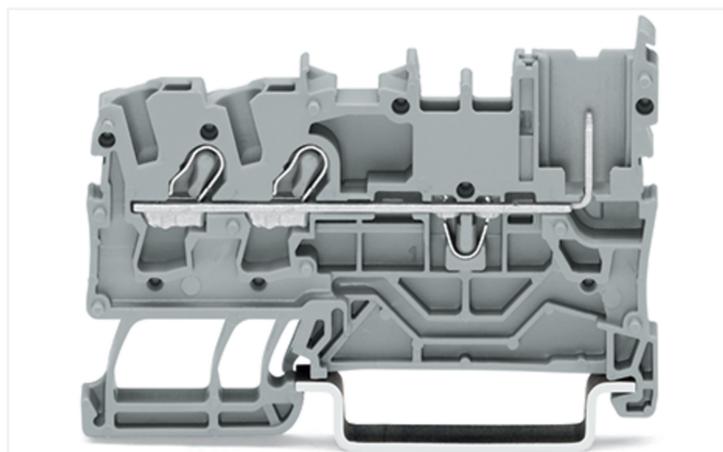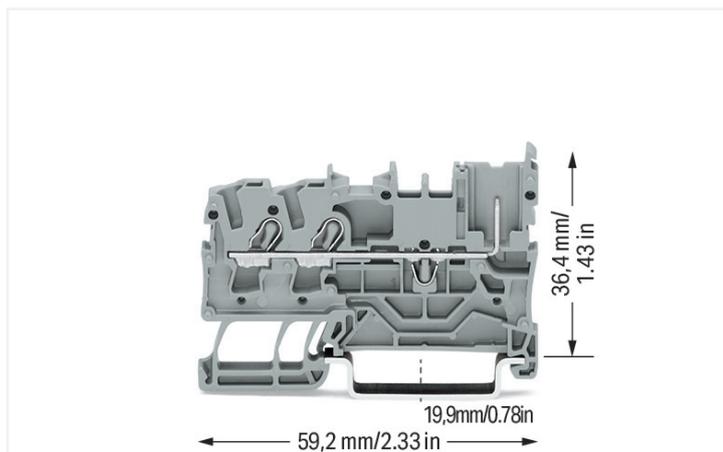# Data Sheet | Item Number: 2022-1301

2-conductor/1-pin carrier terminal block; 2.5 mm²; for DIN-rail 35 x 15 and 35 x 7.5; Push-in CAGE CLAMP®; 2,50 mm²; gray

https://www.wago.com/2022-1301

Color: ■ gray

Through terminal block, 2022 Series, operating tool

This through terminal block (item number 2022-1301) streamlines wire connections, making them both quick and easy. Whether for use in industry or building installations, our rail-mount through terminal blocks make it easy to quickly and securely connect electrical conductors. They're perfect for either classic through-wiring or distributing potential, depending on the variant. Rated current and voltage are important parameters when choosing a pluggable rail-mount terminal block, as they determine the product's suitability for different applications. This product has a rated voltage of 690 V and a rated current of 24 A. Strip lengths must be between 10 mm and 12 mm when connecting conductors to this through terminal block. Featuring conductor terminals along with Push-in CAGE CLAMP®, this connector delivers reliable performance. Push-in CAGE CLAMP® connection technology is ideal for connecting all conductor types. Both solid and fine-stranded conductors with ferrules can be plugged in without the need for tools—all thanks to its pluggable design. This through terminal block is suitable for conductor cross sections ranging from 0.25 mm² to 4 mm². It has one level. The single potential can connect using the two clamping points The gray housing is made of polyamide (PA66) for insulation. This pluggable rail-mount terminal block is operated with an operating tool. These pluggable rail-mount terminal blocks are mounted using DIN-35 rails.. You can connect copper conductors via front-entry wiring.

