

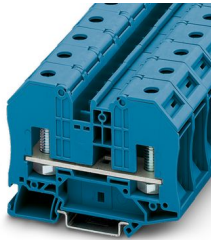
RT 8 BU - Bolt connection terminal block



3049148

<https://www.phoenixcontact.com/us/products/3049148>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Feed-through terminal block with bolt connection method, cross section: 2.5 - 35 mm², AWG: 14 - 2, width 20.2 mm, color: blue

Your advantages

- The special clamping nuts can be actuated with a normal screwdriver
- Quick and easy connection with fold-up hinged covers which hold the clamping nuts captive. With the covers folded open, the bolt is free to accept the cable lugs
- After closing and engaging the covers, the clamping nut automatically aligns with the threaded bolt and can be tightened easily.
- The screws are secured against loosening by captive spring-loaded spacers
- Large-surface labeling options in the terminal center and above the terminal points
- Easy bridging and potential distribution using the patented plug-in bridges from the CLIPLINE complete system
- The use of the switching lock effectively prevents unintentional switching
- Testing with the standardized test adapters and test plugs of the CLIPLINE complete system
- The hinged cover cover the live metal parts including the insulated cable lugs in the clamping area so that they are touch proof
- Tested for railway applications

Commercial data

Item number	3049148
Packing unit	1 pc
Minimum order quantity	25 pc
Sales key	BE43
Product key	BE4313
Catalog page	Page 385 (C-1-2019)
GTIN	4046356284677
Weight per piece (including packing)	96 g
Weight per piece (excluding packing)	95.7 g
Customs tariff number	85369010
Country of origin	CN

RT 8 BU - Bolt connection terminal block



3049148

<https://www.phoenixcontact.com/us/products/3049148>

Technical data

Notes

General	Note: the BE-RT... path extension is to be used for non-insulated cable lugs (see accessories).
General	
Note	The rated insulation voltage applies to insulated cable lugs acc. to DIN 46237:1970-07 and for uninsulated cable lugs acc. to DIN 46234:1980-03 with path extension.

Product properties

Product type	Bolt connection terminal block
Number of positions	1
Area of application	Railway industry
	Machine building
	Plant engineering
	Process industry
Number of connections	2
Number of rows	1
Potentials	1
Insulation characteristics	
Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	8 kV
Maximum power dissipation for nominal condition	4.06 W

Connection data

Number of connections per level	2
Nominal cross section	35 mm ²

1 level

Stripping length	The stripping length depends on the specification provided by the cable lug manufacturer.
Connection in acc. with standard	IEC 60947-7-1
Flexible conductor cross section (ferrule with plastic sleeve)	2.5 mm ² ... 35 mm ²
Nominal current	125 A
Maximum load current	125 A (with 35 mm ² conductor cross section)
Nominal voltage	1000 V (Rated voltage for open disconnect point 500 V)
Nominal cross section	35 mm ²

Cable lug connection DIN 46234:1980-03

Connection in acc. with standard	DIN 46234:1980-03
Cross section	2.5 mm ² ... 35 mm ²

RT 8 BU - Bolt connection terminal block



3049148

<https://www.phoenixcontact.com/us/products/3049148>

Cross section range AWG	14 ... 2 (converted acc. to IEC)
Hole diameter	8.4 mm
Width	16 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	4.5 ... 5 Nm
Connection in acc. with standard	DIN 46235:1983-07
Cross section	16 mm ² ... 25 mm ²
Cross section range AWG	(converted acc. to IEC)
Hole diameter	8.4 mm
Width	14 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	4.5 ... 5 Nm
Connection in acc. with standard	DIN 46237:1970-07
Cross section	2.5 mm ² ... 6 mm ²
Cross section range AWG	(converted acc. to IEC)
Hole diameter	8.4 mm
Width	14 mm
Bolt diameter	8 mm
Identification color of ring cable lugs : blue	2.5 mm ²
Identification color of ring cable lugs : yellow	6 mm ²

Ex data

Rated data (ATEX/IECEx)

Identification	Ex II 2 G Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	3049194 D-RT 8
	3003062 TPN-UK
	3049916 BE-RT 8
	1205066 SZS 1,0X4,0 VDE
	3022276 CLIPFIX 35-5
List of bridges	Plug-in bridge / FBS 2-10 / 3005947
	Plug-in bridge / FBS 5-10 / 3005948
Bridge data	57 A / 10 mm ²
Ex temperature increase	40 K (125 A / 35 mm ²)
Rated voltage	690 V
for bridging with bridge	690 V
Rated insulation voltage	630 V
output	(Permanent)

