

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®-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 surge 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 specified power loss		24 A		
Resistance value for specified, current-dependent power loss		0.00133 Ω		



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			Declarations of conformity and manufacturer's declarations		
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR CCA NL-7864	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
CSA DEKRA Certification B.V.	C22.2 No. 158	2437422	UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-116567			
UL Underwriters Laboratories Inc.	UL 1059	E45172			

Approvals for marine applications

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



Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2022-1301

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Documentation

Bid Text			
2022-1301	19.02.2019	xml 4.01 KB	Download icon
2022-1301	14.05.2019	docx 15.34 KB	Download icon

CAD/CAE-Data

CAD data

2D/3D Models
2022-1301

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CAE data

EPLAN Data Portal
2022-1301

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WSCAD Universe
2022-1301

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ZUKEN Portal
2022-1301

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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



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; unslopped; similar to EN 60715; silver-colored



Item No.: 210-198
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslopped; according to EN 60715; copper-colored



Item No.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slopped; similar to EN 60715; silver-colored



Item No.: 210-114
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslopped; similar to EN 60715; silver-colored



Item No.: 210-118
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslopped; according to EN 60715; silver-colored



Item No.: 210-115
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slopped; 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; slopped; 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; unslopped; 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



1.3.4 Insulation stop			
1.3.4.1 Insulation stop			
			
<p>Item No.: 2002-171 Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip; light gray</p>	<p>Item No.: 2002-172 Insulation stop; 0.75 - 1 mm²; 5 pieces/strip; dark gray</p>		
1.3.5 Jumper			
1.3.5.1 Jumper			
			
<p>Item No.: 2002-400 Continuous jumper; 2-way; insulated; light gray</p>	<p>Item No.: 2002-413 Continuous jumper; 3-way; insulated; light gray</p>	<p>Item No.: 2002-415 Continuous jumper; 5-way; insulated; light gray</p>	<p>Item No.: 2002-423/000-006 Continuous jumper; from 1 to 3; insulated; blue</p>
			
<p>Item No.: 2002-423 Continuous jumper; from 1 to 3; insulated; light gray</p>	<p>Item No.: 2002-423/000-005 Continuous jumper; from 1 to 3; insulated; red</p>	<p>Item No.: 2002-424/000-006 Continuous jumper; from 1 to 4; insulated; blue</p>	<p>Item No.: 2002-424 Continuous jumper; from 1 to 4; insulated; light gray</p>
			
<p>Item No.: 2002-424/000-005 Continuous jumper; from 1 to 4; insulated; red</p>	<p>Item No.: 2002-406/020-000 Delta jumper; insulated; light gray</p>	<p>Item No.: 2002-410/000-006 Jumper; 10-way; insulated; blue</p>	<p>Item No.: 2002-410 Jumper; 10-way; insulated; light gray</p>
			
<p>Item No.: 2002-410/000-005 Jumper; 10-way; insulated; red</p>	<p>Item No.: 2002-402/000-006 Jumper; 2-way; insulated; blue</p>	<p>Item No.: 2002-402 Jumper; 2-way; insulated; light gray</p>	<p>Item No.: 2002-402/000-005 Jumper; 2-way; insulated; red</p>
			
<p>Item No.: 2002-403/000-006 Jumper; 3-way; insulated; blue</p>	<p>Item No.: 2002-403 Jumper; 3-way; insulated; light gray</p>	<p>Item No.: 2002-403/000-005 Jumper; 3-way; insulated; red</p>	<p>Item No.: 2002-404/000-006 Jumper; 4-way; insulated; blue</p>
			
<p>Item No.: 2002-404 Jumper; 4-way; insulated; light gray</p>	<p>Item No.: 2002-404/000-005 Jumper; 4-way; insulated; red</p>	<p>Item No.: 2002-405/000-006 Jumper; 5-way; insulated; blue</p>	<p>Item No.: 2002-405 Jumper; 5-way; insulated; light gray</p>
			
<p>Item No.: 2002-405/000-005 Jumper; 5-way; insulated; red</p>	<p>Item No.: 2002-406/000-006 Jumper; 6-way; insulated; blue</p>	<p>Item No.: 2002-406 Jumper; 6-way; insulated; light gray</p>	<p>Item No.: 2002-406/000-005 Jumper; 6-way; insulated; red</p>
			
<p>Item No.: 2002-407/000-006 Jumper; 7-way; insulated; blue</p>	<p>Item No.: 2002-407 Jumper; 7-way; insulated; light gray</p>	<p>Item No.: 2002-407/000-005 Jumper; 7-way; insulated; red</p>	<p>Item No.: 2002-408/000-006 Jumper; 8-way; insulated; blue</p>
			
<p>Item No.: 2002-408 Jumper; 8-way; insulated; light gray</p>	<p>Item No.: 2002-408/000-005 Jumper; 8-way; insulated; red</p>	<p>Item No.: 2002-409/000-006 Jumper; 9-way; insulated; blue</p>	<p>Item No.: 2002-409 Jumper; 9-way; insulated; light gray</p>
			
