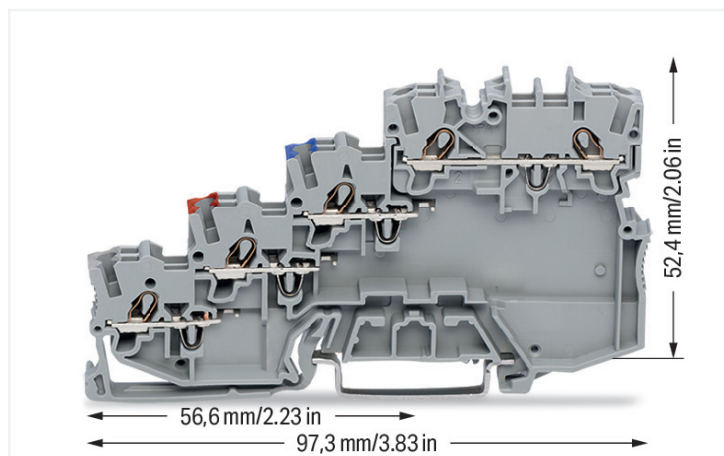


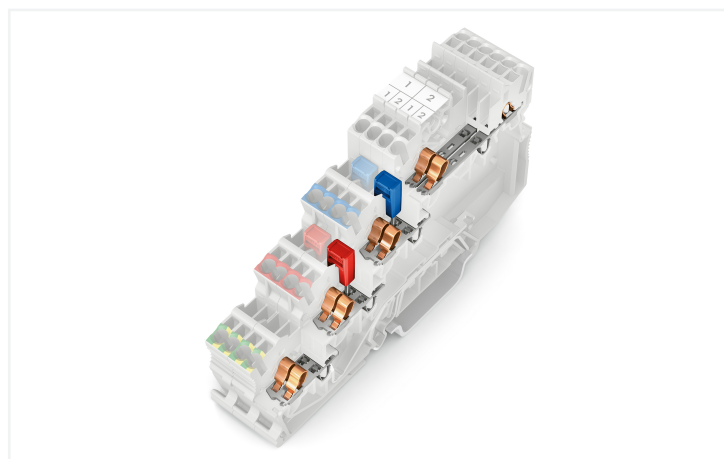
Data Sheet | Item Number: 2000-5410

4-conductor sensor terminal block; with ground connection via push-in type jumper bars; with colored conductor entries; 1 mm²; Push-in CAGE CLAMP®; 1,00 mm²; gray

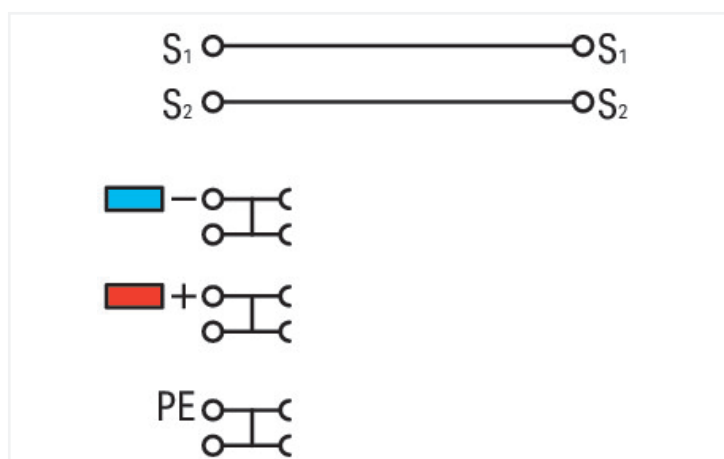
<https://www.wago.com/2000-5410>



Color: ■ gray



Similar to illustration



Sensor terminal block, 2000 Series, gray

Enjoy seamless electrical installations with this sensor terminal block (item number 2000-5410). Conductors can only be connected to this sensor terminal block if their strip length is between 9 mm and 11 mm. This product incorporates conductor terminals and utilizes Push-in CAGE CLAMP®. Push-in CAGE CLAMP® technology provides a universal connection solution for all conductor types. It allows both solid and fine-stranded conductors with ferules to be inserted directly into the clamping point without the need for tools. Depending on the conductor type, this sensor terminal block is ideal for conductor cross sections ranging from 0.14 mm² to 1.5 mm². It comes with four levels and ten clamping points for connecting five potentials. The gray housing is made of polyamide (PA66) for insulation. These function terminal blocks are mounted using DIN-35 rails..



