

Terminal block

Type 07-9721-0**0/****



Terminal block

Type 07-9721-0**0/****



Note on instructions

When working in hazardous areas, the safety of personnel and equipment depends on compliance with the relevant safety regulations. The people in charge of installation and maintenance bear a special responsibility. It is essential that they have an exact knowledge of the applicable rules and regulations. The instructions provide a summary of the most important safety measures and must be read by everyone working with the product so that they will be familiar with the correct handling of the product.

The instructions have to be kept for future reference and must be available throughout the expected life of the product.

Description

The type 07-9721-0**0/**** terminal block allows electrical conductors to be connected and disconnected in hazardous (potentially explosive) areas.

The terminal blocks are supplied as 2-pole or 3-pole versions and can be fitted in a row at will to form terminal strips.

Adequate clearance and creepage distance must be provided to allow the terminal to be mounted directly onto a metal base. Each individual terminal can be marked with clip-on labels.

2-pole to 5-pole jumper bars are available for bridging the terminal blocks (see drawing on page 5).

Explosion protection

Notified Body No.	0044
Approved Body No.	2503
ATEX/UKEX	Ⓜ II 2G Ex eb IIC Gb Ⓜ I M2 Ex eb I Mb
Certification	EPS 17 ATEX 1041 U EPS 21 UKEX 1313 U
IECEX	Ex eb IIC Gb
Ex type of protection	Ex eb I Mb
Certification IECEx	EPS 17.0026U
Operating temperature range	-55 °C to +105 °C (-67 °F to +221 °F)
Approved for zones	1 and 2
Typification	07-9721-0*40/**** 4 mm ² (12 AWG) 07-9721-0*60/**** 16 mm ² (6 AWG) 07-9721-0*80/**** 35 mm ² (2 AWG)

Technical data

Material	Insulation: Duroplast Terminal body to 16 mm ² : Copper alloy Terminal body, 35 mm ² : Steel, galvanized
Weight	
4 mm ²	- 2-pole: 49 g (0.11 lb) - 3-pole: 73 g (0.16 lb)
16 mm ²	- 2-pole: 74 g (0.16 lb) - 3-pole: 110 g (0.24 lb)
35 mm ²	- 2-pole: 200 g (0.44 lb) - 3-pole: 290 g (0.64 lb)
Rated insulation voltage	1000 V
Max. rated current	4 mm ² 30 A 16 mm ² 72 A 35 mm ² 120 A
Terminal resistance	4 mm ² ≥ 1 mOhm 16 mm ² ≥ 0.42 mOhm 35 mm ² ≥ 0.26 mOhm
Dimensions	See page 5

Technical data

Connection capacity per terminal	
07-9721-0*40/****:	
rigid	1 x 0.2-4 mm ² 2 x 0.2-1.5 mm ²
flexible	1 x 0.2-4 mm ² 2 x 0.2-4 mm ²
flexible with ferrule (without plastic collar)	1 x 0.25-4 mm ² 2 x 0.25-1.5 mm ²
flexible with ferrule (with plastic collar)	1 x 0.25-2.5 mm ² 2 x 0.5-1.5 mm ² with TWIN ferrule
07-9721-0*60/****:	
rigid	1 x 0.5-16 mm ² 2 x 0.5-4 mm ²
flexible	1 x 0.5-10 mm ² 2 x 0.5-4 mm ²
flexible with ferrule (without plastic collar)	1 x 0.5-10 mm ² 2 x 0.5-4 mm ²
flexible with ferrule (with plastic collar)	1 x 0.5-10 mm ² 2 x 0.5-6 mm ² with TWIN ferrule
07-9721-0*80/****:	
rigid	1 x 0.5-16 mm ²
flexible	1 x 2.5-35 mm ²
flexible with ferrule (without plastic collar)	1 x 1.5-35 mm ²
flexible with ferrule (with plastic collar)	1 x 2.5-35 mm ² 2 x 1.5-16 mm ² mit TWIN Hülse
Max. strip length without ferrule	4 mm ² - 10 mm (0.4 in) 16 mm ² - 10 mm (0.4 in) 35 mm ² - 10 mm (0.7 in)
Max. strip length without ferrule	With the same crossection and same type of ladder: 4 mm ² - 2 x 1 mm ² (18 AWG) 16 mm ² - 2 x 4 mm ² (12 AWG) 4 x 2.5 mm ² (14 AWG) 4 x 1.5 mm ² (16 AWG) 35 mm ² - 2 x 10 mm ² (7 AWG) 2 x 16 mm ² (9 AWG)
Tightening torque	for clamp screw: 4 mm ² - 0.8 Nm (0.59 lb.ft) 16 mm ² - 2.0 Nm (1.48 lb.ft) 35 mm ² - 3.5 Nm (2.58 lb.ft) For fixing screw: 1.2 Nm (0.88 lb.ft)
Mounting suggestion	Locking elemnet for fixing screw: SCHNORR® safety washer type "S4" see page 5

