

Arcus-EDS

Product Page



Gateway KNX / RS232 / RS485
KNX-GW-RS232-RS485
Art.-Nr. 40220186

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.

Areas of Application

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 Sanyo :

```
#define baudrate baud_19200
#define serialmode mode_8N1
#define addrtablelen 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
```

Sample Application Projector Control NEC

```
#define baudrate baud_38400
#define serialmode mode_8N1
#define addrtablelen 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
```

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-KNX-objects.

Operation

Connections

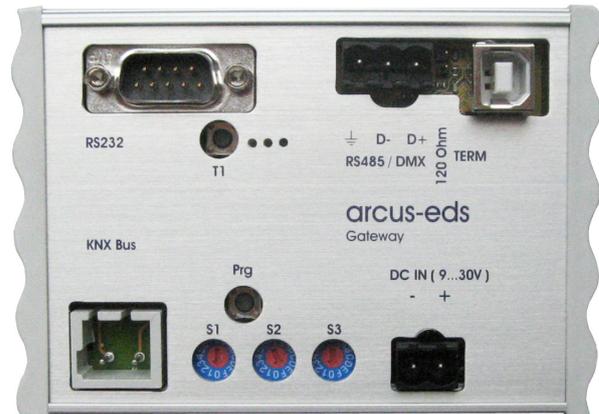
Clamp RS485

- 1 RS485 GND (0V)
- 2 RS485 Data - (B)
- 3 RS485 Data + (A)

D-Sub-9-M RS232

Clamp DC IN (9...30V)

- 1 - DC 0V
- 2 + DC 9-30V



Clamp KNX BUS

Clamp block KNX and screw clamp DC-IN und RS485 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.

Technical Data:

| | |
|-----------------------------|---|
| Dimensions: | 92x71x24mm (Inside), 107x75x31mm (Outside) |
| Protection Class: I | IP20 |
| Mounting: | Rail Mounted Device 6 TE |
| Temperature Range: | -5 °C to 45 °C |
| Controls: | 3 16-level Rotary Switch, 1 Button User, 2 LED User, 1 EIB Button+LED |
| KNX Connection: | KNX Clamp Block |
| KNX Power Supply: | 20 - 32V DC, approx. 150 mW |
| RS232 Connection: | 9-Pol D-Sub-9-M |
| RS485 Connection: | 3 Screw Clamps 0.8mm ² |
| | KL1 GND, KL2 Data - (B) , KL3 Data+ (A) |
| Terminating Resistor RS485: | 120 Ohm via Jumper |
| Forth Programming: | USB slot with PC Software Arcsuite |
| Power Supply: | 9-30V DC, 100mA, internal galvanically separated, polarized, defect-proof 2 Screw Clamps KL1 - GND, KL2 - +V |
| RS485: | 250.0 Kbaud max. |
| RS232: | 115.2 Kbaud max. |

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