

# SOFTWARE-DOKUMENTATION SOFTWARE DOCUMENTATION

Software-Erweiterung für Internet Service Gateway | Software extension for Internet Service Gateway

» KNX IP - V2

**STIEBEL ELTRON**

**SOFTWARE DOCUMENTATION**

- 1. General information** 17
- 1.1 Other symbols in this documentation 17
- 1.2 Relevant appliances 17
- 1.3 Relevant documents 17
- 2. Safety** 18
- 2.1 Intended use 18
- 2.2 General safety instructions 18
- 2.3 Instructions, standards and regulations 18
- 3. Product description** 18
- 4. Settings** 18
- 4.1 Activating KNX programming mode 18
- 4.2 Compatibility overview 19
- 4.3 Incompatibility 19
- 5. Troubleshooting** 19
- 6. Parameters** 20
- 6.1 "General" parameter block 20
- 6.2 "IP configuration" parameter block 21
- 6.3 "Telemetry" parameter block 21
- 7. Communication objects** 22
- 7.1 "General" function range 22
- 7.2 "Telemetry" function range 26
- 8. Configuration** 28
- 8.1 IP parameters 28
- 8.2 Fan stages 28
- 8.3 Operating modes and set values 28
- 8.4 SG Ready function 29
- 8.5 Cyclic transmission/hysteresis 29

**GUARANTEE**

# SOFTWARE DOCUMENTATION

## 1. General information

These instructions are intended for qualified contractors.



**Note**

Read these instructions carefully before using the appliance and retain them for future reference. Pass on the instructions to a new user if required.

### 1.1 Other symbols in this documentation



**Note**

General information is identified by the adjacent symbol. ► Read these texts carefully.

Symbol	Meaning
	Material losses (appliance damage, consequential losses and environmental pollution)

► This symbol indicates that you have to do something. The action you need to take is described step by step.

### 1.2 Relevant appliances

ISG web, part number 229336

#### 1.2.1 Brand conformity



**Note**

This software can only be operated in conjunction with appliances and software from the same manufacturer. ► Never use this software in conjunction with third party software or appliances.

### 1.3 Relevant documents

- Operating and installation instructions Internet Service Gateway ISG web
- Operating and installation instructions for the connected integral ventilation unit or the heat pump
- Conditions of use for the ISG web
- Contract conditions for the purchase of chargeable software extensions with additional functions for ISG web

## 2. Safety

### 2.1 Intended use



**Material losses**

Incorrect use can result in damage to the connected integral ventilation unit or heat pump.

Observation of these instructions and of instructions for any accessories used is also part of the correct use of this appliance.

### System requirements



**Note**

The TP to IP coupler installed on site must support KNX-IP routing. The coupler must be a KNX-IP router. A KNX-IP interface only supports tunnelling and is not sufficient.

- ISG web with Basic service package
- Compatible appliance (see chapter "Compatibility overview")
- KNX-IP router
- IP network connection to ISG and to KNX-IP router
- ETS 3.0f (only with patch), 4.1.5 or higher

### 2.2 General safety instructions

We guarantee trouble-free function and operational reliability only if the original accessories intended for the appliance are used.

### 2.3 Instructions, standards and regulations



**Note**

Observe all applicable national and regional regulations and instructions.

## 3. Product description

This product is an optional software extension for the ISG for building automation. The ISG software is a gateway to the heat pump manager (WPM). Components that are functionally required for heat pump operation, e.g. sensors, cannot be replaced by KNX components.

The following functions of the WPM are available with the KNX software:

- Selecting operating modes
- Selecting set temperatures
- Switching fan stages
- Calling up current values and system data

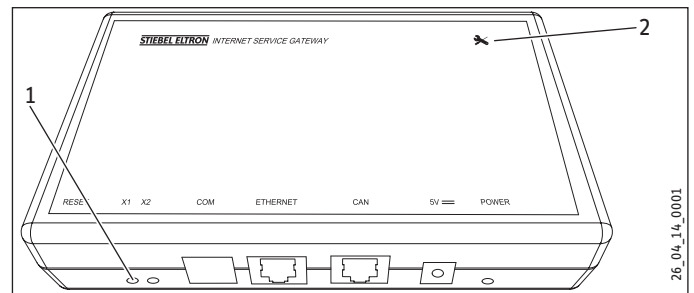
The available objects are listed in chapter "Communication objects".

## 4. Settings

The settings available on the ISG depend on the type of appliance connected. In the ETS, you can choose between the following appliance types:

Appliance type	Description
None	No appliance type specified
LWZ 03/04 Trend series	LWZ 303/403 integral ventilation units and LWZ Trend series
LWZ 04 series	304/404/504 integral ventilation units with optional solar connection
WPL/WPF	WPL and WPF appliances with WPM3 controller
WPC/WPF	WPC and WPF systems with WPM3i controller (compact systems with integral WPM)
WPL Split	WPL Split inverter appliances with WPMme controller (WPL IK/IS etc.)

### 4.1 Activating KNX programming mode



- 1 LED X1
- 2 Maintenance button



**Note**

Ensure that you press the centre of the maintenance button. If you do not, the appliance may not register the entry and thus not activate KNX programming mode.

- ▶ To switch the appliance to KNX programming mode, press and hold the maintenance button for about 6 seconds.

When KNX programming mode is activated, LED X1 will show a steady green light.



**Note**

If LED X1 does not show a steady green light, KNX programming mode has not been properly activated.

- ▶ Repeat the procedure.

### Deactivating KNX programming mode

- ▶ To deactivate KNX programming mode, press the maintenance button briefly.
- The appliance will activate the CAN function.
- LED X1 should be constantly flashing rapidly.

**4.2 Compatibility overview**

Use this product only in conjunction with the following appliances:

Stiebel Eltron	Type	B/ N	from yr of mftr	Con- troller	from soft- ware vrsn	Building automa- tion
						ISG web + KNX
LWZ 303/403 Inte- gral/SOL	Integral	B	08/2008			x
LWZ 304/404 SOL	Integral	N				x
LWA 403	Integral	N				-
LWZ 304 Integral	Integral	B				-
LWZ 304/404 Trend	Integral	N				x
LWZ 504	Integral	N			for EMI: 4.02, x SW ID 7962	x
LWZ 304/404 FLEX	Integral	N				-
LWZ Smart	Integral	N				-
WPL 33 HT	LW-WP	B		WPM 2.1		-
WPL 15/25 A(S)	LW-WP	B		WPM 2.1		-
WPL 5N plus	LW-WP	B		WPMx		-
WPL 10 I, IK, AC	LW-WP	B	05/2009	WPM II	6529	-
WPL 13 /20 A basic	LW-WP	B	05/2009	WPM II	6529	-
WPL 13-23 E / cool	LW-WP	B	05/2009	WPM II	6529	-
WPL 34/47/57	LW-WP	B	05/2009	WPM II	6529	-
WPL I(S)-2 / IK(S)-2	LW-WP	B		WPMme	34007	x
WPL 33 HT	LW-WP	N		WPM 3		x
WPL 15/25 A(C)(S)	LW-WP	N	26/2015	WPM 3	WPM 390.03, x FES 417.02	x
WPL 15/20/25 A(C)(S)	LW-WP	N		WPM 3		x
WPL 5N plus	LW-WP	N		WPMx		-
WPL 10 I, IK, AC	LW-WP	N		WPM 3		x
WPL 13/20 A basic	LW-WP	N		WPM 3		x
WPL 13-23 E / cool	LW-WP	N		WPM 3		x
WPL 34/47/57	LW-WP	N		WPM 3		x
WPL Trend	LW-WP	N		WPM 3		-
WPL I(S)-2 / IK(S)-2	LW-WP	N		WPMme		x
WPF 10-16 M	SW-WP	B	05/2009	WPM II	6529	-
WPF 20-66 / HT	SW-WP	B	05/2009	WPM II	6529	-
WPF 5-16 E / cool	SW-WP	B	01/2009	WPM iw	32508	-
WPF 5-16 basic	SW-WP	B	01/2009	WPM iw	32508	-
WPC 5-13 / cool	SW-WP	B	01/2009	WPM iw	32508	-
WPF 10-16 M	SW-WP	N		WPM 3		x
WPF 20-66 / HT	SW-WP	N		WPM 3		x
WPF 5-16 basic	SW-WP	N		WPM iw		-
WPF 04-16 / cool	SW-WP	N		WPM 3i		x
WPC 04-13 / cool	SW-WP	N		WPM 3i		x

