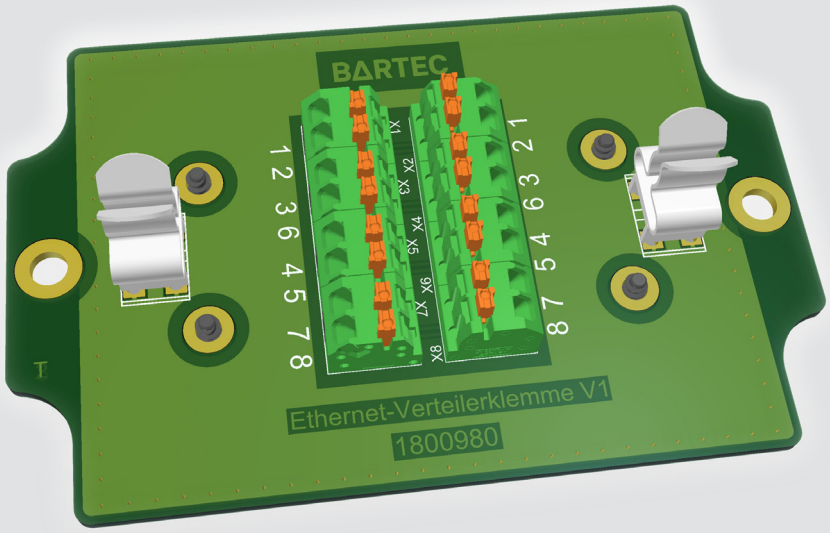
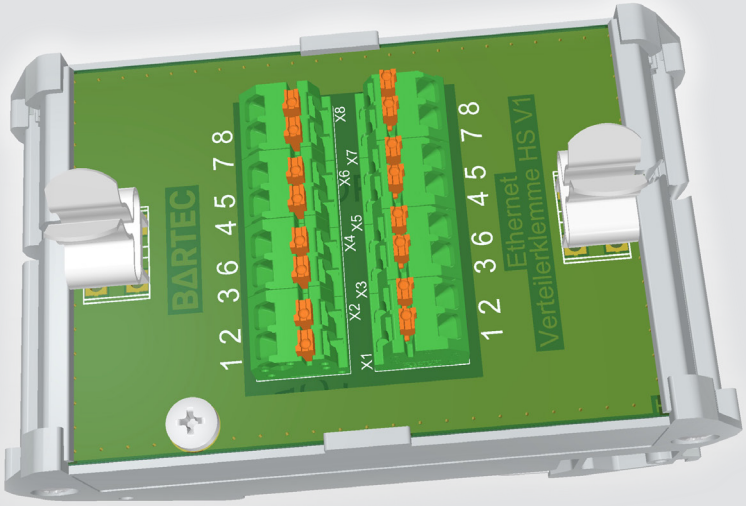
BARTEC

Ethernet Junction Terminal

Type 17-9065-1001 & 17-9065-1002
Operation Instruction





1. Definition

With the Bartec Ethernet junction terminal type 17-9065-0001 & 17-9065-0002, it is easy to connect two Ethernet cables in the hazardous area. The Ethernet junction terminal is used for direct connection of example CAT 5/6/7/ cables with up to 4 wire pairs and transmission rates of up to 1 GBit/s.

Intended Use

The Ethernet junction terminal is designed to meet the industrial requirements in hazardous (potentially explosive) areas.

Industrial Requirements in Zone 1 & 21

The Ethernet junction terminal with terminals in Ex e increased safety". Since the open connecting terminals are Ex e, the modules are given a partial certificate with the "U" marking.

Special Note concerning the "U" marking

The Ethernet junction terminal must be built into enclosures which conform to the requirements of a recognised type of protection in compliance with EN/IEC 60079-0 with at least IP protection type 54. When installed in an enclosure providing 'increased safety "e"', the clearance and creepage distances must be complied with as set out in Tables 1+2 of IEC/EN 60079-7.

Co-applicable documents

- Declaration of EU conformity
- Test certificates

The retention of these documents is mandatory!

