EasySens airConfig

EasySens Remote Management and Configuration Tool





Application

Thermokon airConfig is the configuration tool for EasySens produts supporting wireless configuration and remote management.

EasySens products supporting airConfig are marked with the airConfig - logo.

To use airConfig software you need to have a computer or laptop with an USB port, and an USB transceiver i.e. the one supplied with thermokon's field strength test software airScan. We propose using the 3m/10ft USB extension cable to place the USB transceiver where best for radio communication.

The software should be downloaded from Thermokon's web site <u>www.thermokon.de/download-center/</u> which ensures that the newest version will be obtained. The software will check during start-up if a newer version is available on thermokon's server

Installation

System requirements:

Thermokon airConfig is available for devices with operating system Microsoft® Windows XP or newer. For using the USB transceiver the device needs an USB 2.0 port. Java Runtime Engine (JRE) must be installed.

Hardware:

Plug Thermokon EasySens USB transceiver into USB port of your notebook/PC. Follow the instructions to install the drivers.

If the driver cannot be found automatically, please download the latest driver from FTDI's website for your operating system http://www.ftdichip.com/Drivers/VCP.htm.

In case the driver of the USB transceiver has not been installed properly, this window will appear:



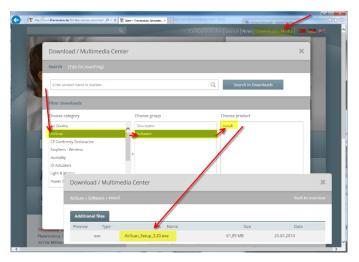
If so check in the WINDOWS Device manager whether the USB transceiver has been detected properly and the driver is installed. If the driver is missing, please visit <u>http://www.ftdichip.com/Drivers/VCP.htm</u> and download the appropriate driver file for your system. Please make sure you have administrative rights to install the driver.

Software:

- 1. Download the software from our Mediacenter at www.thermokon.de
- 2. Click on ,Downloads/Media
- 3. Choose AirConfig in Category, Software in Group and Install in product
- 4. Download latest version
- 5. Install the software following the installation instructions.

Automatic installation of available updates

In order to keep the software up to date, please open PORT 2015 of your Internet connection. Thereby will automatically search for new updates enabled. If necessary, contact your administrator. At the next start of airConfig, the installation is done. If you have purchased airConfig once, all further updates are free.



Starting Thermokon airConfig

Starting airConfig it will search for a USB transceiver or a STC-BACnet IP gateway connected to the network. In case a STC-BACnet IP gateway is found airConfig can use the BACnet IP gateway alternatively to the USB transceiver.



In case multiple USB transceivers or STC-BACnet will be sound the device that shall be used can be selected from the drop down list on the start screen.

To start the commissioning of EasySens devices please click on the "Commissioning" button.

The small button labeled "EEP virtuoso" is reserved for factory use and trouble shooting only.

Repeaters

Repeaters, especially the simple versions that can not be configured, repeat every telegram regardless it's need to be repeated. Thus the traffic (number of telegrams in the air) is multiplied, blocking the radio channel and increasing the risk of collisions significantly.

Repeaters based on the 1st generation of EnOcean radio modules can not repeat the special type of commissioning messages. In case incoming signals have been repeated by 1st level or 2nd level repeaters AirConfig will show a

repeater warning on the top of the screen.

In general the commissioning process shall use a direct radio link to the device and not use any repeaters.



Main window of airConfig

The main window is divided into 4 columns/boxes.

The very left box consist the symbols of EasySens products supporting remote management by airConfig. Select here the type of product to be configured and right-click on the selected icon.

Product type	IDs of selected Product type		eters of product lected by ID	EnOcean telegrams received
Thermokon airConfig 4.00.80 (C	ommissioning)	Manual Inc.		
iver	Devices (1)	Device configuration		Sensors (80) 🛛 📰 🖌 📶 🍕
STC-BACnet/IP	• 0x0185D79C -61 db	A Network EDD Conf	iguration Inputs Outputs	© 0x051339
SR Query devices < F?		Rename <f2> Delete Request configuration <f5> Send configuration <f6> End LEARN mode</f6></f5></f2>	DHCP WLAN Security:	disabled ↓ ↓ ↓ ↓ ↓ 0.0.0.0 ↓ ↓ ↓ ↓ ↓ 0.0.0.0 ↓ ↓ ↓ ↓ ↓ 0.0.0.0 ↓ ↓ ↓ ↓ ↓ 0.0.0.0 ↓ ↓ ↓ ↓ ↓ 0.0.0.0 ↓ ↓ ↓ ↓ ↓ 0.0.0.0 ↓ ↓ ↓ ↓ ↓
Save device list SA Copy <f3> O1 SA Paste <f4></f4></f3>		.oad device Save device .oad device list	əsk	4BS 17751 255.255.255.0 255.255.0
* SR65(L1)		Save device list		0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.00001 0.000001 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.00000000
SR65(rH)	5	Paste <f4></f4>		stcip 4BS 25406894 © 0×061C79 4BS 400505
		Connect through TCP/IP Radio Pass-Through	Password:	0x88AF3E 4BS 8957758 0x3742 4BS 14146
		MAC Address		4BS 399100
			00-00-00-00-00-00	4BS 26332373 6 0x061726 4BS 399142
		Control / Firmware		
	-	← Reboot	Firr	1.00.84 4BS 398698 0x010270C0 ARC 16937152
airConfig	C on O d	r		

Select "Query devices" or press F11 to request the devices within the radio range to identify themselves. Depending on the number or EnOcean devices responding to the Query, it will take some seconds or longer for all devices of the selected type to return their EnOcean-ID. Each Device will show up with it's EnOcean-ID in the SmartCom list.