Existing systems	B
New systems	N
Compatible	x
Not possible	-
LW-WP	Air/water heat pump
SW-WP	Brine/water heat pump



**Note**  
 In parameter configuration, first select the appliance type so that the parameters can be configured correctly on your system.

**4.3 Incompatibility**

Do not operate the ISG together with a DCo-active GSM on the same CAN BUS. This can result in errors in communication with the WPM.

**5. Troubleshooting**

**Appliance cannot be switched to programming mode**

- ▶ Check that the KNX software is installed (see INFO tab in ISG-SERVICEWELT).

**Fault message: "An internal appliance fault has occurred"**

The wrong appliance type has been selected.

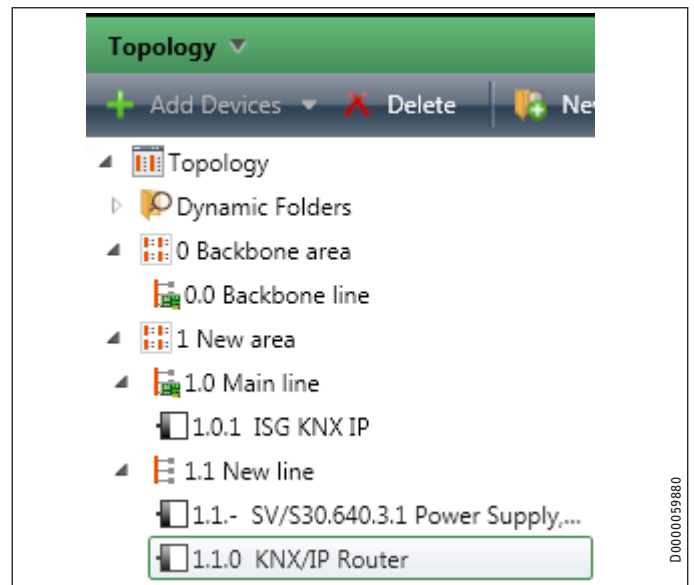
- ▶ Select a different appliance type. Verify that your appliance is KNX-compatible (see chapter "Compatibility overview").
- ▶ Check in SERVICEWELT that the ISG has correctly identified the system.

**No communication between ISG and KNX system**

If no telegrams have been registered showing communication between the ISG and the KNX system, proceed as follows:

- ▶ Check that Multicast is not blocked in the DSL router/switch.
- ▶ Check that the ISG has permission to communicate over the home network.
- ▶ Check the settings of the KNX-IP router. Observe the KNX-IP router operating and installation instructions.
- ▶ Check the KNX topology.
- ▶ If you have made any changes, restart the ISG.

**Example of topology**




- ▶ To avoid possible causes of error, first install a minimum configuration. The minimum configuration consists of a computer with ETS software and ISG web. Connect the components via a switch/DSL router. Use an Ethernet cable.
- ▶ Configure the computer network card as a programming connection via the ETS.
- ▶ One step at a time, increase the complexity of the configuration (KNX-IP router and other components).

If you encounter problems with the product and cannot remedy the cause, consult an IT contractor.

## 6. Parameters

The appliance has the following configurable parameters. Default values are shown in the "DEF" column.

### 6.1 "General" parameter block

 **Note**  
In parameter configuration, first select the appliance type so that the parameters can be configured correctly on your system. If the parameters are selected correctly, your system will be filtered such that valid values are assigned only to available objects. If an unavailable object is requested, the substitute value "32768 (0x8000H)" is assigned by the WPM.  
For appliances of the LWZ series the WPM displays the substitute values „-60“ (sensor lead is missing or disconnected) and „-50“ (short circuit of the sensor lead).

Parameters	Values	DEF	Description
KNX-IP device designation	ISG-KNX		Defines the device designation for the KNX-IP Discovery.
Delay in return of BUS voltage (seconds)	0..255: 15	15	Defines the time at which the first value is sent to the bus.
Appliance type	0 = not available, 1 = LWZ ..03/..04 Trend series 2 = LWZ ..04 series 3 = WPL/WPF 4 = WPC/WPF 5 = WPL Split	0	Defines the appliance type connected to the ISG.
Use HC1	0 = no, 1 = yes	0	Determines whether the objects for heating circuit 1 should be active.
Use HC2	0 = no, 1 = yes	0	Determines whether the objects for heating circuit 2 should be active.
Evaluate operating state	0 = no, 1 = yes	0	Defines the time at which the current time is sent to the bus.
Use SG Ready	0 = no, 1 = yes	0	Defines whether or not SG Ready is active
Cyclical transmission of temperature (minutes, 0 = inactive)	0..255: 0	0	Determines whether all of the general temperature values should be transmitted cyclically.
Transmission when change in temperature (0.1 K, 0 = inactive)	0..255: 0	0	Determines at what point temperature values should be resent following changes since the last transmission.
Cyclical transmission of relative humidity (minutes, 0 = inactive)	0..255: 0	0	Determines whether relative humidity values should be transmitted cyclically.
Transmission when change in humidity (0.1 %, 0 = inactive)	0..255: 0	0	Determines at what point relative humidity values should be resent following changes since the last transmission.

## 6.2 "IP configuration" parameter block



### Note

As long as the appliance was connected into the network before the KNX programming mode was activated, no modifications to the IP configuration are generally required.

For further details on IP configuration, see chapter "Configuration / IP parameters". Default values are shown in the "DEF" column.

