

## Technical Sheet For EIB/KNX Line Coupler

BNLC-00/00.1



The worldwide STANDARD for home and building control

### CHARACTERISTICS

The coupler provides a data connection between two separate EIB bus lines and also isolates the bus lines from each other in order to enable the independent local operation of a bus line.

The coupler can be used as line coupler, backbone coupler or repeater as well in existing EIB networks as in new KNX EIB networks. It has a filter table with the help of which bus telegrams are either blocked off from one of the two lines or are passed on to another line thus reducing the bus load. The filter table is created by the ETS (EIB Tool Software) automatically on commissioning the system.

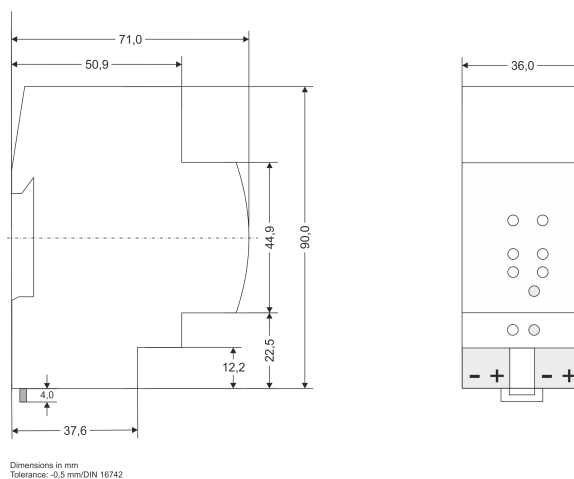
Used as a line coupler, it joins up the lines with the main line to create a function zone; as a backbone coupler, it joins up the function zones with the overriding backbone line; as a repeater the coupler enables the connection of more than 64 bus devices to one bus line. Up to three repeaters can be connected to one bus line thus enabling the connection of a total of 252 bus devices (additionally to the three repeaters) to one bus line.

### PARAMETERS

<b>Power supply</b>	Primary line	21-30V DC, used for power supply of the device
	Secondary line	21-30V DC
	Current consumption, EIB	approx. 30mA
<b>Connections</b>	EIB, main/sub line	bus connection terminal
<b>Operation and display</b>	LED Bus State Main green	LED Bus State Main red
	LED Bus State Sub green	LED Traffic Sub green
	LED Traffic Main green	LED Traffic Sub red
	LED Traffic Main red	LED Physical Address
	Programming button	LED Group Address
	Programming LED	Function button
	Temperature operation	
<b>Ambient</b>	storage	-25 °C ... + 55 °C
	transportation	- 25 °C ... + 70 °C
<b>Design</b>	Humidity	5~93%, except dewing
<b>Design</b>	Standard 35mm DIN rail installation	
<b>Housing</b>	Plastic PA66 housing grey	

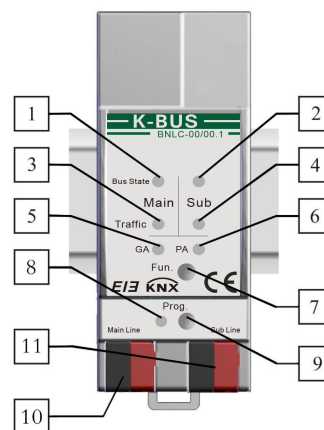
### DIMENSIONS

Model	Dimension	Weight
BNLC-00/00.1	36 x 90 x 71 mm	0.1kg



Dimensions in mm  
Tolerance: -0.5 mm/DIN 16742

### DESCRIPTIONS



- ① LED Bus State Main-- green on: main line ok; green off: main line error; red on: manual overwrite active.
- ② LED Bus State Sub-- green on: sub line ok; green off: sub line error or no connect.
- ③ LED Traffic Main-- green blinking: bus traffic on main line; off: no traffic on main line.
- ④ LED Traffic Sub-- green blinking: bus traffic on sub line; off: no traffic on sub line.
- ⑤ LED GA : Routing group telegrams; off: main and sub different; green: filter table active; green and red: route all; red: block.
- ⑥ LED PA : Routing physical addressed telegrams; off: main and sub different; green: filter table active; green and yellow: route all; yellow: block.
- ⑦ Function button: switch to manual override via long operation (3s).
- ⑧ Programming LED--red off: normal operating mode; red on: addressing mode.
- ⑨ Programming button--for assigning the physical address.
- ⑩ KNX/EIB connection: Main line.
- ⑪ KNX/EIB connection: Sub line.

### INSTALLATION FIGURE

The devices are suitable for installation on the distribution boards with 35mm mounting rail which complies with DIN EN 60715 or a small box in order to facilitate quick installation of the device. Must ensure that the device operation, testing, detecting, maintenance correctly.

### IMPORTANT INFORMATION

Installation and commissioning of the device may only be carried out by trained electricians. The relevant standards, directives, regulations and instructions must be observed when planning and implementing the electrical installation.

- Protect the device against moisture, dirt and damage during transport, storage and operation!
- Do not operate the device outside the specified technical data (e.g. temperature range)!
- The device may only be operated in closed enclosures (e.g. distribution boards).