Safety Instructions

The terminal block may be used in hazardous areas, groups I and II in appropriate enclosures with "e" increased safety type of protection. The terminal block may only be used inside the specified temperature range. If it is installed incorrectly without protection, it may malfunction and the Ex protection can be lost.

Utilization in areas other than those specified or the modification of the product by anyone other than the manufacturer is not permitted and will exempt BARTEC from liability for defects and any further liability.

The generally applicable statutory rules and other binding directives relating to workplace safety, accident prevention and environmental protection must be observed.

Before commissioning or restarting operation, check compliance with the applicable laws and directives.

The terminal blocks may be operated only if they are clean and not damaged in any way. It is not allowed to use the terminal block as a mechanical stop.

It is not permissible to convert or modify the terminal blocks.

Marking

Particularly important points in these instructions are marked with a symbol:



DANGER

indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

indicates a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



NOTICE

is used to address practices not related to personal injury.



NOTE

Important instructions and information on effective, economical and environmentally compatible handling.

Standards conformed to

See Attestations of Conformity.

Transport, Storage



NOTICE

Damage to the terminal blocks through incorrect transport or incorrect storage.

- Transport and storage is permissible in original packaging only.

Assembly, Installation, and Commissioning



WARNING

Risk of injury due to incorrect proceedings.

- Only authorized and qualified personnel may do any of the assembly, disassembly, installation and commissioning work.
- Select the quality of the connection cable so that it corresponds to the thermal and mechanical requirements of the respective range of application.

Assembly/Disassembly/Installation

Check when assembling:

- Use appropriate tools.
- Make sure the terminal block is in perfect condition.
- Always disconnect the terminal blocks
- from voltage before doing any assembly/disassembly/ installation work.



NOTE

If mounting the terminals onto the base, use an anti-rotation device, order number 05-0010-0004.

Commissioning

Before commissioning, check that:

- The terminal blocks are assembled and installed in compliance with regulations.
- The terminal blocks are not damaged.
- The connection has been established properly.
- All screws are tightened securely.

Operation



DANGER

Death or serious injury due to improper use.

- The terminal block may only be operated within the technical limits that apply to it (see page 1).

Maintenance and Fault Clearance



WARNING

Risk of injury due to incorrect proceedings.

- Only authorized qualified personnel may do any of the work relating to maintenance and fault clearance.
- IEC/EN 60079-17 must be observed.

Maintenance

The operator of the terminal blocks must keep them in good condition, operate and monitor them properly and do maintenance and repairs. Terminal blocks have to be checked for cracks and damage. Make sure that they are properly established.



NOTE

Dirty terminal blocks can be cleaned with compressed air.

Fault Clearance

Defective terminal blocks cannot be repaired; they must be replaced considering this operational instruction.

Accessories, Spare Parts

See BARTEC catalogue.