Parameters	Values	DEF	Description
IP settings by ETS	0 = Do not use 1 = DHCP 2 = steady	0	Whether the IP settings on the ISG should be determined by ETS.
	IP address		Read-only parameter as heading
Byte 1	0..255: 0	0	Byte 1 of the IP address
Byte 2	0..255: 0	0	Byte 2 of the IP address
Byte 3	0..255: 0	0	Byte 3 of the IP address
Byte 4	0..255: 0	0	Byte 4 of the IP address
	Subnet mask		Read-only parameter as heading
Byte 1	0..255: 0	0	Byte 1 of the subnet mask
Byte 2	0..255: 0	0	Byte 2 of the subnet mask
Byte 3	0..255: 0	0	Byte 3 of the subnet mask
Byte 4	0..255: 0	0	Byte 4 of the subnet mask
	Standard gateway		Read-only parameter as heading
Byte 1	0..255: 0	0	Byte 1 of the gateway address
Byte 2	0..255: 0	0	Byte 2 of the gateway address
Byte 3	0..255: 0	0	Byte 3 of the gateway address
Byte 4	0..255: 0	0	Byte 4 of the gateway address
Use system multicast address	0 = no, 1 = yes	1	Whether the Multicast system address (224.0.23.12) should be used or another manual address
Byte 1	224..239: 239, read-only: 224	224	Byte 1 of the KNX-IP routing Multicast address. Read-only if Use system multicast address = yes
Byte 2	0..255: 0, read-only: 0	0	Byte 2 of the KNX-IP routing Multicast address. Read-only if Use system multicast address = yes
Byte 3	0..255: 23, read-only: 23	23	Byte 3 of the KNX-IP routing Multicast address. Read-only if Use system multicast address = yes
Byte 4	0..255: 12, read-only: 12	12	Byte 4 of the KNX-IP routing Multicast address. Read-only if Use system multicast address = yes

## 6.3 "Telemetry" parameter block

This parameter block is visible only if a specific appliance type has previously been selected. Default values are shown in the "DEF" column.

Parameters	Values	DEF	Description
Evaluate runtimes	0 = no, 1 = yes	0	Whether the communication objects have been activated for runtimes.
Evaluate power consumption	0 = no, 1 = yes	0	Whether the communication objects have been activated for electric energy consumption.
Cyclical transmission of consumption values (minutes, 0 = inactive)	0..255	0	Determines whether all of the power consumption values should be sent cyclically.
Transmission when change in sum total (0.1 MWh, 0 = inactive)	0..255	0	Determines at what point the total values should be resent following changes since the last transmission.
Transmission when change in day value (0.1 kWh, 0 = inactive)	0..255	0	Determines at what point the daily values should be resent following changes since the last transmission.
Evaluate amounts of heat	0 = no, 1 = yes	0	Whether the communication objects have been activated for amounts of heat.
Evaluate solar thermal energy	0 = no, 1 = yes	0	Whether the communication objects have been activated for solar thermal energy.
Cyclical transmission of amounts of heat (minutes, 0 = inactive)	0..255	0	Determines whether all of the amounts of heat should be sent cyclically.
Transmission when change in sum total (0.1 MWh, 0 = inactive)	0..255	0	Determines at what point the total values should be resent following changes since the last transmission.
Transmission when change in day value (0.1 kWh, 0 = inactive)	0..255	0	Determines at what point the daily values should be resent following changes since the last transmission.

### 7. Communication objects

The appliance has the following communication objects.

#### 7.1 "General" function range

##### 7.1.1 "Operating mode" object list

This parameter block is available only if a specific appliance type has previously been selected.

Object	Name	Function	Comments	Data point type (DPT)		Flags
20	Operating mode	KNX operating mode		1 byte	20.102 DPT_HVAC-Mode	C, W, T
	Integral ventilation units	Conversion of KNX to ISG operating mode: 0 Auto <-> automatic 1 Comfort <-> day mode 2 Standby <-> standby 3 Economy <-> setback mode 4 Building protection <-> emergency mode				
		No change <- DHW No change <- manual mode				
	WPM	Conversion of KNX to ISG operating mode: 0 Auto <-> programmed mode 1 Comfort <-> comfort mode 2 Standby <-> standby mode 3 Economy <-> ECO mode 4 Building protection <-> emergency mode				
		No change <- DHW				
21	Operating mode	Automatic	Bit synchronised with operating mode. Setting deletes any other bits. Corresponds to "Programmed mode" on WPM 3	1 bit	1.003 DPT_Enable	C, W, T
22	Operating mode	Standby	Bit synchronised with operating mode. Setting deletes any other bits.	1 bit	1.003 DPT_Enable	C, W, T
23	Operating mode	Day mode	Bit synchronised with operating mode. Setting deletes any other bits. Corresponds to "Comfort mode" on WPM 3	1 bit	1.003 DPT_Enable	C, W, T
24	Operating mode	Setback mode	Bit synchronised with operating mode. Setting deletes any other bits. Corresponds to "Night mode" or "ECO mode" on WPM 3	1 bit	1.003 DPT_Enable	C, W, T
25	Operating mode	DHW	Bit synchronised with operating mode. Setting deletes any other bits.	1 bit	1.003 DPT_Enable	C, W, T
27	Operating mode	Emergency mode	Bit synchronised with operating mode. Setting deletes any other bits.	1 bit	1.003 DPT_Enable	C, W, T
<b>This object is available only on an integral ventilation unit:</b>						
26	Operating mode	Manual mode	Bit synchronised with operating mode. Setting deletes any other bits.	1 bit	1.003 DPT_Enable	C, W, T

C = Communication, W = Write, R = Read, T= Transfer, U = Update

# SOFTWARE DOCUMENTATION

## Communication objects

### 7.1.2 "DHW" object list

This parameter block is available only if a specific appliance type has previously been selected.

Object	Name	Function	Data point type (DPT)		Flags
31	DHW	Set temperature day/comfort	2 byte float	9.001 DPT_Value_Temp	C, W, T
32	DHW	Set temperature night/eco	2 byte float	9.001 DPT_Value_Temp	C, W, T
33	DHW	Current set temperature	2 byte float	9.001 DPT_Value_Temp	C, R, T
34	DHW	Actual DHW temperature	2 byte float	9.001 DPT_Value_Temp	C, R, T

C = Communication, W = Write, R = Read, T= Transfer, U = Update

### 7.1.3 "Ventilation" object list

For further details on IP configuration, see chapter "Configuration / Fan stages".

This parameter block is available only if an integral ventilation unit has been selected as the appliance type.

Object	Name	Function	Comments	Data point type (DPT)		Flags
41	Ventilation	Fan stage day	In ISG value range 0-3	1 byte	5.010 DPT_Value_1_Ucount	C, W, T
42	Ventilation	Fan stage day %	In ISG value range 0-3	1 byte	5.001 DPT_Scaling	C, W, T
43	Ventilation	Fan stage night	In ISG value range 0-3	1 byte	5.010 DPT_Value_1_Ucount	C, W, T
44	Ventilation	Fan stage night %	In ISG value range 0-3	1 byte	5.001 DPT_Scaling	C, W, T
45	Ventilation	Fan stage unscheduled	In ISG value range 0-3	1 byte	5.010 DPT_Value_1_Ucount	C, W, T
46	Ventilation	Fan stage unscheduled %	In ISG value range 0-3	1 byte	5.001 DPT_Scaling	C, W, T

C = Communication, W = Write, R = Read, T= Transfer, U = Update

### 7.1.4 "HC 1" object list

This parameter block is available only if a specific appliance type has previously been selected, and if the parameter "Use HC 1" has the value "yes".