<p>Item No.: 2002-409/000-005 Jumper; 9-way; insulated; red</p>	<p>Item No.: 2002-440 Jumper; from 1 to 10; insulated; light gray</p>	<p>Item No.: 2002-433 Jumper; from 1 to 3; insulated; light gray</p>	<p>Item No.: 2002-434 Jumper; from 1 to 4; insulated; light gray</p>
			
<p>Item No.: 2002-435 Jumper; from 1 to 5; insulated; light gray</p>	<p>Item No.: 2002-436 Jumper; from 1 to 6; insulated; light gray</p>	<p>Item No.: 2002-437 Jumper; from 1 to 7; insulated; light gray</p>	<p>Item No.: 2002-438 Jumper; from 1 to 8; insulated; light gray</p>



1.3.5.1 Jumper



[Item No.: 2002-439](#)
Jumper; from 1 to 9; insulated; light gray



[Item No.: 2002-480](#)
Staggered jumper; 10-way; insulated; light gray



[Item No.: 2002-481](#)
Staggered jumper; 11-way; insulated; light gray



[Item No.: 2002-482](#)
Staggered jumper; 12-way; insulated; light gray



[Item No.: 2002-473/011-000](#)
Staggered jumper; 2-way; from 1 to 3; insulated; light gray



[Item No.: 2002-472](#)
Staggered jumper; 2-way; insulated; light gray



[Item No.: 2002-473](#)
Staggered jumper; 3-way; insulated; light gray



[Item No.: 2002-475/011-000](#)
Staggered jumper; 3-way; insulated; light gray



[Item No.: 2002-474](#)
Staggered jumper; 4-way; insulated; light gray



[Item No.: 2002-475](#)
Staggered jumper; 5-way; insulated; light gray



[Item No.: 2002-476](#)
Staggered jumper; 6-way; insulated; light gray



[Item No.: 2002-477](#)
Staggered jumper; 7-way; insulated; light gray



[Item No.: 2002-478](#)
Staggered jumper; 8-way; insulated; light gray



[Item No.: 2002-479](#)
Staggered jumper; 9-way; insulated; light gray



[Item No.: 2002-477/011-000](#)
Staggered jumper; insulated; light gray



[Item No.: 2002-479/011-000](#)
Staggered jumper; insulated; light gray



[Item No.: 2002-481/011-000](#)
Staggered jumper; insulated; light gray



[Item No.: 2002-405/011-000](#)
Star point jumper; 3-way; insulated; light gray



[Item No.: 210-103](#)
Wire commoning chain; insulated; black



[Item No.: 210-123](#)
Wire commoning chain; insulated; blue

1.3.6 Marking

1.3.6.1 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

1.3.6.2 Marker



[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.: 248-501](#)
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white



[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.: 2009-115](#)
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](#)
Adaptor; gray



[Item No.: 2009-198](#)
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

1.3.11 Tool

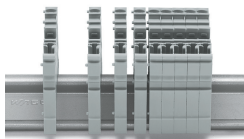
1.3.11.1 Operating tool



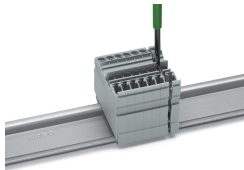
Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

Installation Notes

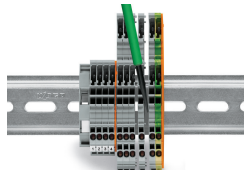
Installation



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

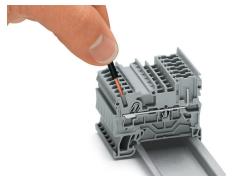


Open the assembly by laterally sliding a block via operating tool (3.5 x 0.5 mm blade).



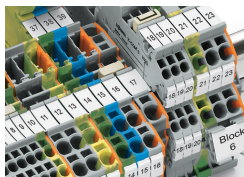
Separate terminal block assembly and slide individual terminal blocks laterally using an operating tool.

Conductor termination

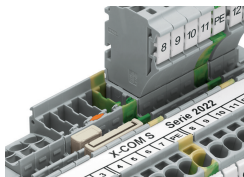


Push-in CAGE CLAMP® enables solid conductors to be connected by simply pushing them into the unit.

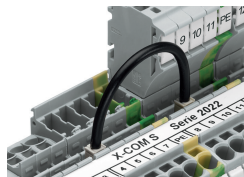
Commoning



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.

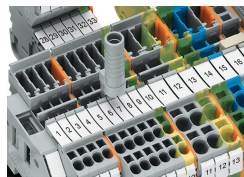


Pairing push-in comb style jumpers.



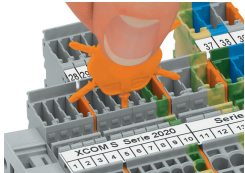
Commoning with push-in type wire jumper.

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.

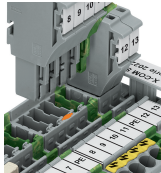
Coding



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

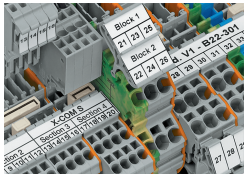


Coding a female plug: remove coding finger using a suitable tool.

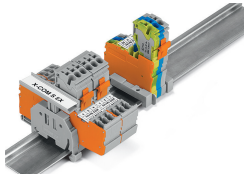


Insert a coding pin (Item No. 2022-100) into the corresponding location of the carrier terminal block.

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.