



KNX Modbus RTU Gateway 886 Description KNX export



#### KNX Modbus RTU Gateway 886 – Description KNX export



# **Example of application**

In this example of application are two ventilation zones, which are to be controlled via KNX in a precise position.

As feedback, the actual positions of the drives in the zones and the respective open and closed messages are to be returned to KNX.

KNX should be able to send a central open and a central close via two digital Modbus inputs.



## Links

There is one ventilation link per zone. A higher-level ventilation logic link is responsible for the central commands.



### Modbus inputs and outputs

One data Modbus input per zone is used for perfect positioning control of the drives.



The data Modbus inputs are assigned to the respective ventilation link and set to the "target position" functionality.

2. Settings		
Designation: Zo	one 1 Target-Pos.	(max. 20 characters)
Functionality sele	ction: Target position ~	
Apply	Cancel	
links to which	the data Modbus input is allocated	

For the feedback of the actual position, Modbus outputs are used for each zone data.

 D	Data	outputs
	D	Data Modbus output 1 (Input Register 4096) • Zone 1 Actual-Pos.
 	D	Data Modbus output 2 (Input Register 4097) • Zone 2 Actual-Pos.

These are also assigned to the ventilation links and the "actual position" functionality is selected.



2. Settings			
Designation:	Zone 1 A	ctual-Pos.	(max. 20 characters)
Functionality	selection:	Actual position $$	
	Cana	i i	

The open and closed messages are transmitted to KNX via digital Modbus outputs.

🖕 👍 Digi	tal outputs
-4	Digital Modbus output 1 (Input Discrete 1024) • Zone 1 open
-7	Digital Modbus output 2 (Input Discrete 1025) • Zone 1 closed
-4	Digital Modbus output 3 (Input Discrete 1026) • Zone 2 open
	Digital Modbus output 4 (Input Discrete 1027) • Zone 2 closed

These are also assigned to the respective ventilation links. "Open message" or "Closed message" is selected as the functionality.

2. Settir	ngs								
Name:	Zone 1 open			Max. 20 c	haracter	s)			
Function	nality selection:	End position OPE	EN signal 🔍 🗸						
Timer fu	nction selection	None		~ 0	‡ h	0	\$ min	0	÷
App	lv Cano	el							

The central open and central close control is implemented via two digital Modbus inputs.

Digital inputs
 Digital Modbus input 1 (Coil 0) • Central open
 Digital Modbus input 2 (Coil 1) • Central close

These are assigned to the higher-level ventilation link and set to the "LT-Open" or "LT-Close" functionality.



2. Settings												
Name: Cer	tral open		(Max.	20 d	harac	ters	)					
Functionality selection:		VB Open	~									
Timer functio	n selection:	None	~	0	+	h	0	*	min	0	÷	s
Apply	Cancel	1										

#### Export

In order to be able to connect the KNX gateway as easily as possible, the SCS can be used to export the data points.

For this purpose, the Configuration tab of the Modbus gateway is called up. A file can be created via the button "D+H KNX Modbus RTU Gateway", which can be imported in the KNX configuration software ETS5.



#### KNX configuration software ETS5

To use the KNX Modbus Gateway, it must be integrated into an ETS project. To do this, search for Weinzierl in the catalogue and select the KNX Modbus RTU Gateway 886. Add this product to the project by dragging it into the list of devices.

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Devices			Addres Room	Description	Application Progra	m Adr	Catalog Application	
			Devices Parameters	ka € con	y to AdComNet KNX - E	N	Weinsert Engineering GmbH/TP Interfac. Order Number KNX Modb DIN rail mounting 18 mm (1M) Bus current 5 mA Modbus RTU Gateway	
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Manufacturers	· · · · Sei Manufactur	er Name		Order Number	Med	iu Application		
ABB	Weinzierl Eng	gKNX Multi I	O 570 (48I/O)	KNX Multi IO 570	TP	KNX Multi IO 570 (481/O)1*	The KNX Modbus RTU Gateway	
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KNX-USB Interface (TP)	. 11 New line		Manufacturers		KNDK Modbus RTU	Gateway 886	Last used workspace	

### ETS device configuration app installing

A DCA must be installed for the import. This can be purchased free of charge via the KNX Shop my.knx.org/en/shop.





The DCA can be installed as follows: In the lower right corner of the ETS5 software apps must be clicked.



Via the plus the DCA can be added.



#### Import

If the DCA is installed, a DCA tab appears on the KNX Modbus RTU Gateway 886 device. Here you can load the exported file.



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Load File	
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After the file has been loaded, the configuration can be imported by clicking the "Import Config" button.

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	2 data_points :	
	P 1 "do tupo": "01 history"	
	<pre>4</pre>	
	5 "enabled" true	
	7 "description": "Central open".	
	8 "direction": "knx to modbus".	
	<pre>9 "register type": {</pre>	
	0 "value inverted": false,	
3	1 "register": "bit"	
1	12 },	
- 3	3 "address": 0	
1	4 },	
- 3	15 {	
- 3	<pre>i6 "dp_type": "01-binary",</pre>	
1	.7 "id": 2,	
1	8 "enabled": true,	
1	.9 "description": "Central close",	
2	<pre>20 "direction": "knx_to_modbus",</pre>	
	"register_type": {	U.
6		>



With this import all general settings, Modbus settings and the AdComNet configuration are automatically imported correctly.

Digital Modbus inputs and outputs are bit-variables, and data Modbus inputs and outputs that are configured for target or actual position are automatically created in KNX as byte variables in percent. The conversion KNX 100% to Modbus 1000 is also already correctly set.

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6: Zone 2 closed: Output - Switch			KNX to modbus     Modbus to KNX		
■ 2 8: Zone 2 Target-Pos.: Input - Perc	Datapoints 21 - 30	Value inverted	No      Yes		
	Datapoints 31 - 40	Function	Write single coil - 05		
	Datapoints 41 - 50	Address	0		
	Datapoints 51 - 60	Channel 2			
	Datapoints 61 - 70	Description	Central close		
	Datapoints 71 - 80	Direction	KNX to modbus     Modbus to KNX		
	Datapoints 81 - 90	Туре	Bit register		
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The created data points can now added to KNX group addresses.



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2: Central close: Input - Switch     2: Zone 1 open: Output - Switc     4: Zone 1 closed: Output - Swit	Modbus settings	Channel 1 Datapoint type	DPT 01 - binary - 1 bit	
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# Contact

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