Object	Name	Function	Comments	Data point type (DPT)		Flags
1	Heating circuit 1	Heating, set room temperature, day/comfort		2 byte float	9.001 DPT_Value_Temp	C, W, T
2	Heating circuit 1	Heating, set room temperature, night/eco		2 byte float	9.001 DPT_Value_Temp	C, W, T
4	Heating circuit 1	Room temperature	Actual value at remote control connected to controller	2 byte float	9.001 DPT_Value_Temp	C, R, T
5	Heating circuit 1	Current set value		2 byte float	9.001 DPT_Value_Temp	C, R, T
6	Heating circuit 1	Actual value	From WPM3 390_03. Otherwise use actual return object.	2 byte float	9.001 DPT_Value_Temp	C, R, T
7	Heating circuit 1	Relative humidity	Actual value at remote control connected to controller	2 byte float	9.007 DPT_Value_Humidity Alternatively 5,001 DPT_Scaling	C, R, T

**This object is available only on an integral ventilation unit:**

3	Heating circuit 1	Current set room temperature		2 byte float	9.001 DPT_Value_Temp	C, R, T
---	-------------------	------------------------------	--	--------------	----------------------	---------

C = Communication, W = Write, R = Read, T= Transfer, U = Update



# SOFTWARE DOCUMENTATION

## Communication objects

### 7.1.5 "HC 2" object list

This parameter block is available only if a specific appliance type has previously been selected, and if the parameter "Use HC 2" has the value "yes".

Object	Name	Function	Comments	Data point type (DPT)		Flags
1	Heating circuit 2	Heating, set room temperature, day/comfort		2 byte float	9.001 DPT_Value_Temp	C, W, T
2	Heating circuit 2	Heating, set room temperature, night/eco		2 byte float	9.001 DPT_Value_Temp	C, W, T
4	Heating circuit 2	Room temperature	Actual value at remote control connected to controller	2 byte float	9.001 DPT_Value_Temp	C, R, T
5	Heating circuit 2	Current set value		2 byte float	9.001 DPT_Value_Temp	C, R, T
6	Heating circuit 2	Actual value	Supplied only for inverter systems and integral ventilation units. Otherwise use actual return object	2 byte float	9.001 DPT_Value_Temp	C, R, T
7	Heating circuit 2	Relative humidity	Actual value at remote control connected to controller	2 byte float	9.007 DPT_Value_Humidity Alternatively 5.001 DPT_Scaling	C, R, T
<b>This object is available only on an integral ventilation unit:</b>						
3	Heating circuit 2	Current set room temperature		2 byte float	9.001 DPT_Value_Temp	C, R, T

C = Communication, W = Write, R = Read, T= Transfer, U = Update

# SOFTWARE DOCUMENTATION

## Communication objects

### 7.1.6 "Operating status" object list

This parameter block is available only if a specific appliance type has previously been selected, and if the parameter "Evaluate operating state" has the value "yes".

Object	Name	Function	Data point type (DPT)		Flags	Available from
50	Operating status	Outside temperature	2 byte float	9.001 DPT_Value_Temp	C, R, T	
51	Operating status	Flow temperature	2 byte float	9.001 DPT_Value_Temp	C, R, T	WPM3 390_03
52	Operating status	Return temperature	2 byte float	9.001 DPT_Value_Temp	C, R, T	
97	Operating status	Fault status	1 bit	1.003 DPT_Enable	C, R, T	

#### These objects are available only on an integral ventilation unit:

53	Operating status	Booster heater stages	1 byte bit field	6.020 DPT_Status_Mode3	C, R, T	
55	Operating status	Compressor	1 bit	1.003 DPT_Enable	C, R, T	
56	Operating status	Heating	1 bit	1.003 DPT_Enable	C, R, T	
57	Operating status	Cooling	1 bit	1.003 DPT_Enable	C, R, T	
58	Operating status	DHW heating	1 bit	1.003 DPT_Enable	C, R, T	
59	Operating status	Electric booster heating	1 bit	1.003 DPT_Enable	C, R, T	
60	Operating status	Service	1 bit	1.003 DPT_Enable	C, R, T	
61	Operating status	Remote service	1 bit	1.003 DPT_Enable	C, R, T	
62	Operating status	Filter change	1 bit	1.003 DPT_Enable	C, R, T	
63	Operating status	Ventilation	1 bit	1.003 DPT_Enable	C, R, T	
64	Operating status	Heating circuit pump	1 bit	1.003 DPT_Enable	C, R, T	
65	Operating status	Evaporator defrost	1 bit	1.003 DPT_Enable	C, R, T	
66	Operating status	Filter change extract air	1 bit	1.003 DPT_Enable	C, R, T	
67	Operating status	Filter change supply air	1 bit	1.003 DPT_Enable	C, R, T	
68	Operating status	Heat-up program enabled	1 bit	1.003 DPT_Enable	C, R, T	

#### These objects are available only on appliance types 3 and 4:

70	Operating status	Heating circuit 1 pump	1 bit	1.003 DPT_Enable	C, R, T	WPM3 390_03, WPM3i 391_05
71	Operating status	Heating circuit 2 pump	1 bit	1.003 DPT_Enable	C, R, T	WPM3 390_03, WPM3i 391_05
72	Operating status	Heat-up program	1 bit	1.003 DPT_Enable	C, R, T	WPM3 390_03, WPM3i 391_05
73	Operating status	Electric emergency/booster heater	1 bit	1.003 DPT_Enable	C, R, T	WPM3 390_03, WPM3i 391_05
74	Operating status	Heating	1 bit	1.003 DPT_Enable	C, R, T	WPM3 390_03, WPM3i 391_05
75	Operating status	DHW heating	1 bit	1.003 DPT_Enable	C, R, T	WPM3 390_03, WPM3i 391_05
76	Operating status	Compressor	1 bit	1.003 DPT_Enable	C, R, T	WPM3 390_03, WPM3i 391_05
77	Operating status	Summer mode	1 bit	1.003 DPT_Enable	C, R, T	WPM3 390_03, WPM3i 391_05
78	Operating status	Cooling	1 bit	1.003 DPT_Enable	C, R, T	WPM3 390_03, WPM3i 391_05

#### These objects are available only on appliance type 3:

79	Operating status	Defrost	1 bit	1.003 DPT_Enable	C, R, T	WPM3 390_03
80	Operating status	Silent mode 1	1 bit	1.003 DPT_Enable	C, R, T	WPM3 390_03
81	Operating status	Silent mode 2	1 bit	1.003 DPT_Enable	C, R, T	WPM3 390_03
86	Operating status	Compressor 1	1 bit	1.003 DPT_Enable	C, R, T	
87	Operating status	Compressor 2	1 bit	1.003 DPT_Enable	C, R, T	
88	Operating status	Compressor 3	1 bit	1.003 DPT_Enable	C, R, T	
89	Operating status	Compressor 4	1 bit	1.003 DPT_Enable	C, R, T	
90	Operating status	Compressor 5	1 bit	1.003 DPT_Enable	C, R, T	
91	Operating status	Compressor 6	1 bit	1.003 DPT_Enable	C, R, T	

C = Communication, W = Write, R = Read, T = Transfer, U = Update

# SOFTWARE DOCUMENTATION

## Communication objects

### 7.1.7 "SG Ready" object list

This parameter block is available only if a specific appliance type has previously been selected, and if the parameter "Use SG Ready" has the value "yes".

