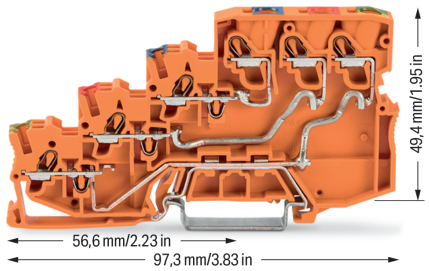
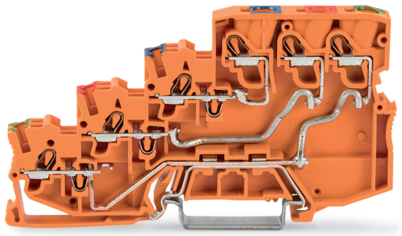
Data Sheet | Item Number: 2000-5457

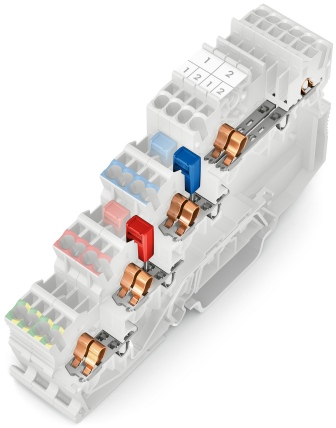
4-conductor sensor supply terminal block; with ground contact; with colored conductor entries; 2.5 mm²; Push-in CAGE CLAMP®; 2,50 mm²; orange

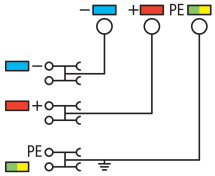
https://www.wago.com/2000-5457





Color: orange





Similar to illustration

Sensor supply terminal block, 2000 Series, Push-in CAGE CLAMP®

Sensor supply terminal block (item number 2000-5457) simplifies electrical installations. Ensure that the strip lengths are between 9 and 11 mm when connecting conductors to sensor supply terminal block. This product features 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 plugged in without the need for tools—all thanks to its pluggable design. Depending on the type of conductor, sensor supply terminal block is suitable for conductor cross sections ranging from 0.14 mm² to 1.5 mm² on one side and for conductor cross sections from 0.25 mm² to 4 mm² on the other side.

Electrical data

Ratings per	IEC/EN 60947-7-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	-	-	-
Rated impulse withstand voltage	-	-	-
Rated current	-	-	-

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	20 A

Approvals per	CSA 22.2 No 158		
Use group	B	C	D
Rated voltage	-	300 V	-
Rated current	-	20 A	-

Power Loss	
Power loss, per pole (potential)	1.0427 W
Rated current I_N for power loss specification	28 A
Resistance value for specified, current-dependent power loss	0.00133 Ω

General information	
Wiring direction	Front-entry wiring

Connection Data

Clamping units	9
Total number of potentials	3
Number of levels	4
Number of jumper slots	3

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

Connection 2	
Solid conductor	0.25 … 4 mm² / 22 … 12 AWG
Solid conductor, push-in termination	0.25 … 4 mm² / 22 … 12 AWG
Fine-stranded conductor	0.25 … 4 mm² / 22 … 12 AWG

Physical data

Width	7 mm / 0.276 inches
Height	97.3 mm / 3.831 inches
Depth from upper-edge of DIN-rail	49.4 mm / 1.945 inches

Mechanical data

Mounting type	DIN-35 rail
Marking level	Center/side marking

Continued on next page

Material data

Note (material data)	Information on material specifications can be found here
Color	orange
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.318 MJ
Weight	23 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
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

Continued on next page

Commercial data

PU (SPU)	15 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143504591
Customs tariff number	85369010000

Product Classification

UNSPSC	39121410
eCl@ss 10.0	27-14-11-28
eCl@ss 9.0	27-14-11-28
ETIM 9.0	EC000900
ETIM 10.0	EC000900
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 7962
CSA DEKRA Certification B.V.	C22.2	2130762
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-125928
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	-	-
Railway WAGO GmbH & Co. KG	-	Railway Ready
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2000-5457

Continued on next page

Documentation

Bid Text

2000-5457	19.02.2019	xml 3.95 KB
2000-5457	07.08.2018	docx 15.06 KB

CAD/CAE-Data

CAD data

2D/3D Models 2000-5457

CAE data

EPLAN Data Portal 2000-5457

ZUKEN Portal 2000-5457

1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



Item No.: 2000-5491
End and intermediate plate; 1 mm thick; for 4-conductor terminal blocks; gray

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.: 210-198
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

