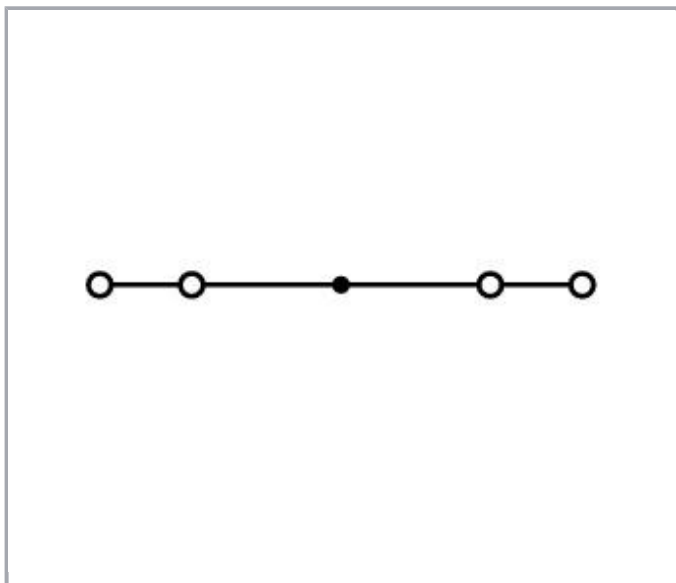
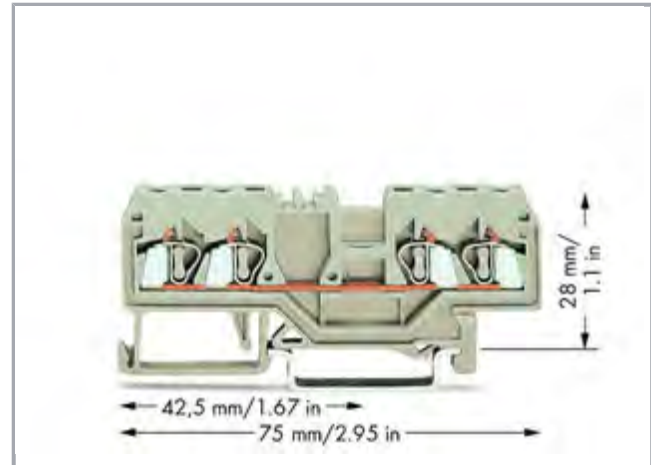
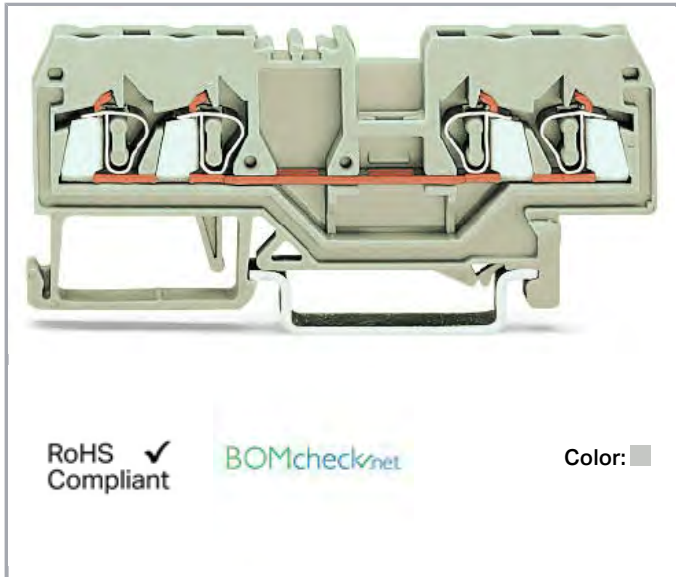


Data sheet | Item number: 280-994

4-conductor through terminal block; 2.5 mm²; suitable for Ex e II applications; center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm²; light gray



Item description

Note:

Terminating Aluminum Conductors

WAGO spring clamp terminal blocks are suitable for solid aluminum conductors up to 4 mm²/12 AWG if WAGO "Alu-Plus" Contact Paste is used for

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



termination.