2. Explosion protection and approvals

Ethernet Junction Terminal
17-9065-1001 & 17-9065-1002

Certification ATEX	IBExU 21ATEX1070 U
Ex protection type	Ex II 2G Ex eb IIC Gb
Certification IECEx	IECEx IBE 21.0026 U
Ex protection type	Ex eb IIC Gb

Other approvals and certificates, see www.bartec.com

SPECIAL CONDITIONS

1. The Ethernet junction terminal is fitted into an enclosure which conforms to the requirements of a type of protection recognised under EN/IEC 60079-0 Section 1.2.
2. When fitted into an enclosure with the "e" increased safety type of protection under EN/IEC 60079-7:2007, the clearance and creep age distances in Section 4.3, Section 4.4 and Table 1 must be observed.

EU Conformity

RoHS Directive	2011/65/EU
ATEX Directive	2014/34/EU
Product labelling	0044

3. Safety Instructions

The Ethernet junction terminal may only be operated in a clean, undamaged condition and may only be deployed within the specified temperature class and the temperature range indicated for it (see type label).

The assembly/dismantling of the Ethernet junction terminal must be conducted by qualified personnel authorized, and trained to install electrical components in potentially explosive areas.

The use in areas other than those specified or alteration of the product releases BARTEC from liability for defects and further liability. Modifications and changes to the module are not permitted.

The generally applicable statutory regulations and other binding guidelines on occupational health and safety, on accident prevention and on environmental protection must be complied with.

Danger, Warning and Note Symbols

Safety instructions and warnings are specially highlighted in these operating instructions and marked b symbols.

DANGER sign draws attention to a direct threat which if not avoided will lead to death or very serious injuries.

WARNING draws attention to a possible threat which if not avoided can lead to death or very serious injuries.

CAUTION draws attention to a possible danger which if not avoided can lead to slight or minor injuries.

ATTENTION draws attention to a potentially damaging situation which if not avoided can cause damage to the equipment or to objects in its vicinity

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

4. Technical Data

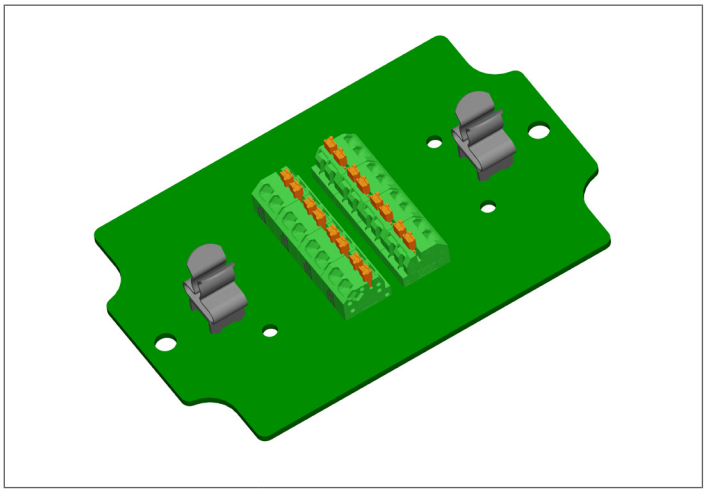
Physical features

Construction	PCB plate for direct mounting or polyester housing
Terminal	Push-in-soring connection
Mounting PCB Plate version	Direct enclosure mounting with screws
Mounting with polyester enclosure	Attachment onto mounting rail TH 35 x 15 (7,5) (EN/IEC 60715)
Mounting position	Horizontal & Vertical
Ambient temperature Store & transport	-40 °C to +70 °C

