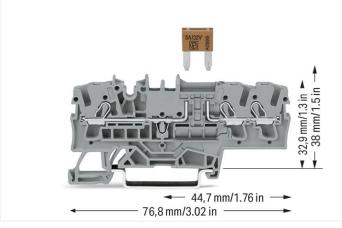
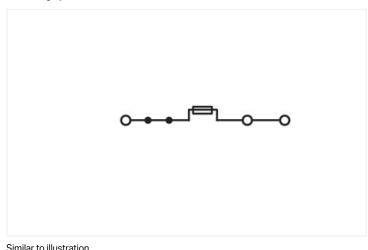
## Data Sheet | Item Number: 2002-1781 3-conductor fuse terminal block; for mini-automotive blade-style fuses; per DIN 7258-3f, ISO 8820-3; with test option; without blown fuse indication; 2.5 mm<sup>2</sup>; Pushin CAGE CLAMP<sup>®</sup>; 2,50 mm<sup>2</sup>; gray https://www.wago.com/2002-1781





Color: 🔳 gray



Similar to illustration

## Electrical data

Ratings per	IEC/EN 60947-7-3		
Overvoltage category	Ш	III	Ш
Pollution degree	3	2	2
Nominal voltage	400 V	-	-
Rated surge voltage	6 kV	-	-
Rated current	10 A	-	-

Approvals per	UL 1059		
Use group	В	С	D
Rated voltage	300 V	300 V	300 V
Rated current	10 A	10 A	10 A

Ratings per IEC/EN 2	
Ratings (note) 2	Blade-style fuses: Observe touch-proof protection for 42 V and higher voltages!
	<ul> <li>10 A (individual arrangement)</li> <li>5 A (block arrangement)</li> </ul>
Ratings per CSA	
Rated voltage CSA (Use Group B)	300 V

Rated voltage CSA (Use Group B)	300 V
Rated current CSA (Use Group B)	10 A
Rated voltage CSA (Use Group C)	300 V
Rated current CSA (Use Group C)	10 A

# Data Sheet | Item Number: 2002-1781 https://www.wago.com/2002-1781



General information	
Fuse receptacle	pluggable
Fuse type	Mini flat plug-in fuse; 10.9 x 3.6 x 16.3 mm

Connection data			
Connection points	3	Connection 1	
Total number of potentials	2	Connection technology	Push-in CAGE CLAMP®
Number of levels	1	Actuation type	Operating tool
Number of jumper slots	2	Connectable conductor materials	Copper
		Nominal cross-section	2.5 mm <sup>2</sup>
		Solid conductor	0.25 4 mm² / 22 12 AWG
		Solid conductor; push-in termination	0.75 4 mm² / 18 12 AWG
		Fine-stranded conductor	0.25 4 mm² / 22 12 AWG
		Fine-stranded conductor; with insulated ferrule	0.25 2.5 mm² / 22 14 AWG
		Fine-stranded conductor; with ferrule; push-in termination	1 2.5 mm² / 18 14 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.
		Strip length	10 12 mm / 0.39 0.47 inches
		Wiring direction	Front-entry wiring
Physical data			
Width		5.2 mm / 0.205 inches	
Height		76.8 mm / 3.024 inches	
Depth from upper-edge of DIN-rail		32.9 mm / 1.295 inches	
Mechanical data			
Mounting type		DIN-35 rail	
Marking level		Center/side marking	
Material data			
Note (material data)		<a href="https://www.wago.com/us/materia&lt;br&gt;specifications can be found here&lt;/a&gt;&lt;/td&gt;&lt;td&gt;al-specifications">Information on material</a>	
Color		gray	
Material group		I	
Insulation material		Polyamide (PA66)	
Flammability class per UL94		VO	
Fire load		0.216 MJ	
Weight		8.1 g	
0		<u> </u>	

https://www.wago.com/2002-1781



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

Commercial data	
Product Group	22 (TOPJOB S)
eCl@ss 10.0	27-14-11-16
eCl@ss 9.0	27-14-11-16
ETIM 8.0	EC000899
ETIM 7.0	EC000899
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	CN
GTIN	4055143873338
Customs tariff number	85369095000