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	690 V	-	-
Rated impulse withstand voltage	6 kV	-	-
Rated current	24 A	-	-
Current at conductor cross-section (max.) mm²	32 A	-	-

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	20 A	20 A	-

Approvals per	CSA 22.2 No 158		
Use group	B	C	D
Rated voltage	-	600 V	-
Rated current	-	20 A	-

Power Loss	
Power loss, per pole (potential)	0.7661 W
Rated current I_N for power loss specification	24 A
Resistance value for specified, current-dependent power loss	0.00133 Ω

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Connection data

Clamping units	2
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	2.5 mm²
Solid conductor	0.25 … 4 mm² / 22 … 12 AWG
Solid conductor; push-in termination	1 … 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 characteristic, a conductor with a smaller cross-section can also be inserted via push-in 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	59.2 mm / 2.331 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	0.136 MJ
Weight	6.3 g

Environmental requirements

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

Commercial data

Product Group	18 (X-COM-System)
PU (SPU)	100 pcs
Packaging type	Box
Country of origin	CN
GTIN	4050821145127
Customs tariff number	85366990990

Product Classification

UNSPSC	39121410
eCl@ss 10.0	27-14-11-41
eCl@ss 9.0	27-14-11-20
ETIM 9.0	EC000897
ETIM 8.0	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 CCA NL-7864
CSA DEKRA Certification B.V.	C22.2 No. 158	2437422
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-116567
UL Underwriters Laboratories Inc.	UL 1059	E45172

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
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

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2022-1301	⤓

Documentation

Bid Text

2022-1301	19.02.2019	xml 4.01 KB	⤓
2022-1301	14.05.2019	docx 15.34 KB	⤓

CAD/CAE-Data

CAD data

2D/3D Models 2022-1301	⤓

CAE data

EPLAN Data Portal 2022-1301	⤓
WSCAD Universe 2022-1301	⤓
ZUKEN Portal 2022-1301	⤓

1 Compatible Products

1.1 System counterpart

1.1.1 Female connector/socket

Item No.: 2022-101
1-conductor female connector; Push-in CAGE CLAMP®; 4 mm²; Pin spacing 5.2 mm; 1-pole; 4,00 mm²; gray

1.2 Required Accessories

1.2.1 End plate

1.2.1.1 End plate

Item No.: 2022-1391
End and intermediate plate; 1 mm thick; gray

Item No.: 2022-1392
End and intermediate plate; 1 mm thick; orange

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1.3 Optional Accessories

1.3.1 Coding

1.3.1.1 Coding

Item No.: 2022-100
Carrier with 6 coding pins; for coding of female plugs; orange

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.: 216-262
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

Item No.: 216-263
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

Item No.: 216-244
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.: 216-264
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.: 216-284
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.: 216-246
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.: 216-266
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.: 216-286
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

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1.3.4 Insulation stop

1.3.4.1 Insulation stop

Item No.: 2002-171
Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip; light gray

