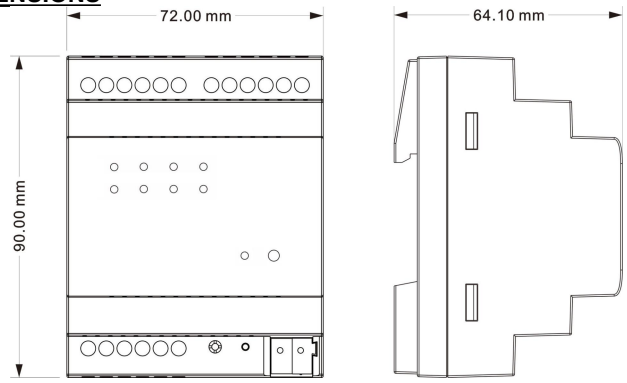
K-BUS®

Technical Sheet For KNX Gateway for RS485/RS232

BTPG-04/03.1

The worldwide STANDARD for home and building control

DIMENSIONS

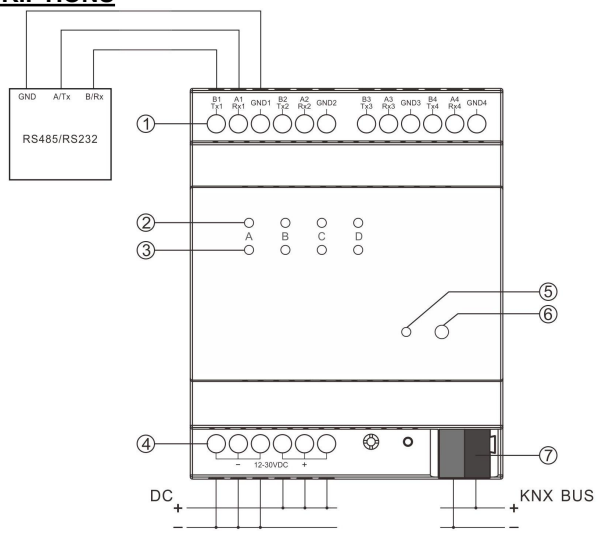


Model	Dimension	Weight
BTPG-04/03.1	72 x 90 x 64.1mm	0.17kg

CHARACTERISTICS

- Configure basic parameters of communication, such as Baud rate, data bit, stop bit, parity bit and etc.
- Channel supports Max.200 datapoints. Each function point is undirectional, which can be configured direction, name and datatype(1bit/2bit/4bit/1byte/2byte).
- As Modbus master, read register data from slave and communicate with KNX.
- As Modbus slave, report KNX data to master or BA system.
- As normal gateway, only converting data, without communication mechanisms and logic.
- Support DAIKIN VRV Air conditioner in Modbus RTU mode, independent control up to 64 devices.
- Support some manufacturers of electric curtains and background music host control protocol.

DESCRIPTIONS



PARAMETERS

Power Supply	Operation voltage	21-30V DC, via the KNX bus
	Bus current	<12mA 30V DC
	Bus power	<360mW
Auxiliary supply	Voltage	12~30V DC
	Current	<60mA 30V DC
	Power consumption	<1.8W
Connection	KNX	Bus connection terminal(red/black)
	Auxiliary power	Screw terminals
	RS485/RS232	Screw terminals
	Wire range	Multi-core 0.2-1.5mm^2 Single core 0.2-2.5mm^2
	Torque	0.4N-m
Operation and display	Channel power LED	Yellow, channel power normal
	Channel communication LED	Green flashing, telegram KNX->Other protocol Red flashing, telegram Other protocol ->KNX
	Programming button and LED	Red, assign physical address
Temperature	Operation	– 5 °C ... + 45 °C
	Storage	–25 °C ... + 55 °C
	Transportation	– 25 °C ... + 70 °C
Ambient	Humidity	<93%,except dewing
Design	Standard 35 mm DIN rail installation	

INSTALLATION FIGURE

① RS485/RS232 interface

B1, A1 as RS485 interface of Channel 1.

TX1, RX1 as RS232 interface of Channel 1.

Other channels are same as channel 1, not repeat it here.

Note: Two types of communication of RS485&RS232 need to correspond to the product hardware module and database setting.

② Channel power LED indicator

③ Channel communication LED indicator

④ Auxiliary power screw terminals

⑤ Programming LED

⑥ Programming button

⑦ KNX bus connection terminal

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,repair 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.

