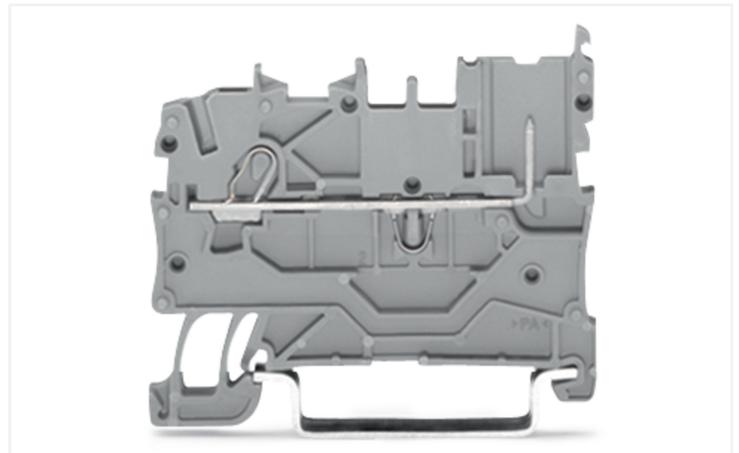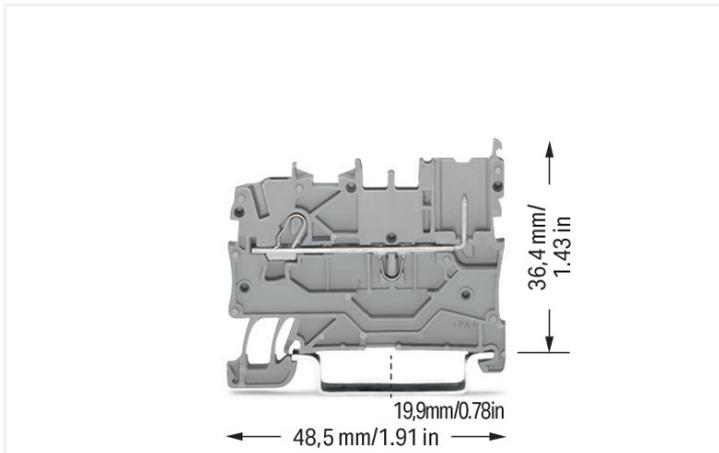# Data Sheet | Item Number: 2020-1201

1-conductor/1-pin carrier terminal block; for DIN-rail 35 x 15 and 35 x 7.5; Push-in CAGE CLAMP®; 1,00 mm²; gray

https://www.wago.com/2020-1201

Color: ■ gray

1-conductor/1-pin carrier terminal block, 2020 Series, Push-in CAGE CLAMP®

Effortless electrical installations are guaranteed with 1-conductor/1-pin carrier terminal block (item number 2020-1201). Strip lengths must be between 9 and 11 mm when connecting conductors to 1-conductor/1-pin carrier terminal block. Pluggable rail-mount terminal blocks are hugely popular in switchgear and control systems, for example, in railroad technology. They combine the best of rail-mount terminal blocks and connectors to create the perfect solution. Variable wiring systems make pre-assembly easy, which leads to considerable time and cost savings in production, installation, operation, and maintenance. This product incorporates conductor terminals and utilizes Push-in CAGE CLAMP®. Push-in CAGE CLAMP® connection technology is ideal for connecting all conductor types. Solid and fine-stranded conductors with ferrules can be inserted without the need for tools—all thanks to its pluggable design. 1-conductor/1-pin carrier terminal block is suitable for conductor cross sections ranging from 0.14 mm² to 1.5 mm².

This pluggable rail-mount terminal block is operated with an operating tool.

Notes

Safety Information	A separator plate (Item No. 209-191) or a 10 mm end stop (Item No. 249-117) must be placed at the end of a WAGO X-COM®S-SYSTEM terminal strip.

