2006-499) commons 6/4 mm² (10/12 AWG) terminal blocks (2006/2004 Series) with 4/2.5/1.5 mm² (AWG 12/14/16) terminal blocks (2004/2002/2001 Series).



Step-down jumper (Item No. 2016-499) commons 16/10 mm² (16/8 AWG) terminal blocks (2016/2010 Series) with 10/6/4/2.5 mm² (8/10/12/14 AWG) terminal blocks (2010/2006/2004/2002 Series).



Stepping down via push-in type jumper

Commoning via open terminal side with end plate allows jumpering over two cross-section sizes for 16 mm² (6 AWG) and 10 mm² (8 AWG) and one cross-section size for 6/4/2.5 mm² (10/12/14 AWG). An example: from 16 mm² (6 AWG) to 6 mm² (10 AWG) (see illustration above) or from 10 mm² (8 AWG) to 4 mm² (12 AWG).



Stepping down via push-in type jumper

Commoning via closed terminal side with end plate allows jumpering over two cross-section sizes, e.g., from 16 mm² (6 AWG) to 6 mm² (10 AWG) or from 6 mm² (10 AWG) to 2.5 mm² (14 AWG) (see illustration above).



Note:

The total current of the outgoing circuits must not exceed the nominal current of the step-down jumper/push-in type jumper bar.

Testing



The modular TOPJOB® S connectors also connect conductors of the same size as the terminal blocks being used.



TOPJOB® S Connectors with a 2 mm Ø test socket for testing voltage via 2-pole voltage tester



Rail-mount terminal block assembly for electric motor wiring



Test plug adapter (Item No. 2009-174, CAT I) for 4 mm Ø plugs – compatible with 2000 to 2016 Series https://www.wago.com/2016-1204



Testing



Testing tap (Item No. 2009-182) for toolfree connection of test cables up to 2.5 mm² (12 AWG) – compatible with 2000 to 2016 Series

Marking



Snapping WMB Inline markers into marker slots.



TOPJOB® S 2009-193 Group Marker Carrier (equipped with a marking strip) for all 2001 to 2016 Series TOPJOB® S Rail-Mount Terminal Blocks
Do not use on an end plate!



Ex application







All through and ground conductor terminal blocks are suitable for Ex e II applications.



Separator plate for Ex e/Ex i applications

An end plate must be applied to the terminal block located directly behind an Ex e/ Ex i separator plate.



Ex e II/Ex i terminal strip Note:

The movable feet of terminal blocks and separator plates must face the same direction.



A separator plate is located between the Ex e II and Ex i terminal strip.

End plate

Ex e II terminal blocks

Separator plate for Ex e/Ex i applications End plate

Ex i terminal blocks

According to EN 50020, a minimum distance of 50 mm must be kept between live parts of Ex e and Ex i circuits. The use of Ex e/Ex i separators is a space-saving solution when Ex e and Ex i terminal blocks are mounted on a common DINrail.

https://www.wago.com/2016-1204



Cover



Finger guard seals an unused conductor entry.

 $\label{thm:continuous} \textbf{Subject to changes. Please also observe the further product documentation!}$