### **Environmental Product Compliance**

**RoHS Compliance Status** 

Compliant,No Exemption

### Approvals / Certificates

**General approvals** 

CCA 🚯 🛛		
Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL 7941
CSA DEKRA Certification B.V.	C22.2 No. 158	1536069
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-124163
UL Underwriters Laboratories Inc.	UL 1059	E45172

Declarations of conformity and manufacturer's declarations



Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
Railway WAGO GmbH & Co. KG	-	Railway Ready
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

#### Approvals for marine applications

ABS.	

THE ROVED THE DIVICOMME	an convert				
Approval	Standard	Certificate Name			
ABS American Bureau of Ship- ping	EN 60947	20-HG1941090-PDA			
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2			

https://www.wago.com/2002-1781



1	Downloads
I	Environmental Product Compliance
	Compliance Search
	Environmental Product Compliance 2002-1781

Documentation						
Additional Information			Bid Text			
Technical Section	pdf 2240.62 KB	$\downarrow$	2002-1781	24.04.2019	xml 4.36 KB	$\underline{\checkmark}$
			2002-1781	23.04.2019	docx 15.79 KB	$\downarrow$

CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 2002-1781	EPLAN Data Portal 2002-1781
	WSCAD Universe 2002-1781
	ZUKEN Portal 2002-1781



**1.2 Optional Accessories** 

#### 1.2.1 DIN-rail

#### 1.2.1.1 Mounting accessories

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.: 210-506 Steel carrier rail; 35 x 15 mm; 1.5 mm

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

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



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.: 210-197 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored



Item No.: 210-115 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

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#### 1.2.1.1 Mounting accessories



#### 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.: 210-504

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; 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