Disposal

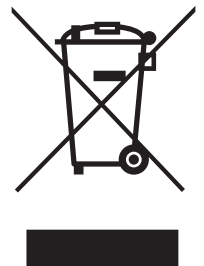
The components in the terminal blocks contain metal and plastic parts.

Therefore the statutory requirements for disposing of electronic scrap must be observed (e.g. disposal by an approved disposal company).

Service-Address

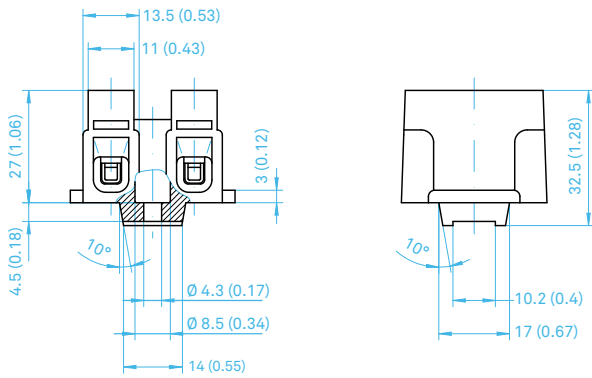
BARTEC GmbH
Max-Eyth-Str. 16
97980 Bad Mergentheim
Germany

Tel.: +49 7931 597-0
Fax: +49 7931 597-119

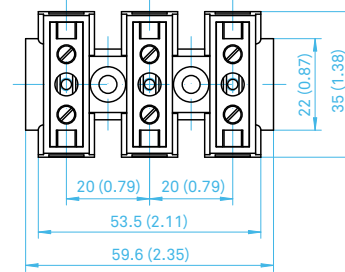
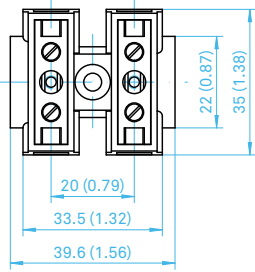
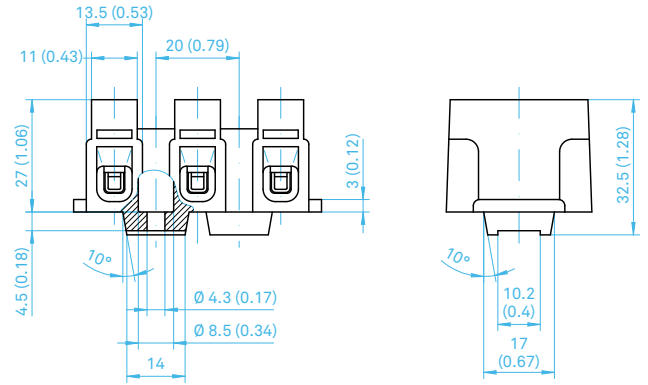


Dimensions in mm (in)