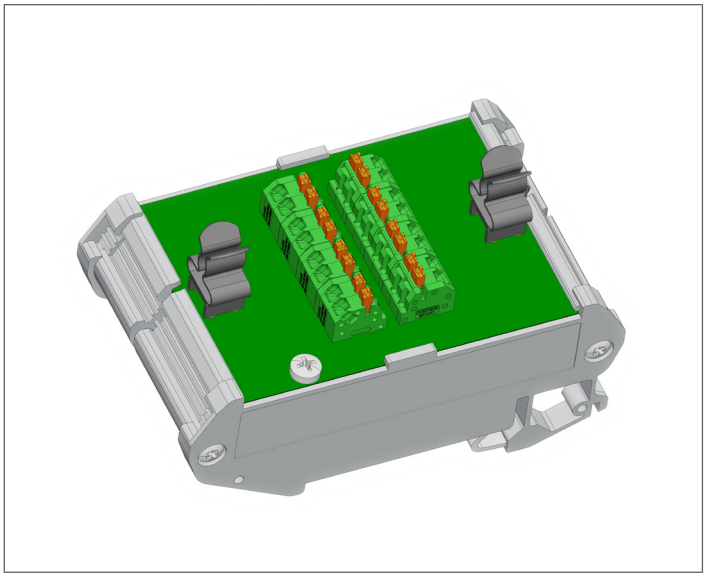
Ambient temperature assembly	-5 °C to +80 °C
Ambient temperature operation	-40 °C to +80 °C
Dimensions in mm (height x width x depth)	20 x 99 x 64 mm (PCB plage) 20 x 72 x 50.6 mm (PCB plate)
Relative air humidity	5 to 95 % non-condensing
Protection class terminal according to (IEC 60529)	IP 20

Dimension

Dimensions in mm (height x width x depth)	Type: 17-9065-1001 20 x 99 x 64 mm



Dimensions in mm (height x width x depth)	Type: 17-9065-1002 20 x 72 x 50,6 mm



Electrical Data

Rated voltage Between terminal blocks	≤ 63 V
Rated voltage Between the terminals of the terminal block	≤ 32 V
Rated current	≤ 1.0 A, per connection terminal
Transmission rate	10 / 100 / 1000 Base-T
Power over Ethernet	Confirm PoE (802.3af 2003 .....802.3bt Type 4)
Power	100 W (PoE)
Power loss	be Neglecte

Connection capacity

Conductor cross section	0.2 mm² ..... 1.5 mm²
Conductor cross section flexible	0.2 mm² ..... 1.5 mm²
Conductor cross section flexible, with ferrule without plastic sleeve	0.2 mm² ..... 0.75 mm²
Conductor cross section flexible, with ferrule with plastic sleeve	0.2 mm² ..... 0.75 mm²
Conductor cross section AWG	24 16
Stripping lenth	8 mm
Shield Terminal	Variable, recommended 3 to 12 mm²

ATTENTION

Damage due to mechanical transverse forces!

When connection and possibly a solid conductor of 1.5 mm², the mechanical lateral forces, which can affect the terminal block, have to be absorbed by lateral support

The terminals are interconnected 1 : 1, the Terminal numbering according to Ethernet RJ 45 assignment.

Important one terminal block is provided per wire pair.

Input	Output	Wiring example according to color sequence: TIA 568B	
1	1	WH/OG	
2	2	OG	
3	3	WH/GN	
6	6	GN	
5	5	BU	
4	4	WH/BU	
7	7	WH/BN	
8	8	BN	

5. Transport and Storage

ATTENTION

Damage due to incorrect storage!

- Observe storage and transport temperatures.
- Condensation can arise on components in a cold environment.
- Use the original packaging for transport/storage.

6. Assembly

Damage caused by incorrect use!

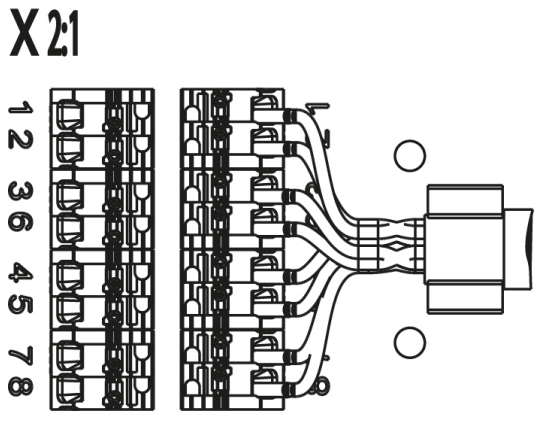
- Installation outside of the hazardous area in the enclosure, at least IP20 or closed switchgear.
- The assembly, dismantling, installation and commissioning may only be executed by a skilled electrician who has been authorised and trained to carry out the assembly of electrical components in a potentially explosive area.
- The pertinent regulations for setting up and operation must be observed when setting up or operating explosion protected electrical installations. These include Directive 2014/34/EU, BetrSichV (the German Ordinance on Industrial Health and Safety), EN 60079-14, the DIN VDE 0100 series or other nationally applicable standards or regulations.