“Alu-Plus” Contact Paste Advantages:

- Automatically destroys the oxide film during clamping.
- Prevents fresh oxidation at the clamping point.
- Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block).
- Provides long-term protection against corrosion.

Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, **aluminum conductors must first be cleaned with a blade** and then immediately be inserted into the clamping units filled with “Alu-Plus” Contact Paste.

It is also possible to apply WAGO “Alu-Plus” **additionally** on the whole surface of the aluminum conductor before termination.

Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors::

2.5 mm² = 16 A

4 mm² = 22 A

Safety information 1:

Using staggered jumpers reduces the maximum rated voltage to 275 V.

Data

Electrical data

Ratings per IEC/EN 60664-1

Ratings per	IEC/EN 60947-7-1
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Approvals Ex

Rated voltage EN (Ex e II)	550 V
Rated current (Ex e II)	20 A

Connection data

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper Aluminum
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Total number of connection points	4

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



Total number of potentials	1
Number of levels	1
Wiring type	Front-entry wiring
Note (conductor cross-section)	12 AWG: THHN, THWN

Geometrical Data

Width	5 mm / 0.197 inch
Height from upper-edge of DIN-rail	28 mm / 1.102 inch
Depth	75 mm / 2.953 inch

Mechanical data

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

Material Data

Color	light gray
Insulation material	Polyamide 66 (PA66)
Fire load	0.146 MJ
Weight	9.1 g

Commercial data

Packaging type	BOX
Country of origin	DE
GTIN	4044918311496
Customs tariff number	85369010000

Approvals / Certificates

Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	AEx UL International Germany GmbH c/o Physikalisch Technische Bundesanstalt	UL 60079	E185892 sec.1
	ATEx Physikalisch Technische Bundesanstalt (PTB)	EN 60079	PTB 99 ATEX 3109 U

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



Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	EN 60947	2157201.01
	CSA DEKRA Certification B.V.	C22.2	1536071
	EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	RU C-DE. AM02.B. 00127/19

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	EN 60947	20- HG1941090- PDA
	BV Bureau Veritas S.A.	EN 60947	07436/E0 BV
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2
	LR Lloyds Register	EN 60947	91/20112 (E9)

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL	UL 1059	20170731-

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



Underwriters Laboratories Inc.

E45172

Compatible products

Jumper



Item no.: 280-402
Jumper; insulated; gray



Item no.: 280-409
Jumper; insulated; gray



Item no.: 280-422
Jumper; insulated; yellow-green



Item no.: 280-482
Jumper; 2-way; insulated; gray



Item no.: 280-483
Jumper; 3-way; insulated; gray



Item no.: 280-484
Jumper; 4-way; insulated; gray



Item no.: 280-485
Jumper; 5-way; insulated; gray



Item no.: 280-490
Jumper; 10-way; insulated; gray



Item no.: 280-492
Jumper; 2-way; insulated; gray



Item no.: 780-452
Staggered jumper; from 1 to 2; insulated; gray



Item no.: 780-453
Staggered jumper; from 1 to 3; insulated; gray

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



Item no.: 780-454
Staggered jumper; from 1 to 4; insulated; gray



Item no.: 780-455
Staggered jumper; from 1 to 5; insulated; gray



Item no.: 780-456
Staggered jumper; from 1 to 6; insulated; gray



Item no.: 780-457
Staggered jumper; from 1 to 7; insulated; gray



Item no.: 780-458
Staggered jumper; from 1 to 8; insulated; gray

Protective Warning Marker



Item no.: 280-415
Protective warning marker; with high-voltage symbol, black; for 5 terminal blocks; yellow

ferrule



Item no.: 216-101
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated



Item no.: 216-102
Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated



Item no.: 216-103
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated



Item no.: 216-104
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated



Item no.: 216-201
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white



Item no.: 216-202
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray



Item no.: 216-203
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red



Item no.: 216-204
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black

Item no.: 216-301
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow



Item no.: 216-302
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; green

assembling



Item no.: 209-106
Mounting carrier; for isolated mounting on DIN 35 rails; gray

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



Item no.: 249-116
Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray



Item no.: 709-153
Cover; Type 1; suitable for cover carrier, type 1; 1 m long; transparent

