K·BUS®

Technical Sheet For KNX Line Coupler

BNLC-00/00.1

CE KNX

The worldwide STANDARD for home and building control

DIMENSIONS

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

CHARACTERISTICS

The coupler provides a data connection between two separate KNX bus lines and also isolates the bus lines from each other in order to enable the independent local operation of a bus line.
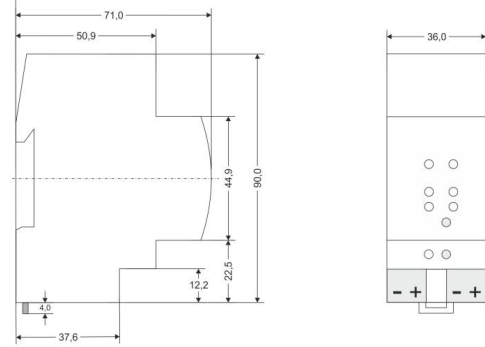
The coupler can be used as line coupler, backbone coupler or repeater as well in existing KNX networks as in new KNX networks. It has a filter table with the help of which bus telegrams are either blocked off from one of the two lines or are passed on to another line thus reducing the bus load. The filter table is created by the ETS (KNX 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

Power supply	Main line	21-30V DC, used for power supply of the device
	Sub line	21-30V DC
	Current consumption	<10mA
Connections	KNX main/sub line	Bus connection terminal (red/black)
Operation and display	Bus Status Main LED Green	Bus Status Main LED Orange
	Bus Status Sub LED Green	Traffic Main LED Green
	Traffic Main LED Red	Traffic Sub LED Green
	Traffic Sub LED Red	GA LED Green
	GA LED Red	GA LED Orange
	PA LED Green	PA LED Red
	PA LED Orange	Function button
	Programming button	Programming LED
Temperature	Operation	-5 °C ... + 45 °C
	Storage	-25 °C ... + 55 °C
	Transport	-25 °C ... + 70 °C
Ambient	Humidity	<93%, except dewing
Design	Standard 35mm DIN rail installation	
Housing	Plastic PA66 housing, grey	

DESCRIPTIONS
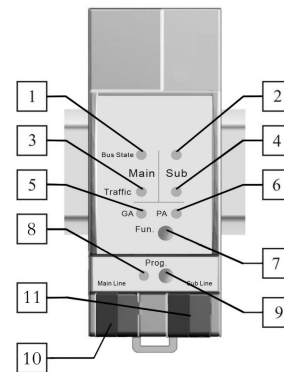
①Bus State Main LED-- green on: main line OK; orange on: manual function active.
②Bus State Sub LED-- green on: sub line OK; off: sub line error or no connect.
③Traffic Main LED-- green blinking: bus traffic on main line; red blinking: traffic error; off: no telegram traffic.
④Traffic Sub LED-- green blinking: bus traffic on sub line; red blinking: traffic error; off: no telegram traffic.
⑤GA LED(Group Address Routing)-- green on: filter table active; red on: block all; orange on: route all; off: routing different on main and sub.
⑥PA LED-- (Physical Address Routing)-- green on: filter table active; red on: block all; orange on: route all; off: routing different on main and sub.
⑦Function button-- long press 3s to manual function or exit; long press 15s and followed by a short press 3s executes the factory reset.
⑧Programming LED-- red on: assign the physical address; green on: device run normally.
⑨Programming button
⑩KNX connection: Main line
⑪KNX 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.

K-BUS®

KNX 线耦合器技术规格书

适用型号：

BNLC-00/00.1

国际标准的家庭和楼宇控制系统

CE KNX

尺寸规格

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

产品功能

耦合器在两根独立的 KNX 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，也可以用在一个现有的 KNX 网络或一个新的 KNX 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。
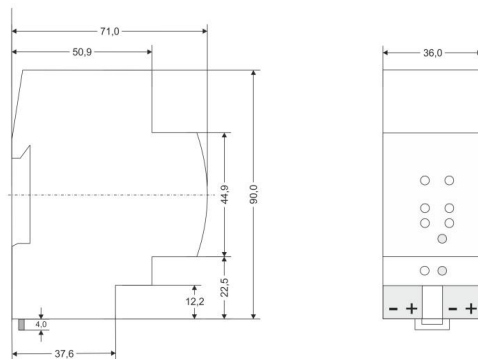
作为线耦合器使用，它把支线和主线进行连接，来创造一个功能区域；作为干线耦合器，它把功能区域和干线进行连接。两种类型的耦合器他们都只传送记录在其过滤表内的报文。

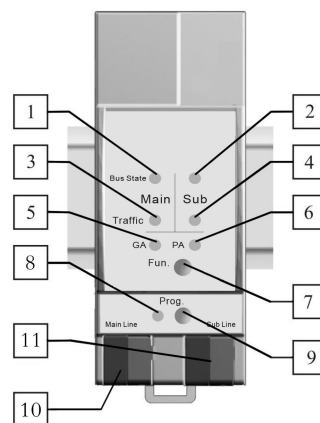作为中继器使用，可以使一条总线上连接多于 64 个设备，如果使用 3 个中继器连接到一条总线上，那么连接 252 个总线设备到一条总线上是有可能的（不包括中继器）。

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 KNX 总线连接端子

⑤ GA LED   ⑪ 支线 KNX 总线连接端子

⑥ PA LED

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	<10mA
连 接	主线/支线	KNX 总线连接端子（红/黑）
操作与指示	Bus State Main LED	绿色：指示主线 OK；橙色：手动操作激活
	Bus State Sub LED	绿色：支线 OK；灭：支线错误或未连接
	Traffic Main LED	绿色闪：报文在主线上传送；灭：无报文传输
		红色闪：在主线上出现传输错误
	Traffic Sub LED	绿色闪：报文在支线上传送；灭：无报文传输
		红色闪：在支线上出现传输错误
	GA LED	绿色：路由过滤表中的组地址报文
		红色：阻止；橙色：路由所有组地址报文
		灭：主线和支线上组报文的路由设置不同
	PA LED	绿色：路由过滤表中的物理地址报文
		红色：阻止；橙色:路由所有物理地址报文
		灭:主线和支线上物理地址报文的路由设置不同
	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；
		长按 15s 后退出，并再次短按 3s 可重置到出厂设置
温 度	运行	-5 °C ... + 45 °C
	存储	-25 °C ... + 55 °C
	运输	-25 °C ... + 70 °C
环 境	湿度	<93%，结露除外

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。