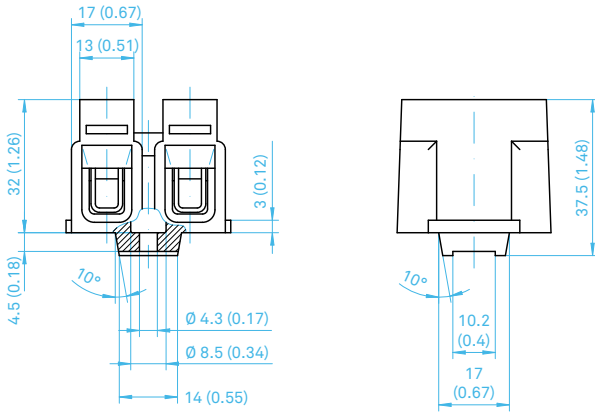
2-pole terminal block, 4 mm²



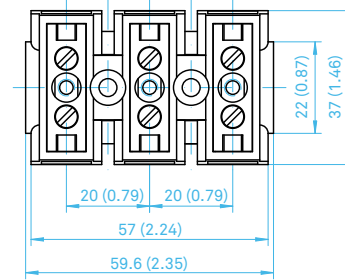
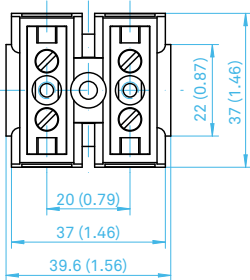
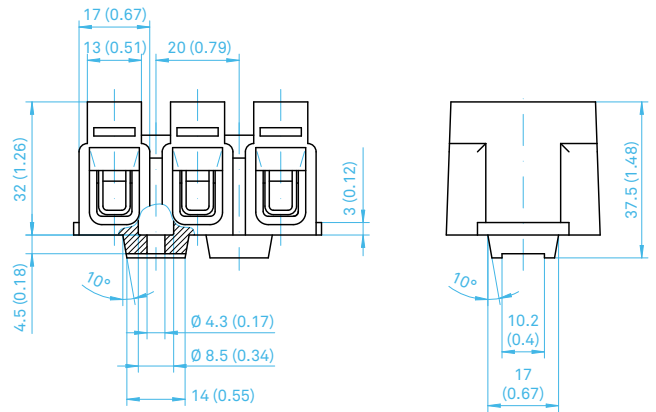
3-pole terminal block, 4 mm²



2-pole terminal block, 16 mm²

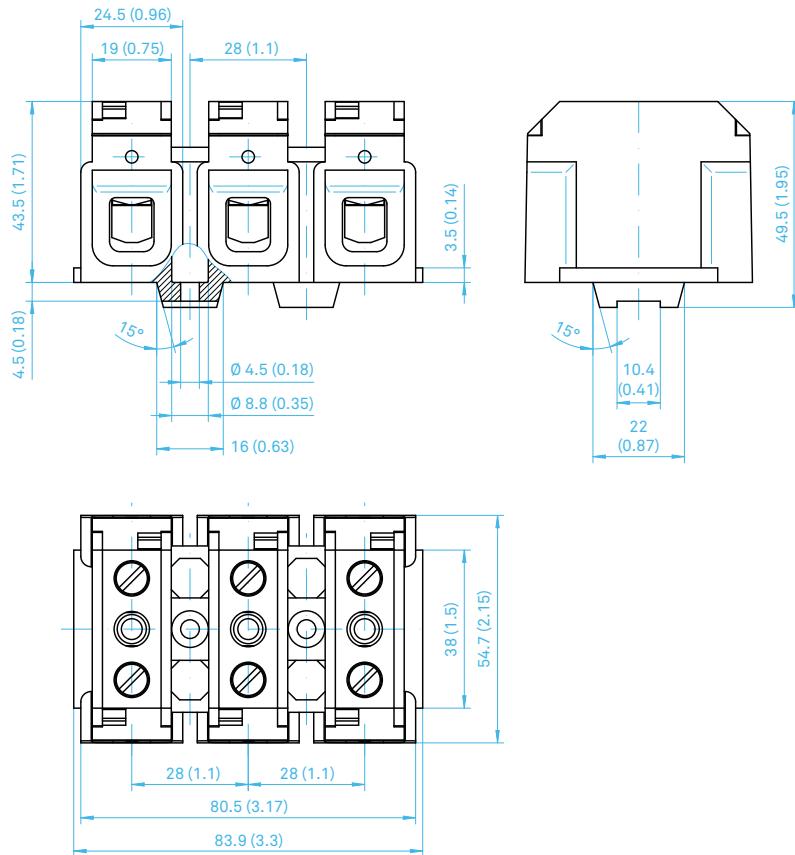


3-pole terminal block, 16 mm²

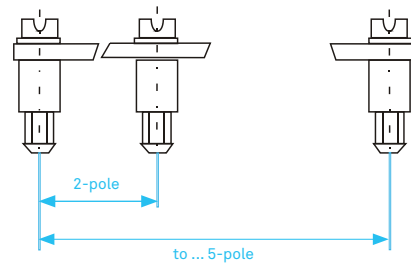


Dimensions in mm (in)