Ex level General

Rated current	125 A
Maximum load current	125 A

RT 8 BU - Bolt connection terminal block



3049148

<https://www.phoenixcontact.com/us/products/3049148>

Contact resistance	0.09 mΩ
--------------------	---------

Ex connection data General

Torque range	4.5 Nm ... 5 Nm
Nominal cross section	35 mm ²
Rated cross section AWG	2
Connection capacity rigid	2.5 mm ² ... 35 mm ²
Connection capacity AWG	14 ... 2
Connection capacity flexible	2.5 mm ² ... 35 mm ²
Connection capacity AWG	14 ... 2

Dimensions

Width	20.3 mm
End cover width	2.2 mm
Height	84 mm
Depth on NS 35/7,5	63.8 mm
Depth on NS 35/15	71.3 mm

Material specifications

Color	blue
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-60 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	130 °C
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R26	HL 1 - HL 3
Calorimetric heat release NFPA 130 (ASTM E 1354)	28 MJ/kg
Surface flammability NFPA 130 (ASTM E 162)	passed
Specific optical density of smoke NFPA 130 (ASTM E 662)	passed
Smoke gas toxicity NFPA 130 (SMP 800C)	passed

Electrical tests

Surge voltage test

Test voltage setpoint	9.8 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Result	Test passed

RT 8 BU - Bolt connection terminal block



3049148

<https://www.phoenixcontact.com/us/products/3049148>

Power-frequency withstand voltage

Test voltage setpoint	2.2 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	Yes
-----------------	-----

Mechanical tests

Mechanical strength

Result	Test passed
--------	-------------

Attachment on the carrier

DIN rail/fixing support	NS 32/NS 35
Test force setpoint	10 N
Result	Test passed

Environmental and real-life conditions

Needle-flame test

Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2018-05
Spectrum	Service life test category 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	$6.12 \text{ (m/s}^2\text{)}^2\text{/Hz}$
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Pulse shape	Half-sine
Acceleration	5g
Shock duration	30 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed

Ambient conditions

Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)
---	---

RT 8 BU - Bolt connection terminal block



3049148

<https://www.phoenixcontact.com/us/products/3049148>

Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Permissible humidity (storage/transport)	30 % ... 70 %

Standards and regulations

Connection in acc. with standard	IEC 60947-7-1
----------------------------------	---------------

Mounting

Mounting type	NS 35/7,5
	NS 35/15

RT 8 BU - Bolt connection terminal block

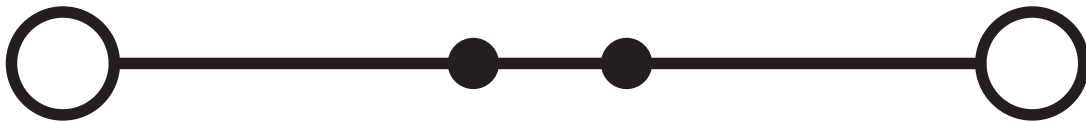


3049148

<https://www.phoenixcontact.com/us/products/3049148>

Drawings

Circuit diagram



RT 8 BU - Bolt connection terminal block



3049148

<https://www.phoenixcontact.com/us/products/3049148>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3049148>



IECEE CB Scheme

Approval ID: DE1-62814



VDE Zeichengenehmigung

Approval ID: 40022553

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	1000 V	125 A	-	2.5 - 35



cULus Recognized

Approval ID: E60425

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	600 V	130 A	-	-
Use group C				
	600 V	130 A	-	-



EAC Ex

Approval ID: RU C-DE.HA91.B.00066



IECEx

Approval ID: IECExPTB08.0063U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	690 V	125 A	-	2.5 - 35



ATEX

Approval ID: PTB09ATEX1003U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	690 V	125 A	-	2.5 - 35



CCC

Approval ID: 2020322313000627



UKCA-EX

Approval ID: CSAE 22UKEX1085U

RT 8 BU - Bolt connection terminal block



3049148

<https://www.phoenixcontact.com/us/products/3049148>

Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250101

ETIM

ETIM 9.0	EC000897
----------	----------

UNSPSC

UNSPSC 21.0	39121400
-------------	----------

RT 8 BU - Bolt connection terminal block



3049148

<https://www.phoenixcontact.com/us/products/3049148>

Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

RT 8 BU - Bolt connection terminal block



3049148

<https://www.phoenixcontact.com/us/products/3049148>

Accessories



Note: Applying some accessories below might limit this product.