#### 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

#### 1.2.2 Ferrule

#### 1.2.2.1 Ferrule

#### Item No.: 216-241

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white

#### Item No.: 216-263

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

#### Item No.: 216-266

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue

#### 1.2.3 Installation

1.2.3.1 Cover

#### Item No.: 709-156

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

1.2.3.2 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

#### Item No.: 216-242

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

## Item No.: 216-244

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

46228, Part 4/09.90; gray

Item No.: 216-262

Item No.: 216-264 Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; in-

sulated; electro-tin plated; electrolytic

copper; gastight crimped; acc. to DIN

#### Item No.: 216-243

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

#### Item No.: 216-246

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue

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#### 1.2.4 Insulation stop 1.2.4.1 Insulation stop 0000 man Item No.: 2002-171 Item No.: 2002-172 Insulation stop; 0.25 - 0.5 mm<sup>2</sup>; 5 pieces/ Insulation stop; 0.75 - 1 mm<sup>2</sup>; 5 pieces/ strip; light gray strip; dark gray 1.2.5 Jumper 1.2.5.1 Jumper Item No.: 2002-423/000-006 Item No.: 2002-423/000-005 Item No.: 2002-400 Item No.: 2002-423 Continuous jumper; 2-way; insulated; light Continuous jumper; from 1 to 3; insulated; Continuous jumper; from 1 to 3; insulated; Continuous jumper; from 1 to 3; insulated; gray blue light gray red Item No.: 2002-424/000-006 Item No.: 2002-406/020-000 Item No.: 2002-424 Item No.: 2002-424/000-005 Continuous jumper; from 1 to 4; insulated; Continuous jumper; from 1 to 4; insulated; Continuous jumper; from 1 to 4; insulated; Delta jumper; insulated; light gray blue light gray red HUUU Item No.: 2002-410/000-006 Item No.: 2002-410 Item No.: 2002-410/000-005 Item