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K-BUS®

KNX-RS485/RS232 协议网关技术规格书

适用型号：
BTPG-04/03.1

国际标准的家庭和楼宇控制系统

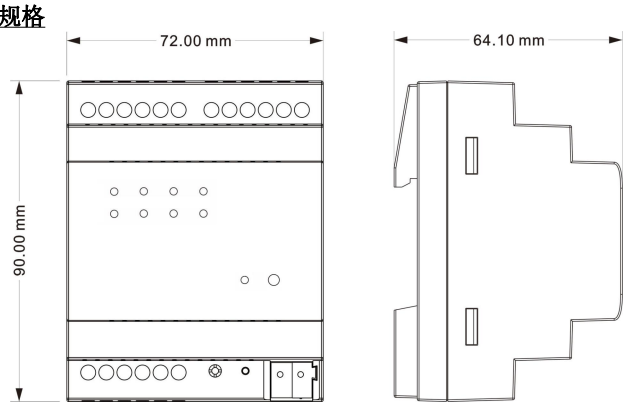
产品功能

- 可配置通讯相关的基本参数，如波特率、数据位、停止位、奇偶校验位等；
- 通道最大支持 200 个数据点，每个点位功能都是单向的，可独立配置方向，以及相应点位的名称、数据类型（支持 1bit/2bit/4bit/1byte/2byte）；
- 可作为 Modbus 主机，读取从机设备的寄存器数据，并与 KNX 互通；
- 可作为 Modbus 从机，将 KNX 设备的数据上传到主机或 BA 系统上；
- 可作为普通的网关，只转换数据，无通讯机制和逻辑处理；
- 支持大金 VRV 空调 Modbus RTU 控制协议，可独立控制多达 64 个室内机；
- 支持部分厂家的电动窗帘和背景音乐主机控制通讯协议。

技术参数

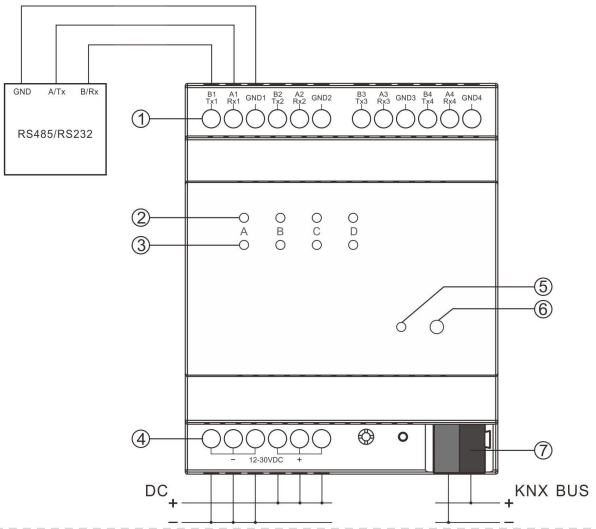
总线电源	工作电压	21-30V DC，由 KMX 总线提供
	总线电流	<12mA 30V DC
	总线功耗	<360mW
辅助电源	电压	12-30V DC
	电流	<60mA 30V DC
	功耗	<1.8W
连　接	KNX	总线连接端子(红/黑)
	辅助供电	螺丝接线柱
	RS485/RS232	螺丝接线柱
	电缆横截面	多芯 0.2-1.5mm² 单芯 0.2-2.5mm²
	扭力矩	0.4N-m
操作和指示	通道电源指示 LED	黄灯，相应通道的供电正常
	通道通讯指示 LED	绿灯闪烁，KNX 报文->第三方协议报文 红灯闪烁，第三方协议报文->KNX 报文
	编程按键和 LED	红灯，用于分配物理地址
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	<93%，结露除外
设　计	安装在 35 mm 丁导轨上，模块化安装	

尺寸规格



型号	尺寸	重量
BTPG-04/03.1	72 x 90 x 64.1mm	0.17kg

接线图



说明

① RS485/RS232 接口

B1、A1 为第 1 通道 RS485 接口

TX1、RX1 为第 1 通道 RS232 接口

其他通道与第 1 通道的连接方式相同，此处不做赘述。

注：RS485 与 RS232 两种通讯方式需要与产品硬件模块以及数据库设置对应。

② 通道电源指示 LED

③ 通道通讯指示 LED

④ 辅助电源螺丝接线柱

⑤ 编程 LED

⑥ 编程按键

⑦ KNX 总线连接端子

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 mm 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。

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