Object	Name	Function	Comments	Data point type (DPT)		Flags
160	SG Ready	Enable	Enables or disables SG Ready	1 bit	1.001 DPT_Switch	C, W
161	SG Ready	Input 1	Switch object for SG Ready input 1	1 bit	1.001 DPT_Switch	C, W
162	SG Ready	Input 2	Switch object for SG Ready input 2	1 bit	1.001 DPT_Switch	C, W
163	SG Ready	Operating state	Current operating state, SG Ready	8 bit	20.xxx DPT_SGReadyMode	C, R, T
164	SG Ready	PV output	Input for PV counter (not yet in use)	4 byte float	14.056 DPT_Value_Power	C, W

C = Communication, W = Write, R = Read, T= Transfer, U = Update

## 7.2 "Telemetry" function range

The object lists from the "Telemetry" function range are available only if a specific appliance type has previously been selected.

### 7.2.1 "Runtimes" object list

This parameter block is available only if a specific appliance type has previously been selected, and if the parameter "Evaluate runtimes" has the value "yes".

Object	Name	Function	Data point type (DPT)		Flags
<b>These objects are available for all appliance types other than appliance type 3:</b>					
100	Runtimes	Compressor heating	2 byte integer	7.007 DPT_TimePeriodHrs	C, R, T
101	Runtimes	Compressor cooling	2 byte integer	7.007 DPT_TimePeriodHrs	C, R, T
102	Runtimes	Compressor DHW	2 byte integer	7.007 DPT_TimePeriodHrs	C, R, T
<b>These objects are available only on integral ventilation units:</b>					
103	Runtimes	Elec booster heating, heating	2 byte integer	7.007 DPT_TimePeriodHrs	C, R, T
104	Runtimes	Elec booster heating, DHW	2 byte integer	7.007 DPT_TimePeriodHrs	C, R, T
<b>These objects are available only on appliance types 3, 4 and 5:</b>					
120	Runtimes	NHZ 1	2 byte integer	7.007 DPT_TimePeriodHrs	C, R, T
121	Runtimes	NHZ 2	2 byte integer	7.007 DPT_TimePeriodHrs	C, R, T
122	Runtimes	NHZ 1/2	2 byte integer	7.007 DPT_TimePeriodHrs	C, R, T

C = Communication, W = Write, R = Read, T= Transfer, U = Update

# SOFTWARE DOCUMENTATION

## Communication objects

### 7.2.2 "Energy consumption" object list

This parameter block is available only if a specific appliance type has previously been selected and the parameter "Evaluate power consumption" has the value "yes". Heat pumps of appliance type 5 do not provide energy consumption values.

Object	Name	Function	Data point type (DPT)		Flags
130	Energy consumption	Heating day value	4 byte integer	13.010 DPT_ActiveEnergy	C, R, T
131	Energy consumption	Heating total	4 byte integer	13.013 DPT_ActiveEnergy_kWh	C, R, T
132	Energy consumption	DHW day value	4 byte integer	13.013 DPT_ActiveEnergy_kWh	C, R, T
133	Energy consumption	DHW total	4 byte integer	13.013 DPT_ActiveEnergy_kWh	C, R, T

C = Communication, W = Write, R = Read, T= Transfer, U = Update

### 7.2.3 "Amounts of heat" object list

This parameter block is available only if a specific appliance type has previously been selected, and if the parameter "Evaluate amounts of heat" has the value "yes".

Object	Name	Function	Comments	Data point type (DPT)		Flags
140	Amounts of heat	Heating day value		4 byte integer	13.010 DPT_ActiveEnergy	C, R, T
141	Amounts of heat	Heating total		4 byte integer	13.010 DPT_ActiveEnergy	C, R, T
142	Amounts of heat	DHW day value		4 byte integer	13.010 DPT_ActiveEnergy	C, R, T
143	Amounts of heat	DHW total		4 byte integer	13.010 DPT_ActiveEnergy	C, R, T
144	Amounts of heat	Booster htg, heating total (LWZ)	DHC htg, heating total (WPM)	4 byte integer	13.010 DPT_ActiveEnergy	C, R, T
145	Amounts of heat	Booster htg, DHW total	DHC htg, DHW total	4 byte integer	13.010 DPT_ActiveEnergy	C, R, T

These objects are available only on integral ventilation units:

146	Amounts of heat	HR day		4 byte integer	13.010 DPT_ActiveEnergy	C, R, T
147	Amounts of heat	HR total		4 byte integer	13.013 DPT_ActiveEnergy_kWh	C, R, T

These objects are available only on integral ventilation units from the LWZ 04 series:

148	Amounts of heat	Cooling total		4 byte integer	13.013 DPT_ActiveEnergy_kWh	C, R, T
-----	-----------------	---------------	--	----------------	-----------------------------	---------

C = Communication, W = Write, R = Read, T= Transfer, U = Update

### 7.2.4 "Solar thermal" object list

This parameter block is available only for integral ventilation units of object type 2. The parameter "Evaluate amounts of heat" must have the value "yes".

Object	Name	Function	Data point type (DPT)		Flags
150	Solar thermal	Central htg backup, day value	4 byte integer	13.010 DPT_ActiveEnergy	C, R, T
151	Solar thermal	Central htg backup total	4 byte integer	13.013 DPT_ActiveEnergy_kWh	C, R, T
152	Solar thermal	DHW day value	4 byte integer	13.010 DPT_ActiveEnergy	C, R, T
153	Solar thermal	DHW total	4 byte integer	13.013 DPT_ActiveEnergy_kWh	C, R, T

C = Communication, W = Write, R = Read, T= Transfer, U = Update

## 8. Configuration

### 8.1 IP parameters



**Note**

The ISG with KNX software can be loaded from ETS only via a KNXnet/IP routing interface functioning purely as a KNX-IP appliance.

- ▶ In the Communication settings for the ETS, deactivate the parameter "Use direct KNX-IP connection if available".

If the IP configuration of the ISG-KNX has to be set to a network other than the IP network being used on the ETS PC, you can adjust the IP configuration of the ISG-KNX via the ETS and the KNX configuration interface.

### 8.2 Fan stages

The fan stages in the ISG can be set within the range 0-3. Correspondingly, on the KNX there are 2 different objects:

- 1-byte decimal value (0-255)
- Percentage value (0-100 %)

In this respect, the following synchronisation rules apply:

- Value 3 will be stored on the object if a value greater than 3 is entered as a decimal value object.
- The following is a summary of how the value range of the percentage value object "p" reflects the fan stages and the decimal value object "d":

Ventilation performance (p) in %	Interpreted ventilation performance (p') in %	Corresponding ventilation stage in ISG (d)
0	0	0
1-33	33	1
34-66	66	2
67-100	100	3

- On the object, the value corresponding to the decimal value will be saved.
- If one value is set by the KNX, the corresponding other value in each case will be implemented. On condition that: A connection is available. The corresponding communication flag is set.
- If a ventilation stage is changed outside of the KNX and updated via the CAN bus, where relevant both corresponding values (decimal and percentage) will be implemented on the KNX.



**Note**

For "Day/night" fan stages, observe chapter "Operating modes and set values".



**Note**

For special functions that vary from normal operation (e.g. immediate ventilation via KNX) you can use unscheduled ventilation.