FBS 2-10 - Plug-in bridge

3005947

<https://www.phoenixcontact.com/us/products/3005947>



Plug-in bridge, pitch: 10.2 mm, number of positions: 2, color: red



Max. current carrying capacity: 57 A

FBS 5-10 - Plug-in bridge

3005948

<https://www.phoenixcontact.com/us/products/3005948>



Plug-in bridge, pitch: 10.2 mm, number of positions: 5, color: red



Max. current carrying capacity: 57 A

RT 8 BU - Bolt connection terminal block



3049148

<https://www.phoenixcontact.com/us/products/3049148>

FBS 5-10 BU - Plug-in bridge

1040620

<https://www.phoenixcontact.com/us/products/1040620>



Plug-in bridge, pitch: 10.2 mm, number of positions: 5, color: blue

 Max. current carrying capacity: 57 A

RB ST 10-(2,5/4) - Reducing bridge

3030873

<https://www.phoenixcontact.com/us/products/3030873>



Reducing bridge, pitch: 10 mm, number of positions: 2, length: 36 mm, color: red

 Max. current carrying capacity: 35 A

RT 8 BU - Bolt connection terminal block

3049148

<https://www.phoenixcontact.com/us/products/3049148>



D-RT 8 - End cover

3049194

<https://www.phoenixcontact.com/us/products/3049194>

Cover, width: 2.2 mm, color: gray



TPN-UK - Partition plate

3003062

<https://www.phoenixcontact.com/us/products/3003062>

Partition plate, depth: 69 mm, width: 2 mm, height: 110 mm, color: gray



RT 8 BU - Bolt connection terminal block

3049148

<https://www.phoenixcontact.com/us/products/3049148>



BE-RT 8 - Path extension

3049916

<https://www.phoenixcontact.com/us/products/3049916>



Path extension, color: gray

NS 35/ 7,5 PERF 2000MM - DIN rail perforated

0801733

<https://www.phoenixcontact.com/us/products/0801733>



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

RT 8 BU - Bolt connection terminal block

3049148

<https://www.phoenixcontact.com/us/products/3049148>



NS 35/ 7,5 UNPERF 2000MM - DIN rail, unperforated

0801681

<https://www.phoenixcontact.com/us/products/0801681>



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

NS 35/ 7,5 WH PERF 2000MM - DIN rail perforated

1204119

<https://www.phoenixcontact.com/us/products/1204119>



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

RT 8 BU - Bolt connection terminal block

3049148

<https://www.phoenixcontact.com/us/products/3049148>



NS 35/ 7,5 WH UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1204122

<https://www.phoenixcontact.com/us/products/1204122>



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

NS 35/ 7,5 AL UNPERF 2000MM - DIN rail, unperforated

0801704

<https://www.phoenixcontact.com/us/products/0801704>



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

RT 8 BU - Bolt connection terminal block

3049148

<https://www.phoenixcontact.com/us/products/3049148>



NS 35/ 7,5 ZN PERF 2000MM - DIN rail perforated

1206421

<https://www.phoenixcontact.com/us/products/1206421>



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

NS 35/ 7,5 ZN UNPERF 2000MM - DIN rail, unperforated

1206434

<https://www.phoenixcontact.com/us/products/1206434>



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

RT 8 BU - Bolt connection terminal block

3049148

<https://www.phoenixcontact.com/us/products/3049148>



NS 35/ 7,5 CU UNPERF 2000MM-VPE 10 - DIN rail, unperforated

0801762

<https://www.phoenixcontact.com/us/products/0801762>



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

NS 35/ 7,5 CAP - End cap

1206560

<https://www.phoenixcontact.com/us/products/1206560>

DIN rail end piece, for DIN rail NS 35/7.5



RT 8 BU - Bolt connection terminal block

3049148

<https://www.phoenixcontact.com/us/products/3049148>



NS 35/15 PERF 2000MM - DIN rail perforated

1201730

<https://www.phoenixcontact.com/us/products/1201730>



DIN rail perforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

NS 35/15 UNPERF 2000MM - DIN rail, unperforated

1201714

<https://www.phoenixcontact.com/us/products/1201714>



DIN rail, unperforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

RT 8 BU - Bolt connection terminal block

3049148

<https://www.phoenixcontact.com/us/products/3049148>



NS 35/15 WH PERF 2000MM - DIN rail perforated

0806602

<https://www.phoenixcontact.com/us/products/0806602>



DIN rail perforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: white

NS 35/15 WH UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1204135

<https://www.phoenixcontact.com/us/products/1204135>



DIN rail, unperforated, Pack of 10 (20 m), similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