Item No.: 2002-172
Insulation stop; 0.75 - 1 mm²; 5 pieces/strip; dark gray

1.3.5 Jumper

1.3.5.1 Jumper

Item No.: 2002-400
Continuous jumper; 2-way; insulated; light gray

Item No.: 2002-413
Continuous jumper; 3-way; insulated; light gray

Item No.: 2002-415
Continuous jumper; 5-way; insulated; light gray

Item No.: 2002-423/000-006
Continuous jumper; from 1 to 3; insulated; blue

Item No.: 2002-423
Continuous jumper; from 1 to 3; insulated; light gray

Item No.: 2002-423/000-005
Continuous jumper; from 1 to 3; insulated; red

Item No.: 2002-424/000-006
Continuous jumper; from 1 to 4; insulated; blue

Item No.: 2002-424
Continuous jumper; from 1 to 4; insulated; light gray

Item No.: 2002-424/000-005
Continuous jumper; from 1 to 4; insulated; red

Item No.: 2002-406/020-000
Delta jumper; insulated; light gray

Item No.: 2002-410/000-006
Jumper; 10-way; insulated; blue

Item No.: 2002-410
Jumper; 10-way; insulated; light gray

Item No.: 2002-410/000-005
Jumper; 10-way; insulated; red

Item No.: 2002-402/000-006
Jumper; 2-way; insulated; blue

Item No.: 2002-402
Jumper; 2-way; insulated; light gray

Item No.: 2002-402/000-005
Jumper; 2-way; insulated; red

Item No.: 2002-403/000-006
Jumper; 3-way; insulated; blue

Item No.: 2002-403
Jumper; 3-way; insulated; light gray

Item No.: 2002-403/000-005
Jumper; 3-way; insulated; red

Item No.: 2002-404/000-006
Jumper; 4-way; insulated; blue

Item No.: 2002-404
Jumper; 4-way; insulated; light gray

Item No.: 2002-404/000-005
Jumper; 4-way; insulated; red

Item No.: 2002-405/000-006
Jumper; 5-way; insulated; blue

Item No.: 2002-405
Jumper; 5-way; insulated; light gray

Item No.: 2002-405/000-005
Jumper; 5-way; insulated; red

Item No.: 2002-406/000-006
Jumper; 6-way; insulated; blue

Item No.: 2002-406
Jumper; 6-way; insulated; light gray

Item No.: 2002-406/000-005
Jumper; 6-way; insulated; red

Item No.: 2002-407/000-006
Jumper; 7-way; insulated; blue

Item No.: 2002-407
Jumper; 7-way; insulated; light gray

Item No.: 2002-407/000-005
Jumper; 7-way; insulated; red

Item No.: 2002-408/000-006
Jumper; 8-way; insulated; blue

Item No.: 2002-408
Jumper; 8-way; insulated; light gray

Item No.: 2002-408/000-005
Jumper; 8-way; insulated; red

Item No.: 2002-409/000-006
Jumper; 9-way; insulated; blue

Item No.: 2002-409
Jumper; 9-way; insulated; light gray

Item No.: 2002-409/000-005
Jumper; 9-way; insulated; red

Item No.: 2002-440
Jumper; from 1 to 10; insulated; light gray

Item No.: 2002-433
Jumper; from 1 to 3; insulated; light gray

Item No.: 2002-434
Jumper; from 1 to 4; insulated; light gray

Item No.: 2002-435
Jumper; from 1 to 5; insulated; light gray

Item No.: 2002-436
Jumper; from 1 to 6; insulated; light gray

Item No.: 2002-437
Jumper; from 1 to 7; insulated; light gray

Item No.: 2002-438
Jumper; from 1 to 8; insulated; light gray

1.3.5.1 Jumper

Item No.: 2002-439	Item No.: 2002-480	Item No.: 2002-481	Item No.: 2002-482
Jumper; from 1 to 9; insulated; light gray	Staggered jumper; 10-way; insulated; light gray	Staggered jumper; 11-way; insulated; light gray	Staggered jumper; 12-way; insulated; light gray

Item No.: 2002-473/011-000	Item No.: 2002-472	Item No.: 2002-473	Item No.: 2002-475/011-000
Staggered jumper; 2-way; from 1 to 3; insulated; light gray	Staggered jumper; 2-way; insulated; light gray	Staggered jumper; 3-way; insulated; light gray	Staggered jumper; 3-way; insulated; light gray

Item No.: 2002-474	Item No.: 2002-475	Item No.: 2002-476	Item No.: 2002-477
Staggered jumper; 4-way; insulated; light gray	Staggered jumper; 5-way; insulated; light gray	Staggered jumper; 6-way; insulated; light gray	Staggered jumper; 7-way; insulated; light gray

Item No.: 2002-478	Item No.: 2002-479	Item No.: 2002-477/011-000	Item No.: 2002-479/011-000
Staggered jumper; 8-way; insulated; light gray	Staggered jumper; 9-way; insulated; light gray	Staggered jumper; insulated; light gray	Staggered jumper; insulated; light gray