No.: 2002-402/000-006 Jumper; 10-way; insulated; blue Jumper; 10-way; insulated; light gray Jumper; 10-way; insulated; red Jumper; 2-way; insulated; blue Item No.: 2002-402 Item No.: 2002-402/000-005 Item No.: 2002-403/000-006 Item No.: 2002-403 Jumper; 2-way; insulated; light gray Jumper; 2-way; insulated; red Jumper; 3-way; insulated; blue TH Item No.: 2002-404 Item No.: 2002-403/000-005 Item No.: 2002-404/000-006 Item No.: 2002-404/000-005 Jumper; 3-way; insulated; red Jumper; 4-way; insulated; blue Jumper; 4-way; insulated; light gray Jumper; 4-way; insulated; red m T TU Item No.: 2002-405 Item No.: 2002-405/000-006 Item No.: 2002-405/000-005 Item No.: 2002-406/000-006 Jumper; 5-way; insulated; blue Jumper; 5-way; insulated; light gray Jumper; 5-way; insulated; red Jumper; 6-way; insulated; blue HIII TTU THE TU Item No.: 2002-406 Item No.: 2002-406/000-005 Item No.: 2002-407/000-006 Item No.: 2002-407 Jumper; 6-way; insulated; light gray Jumper; 6-way; insulated; red Jumper; 7-way; insulated; blue Jumper; 7-way; insulated; light gray mm Item No.: 2002-407/000-005 Item No.: 2002-408/000-006 Item No.: 2002-408 Item No.: 2002-408/000-005 Jumper; 7-way; insulated; red Jumper; 8-way; insulated; blue Jumper; 8-way; insulated; light gray Jumper; 8-way; insulated; red minin U Item No.: 2002-409/000-006 Item No.: 2002-409 Item No.: 2002-409/000-005 Item No.: 2002-440 Jumper; 9-way; insulated; blue Jumper; 9-way; insulated; light gray Jumper; 9-way; insulated; red Item No.: 2002-433 Item No.: 2002-434 Item No.: 2002-435 Item No.: 2002-436 Jumper; from 1 to 3; insulated; light gray Jumper; from 1 to 4; insulated; light gray Jumper; from 1 to 5; insulated; light gray XINITIALAL Item No.: 2002-437 Item No.: 2002-438 Item No.: 2002-439 Item No.: 2002-480

Jumper; from 1 to 7; insulated; light gray

Jumper; from 1 to 8; insulated; light gray

Jumper; from 1 to 9; insulated; light gray

Jumper; 3-way; insulated; light gray

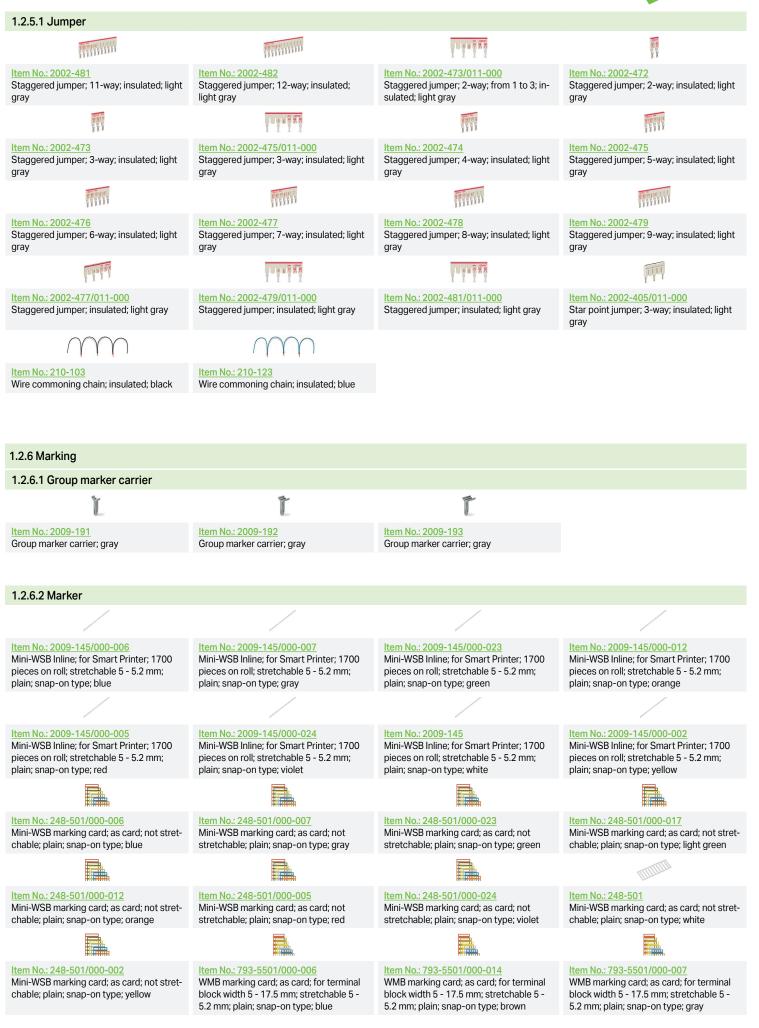
Jumper; from 1 to 10; insulated; light gray