Electrical data

Ratings per	IEC/EN 60947-7-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	500 V	-	-
Rated impulse withstand voltage	6 kV	-	-
Rated current	13.5 A	-	-

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	15 A

Approvals per	CSA 22.2 No 158		
Use group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	10 A	10 A	10 A

Power Loss	
Power loss, per pole (potential)	0.4338 W
Rated current I_N for power loss specification	13.5 A
Resistance value for specified, current-dependent power loss	0.00238 Ω

General information

Wiring direction	Front-entry wiring

Connection Data

Clamping units	1
Female plug slots	1
Total number of potentials	1
Number of levels	1

Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper
Nominal cross-section	1 mm²
Solid conductor	0.14 … 1.5 mm² / 24 … 16 AWG
Solid conductor; push-in termination	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.14 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.14 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor; with ferrule; push-in termination	0.5 … 0.75 mm² / 20 … 18 AWG
Note (conductor cross-section)	Depending on the conductor characteristic, a conductor with a smaller cross-section can also be inserted via push-in termination.
Strip length	9 … 11 mm / 0.35 … 0.43 inches
Wiring direction	Front-entry wiring

Physical data

Width	3.5 mm / 0.138 inches
Height	48.5 mm / 1.909 inches
Depth from upper-edge of DIN-rail	36.4 mm / 1.433 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	gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.082 MJ
Weight	3.6 g

Environmental requirements

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

Environmental Testing

Test specification: Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06
Test procedure: Railway applications – Rolling stock equipment – Vibration and shock tests	DIN EN 61373 (VDE 0115-0106):2011-04
Spectrum/Mounting location	Service life test, Category 1, Class A/B

Environmental Testing

Functional test with noise-like oscillations	Test passed according to Section 8 of the standard
Frequency	f_1 = 5 Hz to f_2 = 150 Hz
Acceleration	0.101g (highest test level used for all axes)
Test duration per axis	10 min.
Test directions	X, Y and Z axes
Monitoring of contact faults and interruptions	Passed
Voltage drop measurement before and after each axis	Passed
Simulated service life test through increased levels of noise-like oscillations	Test passed according to Section 9 of the standard
Frequency	f_1 = 5 Hz to f_2 = 150 Hz
Acceleration	0.572g (highest test level used for all axes)
Test duration per axis	5 h
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Shock test	Test passed according to Section 10 of the standard
Shock pulse form	Half sine
Acceleration	5g (highest test level used for all axes)
Shock duration	30 ms
Number of shocks (per axis)	3 pos. und 3 neg.
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Vibration and shock stress for rolling stock equipment	Passed

Commercial data

Product Group	18 (X-COM-System)
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	CN
GTIN	4050821145387
Customs tariff number	85366990990

Product Classification

UNSPSC	39121410
eCl@ss 10.0	27-14-11-20
eCl@ss 9.0	27-14-11-20
ETIM 9.0	EC000897
ETIM 10.0	EC000897
ECCN	NO US CLASSIFICATION

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 7617
CSA DEKRA Certification B.V.	C22.2	2516073
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-100670
UL UL International Germany GmbH	UL 1059	E 45172

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
Railway WAGO GmbH & Co. KG	-	Z00004390.000
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications

Approval	Standard	Certificate Name
ABS American Bureau of Shipping	EN 60947	24-0152298-PDA
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2
PRS Polski Rejestr Statków	-	TE/1094/880590/23

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2020-1201	↓

Documentation

Bid Text

2020-1201	07.08.2018	docx 15.03 KB	↓
2020-1201	19.02.2019	xml 4.14 KB	↓

CAD/CAE-Data

CAD data

2D/3D Models 2020-1201	↓

CAE data

EPLAN Data Portal 2020-1201	↓
WSCAD Universe 2020-1201	↓
ZUKEN Portal 2020-1201	↓

1 Compatible Products

1.1 System counterpart

1.1.1 Female connector/socket

Item No.: 2020-102
1-conductor female connector; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 2-pole; 1,50 mm²; gray

Item No.: 2020-202
2-conductor female connector; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 2-pole; 1,50 mm²; gray

1.2 Required Accessories

1.2.1 End plate

1.2.1.1 End plate

Item No.: 2020-1291
End and intermediate plate; 1 mm thick; gray

Item No.: 2020-1292
End and intermediate plate; 1 mm thick; orange

1.3 Optional Accessories

1.3.1 Coding

1.3.1.1 Coding

Item No.: 2020-100
Carrier with 6 coding pins; for coding of female plugs; for carrier terminal blocks; orange