Notes	
Safety Information	Ground connection via commoning to terminal blocks with ground foot

Electrical data				
Ratings per		IEC/EN 60947-7-1		
Overvoltage category		III	III	II
Pollution degree		3	2	2
Nominal voltage		250 V	-	-
Rated surge voltage		4 kV	-	-
Rated current		13.5 A	-	-
Approvals per		UL 1059		
Use group		B	C	D
Rated voltage		300 V	-	300 V
Rated current		15 A	-	15 A
Approvals per		CSA 22.2 No 158		
Use group		B	C	D
Rated voltage		-	300 V	-
Rated current		-	10 A	-
Power Loss				
Power loss, per pole (potential)		0.4338 W		
Rated current I _N for specified power loss		13.5 A		
Resistance value for specified, current-dependent power loss		0.00238 Ω		

Connection data		
Clamping units	10	
Total number of potentials	5	
Number of levels	4	
Number of jumper slots	5	
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	7 mm / 0.276 inches
Height	97.3 mm / 3.831 inches
Depth from upper-edge of DIN-rail	52.4 mm / 2.063 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	0.377 MJ
Weight	17.5 g

Environmental requirements	
Processing temperature	-35 ... +85 °C
Continuous operating temperature	-60 ... +105 °C
Environmental Testing (Environmental Conditions)	
Test specification Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06
Test procedure Railway applications – Rolling stock equipment – Shock and vibration tests	DIN EN 61373 (VDE 0115-0106):2011-04
Spectrum/Installation location	Service life test, Category 1, Class A/B
Function test with noise-like vibration	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 for contact faults/interruptions	Passed
Voltage drop measurement before and after each axis	Passed
Simulated service life test through increased levels of noise-like vibration	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 test scope: Monitoring for contact faults/interruptions	Passed
Extended test scope: Voltage drop measurement before and after each axis	Passed
Shock test	Test passed according to Section 10 of the standard
Shock 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 test scope: Monitoring for contact faults/interruptions	Passed
Extended test scope: Voltage drop measurement before and after each axis	Passed
Vibration and shock stress for rolling stock equipment	Passed



Commercial data	
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143442244
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 8.0	EC000900
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals

CCA

SP

KEMA
EUR

UL^{us}

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

RAILWAY
READY

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	-	-

Downloads	
Environmental Product Compliance	
Compliance Search	
Environmental Product Compliance 2000-5410	



Documentation

Bid Text			
2000-5410	19.02.2019	xml 3.94 KB	
2000-5410	07.08.2018	docx 14.99 KB	

CAD/CAE-Data

CAD data
2D/3D Models 2000-5410



CAE data
EPLAN Data Portal 2000-5410
ZUKEN Portal 2000-5410



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



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

1.2.5 Marking

1.2.5.1 Group marker carrier

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

1.2.5.2 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		

1.2.5.3 Marker carrier

 Item No.: 2000-121 Adaptor; gray



1.2.5.4 Marking strip



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

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; insu-
lated; 110 mm long; gray



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



Item No.: 2009-402
Push-in type wire jumper; 0.75 mm²; insu-
lated; 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 termi-
nal 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

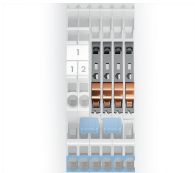
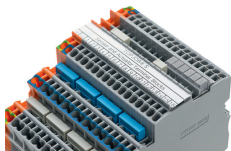
Installation Notes

Conductor termination



All conductor types at a glance

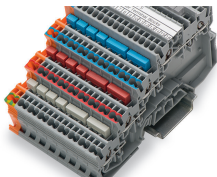
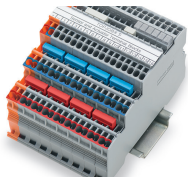
Commoning



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 pathways

Commoning

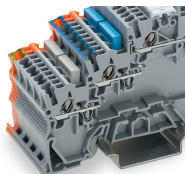


Commoning (potential level):
Commoning potential levels via push-in type jumper bars (2000 Series).

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

Potential levels: Two adjacent commoning options on a current bar

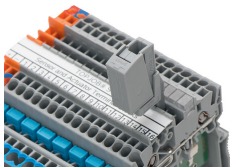
Commoning



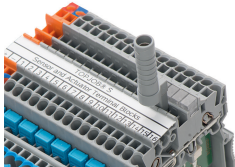
Ground commoning:
For sensor and actuator terminal blocks without ground connection to the DIN-rail, the ground connection can be performed by commoning to the terminal block with a ground foot.

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

Testing

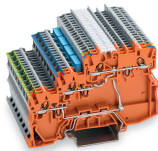


Testing via testing tap (2009-182) (up to max. 42 V).

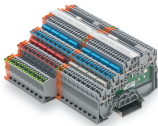


Testing via testing tap (2009-174) (up to max. 42 V).

Application

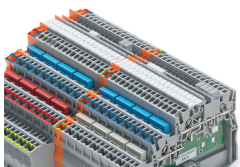


Supply:
Orange supply terminal block of same profile with a power supply option from both the cabinet and sensor sides

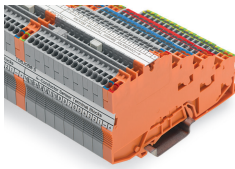


Terminal block assembly with 4-conductor sensor terminal blocks and 3-conductor actuator terminal blocks

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.