AirConfig establishes an exclusive radio link to the devices in the the SmartCom list, locking out all devices but AirConfig. The devices queried by AirConfig will stop working while being configured to prevent unwanted actions until the commissioning process has been finished by sending a configuration to the device or ending the commissioning manually by selecting End LRN from the context menu.

To configure a particular device right-click on the Icon of the device and select "Request configuration" or press F5. AirConfig will prompt for the PIN. Valid Keys are numbers from 0...255.

Read device configuration					
Device configuration has not been read Read configuration now?					
-Key 1:-	•••				
-Key 2: -	•••				
Key 3:					
	Yes No				

Enter the PIN numbers and select "Yes" to read the configuration from the device. To work with the default settings, **press** "**No**" and use the default parameters shown in the 3^{rd} column/block.



Configuration can be protected by 3x8 Bit - PIN allowing 16.581.375 possibilities. Default for each key is 000.

Without the keys the device can not be accessed any more but can only be sent to Thermokon's factory in Germanv to erase and re-program the device.

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The parameters shown in the bigger 3rd block of course do depend on the type of selected device type and can not be explained in this general manual. Please consult the product's data sheet or hoover over each parameter to receive a short explanation / tooltip of each parameter:

Operation:	Level 1 🗸
	Operation.Tooltip

Language / Filters

On top of the Sensors column/block the USB transceiver can be switched on/off using the USB-stick symbol .



The **RSSI** symbol opens a dialogue box to filter incoming signals based on their field strength.

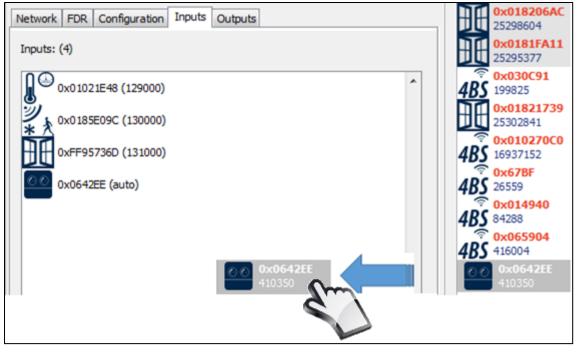
Filters can be set for Smart Sensors (supporting airConfig) as well as for regular (EnOcean) sensors.

Please note that higher RSSI numbers correspond with weaker signals, i.e. RSSI = -85dbm is much weaker than RSSI = -65dbm. The negative sign is not displayed.

SSI threshold					
Edit RSSI threshold for incoming radio signals					
max. RSSI smart sensor					
max. RSSI regular sensor					
Save Close					

Pairing - Remote teach-in

To allow pairing / teach-in of i.e. sensors and receivers, every device has a Sensors-tab. To pair a device AirConfig needs to know the EEP to check that the devices can be paired. Thus only sensor of which a teach-in telegram has been received can be assigned. Sensors whose icon indicates the type of message only (i.e. 4BS, VLD, MSC) can not be assigned and will be highlighted in red to indicate the problem.



In case the EEP of a particular sensor is known, the EEP can be set manually by rightclicking on the sensor's icon and selecting the EEP from the "change type" dialogue.

To assign a sensor to simply drag and drop the sensor's ID from the Sensor list on the right into the Sensors window.

Dragging sensor-symbol into the Inputs-section does not pair the devices already, because the data is not transferred automatically into the device.

Once all parameters are set and all sensor IDs are dragged into the sensor tab, the new parameters must be transferred into the device. Right click on the selected device ID in the 2^{nd} column and select "**Send configuration**" from the context menu or press F6

🕤 Thermokon airConfig 4.00.33 (a	advanced)	Include, and a start of the Start Start Start	
Driver	Devices (1)	Device configuration	Sensors (76)
STC-BACnet/IP	• 0x871975	Basic Sensors	4BS 220477
src-do	Rename <f2> Delete </f2>	Filter	© 0x05ECE3 4BS 388323 0x0182010B
STC-MSG-SVR	Request configuration <f5></f5>	Type: Source ID	25207162
SRE (Repeater)	Send configuration <f6></f6>		4BS 419990
SR-MDS (Solar)	Set LEARN mode	Option:	4BS 25876134
а алаан ал	Load configuration Save configuration		25298939 0x0185C618
	Load device	Kind: APPLY -	463 25544216 0x018585F8
	Save device		4BS 25527800 0x0181F785
	Load device list		25294725 0x0B22
	Save device list Copy <f3></f3>	Filter table: Type: Source ID	4BS 2850 [●] 0x06CCDC 4BS 445660
	Paste <f4></f4>	Option: 0x0006C827 Kind: Apply	0x01821628 25302568
	Paste All		0x8B0FEC 9113580
	Bulk Configuration		© 0x8154F9 4BS 8475897
			O CO 0x055582 349570 ■
			0x0181F7FA 25294842
			4444 55
			0xFFEBCE00 4293643776
	•		OxFFEBCE01 4293643777
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Permanently powered devices will receive the new parameters immediately after selecting "Send Configuration".



Energy harvesting devices do sleep most of the time and need to be woken up by pressing the LRN button again. The sensor will be highlighted in green, until the configuration successfully has been transferred into the device. 0x0191F703 -70 db 26343171