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1.3.2 DIN-rail

1.3.2.1 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.: 210-198
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

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

1.3.3 Ferrule

1.3.3.1 Ferrule

Item No.: 216-241
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white

Item No.: 216-242
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

Item No.: 216-243
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

1.3.4 Jumper

1.3.4.1 Jumper

Item No.: 2000-406/020-000
Delta jumper; insulated; light gray

Item No.: 2000-410/000-006
Jumper; 10-way; insulated; blue

Item No.: 2000-410
Jumper; 10-way; insulated; light gray

Item No.: 2000-410/000-005
Jumper; 10-way; insulated; red

Item No.: 2000-402/000-006
Jumper; 2-way; insulated; blue

Item No.: 2000-402
Jumper; 2-way; insulated; light gray

Item No.: 2000-402/000-005
Jumper; 2-way; insulated; red

Item No.: 2000-402/000-018
Jumper; 2-way; insulated; yellow-green

Item No.: 2000-403/000-006
Jumper; 3-way; insulated; blue

Item No.: 2000-403
Jumper; 3-way; insulated; light gray

Item No.: 2000-403/000-005
Jumper; 3-way; insulated; red

Item No.: 2000-404/000-006
Jumper; 4-way; insulated; blue

Item No.: 2000-404
Jumper; 4-way; insulated; light gray

Item No.: 2000-404/000-005
Jumper; 4-way; insulated; red

Item No.: 2000-405/000-006
Jumper; 5-way; insulated; blue

Item No.: 2000-405
Jumper; 5-way; insulated; light gray

Item No.: 2000-405/000-005
Jumper; 5-way; insulated; red

Item No.: 2000-406/000-006
Jumper; 6-way; insulated; blue

Item No.: 2000-406
Jumper; 6-way; insulated; light gray

Item No.: 2000-406/000-005
Jumper; 6-way; insulated; red

Item No.: 2000-407/000-006
Jumper; 7-way; insulated; blue

Item No.: 2000-407
Jumper; 7-way; insulated; light gray

Item No.: 2000-407/000-005
Jumper; 7-way; insulated; red

Item No.: 2000-408/000-006
Jumper; 8-way; insulated; blue

Item No.: 2000-408
Jumper; 8-way; insulated; light gray

Item No.: 2000-408/000-005
Jumper; 8-way; insulated; red

Item No.: 2000-409/000-006
Jumper; 9-way; insulated; blue

Item No.: 2000-409
Jumper; 9-way; insulated; light gray

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1.3.4.1 Jumper

Item No.: 2000-409/000-005	Item No.: 2000-440	Item No.: 2000-433/000-006	Item No.: 2000-433
Jumper; 9-way; insulated; red	Jumper; from 1 to 10; insulated; light gray	Jumper; from 1 to 3; insulated; blue	Jumper; from 1 to 3; insulated; light gray
Item No.: 2000-433/000-005	Item No.: 2000-434	Item No.: 2000-435	Item No.: 2000-436
Jumper; from 1 to 3; insulated; red	Jumper; from 1 to 4; insulated; light gray	Jumper; from 1 to 5; insulated; light gray	Jumper; from 1 to 6; insulated; light gray
Item No.: 2000-437	Item No.: 2000-438	Item No.: 2000-439	Item No.: 2000-405/011-000
Jumper; from 1 to 7; insulated; light gray	Jumper; from 1 to 8; insulated; light gray	Jumper; from 1 to 9; insulated; light gray	Star point jumper; 3-way; insulated; light gray

Item No.: 210-103	Item No.: 210-123
Wire commoning chain; insulated; black	Wire commoning chain; insulated; blue

1.3.5 Marking

1.3.5.1 Marker

Item No.: 793-3501	Item No.: 2009-113
WMB marking card; as card; plain; snap-on type; white	WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; white

1.3.5.2 Marking strip

Item No.: 2009-110
Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

1.3.6 Protective warning marker

1.3.6.1 Cover

Item No.: 2000-115
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

1.3.7 Push-in type wire jumper

1.3.7.1 Jumper

Item No.: 2009-404	Item No.: 2009-406	Item No.: 2009-402
Push-in type wire jumper; 0.75 mm²; insulated; 110 mm long; gray	Push-in type wire jumper; 0.75 mm²; insulated; 250 mm long; gray	Push-in type wire jumper; 0.75 mm²; insulated; 60 mm long; gray

