01 07 Energy 3-Phase 802901

Use of the application program

Product family:	system device
Product type:	coupler
Manufacturer:	Siemens
Name:	7KT1 900 communication module KNX/EIB
Order No.:	7KT1 900

Description of functions

The 7KT1 900 communication module KNX/EIB is a modular device that is installed on the left of 7KT1 5xx E-counters on the standard mounting rail (Figure 1).

Fig. 1

It can be used with the following E-counters:

7KT1 531	E-counter, single-phase, direct counter 80A, 2 tariffs, 2MW
7KT1 533	E-counter, single-phase, direct counter 80A, 2 tariffs, no reset, MID, 2MW
7KT1 540	E-counter, three-phase, transformer counter 5A, 2 tariffs, 4MW
7KT1 542	E-counter, three-phase, transformer counter 5A, 2 tariffs, no reset, MID, 4MW
7KT1 543	E-counter, three-phase, direct counter 80A, 2 tariffs, 4MW
7KT1 545	E-counter, three-phase, direct counter 80A, 2 tariffs, no reset, MID, 4MW
7KT1 546	E-counter, three-phase, direct counter 125A, 2 tariffs, 6MW
7KT1 548	E-counter, three-phase, direct counter 125A, 2 tariffs, no reset, MID, calibrated, 6MW

For the 7KT1 900 communication module KNX/EIB there is an application program (01 07 Energy single-phase 802801) for the single-phase E-counter and a second application program (01 07 Energy 3-phase 802901) for the three-phase E-counter described in this document.

For three-phase E-counters, the 7KT1 900 communication module KNX/EIB transmits the following counter data via KNX TP (EIB):

- Active energy, import, tariff 1 (phases 1, 2, 3 and total)
- Active energy, import, tariff 2 (phases 1, 2, 3 and total)
- Active energy, export, tariff 1 (phases 1, 2, 3 and total)
- Active energy, export, tariff 2 (phases 1, 2, 3 and total)
- Reactive energy, import, tariff 1 (phases 1, 2, 3 and total)
- Reactive energy, import, tariff 2 (phases 1, 2, 3 and total)
- Reactive energy, export, tariff 1 (phases 1, 2, 3 and total)
- Reactive energy, export, tariff 2 (phases 1, 2, 3 and total)
- Active power (phases 1, 2, 3 and total)
- Reactive power (phases 1, 2, 3 and total)

The following functions are also available:

- Reset of the counter registers (this function is available for some counters only)
- Information on the load characteristic (inductive/capacitive, energy import/export)
- Counter overflow warning
- Warning if parameter-definable voltage limits are overshot/undershot
- "Failure of IR communication to counter" message
- "Incorrect connection of phases to counter" message

The application program can be loaded as from ETS 3.0e.

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Communication objects

Maximum number of group addresses:255
Maximum number of assignments: 254

Note

The number and designations of the communication objects displayed in the ETS menu may vary because they depend on the parameter settings.

The specific parameters and addresses can be assigned and transferred to the bus device with the aid of ETS.

Version ETS3.0e or higher of the Engineering Tool Software (ETS) is needed to load the application program.

Note

Values are only ever transferred automatically in the case of objects indicated accordingly. All other objects must be read.