RT 8 BU - Bolt connection terminal block

3049148

<https://www.phoenixcontact.com/us/products/3049148>



NS 35/15 AL UNPERF 2000MM - DIN rail, unperforated

1201756

<https://www.phoenixcontact.com/us/products/1201756>



DIN rail, unperforated, similar to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

NS 35/15 ZN PERF 2000MM - DIN rail perforated

1206599

<https://www.phoenixcontact.com/us/products/1206599>



DIN rail perforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver

RT 8 BU - Bolt connection terminal block

3049148

<https://www.phoenixcontact.com/us/products/3049148>



NS 35/15 ZN UNPERF 2000MM - DIN rail, unperforated

1206586

<https://www.phoenixcontact.com/us/products/1206586>



DIN rail, unperforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver

NS 35/15 CU UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1201895

<https://www.phoenixcontact.com/us/products/1201895>



DIN rail, unperforated, Pack of 10 (20 m), similar to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

RT 8 BU - Bolt connection terminal block

3049148

<https://www.phoenixcontact.com/us/products/3049148>



NS 35/15 CAP - End cap

1206573

<https://www.phoenixcontact.com/us/products/1206573>

DIN rail end piece, for DIN rail NS 35/15



NS 35/15-2,3 UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1201798

<https://www.phoenixcontact.com/us/products/1201798>



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile 2.3 mm, color: silver

RT 8 BU - Bolt connection terminal block

3049148

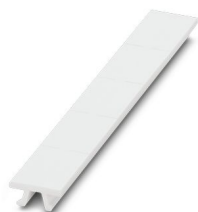
<https://www.phoenixcontact.com/us/products/3049148>



ZB 16,3:UNPRINTED - Zack marker strip

0820222

<https://www.phoenixcontact.com/us/products/0820222>

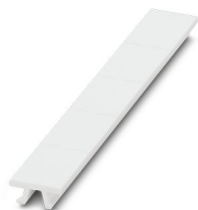


Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 16.3 mm, lettering field size: 10.5 x 16.25 mm, Number of individual labels: 5

ZB 16,3 CUS - Zack marker strip

0824946

<https://www.phoenixcontact.com/us/products/0824946>



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 16.3 mm, lettering field size: 10.5 x 16.25 mm, Number of individual labels: 5

RT 8 BU - Bolt connection terminal block

3049148

<https://www.phoenixcontact.com/us/products/3049148>



ZB 20,3:UNPRINTED - Zack marker strip

0820248

<https://www.phoenixcontact.com/us/products/0820248>



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 20.3 mm, lettering field size: 10.5 x 20.25 mm, Number of individual labels: 5

ZB 20,3 CUS - Zack marker strip

0824948

<https://www.phoenixcontact.com/us/products/0824948>



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 20.3 mm, lettering field size: 10.5 x 20.25 mm, Number of individual labels: 5

RT 8 BU - Bolt connection terminal block



3049148

<https://www.phoenixcontact.com/us/products/3049148>

CLIPFIX 35 - End bracket

3022218

<https://www.phoenixcontact.com/us/products/3022218>



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

CLIPFIX 35-5 - End bracket

3022276

<https://www.phoenixcontact.com/us/products/3022276>



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5.15 mm, color: gray

RT 8 BU - Bolt connection terminal block

3049148

<https://www.phoenixcontact.com/us/products/3049148>

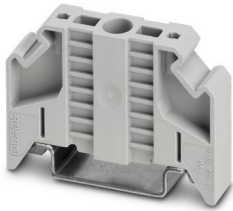


E/NS 35 N - End bracket

0800886

<https://www.phoenixcontact.com/us/products/0800886>

End clamp, width: 9.5 mm, color: gray



E/UK - End bracket

1201442

<https://www.phoenixcontact.com/us/products/1201442>

End bracket, Mounting on a DIN rail NS 32 or NS 35, material: PA, color: gray



RT 8 BU - Bolt connection terminal block

3049148

<https://www.phoenixcontact.com/us/products/3049148>



E/UK 1 - End bracket

1201413

<https://www.phoenixcontact.com/us/products/1201413>



End clamps, for supporting the ends of double-level and three-level terminal blocks, width: 10 mm, color: gray

SZS 1,0X4,0 VDE - Screwdriver

1205066

<https://www.phoenixcontact.com/us/products/1205066>



Screwdriver, slot-headed, VDE insulated, size: 1.0 x 4.0 x 100 mm, 2-component grip, with non-slip grip

Phoenix Contact 2024 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com