1.3.8 Screwless end stop

1.3.8.1 Mounting accessories

Item No.: 249-117
Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

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

1.3.9 Test and measurement

1.3.9.1 Testing accessories

Item No.: 2000-560
Modular TOPJOB®S connector; modular; for jumper contact slot; 10-pole; gray

Item No.: 2000-552
Modular TOPJOB®S connector; modular; for jumper contact slot; 2-pole; gray

Item No.: 2000-553
Modular TOPJOB®S connector; modular; for jumper contact slot; 3-pole; gray

Item No.: 2000-554
Modular TOPJOB®S connector; modular; for jumper contact slot; 4-pole; gray

Item No.: 2000-555
Modular TOPJOB®S connector; modular; for jumper contact slot; 5-pole; gray

Item No.: 2000-556
Modular TOPJOB®S connector; modular; for jumper contact slot; 6-pole; gray

Item No.: 2000-557
Modular TOPJOB®S connector; modular; for jumper contact slot; 7-pole; gray

Item No.: 2000-558
Modular TOPJOB®S connector; modular; for jumper contact slot; 8-pole; gray

Item No.: 2000-559
Modular TOPJOB®S connector; modular; for jumper contact slot; 9-pole; gray

Item No.: 2000-549
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

Item No.: 2000-511
TOPJOB®S L-type test plug module; modular; for jumper contact slot; 1-pole; gray

Item No.: 2000-510
TOPJOB®S L-type test plug module; modular; for jumper contact slot; gray

Item No.: 859-500
WAGO Test pin; 1 mm Ø; 30 V AC / 60 V DC; CAT0; 1 A; 10 mm uninsulated; Test lead for soldering up to 0,5mm²

1.3.10 Tool

1.3.10.1 Operating tool

Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Item No.: 210-648
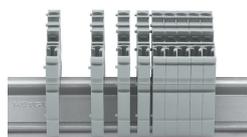Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; angled; short

Item No.: 210-647
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured
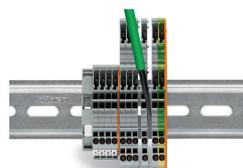
Installation Notes

Installation

Snap individual carrier terminal blocks onto the DIN-rail and slide together.

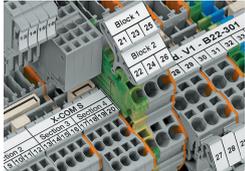Open the assembly by laterally sliding a block via operating tool (3.5 x 0.5 mm blade).

Separate terminal block assembly and slide individual terminal blocks laterally using an operating tool.

Conductor termination

Push-in CAGE CLAMP® enables solid conductors to be connected by simply pushing them into the unit.

Commoning

Commoning X-COM®S-SYSTEM Terminal Blocks using jumpers for TOPJOB® S Terminal Blocks. An end plate provides connection to TOPJOB® S Terminal Blocks. 2020 and 2022 Series Terminal Blocks are combinable. Jumper slots are on the same level for both series.

Pairing push-in comb style jumpers.

Commoning with push-in type wire jumper.

Testing

Test plug adapter (Item No. 2009-174) for 4 mm test plugs or banana plugs – also suitable for X-COM®S-SYSTEM-MINI Terminal Blocks.

Coding

Insert coding pin into the corresponding slot and twist it off.

Coding a female plug: remove coding finger using a suitable tool.

Insert a coding pin (Item No. 2022-100) into the corresponding location of the carrier terminal block.
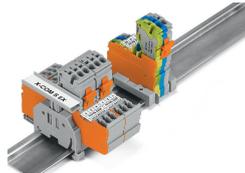

Carrier terminal block

WAGO

1-conductor female plug
Carrier terminal blocks can be commoned via 2000 Series Push-In Type Jumper Bars and tested via 859-500 Test Pin.

Marking

Clear marking via large marking area

Group marking with height-adjustable group marker carrier (Item No. 2009-163)

Security

Carrier terminal blocks and female plugs are touch-proof.

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

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