No.	Object name	Function	Number of bits	Flags
0	Active energy, import, phase L1, tariff 1 (Wh)	Value	4 bytes	KLÜ
1	Active energy, import, phase L2, tariff 1 (Wh)	Value	4 bytes	KLÜ
2	Active energy, import, phase L3, tariff 1 (Wh)	Value	4 bytes	KLÜ
3	Active energy, import, total, tariff 1 (Wh)	Value	4 bytes	KLÜ
4	Active energy, import, phase L1, tariff 2 (Wh)	Value	4 bytes	KLÜ
5	Active energy, import, phase L2, tariff 2 (Wh)	Value	4 bytes	KLÜ
6	Active energy, import, phase L3, tariff 2 (Wh)	Value	4 bytes	KLÜ
7	Active energy, import, total, tariff 2 (Wh)	Value	4 bytes	KLÜ
8	Active power, phase L1 (W)	Value	4 bytes	KLÜ
9	Active power, phase L2 (W)	Value	4 bytes	KLÜ
10	Active power, phase L3 (W)	Value	4 bytes	KLÜ
11	Active power, total (W)	Value	4 bytes	KLÜ
16	Active energy, export, phase L1, tariff 1 (Wh)	Value	4 bytes	KLÜ
17	Active energy, export, phase L2, tariff 1 (Wh)	Value	4 bytes	KLÜ
18	Active energy, export, phase L3, tariff 1 (Wh)	Value	4 bytes	KLÜ
19	Active energy, export, total, tariff 1 (Wh)	Value	4 bytes	KLÜ
20	Active energy, export, phase L1, tariff 2 (Wh)	Value	4 bytes	KLÜ
21	Active energy, export, phase L2, tariff 2 (Wh)	Value	4 bytes	KLÜ
22	Active energy, export, phase L3, tariff 2 (Wh)	Value	4 bytes	KLÜ
23	Active energy, export, total, tariff 2 (Wh)	Value	4 bytes	KLÜ
24	Reactive energy, import, phase L1, tariff 1 (VArh)	Value	4 bytes	KLÜ
25	Reactive energy, import, phase L2, tariff 1 (VArh)	Value	4 bytes	KLÜ
26	Reactive energy, import, phase L3, tariff 1 (VArh)	Value	4 bytes	KLÜ
27	Reactive energy, import, total, tariff 1 (VArh)	Value	4 bytes	KLÜ
28	Reactive energy, import, phase L1, tariff 2 (VArh)	Value	4 bytes	KLÜ
29	Reactive energy, import, phase L2, tariff 2 (VArh)	Value	4 bytes	KLÜ
30	Reactive energy, import, phase L3, tariff 2 (VArh)	Value	4 bytes	KLÜ
31	Reactive energy, import, total, tariff 2 (VArh)	Value	4 bytes	KLÜ
32	Reactive energy, export, phase L1, tariff 1 (VArh)	Value	4 bytes	KLÜ
33	Reactive energy, export, phase L2, tariff 1 (VArh)	Value	4 bytes	KLÜ
34	Reactive energy, export, phase L3, tariff 1 (VArh)	Value	4 bytes	KLÜ
35	Reactive energy, export, total, tariff 1 (VArh)	Value	4 bytes	KLÜ
36	Reactive energy, export, phase L1, tariff 2 (VArh)	Value	4 bytes	KLÜ
37	Reactive energy, export, phase L2, tariff 2 (VArh)	Value	4 bytes	KLÜ
38	Reactive energy, export, phase L3, tariff 2 (VArh)	Value	4 bytes	KLÜ
39	Reactive energy, export, total, tariff 2 (VArh)	Value	4 bytes	KLÜ
40	Reactive power, phase L1 (VAr)	Value	4 bytes	KLÜ
41	Reactive power, phase L2 (VAr)	Value	4 bytes	KLÜ
42	Reactive power, phase L3 (VAr)	Value	4 bytes	KLÜ
43	Reactive power, total (VAr)	Value	4 bytes	KLÜ
65	Limit alarm	Status	1 byte	KLÜ
66	Installation error	Status	1 byte	KLÜ
67	Measurement range overflow	Status	1 byte	KLÜ
68	Load information, phase L1	Status	1 byte	KLÜ
69	Load information, phase L2	Status	1 byte	KLÜ
70	Load information, phase L3	Status	1 byte	KLÜ
78	Active energy register	Reset	1 bit	KLSÜ
81	Reactive energy register	Reset	1 bit	KLSÜ
90	General warning	Status	1 bit	KLÜ
91	IR interface warning	Status	1 bit	KLÜ
92	Current tariff	Status	1 bit	KLÜ
126	Product code	Description	14 bytes	KLÜ

Note

All powers are transferred as floating point/floating value (DTP 14.0.56 Value_Power).
All energies are transferred as signed counted values (DTP 13.0.10/12/13/15).