Here a different fan stage will be run for a defined period (e.g. 1 hour, adjustable at the WPM), then will automatically reset itself.

### 8.3 Operating modes and set values

Specified set values are assigned to each operating mode.

Via KNX, operating modes and their corresponding set values can be changed independently of one another.

In order to ensure that set values are changed immediately rather than at the next change of operating mode, only one of the two parameters (operating mode OR set value) should be changed via KNX, leaving the other parameter fixed:

- If the operating mode (e.g. comfort mode) is kept constant but the corresponding set values are changed via KNX, the heat pump will run according to the new values as soon as the change has been made.
- Conversely, with appropriately determined set values for the relevant operating modes, the entire system with all its set values can be switched to a different temperature level through a change of operating mode.

**Examples:**

- When the occupants are not present, it is recommended that the operating mode be switched to ECO mode. When someone is present, the heat pump can be switched to comfort mode. During a period of prolonged absence, standby mode can also be used.
- In "Automatic / Programmed mode", the system alternates between ECO and comfort temperature according to the corresponding program stored in the WPM (DHW program, heating program etc.). In this operating mode, a constant comfort temperature, for example, can be achieved by setting all programs to maintain the comfort temperature permanently.
- If the heat pump needs to be set to standby operation (for frost protection only), the operating mode can be changed over to standby mode.
- Where the FEK remote control is being used, it is recommended that the operating mode be fixed. The FEK remote control can start either comfort or ECO temperature for the heating circuit allocated to it, regardless of the main operating mode. On the FEK and on the WPM, therefore, comfort mode should be permanently activated. The appropriate set values are then altered via KNX. This way, the altered values are started immediately. If standby mode is enabled centrally, the setback will also be applied to the heating circuit assigned to the FEK.

### 8.4 SG Ready function

"SG Ready" is a trade make of Bundesverband Wärmepumpe e. V. It describes a feature on heat pumps with control technology that allows them to be connected to a smart grid.

#### 8.4.1 Operating states

Depending on the switching, the appliance can execute the following operating modes:

##### Operating state 1

Switching (input 2/input 1): (1/0)

- Lowest temperatures, cf. standby level (see operating and installation instructions for the connected appliance)
- Frost protection is assured

##### Operating state 2

Switching (input 2/input 1): (0/0)

- Automatic / Programmed mode (see operating and installation instructions for the connected heat pump)

##### Operating state 3 (accelerated mode)

Switching (input 2/input 1): (0/1)

- Accelerated mode with increased values for heating and DHW temperature
- You can set the increased values for heating and DHW temperature mode under SETTINGS / ENERGY MANAGEMENT

##### Operating state 4

Switching (input 2/input 1): (1/1)

- Immediate switch to maximum heating and DHW temperature values

#### 8.4.2 Use for photovoltaic optimisation

For photovoltaic optimisation (PV optimisation), a switching element is required that switches the KNX-SG Ready input 1 according to the available PV output. The threshold must be selected to the most appropriate level, e.g. 2 kW.

- Operating state 3 becomes active as soon as SG Ready input 1 is switched on and input 2 is switched off.
- SG Ready input 1 is switched off if insufficient PV output is available. The switch condition then corresponds to 0:0 and thus to operating state 2.
- For PV optimisation, operating modes 2 and 3 are relevant and the system switches automatically between the two.

The economic viability of the PV system improves as on-site PV consumption increases, and falls when power is drawn from the public grid.

To increase on-site PV consumption, the runtimes of the household consumer units and heat pumps must be adjusted to the times when PV output is actually available.

The heat pump runtimes required to cover DHW demand are mainly in periods of morning and evening. These are the times when PV output is either very low or completely unavailable. Thus DHW heating should ideally take place during the time when PV output is at its best. By shifting the heat pump runtimes in this way, on-site PV consumption is increased.

DHW operation using power from the public grid can be reduced by overheating the thermal DHW cylinder.



#### Note

By using the SG Ready function, heating water can enter the heating circuit at a higher flow temperature.  
► Install a high limit safety cut-out in the heating flow.

### 8.5 Cyclic transmission/hysteresis

You can configure the product in such a way that values are sent to the KNX bus only at certain cyclic intervals or when relevant changes have occurred.

If a voltage is returned, the ISG will not transmit data. Once fully reset, after about 3 minutes, the ISG restarts its cyclic transmission if parameters are set for this.

You can further delay transmission (see parameter "Delay in return of bus voltage" in the ETS).

Cyclic transmission, or sending when changes have occurred, is recommended for values that frequently change spontaneously or only to a limited extent. The transmission of these values is controlled via the "General" and "Telemetry" parameter blocks. These parameters cover broader function ranges with several objects.

In order to maintain consistent data transfer via the KNX bus, the cyclically transmitted values are divided into smaller groups. These groups are transmitted on a one-minute cyclic pattern.

The following summary shows how individual objects are assigned to the cyclic/hysteresis groups:

# SOFTWARE DOCUMENTATION

## Configuration

No.	Name	Function	Length	K	L	S	Ü	A	Data point type	Priority	Cyclic / Hysteresis group
1	Heating circuit 1	Heating, set room, day/eco	2 byte	x	-	x	x	-	Temperature (°C)	Low	
2	Heating circuit 1	Heating, set room, night/eco	2 byte	x	-	x	x	-	Temperature (°C)	Low	
3	Heating circuit 1	Current set room temperature	2 byte	x	x	-	x	-	Temperature (°C)	Low	
4	Heating circuit 1	Room temperature	2 byte	x	x	-	x	-	Temperature (°C)	Low	Temperature
5	Heating circuit 1	Current set value	2 byte	x	x	-	x	-	Temperature (°C)	Low	
6	Heating circuit 1	Actual value	2 byte	x	x	-	x	-	Temperature (°C)	Low	Temperature
7	Heating circuit 1	Relative humidity	2 byte	x	x	-	x	-		Low	Humidity
11	Heating circuit 2	Heating, set room, day/eco	2 byte	x	-	x	x	-	Temperature (°C)	Low	
12	Heating circuit 2	Heating, set room, night/eco	2 byte	x	-	x	x	-	Temperature (°C)	Low	
13	Heating circuit 2	Current set room temperature	2 byte	x	x	-	x	-	Temperature (°C)	Low	
14	Heating circuit 2	Room temperature	2 byte	x	x	-	x	-	Temperature (°C)	Low	Temperature
15	Heating circuit 2	Current set value	2 byte	x	x	-	x	-	Temperature (°C)	Low	
16	Heating circuit 2	Actual value	2 byte	x	x	-	x	-	Temperature (°C)	Low	Temperature
17	Heating circuit 2	Relative humidity	2 byte	x	x	-	x	-		Low	Humidity
20	Operating mode	KNX operating mode	1 byte	x	-	x	x	-		Low	
21	Operating mode	Automatic	1 bit	x	-	x	x	-	Enable	Low	
22	Operating mode	Standby	1 bit	x	-	x	x	-	Enable	Low	
23	Operating mode	Day mode	1 bit	x	-	x	x	-	Enable	Low	
24	Operating mode	Setback mode	1 bit	x	-	x	x	-	Enable	Low	
25	Operating mode	DHW	1 bit	x	-	x	x	-	Enable	Low	
26	Operating mode	Manual mode	1 bit	x	-	x	x	-	Enable	Low	
27	Operating mode	Emergency mode	1 bit	x	-	x	x	-	Enable	Low	
31	DHW	Set temperature	2 byte	x	-	x	x	-	Temperature (°C)	Low	
32	DHW	Set temperature, night	2 byte	x	-	x	x	-	Temperature (°C)	Low	
33	DHW	Current set temperature	2 byte	x	x	-	x	-	Temperature (°C)	Low	
34	DHW	DHW actual temperature	2 byte	x	x	-	x	-	Temperature (°C)	Low	Temperature
41	Ventilation	Fan stage day	1 byte	x	-	x	x	-	Counter pulses (0..255)	Low	
42	Ventilation	Fan stage day %	1 byte	x	-	x	x	-	Percentage (0..100 %)	Low	
43	Ventilation	Fan stage night	1 byte	x	-	x	x	-	Counter pulses (0..255)	Low	
44	Ventilation	Fan stage night %	1 byte	x	-	x	x	-	Percentage (0..100 %)	Low	
45	Ventilation	Fan stage unscheduled	1 byte	x	-	x	x	-	Counter pulses (0..255)	Low	
46	Ventilation	Fan stage unscheduled %	1 byte	x	-	x	x	-	Percentage (0..100 %)	Low	
50	Operating status	Outside temperature	2 byte	x	x	-	x	-	Temperature (°C)	Low	Temperature
51	Operating status	Flow temperature	2 byte	x	x	-	x	-	Temperature (°C)	Low	Temperature
52	Operating status	Return temperature	2 byte	x	x	-	x	-	Temperature (°C)	Low	Temperature
53	Operating status	Booster heater stages	1 byte	x	x	-	x	-	8-bit signed value	Low	
54	Operating status	Switching program	1 bit	x	x	-	x	-	Enable	Low	
55	Operating status	Compressor	1 bit	x	x	-	x	-	Enable	Low	
56	Operating status	Heating	1 bit	x	x	-	x	-	Enable	Low	
57	Operating status	Cooling	1 bit	x	x	-	x	-	Enable	Low	
58	Operating status	DHW heating	1 bit	x	x	-	x	-	Enable	Low	
59	Operating status	Electric booster heating	1 bit	x	x	-	x	-	Enable	Low	
60	Operating status	Service	1 bit	x	x	-	x	-	Enable	Low	
61	Operating status	Remote service	1 bit	x	x	-	x	-	Enable	Low	
62	Operating status	Filter change	1 bit	x	x	-	x	-	Enable	Low	
63	Operating status	Ventilation stage	1 bit	x	x	-	x	-	Enable	Low	
64	Operating status	Heating circuit pump	1 bit	x	x	-	x	-	Enable	Low	
65	Operating status	Evaporator defrost	1 bit	x	x	-	x	-	Enable	Low	
66	Operating status	Filter change extract air	1 bit	x	x	-	x	-	Enable	Low	
67	Operating status	Filter change supply air	1 bit	x	x	-	x	-	Enable	Low	
68	Operating status	Heat-up program enabled	1 bit	x	x	-	x	-	Enable	Low	
70	Operating status	Heating circuit 1 pump	1 bit	x	x	-	x	-	Enable	Low	
71	Operating status	Mixer circuit pump/Heating circuit 2 pump	1 bit	x	x	-	x	-	Enable	Low	
72	Operating status	Heat-up program	1 bit	x	x	-	x	-	Enable	Low	
73	Operating status	Electric emergency/booster heater	1 bit	x	x	-	x	-	Enable	Low	
74	Operating status	Heating	1 bit	x	x	-	x	-	Enable	Low	
75	Operating status	DHW heating	1 bit	x	x	-	x	-	Enable	Low	
76	Operating status	Compressor	1 bit	x	x	-	x	-	Enable	Low	
77	Operating status	Summer mode	1 bit	x	x	-	x	-	Enable	Low	
78	Operating status	Cooling	1 bit	x	x	-	x	-	Enable	Low	
79	Operating status	Defrost	1 bit	x	x	-	x	-	Enable	Low	
80	Operating status	Silent mode	1 bit	x	x	-	x	-	Enable	Low	
97	Operating status	Fault status	1 bit	x	x	-	x	-	Enable	Low	

# SOFTWARE DOCUMENTATION

## Configuration

No.	Name	Function	Length	K	L	S	Ü	A	Data point type	Priority	Cyclic / Hysteresis group
100	Runtimes	Compressor heating	2 byte	x	x	-	x	-	2-byte unsigned value	Low	
101	Runtimes	Compressor cooling	2 byte	x	x	-	x	-	2-byte unsigned value	Low	
102	Runtimes	Compressor DHW	2 byte	x	x	-	x	-	2-byte unsigned value	Low	
103	Runtimes	Elec booster heating, heating	2 byte	x	x	-	x	-	2-byte unsigned value	Low	
104	Runtimes	Elec booster heating, DHW	2 byte	x	x	-	x	-	2-byte unsigned value	Low	
120	Runtimes	NHZ 1	2 byte	x	x	-	x	-	2-byte unsigned value	Low	
121	Runtimes	NHZ 2	2 byte	x	x	-	x	-	2-byte unsigned value	Low	
122	Runtimes	NHZ 1/2	2 byte	x	x	-	x	-	2-byte unsigned value	Low	
130	Energy consumption	Heating day value	4 byte	x	x	-	x	-	4-byte signed value	Low	Consumption
131	Energy consumption	Heating total	4 byte	x	x	-	x	-	4-byte signed value	Low	Consumption
132	Energy consumption	DHW day value	4 byte	x	x	-	x	-	4-byte signed value	Low	Consumption
133	Energy consumption	DHW total	4 byte	x	x	-	x	-	4-byte signed value	Low	Consumption
140	Amounts of heat	Heating day value	4 byte	x	x	-	x	-	4-byte signed value	Low	Amounts of heat
141	Amounts of heat	Heating total	4 byte	x	x	-	x	-	4-byte signed value	Low	Amounts of heat
142	Amounts of heat	DHW day value	4 byte	x	x	-	x	-	4-byte signed value	Low	Amounts of heat
143	Amounts of heat	DHW total	4 byte	x	x	-	x	-	4-byte signed value	Low	Amounts of heat
144	Amounts of heat	Booster htg, heating total	4 byte	x	x	-	x	-	4-byte signed value	Low	Amounts of heat
145	Amounts of heat	Booster htg, DHW total	4 byte	x	x	-	x	-	4-byte signed value	Low	Amounts of heat
146	Amounts of heat	HR day	4 byte	x	x	-	x	-	4-byte signed value	Low	Amounts of heat
147	Amounts of heat	HR total	4 byte	x	x	-	x	-	4-byte signed value	Low	Amounts of heat
148	Amounts of heat	Cooling total	4 byte	x	x	-	x	-	4-byte signed value	Low	Amounts of heat
150	Solar thermal	Central heating backup Day value	4 byte	x	x	-	x	-	4-byte signed value	Low	Amounts of heat
151	Solar thermal	Central htg backup total	4 byte	x	x	-	x	-	4-byte signed value	Low	Amounts of heat
152	Solar thermal	DHW day value	4 byte	x	x	-	x	-	4-byte signed value	Low	Amounts of heat
153	Solar thermal	DHW total	4 byte	x	x	-	x	-	4-byte signed value	Low	Amounts of heat
160	Smart grid	Enabled	1 bit	x	-	x	-	-	On/Off	Low	
161	Smart grid	Input 1	1 bit	x	-	x	-	-	On/Off	Low	
162	Smart grid	Input 2	1 bit	x	-	x	-	-	On/Off	Low	
163	Smart grid	Operating state	1 byte	x	x	-	x	-	On/Off	Low	
164	Smart grid	PV output	4 byte	x	-	x	-	-	4 byte float	Low	

C = Communication, W = Write, R = Read, T= Transfer, U = Update

## Guarantee

The guarantee conditions of our German companies do not apply to appliances acquired outside of Germany. In countries where our subsidiaries sell our products a guarantee can only be issued by those subsidiaries. Such guarantee is only granted if the subsidiary has issued its own terms of guarantee. No other guarantee will be granted.