Item No.: 2002-481/011-000	Item No.: 2002-405/011-000	Item No.: 210-103	Item No.: 210-123
Staggered jumper; insulated; light gray	Star point jumper; 3-way; insulated; light gray	Wire commoning chain; insulated; black	Wire commoning chain; insulated; blue

1.3.6 Marking

1.3.6.1 Group marker carrier

Item No.: 2009-191	Item No.: 2009-192	Item No.: 2009-193
Group marker carrier; gray	Group marker carrier; gray	Group marker carrier; gray

1.3.6.2 Marker

Item No.: 2009-145	Item No.: 248-501	Item No.: 793-5501	Item No.: 2009-115
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white	WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white	WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

1.3.6.3 Marker carrier

Item No.: 2002-161	Item No.: 2009-198
Adaptor; gray	Adaptor; gray

1.3.6.4 Marking strip

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

1.3.7 Protective warning marker

1.3.7.1 Cover

Item No.: 2002-115
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

1.3.8 Push-in type wire jumper

1.3.8.1 Jumper

Item No.: 2009-414
Push-in type wire jumper; 1.5 mm²; insulated; 110 mm long; black

Item No.: 2009-414/000-005
Push-in type wire jumper; 1.5 mm²; insulated; 110 mm long; black

Item No.: 2009-416
Push-in type wire jumper; 1.5 mm²; insulated; 250 mm long; black

Item No.: 2009-414/000-006
Push-in type wire jumper; insulated; 110 mm long; black

Item No.: 2009-412
Push-in type wire jumper; insulated; 60 mm long; black

1.3.9 Screwless end stop

1.3.9.1 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

1.3.10 Test and measurement

1.3.10.1 Testing accessories

Item No.: 2002-560
Modular TOPJOB®S connector; modular; for jumper contact slot; 10-pole; gray

Item No.: 2002-511
Modular TOPJOB®S connector; modular; for jumper contact slot; 1-pole; gray

Item No.: 2002-552
Modular TOPJOB®S connector; modular; for jumper contact slot; 2-pole; gray

Item No.: 2002-553
Modular TOPJOB®S connector; modular; for jumper contact slot; 3-pole; gray

Item No.: 2002-554
Modular TOPJOB®S connector; modular; for jumper contact slot; 4-pole; gray

Item No.: 2002-555
Modular TOPJOB®S connector; modular; for jumper contact slot; 5-pole; gray

Item No.: 2002-556
Modular TOPJOB®S connector; modular; for jumper contact slot; 6-pole; gray

Item No.: 2002-557
Modular TOPJOB®S connector; modular; for jumper contact slot; 7-pole; gray

Item No.: 2002-558
Modular TOPJOB®S connector; modular; for jumper contact slot; 8-pole; gray

Item No.: 2002-559
Modular TOPJOB®S connector; modular; for jumper contact slot; 9-pole; gray

Item No.: 2002-549
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.: 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

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1.3.11 Tool

1.3.11.1 Operating tool

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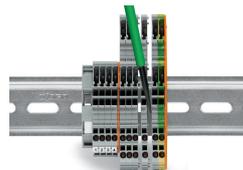
Installation Notes

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.
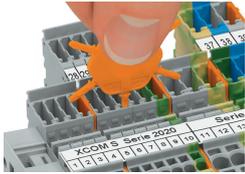
Pairing push-in comb style jumpers.
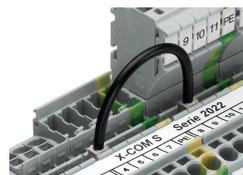
Commoning with push-in type wire jumper.

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.
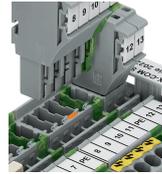
Coding

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

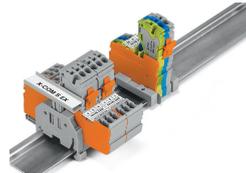Coding a female plug: remove coding finger using a suitable tool.

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

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.