Carrier rail



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



Item no.: 210-113
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715



Item no.: 210-114
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715



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



Item no.: 210-118
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715



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



Item no.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715



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.: 210-504
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715



Item no.: 210-505
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715



Item no.: 210-506
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715



Item no.: 210-508
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715

Insulation stop



Item no.: 280-470
Insulation stop; 0.08 - 0.2 mm² "s" (0.14 mm² "f-st"); 5 pieces/strip; white



Item no.: 280-471
Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip; light gray



Item no.: 280-472
Insulation stop; 0.75 - 1 mm²; 5 pieces/strip

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

tools

**Item no.: 210-657**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short

**Item no.: 210-658**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short

**Item no.: 210-720**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft

End plate

**Item no.: 209-191**

Separator for Ex e/Ex i applications; 3 mm thick; 120 mm wide; orange

**Item no.: 209-192**

Separator for Ex e/Ex i applications; 3 mm thick; 125.5 mm wide; orange

**Item no.: 280-353**

Separator plate; 2 mm thick; oversized; light gray

Marking accessories

**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

**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.: 2009-115/000-012**

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

**Item no.: 2009-115/000-017**

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

**Item no.: 2009-115/000-023**

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

**Item no.: 2009-115/000-024**

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

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



Item no.: 209-128
Adaptor; gray



Item no.: 209-140
Group marker carrier; gray



Item no.: 209-141
Group marker carrier; gray



Item no.: 209-142
Group marker carrier; gray



Item no.: 209-185
Adaptor; gray



Item no.: 249-105
Group marker carrier; gray



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.: 793-501/000-005
WMB marking card; as card; not stretchable; plain; snap-on type; red



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.: 793-501/000-012
WMB marking card; as card; not stretchable; plain; snap-on type; orange



Item no.: 793-501/000-017
WMB marking card; as card; not stretchable; plain; snap-on type; light green



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



Item no.: 793-501/000-024
WMB marking card; as card; not stretchable; 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.: 793-5501/000-005

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.: 793-5501/000-006

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



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



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; green



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; light green



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

Push-In type wire jumper



Item no.: 249-123

Push-in type wire jumper; 0.75 mm²; insulated; 180 mm long; black



Item no.: 249-125

Push-in type wire jumper; insulated; 60 mm long; black



Item no.: 249-126

Push-in type wire jumper; 0.75 mm²; insulated; 110 mm long; black



Item no.: 249-127

Push-in type wire jumper; 0.75 mm²; insulated; 250 mm long; black

Downloads

Documentation

Bid Text

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



280-994

doc - Datei

280-994

GAEB X81 - Datei

Additional Information

Technical explanations

CAD/CAE-Data

CAD data

2D/3D Models 280-994

CAE data

EPLAN Data Portal 280-994

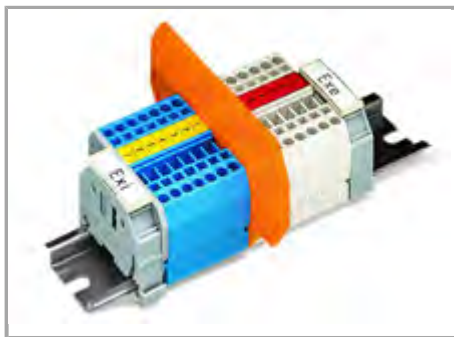
WSCAD Universe 280-994

ZUKEN Portal 280-994

Installation Notes

Installation

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



Separator for Ex e/Ex i applications



End and intermediate plate

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 carrier rail.

In order to meet creepage and clearance requirements for Ex e applications, it is necessary to insert an end or intermediate plate between a through and a ground conductor terminal block.

Compatible with 279 to 282 Series:

209-190 for 2-conductor terminal blocks

209-191 for 2-, 3-, 4-conductor terminal blocks

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