Jumper; from 1 to 6; insulated; light gray

Staggered jumper; 10-way; insulated; light gray

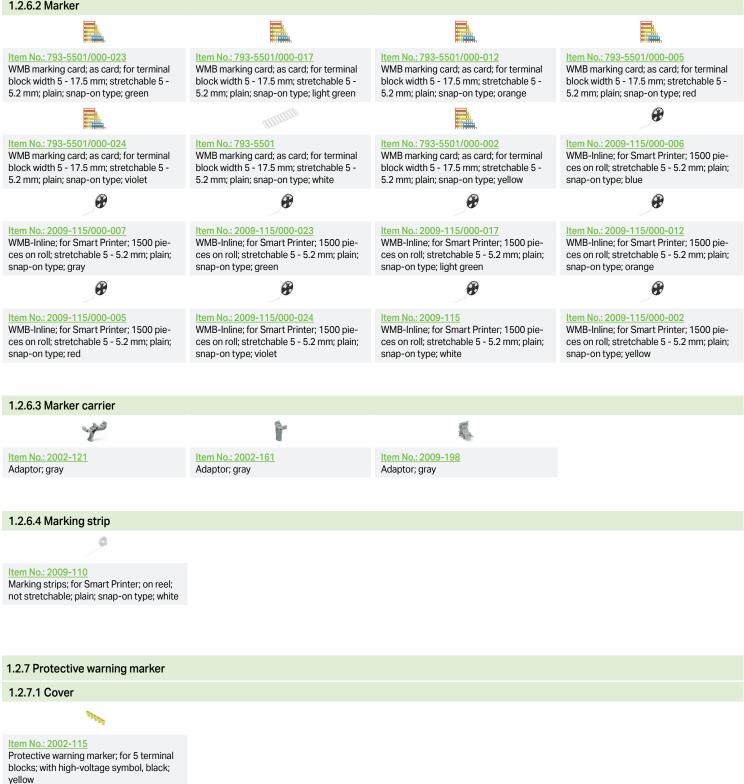
https://www.wago.com/2002-1781





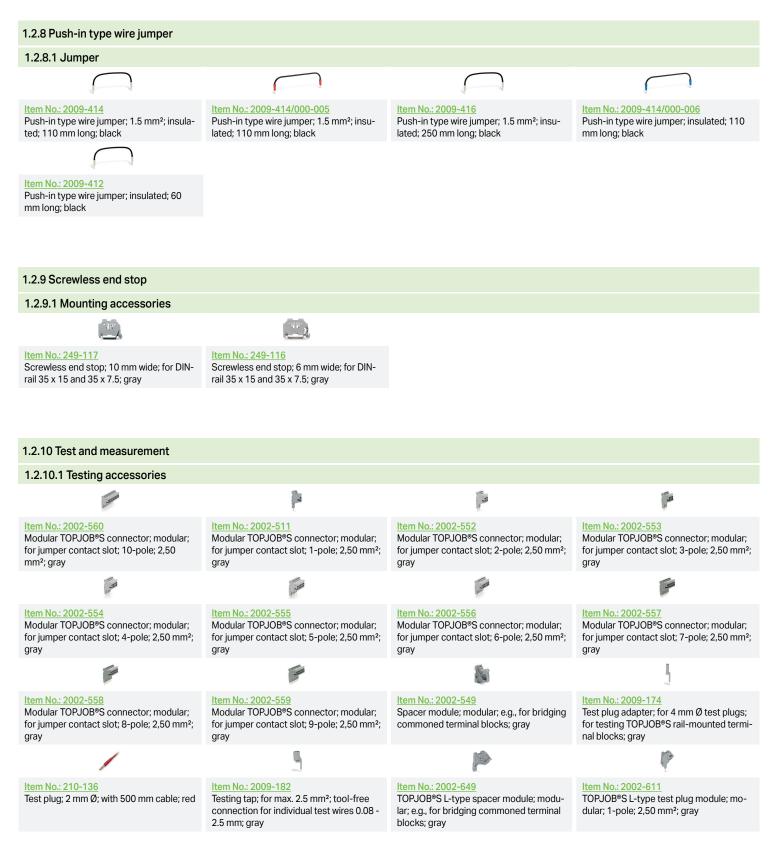
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#### 1.2.6.2 Marker



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### 1.2.11 Tool

#### 1.2.11.1 Operating tool



Item No.: 210-658 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured

Item No.: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

### Installation Notes

#### **Conductor termination**



All conductor types at a glance

Push-in termination of solid and ferruled conductors

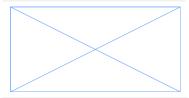
Inserting a conductor via push-in termination:

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.



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<sup>®</sup> – just use an operating tool. Advantage:

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



Conductor termination - insulation stop

#### Commoning



Insert push-in type jumper bar and push down until it hits backstop.



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.



N/AGC



Selecting the correct fuse cartridge is important for product safety within applications, as well as for fuse cartridge service life and reliability. Fuse cartridges can operate perfectly as protection (break-off point) if they are properly selected and used according to manufacturer specifications.

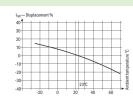
Nominal current ratings for fuse cartridges are defined differently in international standards. This is why the recommended continuous current-carrying capacity of the fuses is a max. 80% of their nominal current according to DIN 72581/Part 3 (for a surrounding air temperature of 23°C). **Concerning product safety, fuse cartridges must generally be tested under both normal and faulty operating conditions within your application.** 



Application Notes on Terminal Blocks for Glass Cartridge Fuses Diagram: "Individual Arrangement"



Application Notes on Terminal Blocks for Glass Cartridge Fuses Diagram: "Block Arrangement"



Application Notes on Terminal Blocks for Glass Cartridge Fuses

Nominal current ratings for fuse cartridges are defined differently in international standards. This is why the recommended continuous current-carrying capacity of the fuses is a max. 80% of their nominal current according to DIN 72581/ Part 3 (for a surrounding air temperature of 23°C).

Selecting the correct fuse cartridge is important for product safety within applications, as well as for fuse cartridge service life and reliability. Fuse cartridges will only operate perfectly as protection components (break-off point) if they are properly selected and used as intended (i.e., according to the state of the technology and valid specifications, as well as data sheet characteristics), according to basic safety requirements (i.e., persons, animals and property must be protected against hazards).



Concerning product safety, fuse cartridges must generally be tested under both normal and faulty operating conditions within your application.

#### Marking





Snapping WMB Inline markers into marker slots.

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

Current addresses can be found at:: www.wago.com