1.2.2 Ferrule

1.2.2.1 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

1.2.3 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

1.2.4 Jumper

1.2.4.1 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

Continued on next page

1.2.4.1 Jumper



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



Item No.: 2000-409/000-005
Jumper; 9-way; insulated; red

Item No.: 2000-440
Jumper; from 1 to 10; insulated; light gray



Item No.: 2000-433/000-006
Jumper; from 1 to 3; insulated; blue



Item No.: 2000-433
Jumper; from 1 to 3; insulated; light gray



Item No.: 2000-433/000-005
Jumper; from 1 to 3; insulated; red

Item No.: 2000-434
Jumper; from 1 to 4; insulated; light gray

Item No.: 2000-435
Jumper; from 1 to 5; insulated; light gray

Item No.: 2000-436
Jumper; from 1 to 6; insulated; light gray



Item No.: 2000-437
Jumper; from 1 to 7; insulated; light gray



Item No.: 2000-438
Jumper; from 1 to 8; insulated; light gray



Item No.: 2000-439
Jumper; from 1 to 9; insulated; light gray



Item No.: 2000-405/011-000
Star point jumper; 3-way; insulated; light gray



Item No.: 210-103
Wire commoning chain; 0.5 mm²; insulated; black



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

1.2.5 Marking

1.2.5.1 Marker

Item No.: 793-3501
WMB marking card; as card; plain; snap-on type; white



Item No.: 2009-113/000-006
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; blue



Item No.: 2009-113/000-007
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; gray



Item No.: 2009-113/000-023
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; green



Item No.: 2009-113/000-017
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; light green



Item No.: 2009-113/000-012
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; orange



Item No.: 2009-113/000-005
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; red



Item No.: 2009-113/000-024
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; violet



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



Item No.: 2009-113/000-002
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; yellow

1.2.5.2 Marking strip



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

Continued on next page

1.2.6 Protective warning marker

1.2.6.1 Cover



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

1.2.7 Push-in type wire jumper

1.2.7.1 Jumper



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



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



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

1.2.8 Screwless end stop

1.2.8.1 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

1.2.9 Test and measurement

1.2.9.1 Testing accessories

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

1.2.10 Tool

1.2.10.1 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

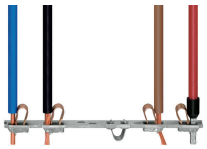


Item No.: 210-647
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

Continued on next page

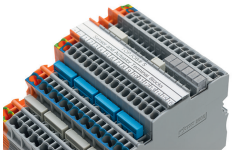
Installation Notes

Conductor termination

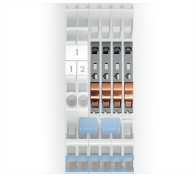


All conductor types at a glance

Commoning

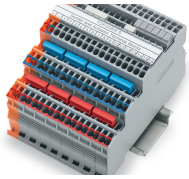


Commoning (signal level):
Commoning the signal level with push-in type jumper bars (2000 Series). Models with an LED can only be commoned in one jumper slot!
TOPJOB® S Test Plug Adapters can be used in all jumper slots.

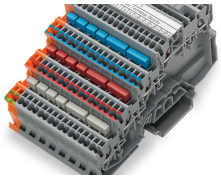


Upper level: Two independent signal path-ways

Commoning



Commoning (potential level):
Commoning potential levels via push-in type jumper bars (2000 Series).

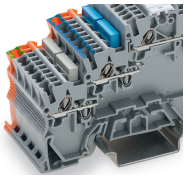


Commoning (potential level):
Continuous commoning in the potential lev-els via push-in type jumper bars for even pole numbers (2000 Series)



Potential levels: Two adjacent commoning options on a current bar

Commoning



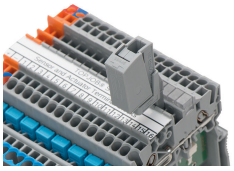
Ground commoning:
For sensor and actuator terminal blocks without ground connection to the DIN-rail, the ground connection can be performed by commoning to the terminal block with a ground foot.



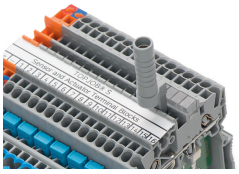
For example, colored push-in type jumper bars are used with sensor terminal blocks.

Continued on next page

Testing

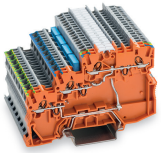


Testing via testing tap (2009-182) (up to max. 42 V).

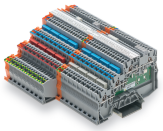


Testing via testing tap (2009-174) (up to max. 42 V).

Application

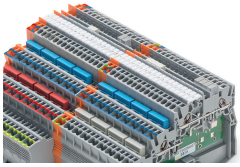


Supply:
Orange supply terminal block of same profile with a power supply option from both the cabinet and sensor sides

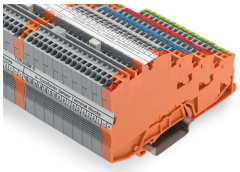


Terminal block assembly with 4-conductor sensor terminal blocks and 3-conductor actuator terminal blocks

Marking



Marking:
3.5 mm WMB markers (793-35xx) from the top or the side – additional marking option via marker carrier



Marking:
Labeling via marking strips (2009-110) – from the top or the side.