


KNX-GW-RS232-RS485		Product Group 1
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	KNX-GW -RS232 -RS485	The KNX-GW-RS232-RS485 is a gateway between the KNX-Bus and the serial lines RS232 and RS485. It can be used to easily connect devices with serial data of both directions like multimedia equipment or alarm systems to the KNX-Bus. Parametrization is done by the dedicated Program RS232-Configurator. Free download at www.arcus-eds.com
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3.1 Application Description

KNX Gateway

The KNX Serial Gateway is an interface between the KNX Bus and the serial interface RS232 and RS485.

It combines elements of building automation with a variety of components from light and entertainment technology. Applications can be programmed, updated or exchanged using the built-in USB port.

Function Description

The KNX Serial Gateway is bidirectional. It receives data telegrams on the KNX Bus and generates serial telegrams using the internal interface program. A new KNX telegram can also be created when a serial telegram is received.

The KNX Serial Gateway contains 8KByte of memory (additional memory available upon request). The group addresses for the internal objects are defined in a project-file together with the serial strings to use. They are then transferred over USB. A physical address can be established using a dummy application in ETS.

The KNX Serial Gateway comes ready for operation and does not need to be configured with ETS. Depending on which applications are programmed, the whole address spaces can be administered and data from the rotary switch and push-button can be analyzed.

The KNX Serial Gateway is delivered in a 6-units REG casing with IP20. Programming examples and API's are available from the website <http://www.arcus-eds.de> .

Sample Application Projector Control NEC

```

#define baudrate      baud_38400
#define serialmode    mode_8N1

#define addrtablen 16
#include __initserialgatewayIII.code

## No Input from RS232

## No Standard-strings to RS232

## Hexstrings to RS232
## ON
1/2/0 2 0 0 0 2 6 hexstring h1
## OFF
1/2/1 2 1 0 0 0 3 6 hexstring h2
## Input1
1/2/2 2 3 0 0 2 1 0x01 0x09 8 hexstring h3
## Input2
1/2/3 2 3 0 0 2 1 0x02 0x0A 8 hexstring h4

fsave

```

Sample Application Projector Control Sanyo

```

#define baudrate      baud_19200
#define serialmode    mode_8N1

#define addrtablen 16
#include __initserialgatewayIII.code

## No Input from RS232

## Standard-strings to RS232
## ON
1/1/0 "C00" crlf+ std_string s1
## OFF
1/1/1 "C02" crlf+ std_string s2
## INPUT1
1/1/2 "C05" crlf+ std_string s3
## INPUT2
1/1/3 "C06" crlf+ std_string s4
## VOL+
1/1/4 "C09" crlf+ std_string s5
## VOL-
1/1/5 "C0A" crlf+ std_string s6

## No Hexstrings to RS232

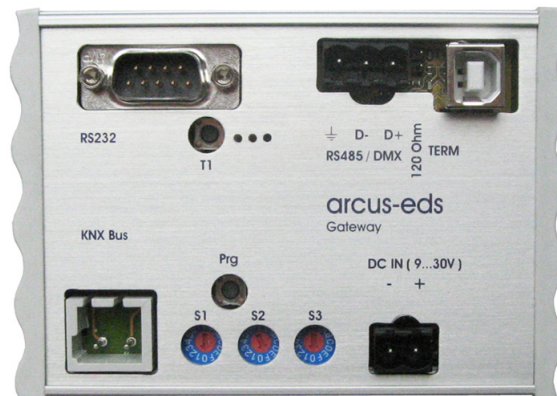
fsave

```

These are just Examples with a subset of the applicable commands which differ from beamermodel to beamermodel. 200 different strings can be handled in the gateway. With the predefined include-codes __initserialgatewayIII.code you can send strings only on '1' commands on 1-Bit-KNX-objects. By using __initserialgatewayIV.code different strings can be sent on receiving '0' and '1' commands on 1-Bit-KNXobjects.

3.2 Initial Operation

Connections	Pin	Assignment	
Klemme RS485 / DMX	Ground D - D +	GND (0V) Data - (B) Data + (A)	Screw clamp are included
D-Sub 9-pol male RS232	Pin 2 Pin 3 Pin 5	RxD TxD GND	
Klemme DC IN (9 .. 30V)	minus plus	0V VDC 9 .. 30V VDC	Screw clamp are included
Klemme KNX-Bus			Clamp block KNX are included



Switch the power supply on.

The switches **S1/S2/S3** and the Pushbutton **T1** can be freely programmed.

The physical address is programmed with the ETS through a dummy application using the Prg button.

Using the Jumper **J1 (120R TERM)** the RS485 Bus is set with a 120 Ohm load resistor.

The KNX Bus is galvanically separated from the serial connectors.

The power supply is galvanically separated from the serial connectors and the KNX Bus.

3.3 Technical Data

Dimensions	Inside 92 x 71 x 24 mm Outside 107 x 75 x 31 mm
Protection Class	IP20
Mounting	Rail Mounted Device (6 TE)
Temperature Range	-5 °C .. 45 °C
Controls	3 16-level Rotary Switch 1 Button User 2 LED User 1 EIB Button+LED
KNX-Connection	KNX-Clamp Block
KNX-Supply	20 .. 32VDC / ca. 150mW
DMX-Connector	3x Screw clamp 0,8mm ²
Terminating Resistor RS485	120 Ohm via Jumper
Forth - Programmierung	USB-Slot with PC-Software Arcsuite (Only Forth-User, for additional tools)
Power Supply	9 .. 30VDC, 100mA, internal galvanically separated, polarized, defect-proof
RS485 RS232	250kBaud, galvanically separated 115.2kBaud max

Imprint

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