Should the device become soiled, it may be cleaned with a dry cloth. If this does not suffice, a cloth lightly moistened with soap solution may be used. On no account should caustic agents or solvents be used.

适用型号:

BNLC-00/00.1

国际标准的家庭和楼宇控制系统



### 产品功能

耦合器在两根独立的 EIB 总线之间提供一个数据连接,同时对各总线之间也起到一个电气隔离的作用,使得一条总线能进行局部操作。

耦合器能用作线耦合器,干线耦合器或线路中继器,也可以用在现有的 EIB 网络或一个新的 KNX EIB 网络中。耦合器提供了一个过滤表,所有存在于过滤表中的组报文,它们将按路线传送,否则被阻止,从而减少总线负荷。过滤表由 ETS 软件工具根据调试系统自动生成。

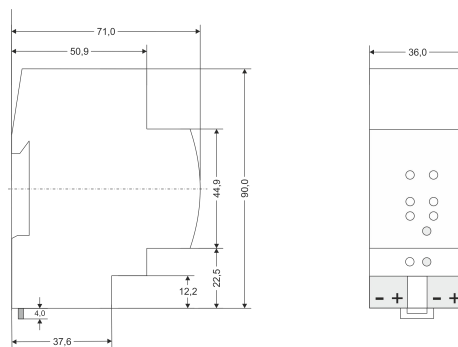
作为线耦合器使用,它把支线和主线进行连接,来创建一个功能区域;作为干线耦合器,它把功能区域和干线进行连接。两种类型的耦合器他们都只传送记录在其过滤表内的报文。

作为中继器使用,可以使一条总线上连接多于 64 个设备,如果使用 3 个中继器连接到一条总线上(如图 1 所示),那么连接 252 个总线设备到一条总线上是有可能的(不包括中继器)。

### 技术参数

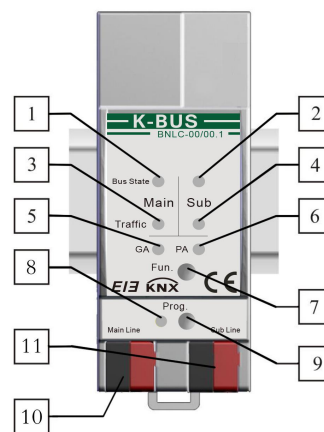
电 源	主线	21-30V DC, 为线耦合器提供工作电压
	支线	21-30V DC
	总线电流	约 30mA
连 接	主线/支线	EIB 总线连接端子
	操作与指示	Bus State Main LED 绿色: 指示主线 OK; 红色: 手动操作激活 灭: 主线错误 Bus State Sub LED 绿色: 支线 OK; 灭: 支线错误或未连接 Traffic Main LED 绿色: 报文在主线上上传送 红色闪: 在主线上出现传输错误 Traffic Sub LED 绿色: 报文在支线上上传送 红色闪: 在支线上出现传输错误 绿色: 路由过滤表中的组地址报文 GA LED 红色: 阻止; 绿和红: 路由所有组地址报文 灭: 主线和支线的组报文设置不一样 绿色: 路由过滤表中的物理地址报文 PA LED 黄色: 阻止; 绿和黄: 路由所有物理地址报文 灭: 主线和支线的物理地址报文设置不一样 编程按钮和 LED 给设备分配物理地址 功能按钮 长按 3s 切换到手动操作或退出
温度范围	运行	-5 °C ... + 45 °C
	存储	-25 °C ... + 55 °C
	运输	- 25 °C ... + 70 °C
环境条件	湿度	5~93%, 结露除外

### 尺寸规格



型号	尺寸	重量
BNLC-00/00.1	36 x 90 x 71 mm	0.1kg

### 接线图



### 说明

- |                      |                      |
|----------------------|----------------------|
| ① Bus State Main LED | ⑦ 功能按钮               |
| ② Bus State Sub LED  | ⑧ 编程 LED             |
| ③ Traffic Main LED   | ⑨ 编程按钮               |
| ④ Traffic Sub LED    | ⑩ 主线 EIB /KNX 总线连接端子 |
| ⑤ GA LED             | ⑪ 支线 EIB /KNX 总线连接端子 |
| ⑥ PA LED             |                      |

### 安装说明

此设备为了方便快速安装到配电箱或小盒子里面,根据 EN 60715 系列设计成模块化安装设备,能安装在 35 毫米丁导轨上。安装时必须确保设备操作、测试、检测、维护、维修正确无误。

### 重要提示

安装和调试设备只能由合格的熟练电工来操作。在计划与实施电气安装的过程中相关的标准、指令、规则和指示都要严格执行。

- 需要避免器件在运输、储存、使用的过程中受潮、脏污以及受损。
- 不要使器件运行在指定的技术指标之外(例如温度范围)。
- 器件只可以运行在封闭的环境中(例如配电箱)。

当设备脏污时,只可以使用干燥的布来清洁。如果这样不足以清洁干净,可以使用湿布蘸少许肥皂溶液轻轻擦拭。绝不能使用碱剂或者腐蚀性溶剂。