Active energy, active power

No.	Name	Function	Length	Flag
0	Active energy, import, phase L1, tariff 1 (Wh)	Value	4 bytes (DPT 13.010)	KLÜ
0	Active energy, import, phase L1, tariff 1 (kWh)	Value	4 bytes (DPT 13.013)	KLÜ
The value of the active energy of phase L1 imported in Wh or kWh in tariff 1 is transferred via the group address linked to this object. The value is transferred automatically when a read request is issued or if the parameterized send difference is exceeded.				
1	Active energy, import, phase L2, tariff 1 (Wh)	Value	4 bytes (DPT 13.010)	KLÜ
1	Active energy, import, phase L2, tariff 1 (kWh)	Value	4 bytes (DPT 13.013)	KLÜ
The value of the active energy of phase L2 imported in Wh or kWh in tariff 1 is transferred via the group address linked to this object. The value is transferred automatically when a read request is issued or if the parameterized send difference is exceeded.				

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No.	Name	Function	Length	Flag
2	Active energy, import, phase L3, tariff 1 (Wh)	Value	4 bytes (DPT 13.010)	KLÜ
2	Active energy, import, phase L3, tariff 1 (kWh)	Value	4 bytes (DPT 13.013)	KLÜ
The value of the active energy of phase L3 imported in Wh or kWh in tariff 1 is transferred via the group address linked to this object. The value is transferred automatically when a read request is issued or if the parameterized send difference is exceeded.				
3	Active energy, import, total, tariff 1 (Wh)	Value	4 bytes (DPT 13.010)	KLÜ
3	Active energy, import, total, tariff 1 (kWh)	Value	4 bytes (DPT 13.013)	KLÜ
The value of the active energy of all phases (total value) imported in Wh or kWh in tariff 1 is transferred via the group address linked to this object. The value is transferred automatically when a read request is issued or if the parameterized send difference is exceeded.				
4	Active energy, import, phase L1, tariff 2 (Wh)	Value	4 bytes (DPT 13.010)	KLÜ
4	Active energy, import, phase L1, tariff 2 (kWh)	Value	4 bytes (DPT 13.013)	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The value of the active energy of phase L1 imported in Wh or kWh in tariff 2 is transferred via the group address linked to this object. The value is transferred automatically when a read request is issued or if the parameterized send difference is exceeded.				
5	Active energy, import, phase L2, tariff 2 (Wh)	Value	4 bytes (DPT 13.010)	KLÜ
5	Active energy, import, phase L2, tariff 2 (kWh)	Value	4 bytes (DPT 13.013)	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The value of the active energy of phase L2 imported in Wh or kWh in tariff 2 is transferred via the group address linked to this object. The value is transferred automatically when a read request is issued or if the parameterized send difference is exceeded.				
6	Active energy, import, phase L3, tariff 2 (Wh)	Value	4 bytes (DPT 13.010)	KLÜ
6	Active energy, import, phase L3, tariff 2 (kWh)	Value	4 bytes (DPT 13.013)	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The value of the active energy of phase L3 imported in Wh or kWh in tariff 2 is transferred via the group address linked to this object. The value is transferred automatically when a read request is issued or if the parameterized send difference is exceeded.				
7	Active energy, import, total, tariff 2 (Wh)	Value	4 bytes (DPT 13.010)	KLÜ
7	Active energy, import, total, tariff 2 (kWh)	Value	4 bytes (DPT 13.013)	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The value of the active energy of all phases (total value) imported in Wh or kWh in tariff 2 is transferred via the group address linked to this object. The value is transferred automatically when a read request is issued or if the parameterized send difference is exceeded.				
8	Active power, phase L1 (W)	Value	4 bytes (DPT 14.056)	KLÜ
The current active power of phase L1 in W is transferred via the group address linked to this object. The value is transferred automatically when a read request is issued or if the parameterized send difference is exceeded.				
9	Active power, phase L2 (W)	Value	4 bytes (DPT 14.056)	KLÜ
The current active power of phase L2 in W is transferred via the group address linked to this object. The value is transferred automatically when a read request is issued or if the parameterized send difference is exceeded.				
10	Active power, phase L3 (W)	Value	4 bytes (DPT 14.056)	KLÜ
The current active power of phase L3 in W is transferred via the group address linked to this object. The value is transferred automatically when a read request is issued or if the parameterized send difference is exceeded.				
11	Active power, total (W)	Value	4 bytes (DPT 14.056)	KLÜ
The current active power of phases L1-L3 in W is transferred via the group address linked to this object. The value is transferred automatically when a read request is issued or if the parameterized send difference is exceeded.				

