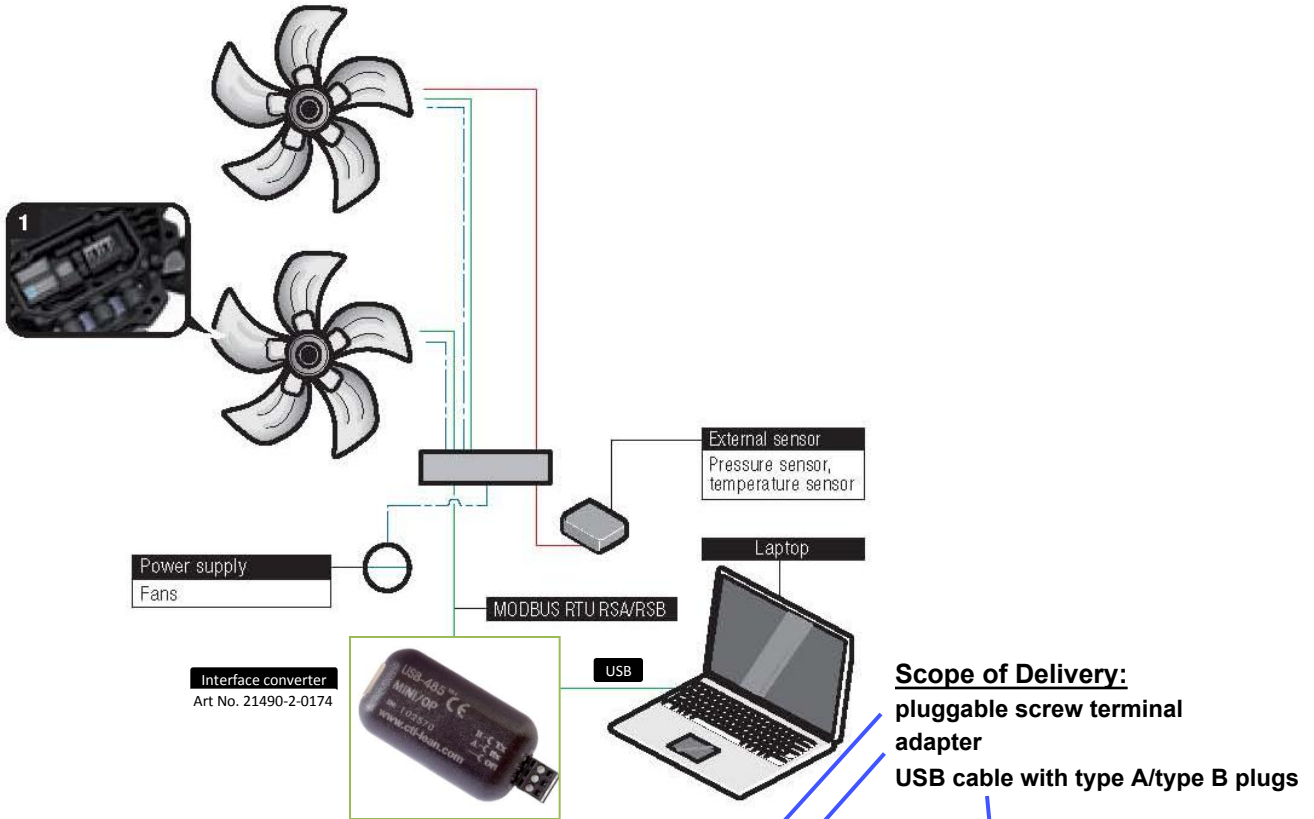


# USB to RS485 p/n 21490-1-0174 Interface Adapter:

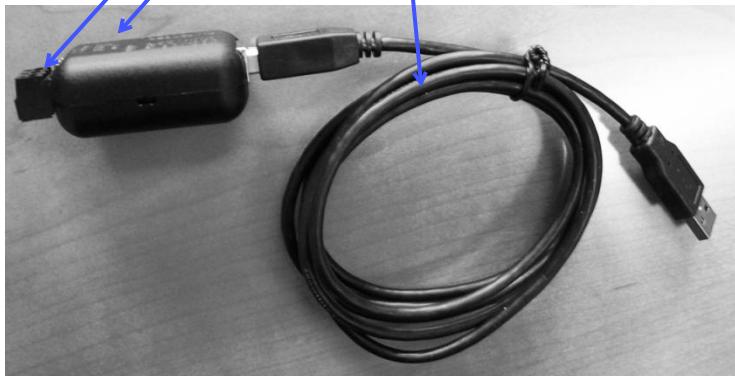
- connection example using an ebm-papst fan with MODBUS RTU compatibility



