Software and interfaces at a glance:
These go together.

Which control software is suitable for which input device and how do their features differ?
The answer is easy to find in the clearly arranged direct comparison on this double-page spread.

The perfect match: supported interfaces and protocols

Software	EC Control (page 20)	Fan Control (page 22)	Fan Clone (page 23)	EC Controller (page 30)
Application	Service purpose and stationary system monitoring	Service purpose and mobile operation	Manufacturing – mobile operation, copy and archive settings	Stand-alone control device for refrigeration and air-conditioning technology
Hardware	PC/laptop	PDA/smartphone	PDA/smartphone	
Bluetooth adapter (page 24)	●	●	●	
USB adapter (page 26)	●			
Ethernet–RS485 interface converter (page 28)	●			
RS485 MODBUS RTU (page 30)	●	●	●	●

Performance features of the control software programs for PCs and PDAs

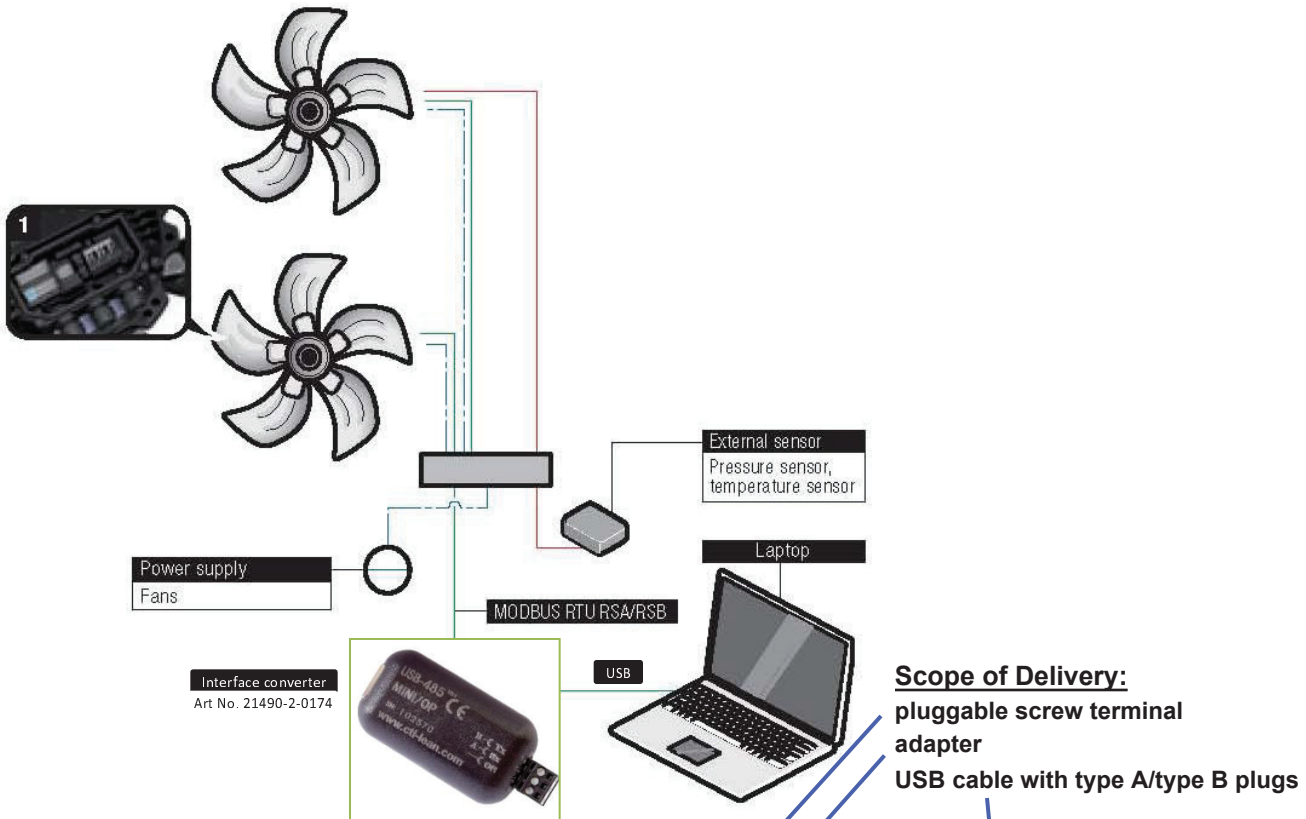|	EC Control	Fan Control	EC Controller
Query and modify parameters of one fan	●	●	(●)
Modify parameters for group/entire system	●	–	–
Group view/floors	●	(●)	–
Detailed error history when software runs for long periods	●	–	–
Mapping a system layout/floor plan	●	–	–
Searching for a fan with an unknown address	●	●	●
Setting parameters graphically	–	●	–
E-mail on error	●	–	–
Support for multiple languages*	●	●	●
Support for RS485 ebmBUS	●	●	–
Support for RS485 MODBUS RTU	●	●	●
Support of Ethernet and multiple subnets	●	–	–
Duty cycle display on fan symbol	●	–	–
Display of information below fan symbol	●	–	–
Illustration of the system in a tree structure	●	–	–
Support of multiple configurations in one installation	●	–	–
German and English user manual (PDF)	●	●	●
Timer	●	–	–
Integrated help system (English)	●	–	–

Key:

●   = Performance feature present

(●) = Possible in part/to a limited extent

–   = Not present

*The supported languages differ for each product

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

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

1

External sensor
Pressure sensor,
temperature sensor

Laptop

Power supply
Fans

MODBUS RTU RSA/RSB

Interface converter
Art No. 21490-2-0174

USB

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		
Din2	Din3	GND	Ain2 U	+20V	Ain2 I	Aout									
RSA	RSB	GND	Ain1 U	+10V	Ain1 I	Din1	NO	COM	NC		PE		L1	L2	L3

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 adapter.

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
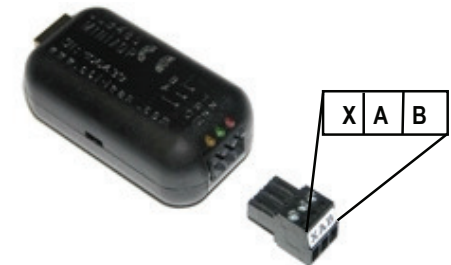
Connection to the USB-interface:

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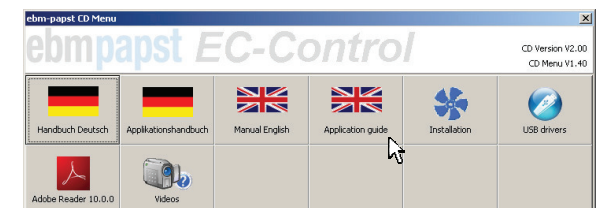
Connect the device to a USB port on your PC, using the enclosed USB-connection cord. After the connection is made, the yellow power LED lights up. Status LEDs for transmit, receive and power for ease of error diagnostics.

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