Incorrect use, faulty installation and operation jeopardise the explosion protection and can lead to serious injuries and damage to property.

The following special conditions must be heeded!

- Do not install and commission components that have been stored in a cold environment. Take condensation into consideration!
- Before installation, check whether the components are in perfect condition.
- Do not make any modifications and changes to the module.
- Adhere to VBG 4 § 6 par. 2 when working on the unit
- Decommission the device in the event of a fault!

Mounting



7. Commissioning

Check before commissioning:

- Module installed correctly?
- Enclosure not damaged?
- Connection established properly?
- Correct wiring?
- Functions perfectly?

8. Operation

Once the final check has been conducted, the device can be put into operation.

There is danger to life if the device is not used correctly!

- Comply with the special explosion protection conditions.
- Only operate within the approved temperature range.

9. Fault Clearance

- Check wiring and connections.
- Check Shield

10. Maintenance, Inspection, Repair

Only authorised and qualified personnel may do any work on the control component.

Maintenance

If operated correctly in accordance with the installation instructions and ambient conditions, it does not require maintenance.

Inspection

Under EN/IEC 60079-17 and EN/IEC 60079-19 the owner/ managing operator of electric installations in hazardous areas is obliged to have these installations checked by a qualified electrician to ensure that they are in a proper condition.

Repair

The component cannot be repaired. Please contact BARTEC GmbH if you have any questions.

11. Disposal

The control components contain metallic and plastic parts and electronic parts.

Our devices involve electrical equipment which is only intended for commercial use (so-called B2B equipment in accordance with the WEEE Directive).

The control components must be disposed of in accordance with national regulations.

Our customers may return any products procured from us to our company for disposal. The sender must bear the costs for shipping/packing.

12. Amendments to the Document

BARTEC GmbH reserves the right to change the contents of this document without notification. We assume no guarantee for the correctness of the information. In cases of doubt the German safety instructions apply because it is not possible to rule out errors during printing and translation. The “General Terms and Conditions of Business” of the BARTEC Group moreover apply in the event of legal disputes.

The current version of data sheets, operating instructions, certificates and EC declarations of conformity can be downloaded from www.bartec.de or directly requested from BARTEC GmbH.

13. Order Numbers

Ethernet Junction Terminal

17-9065-1001	PCB Plate for direct mounting
17-9065-1002	Polyester enclosure for mounting rail

EU Conformity

Konformitätsbescheinigung
Attestation of Conformity
Attestation de conformité

№ 11-9065-7C0001

Wir	We	Nous
	BARTEC GmbH Max-Eyth-Straße 16 97980 Bad Mergentheim Germany	
erklären in alleiniger Verantwortung, dass das Produkt **Ethernet Verteilerklemme**	declare under our sole responsibility that the product **Ethernet Junction Terminal**	attestons sous notre seule responsabilité que le produit **Borne de Ethernet de junction**
	Typ 17-9065-1001/**** **Typ 17-9065-1002/******	
auf das sich diese Erklärung bezieht den Anforderungen der folgenden **Richtlinien (RL)** entspricht **ATEX-Richtlinie 2014/34/EU** **RoHS-Richtlinie 2011/65/EU** und mit folgenden Normen oder normativen 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 documents normatifs ci-dessous
	EN IEC 60079-0:2018 **EN IEC 60079-7:2015/A1 :2018**	
Verfahren der EU-Baumusterprüfung / Benannte Stelle	**Procedure of EU-Type Examination / Notified Body**	**Procédure d'examen UE de type / Organisme Notifié**
	IBExU 21 ATEX 1070 U(*) **0637, IBExU, Fuchsmühlenweg 7, 09599 Freiberg, DE**	
(*) 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, 16.09.2021

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