We shall not provide any guarantee for appliances acquired in countries where we have no subsidiary to sell our products. This will not affect warranties issued by any importers.



## Deutschland

STIEBEL ELTRON GmbH & Co. KG  
Dr.-Stiebel-Straße 33 | 37603 Holzminden  
Tel. 05531 702-0 | Fax 05531 702-480  
info@stiebel-eltron.de  
www.stiebel-eltron.de

## Verkauf

Tel. 05531 702-110 | Fax 05531 702-95108 | info-center@stiebel-eltron.de

## Kundendienst

Tel. 05531 702-111 | Fax 05531 702-95890 | kundendienst@stiebel-eltron.de

## Ersatzteilverkauf

Tel. 05531 702-120 | Fax 05531 702-95335 | ersatzteile@stiebel-eltron.de

## Australia

STIEBEL ELTRON Australia Pty. Ltd.  
6 Prohasky Street | Port Melbourne VIC 3207  
Tel. 03 9645-1833 | Fax 03 9645-4366  
info@stiebel.com.au  
www.stiebel.com.au

## Austria

STIEBEL ELTRON Ges.m.b.H.  
Gewerbegebiet Neubau-Nord  
Margaritenstraße 4 A | 4063 Hörsching  
Tel. 07221 74600-0 | Fax 07221 74600-42  
info@stiebel-eltron.at  
www.stiebel-eltron.at

## Belgium

STIEBEL ELTRON bvba/sprl  
't Hofveld 6 - D1 | 1702 Groot-Bijgaarden  
Tel. 02 42322-22 | Fax 02 42322-12  
info@stiebel-eltron.be  
www.stiebel-eltron.be

## China

STIEBEL ELTRON (Guangzhou) Electric  
Appliance Co., Ltd.  
Rm 102, F1, Yingbin-Yihao Mansion, No. 1  
Yingbin Road  
Panyu District | 511431 Guangzhou  
Tel. 020 39162209 | Fax 020 39162203  
info@stiebeleltron.cn  
www.stiebeleltron.cn

## Czech Republic

STIEBEL ELTRON spol. s r.o.  
K Hájm 946 | 155 00 Praha 5 - Stodůlky  
Tel. 251116-111 | Fax 235512-122  
info@stiebel-eltron.cz  
www.stiebel-eltron.cz

## Finland

STIEBEL ELTRON OY  
Kapinakuja 1 | 04600 Mäntsälä  
Tel. 020 720-9988  
info@stiebel-eltron.fi  
www.stiebel-eltron.fi

## France

STIEBEL ELTRON SAS  
7-9, rue des Selliers  
B.P 85107 | 57073 Metz-Cédex 3  
Tel. 0387 7438-88 | Fax 0387 7468-26  
info@stiebel-eltron.fr  
www.stiebel-eltron.fr

## Hungary

STIEBEL ELTRON Kft.  
Gyár u. 2 | 2040 Budaörs  
Tel. 01 250-6055 | Fax 01 368-8097  
info@stiebel-eltron.hu  
www.stiebel-eltron.hu

## Japan

NIHON STIEBEL Co. Ltd.  
Kowa Kawasaki Nishiguchi Building 8F  
66-2 Horikawa-Cho  
Saiwai-Ku | 212-0013 Kawasaki  
Tel. 044 540-3200 | Fax 044 540-3210  
info@nihonstiebel.co.jp  
www.nihonstiebel.co.jp

## Netherlands

STIEBEL ELTRON Nederland B.V.  
Daviottenweg 36 | 5222 BH 's-Hertogenbosch  
Tel. 073 623-0000 | Fax 073 623-1141  
info@stiebel-eltron.nl  
www.stiebel-eltron.nl

## Poland

STIEBEL ELTRON Polska Sp. z O.O.  
ul. Działkowa 2 | 02-234 Warszawa  
Tel. 022 60920-30 | Fax 022 60920-29  
biuro@stiebel-eltron.pl  
www.stiebel-eltron.pl

## Russia

STIEBEL ELTRON LLC RUSSIA  
Urzhumskaya street 4,  
building 2 | 129343 Moscow  
Tel. 0495 7753889 | Fax 0495 7753887  
info@stiebel-eltron.ru  
www.stiebel-eltron.ru

## Slovakia

TATRAMAT - ohrievače vody s.r.o.  
Hlavná 1 | 058 01 Poprad  
Tel. 052 7127-125 | Fax 052 7127-148  
info@stiebel-eltron.sk  
www.stiebel-eltron.sk

## Switzerland

STIEBEL ELTRON AG  
Industrie West  
Gass 8 | 5242 Lupfig  
Tel. 056 4640-500 | Fax 056 4640-501  
info@stiebel-eltron.ch  
www.stiebel-eltron.ch

## Thailand

STIEBEL ELTRON Asia Ltd.  
469 Moo 2 Tambol Klong-Jik  
Amphur Bangpa-In | 13160 Ayutthaya  
Tel. 035 220088 | Fax 035 221188  
info@stiebeleltronasia.com  
www.stiebeleltronasia.com

## United Kingdom and Ireland

STIEBEL ELTRON UK Ltd.  
Unit 12 Stadium Court  
Stadium Road | CH62 3RP Bromborough  
Tel. 0151 346-2300 | Fax 0151 334-2913  
info@stiebel-eltron.co.uk  
www.stiebel-eltron.co.uk

## United States of America

STIEBEL ELTRON, Inc.  
17 West Street | 01088 West Hatfield MA  
Tel. 0413 247-3380 | Fax 0413 247-3369  
info@stiebel-eltron-usa.com  
www.stiebel-eltron-usa.com

**STIEBEL ELTRON**



Irrtum und technische Änderungen vorbehalten! | Subject to errors and technical changes! | Sous réserve d'erreurs et de modifications techniques! | Onder voorbehoud van vergissingen en technische wijzigingen! | Salvo error o modificación técnica! | Excepto erro ou alteração técnica | Zastrzeżone zmiany techniczne i ewentualne błędy | Omyly a technické změny jsou vyhrazeny! | A muszaki változtatások és tévedések jogát fenntartjuk! | Отсутствие ошибок не гарантируется. Возможны технические изменения. | Chyby a technické zmeny sú vyhradené! Stand 9147