**Scope of Delivery:**  
 pluggable screw terminal  
 adapter  
 USB cable with type A/type B plugs

## 1 Example terminal assignment for fan

KL3							KL2			PE	KL1		
Dim2	Dim3	GND	Ain2 U	+20V	Ain2 I	Aout							
RSA	RSB	GND	Ain1 U	+10V	Ain1 I	Dim1	NO	COM	NC	PE	L1	L2	L3



# At a glance.

## The right software for the compatible interface.

Using the matrix on this page, we show you which control software communicates with which of the two bus systems, and from which input device. This allows you to understand the relationships at a glance. For direct comparison of the various strengths and features, to the right is an overview of the most important functions of the control software programs. This allows you to quickly and easily find out which combinations are best for your systems.

### The perfect match: supported interfaces and protocols

Software	EC Control	LISA 5	Fan Control	Fan Clone	EC controller
Hardware	PC/laptop	PC/laptop	PDA/smartphone	PDA/smartphone	
Bluetooth adapter (page 10)			•	•	
RS232 – RS485 interface converter with electrical isolation (page 12)	•	•	•	•	
RS232 – RS485 interface converter without electrical isolation (page 14)	•	•	•	•	
Ethernet – RS485 interface converter (page 16)	•				
USB – RS485 interface converter 21490-1-0174	•				
RS485 ebmBUS	•	•	•	•	
RS485 MODBUS RTU	•		•	•	•

## USB-RS485 Adapter

# ebm-papst USB-RS485 Adapter

Item number: 21490-1-0174



## Product description

(retain for future use)

subject to alterations

### Technical description:

The USB-RS485 Adapter connects RS485 units with PC. Additional ebm-papst Software is needed as follows:

EC Control version 2.00 and later (item number 25714-2-0199)

The necessary USB drivers for using the adaptor are provided with the EC-Control software package.

### Mode of operation:

Adjustments are configured with internal DIL-switches. Default settings:

- Communication: "without Echo"
- Internal termination: "with Bus Termination"

### Technical data:

Delivery scope:	- Adapter - pluggable screw terminal - USB cord
Housing	Plastic housing
Dimensions	56.0 x 31.2 x 24.5 mm
Power supply	5 V, via USB
Isolation	2500 V (protects USB devices against overvoltages)
Data rate	up to 3 Mbit/s
RS485 connection:	- 2-wire - up to 32 Bus-participants - max. cable length 1200 m (at 9600 bit/s)
Operating Systems	XP, Windows 7

### Connection to the RS485-Bus:

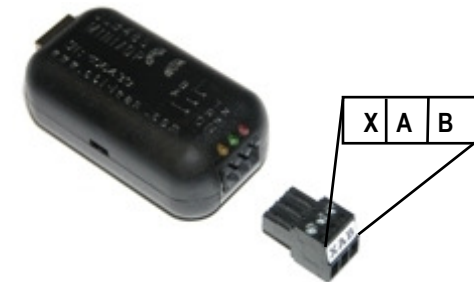
Connect A and B-wires of the RS485-Bus to the screw terminal and insert it into the adaptor.

LED status:

- |      |          |
|------|----------|
| - Tx | Transmit |
| - Rx | Receive  |
| - ON | Power-ON |

### Interface diagram:

screw terminal	signal
X	not connected
A	RS485 Bus A / Modbus RTU D1
B	RS485 Bus B / Modbus RTU D0



### Connection to the USB-interface:

Please install the USB drivers before connecting to the USB port. These are part of the EC Control software. Please find installation hints in the EC-control manual.



Connect the device to a USB port on your PC, using the enclosed USB-connection cord. After the connection is made, the yellow power LED lights up. Status LEDs for transmit, receive and power for ease of error diagnostics.

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