3-pole terminal block, 35 mm²

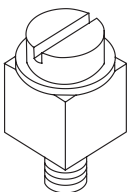


Jumper bar

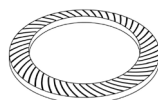


Order

Rotation stop for base mounting
Order number 05-0010-0004



SCHNORR® safety washer type "S4" Locking element for fixing screw
Order number 03-3540-0001



EU-Konfeinfügen 01-9721-7C0001

Konformitätsbescheinigung
Attestation of Conformity
Attestation de conformité

BARTEC

Nº 01-9721-7C0003_C

Wir	We	Nous
BARTEC GmbH Max-Eyth-Straße 16 97980 Bad Mergentheim Germany		
erklären in alleiniger Verantwortung, dass das Produkt Blockklemme	declare under our sole responsibility that the product Terminal block	attestons sous notre seule responsabilité que le produit Borniers

Typ 07-9721-0*40/**, 07-9721-0*60/****, 07-9721-0*80/******

auf das sich diese Erklärung bezieht den Anforderungen der folgen- den Richtlinien (RL) entspricht ATEX-Richtlinie 2014/34/EU RoHS-Richtlinie 2011/65/EU und mit folgenden Normen oder nor- mativen Dokumenten übereinstimmt	to which this declaration relates is in accordance with the provision of the following directives (D) ATEX-Directive 2014/34/EU RoHS-Directive 2011/65/EU and is in conformity with the following standards or other normative documents	se référant à cette attestation correspond aux dispositions des directives (D) suivantes Directive ATEX 2014/34/UE Directive RoHS 2011/65/UE et est conforme aux normes ou docu- ments normatifs ci-dessous
--	--	---

EN IEC 60079-0:2018

EN 60947-7-1:2009

EN IEC 60079-7:2015/A1:2018

Verfahren der EU-Baumuster- prüfung / Benannte Stelle	Procedure of EU-Type Examination / Notified Body	Procédure d'examen UE de type / Organisme Notifié
--	---	--

EPS 17 ATEX 1 041 U^(*), Issue 1

2004, Bureau Veritas Germany GmbH, 86842 Türkheim

(*) Die Ex-Komponente ist Teil eines elektrischen Betriebsmittels oder eines Moduls, gekennzeichnet mit dem Symbol „U“, das nicht für sich allein verwendet werden darf und über dessen Einbau in elektrische Betriebsmittel oder Systeme zur Verwendung in explosionsgefährdeten Bereichen gesondert entschieden werden muss. Merkmale dieser Komponente sowie die Bedingungen für ihren Einbau in Geräte und Schutzsysteme siehe Betriebsanleitung der Komponente.	(*) The Ex-component is a part of an electrical apparatus or a module, marked with the symbol "U", which is not intended to be used alone and requires additional consideration when incorporated into electrical apparatus or systems for use in explosive atmospheres. Characteristics and how the component must be incorporated into equipment or protective systems see operation manual of the component.	(*) Le composant Ex est partie de matériel électrique ou de module, marquée du symbol « U », ne devant pas être utilisée seule et nécessitant une certification complémentaire lorsqu'elle est incorporée a un matériel électrique ou à un système pour atmosphères explosives. Les caractéristiques du composant ainsi que les conditions d'incorporation dans des appareils ou des systèmes de protection regarde voir l'instruction d'emploi du composant.
---	--	--

0044

Bad Mergentheim, 08.04.2022


i.A. Simon Dörhinger

Product Manager Ex e


i.A. Steffen Mika

Certification Manager R&D

BARTEC

BARTEC GmbH
Max-Eyth-Str. 16
97980 Bad Mergentheim
Germany

Tel.: +49 7931 597-0
info@bartec.com

bartec.com