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No.	Name	Function	Length	Flag
16	Active energy, export, phase L1, tariff 1 (Wh)	Value	4 bytes (DPT 13.010)	KLÜ
16	Active energy, export, phase L1, tariff 1 (kWh)	Value	4 bytes (DPT 13.013)	KLÜ
The value of the active energy of phase L1 exported in Wh or kWh in tariff 1 is transferred via the group address linked to this object.				
17	Active energy, export, phase L2, tariff 1 (Wh)	Value	4 bytes (DPT 13.010)	KLÜ
17	Active energy, export, phase L2, tariff 1 (kWh)	Value	4 bytes (DPT 13.013)	KLÜ
The value of the active energy of phase L2 exported in Wh or kWh in tariff 1 is transferred via the group address linked to this object.				
18	Active energy, export, phase L3, tariff 1 (Wh)	Value	4 bytes (DPT 13.010)	KLÜ
18	Active energy, export, phase L3, tariff 1 (kWh)	Value	4 bytes (DPT 13.013)	KLÜ
The value of the active energy of phase L3 exported in Wh or kWh in tariff 1 is transferred via the group address linked to this object.				
19	Active energy, export, total, tariff 1 (Wh)	Value	4 bytes (DPT 13.010)	KLÜ
19	Active energy, export, total, tariff 1 (kWh)	Value	4 bytes (DPT 13.013)	KLÜ
The value of the active energy of all phases (total value) exported in Wh or kWh in tariff 1 is transferred via the group address linked to this object.				
20	Active energy, export, phase L1, tariff 2 (Wh)	Value	4 bytes (DPT 13.010)	KLÜ
20	Active energy, export, phase L1, tariff 2 (kWh)	Value	4 bytes (DPT 13.013)	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The value of the active energy of phase L1 exported in Wh or kWh in tariff 2 is transferred via the group address linked to this object.				

No.	Name	Function	Length	Flag
21	Active energy, export, phase L2, tariff 2 (Wh)	Value	4 bytes (DPT 13.010)	KLÜ
21	Active energy, export, phase L2, tariff 2 (kWh)	Value	4 bytes (DPT 13.013)	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The value of the active energy of phase L2 exported in Wh or kWh in tariff 2 is transferred via the group address linked to this object.				
22	Active energy, export, phase L3, tariff 2 (Wh)	Value	4 bytes (DPT 13.010)	KLÜ
22	Active energy, export, phase L3, tariff 2 (kWh)	Value	4 bytes (DPT 13.013)	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The value of the active energy of phase L3 exported in Wh or kWh in tariff 2 is transferred via the group address linked to this object.				
23	Active energy, export, total, tariff 2 (Wh)	Value	4 bytes (DPT 13.010)	KLÜ
23	Active energy, export, total, tariff 2 (kWh)	Value	4 bytes (DPT 13.013)	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The value of the active energy of all phases (total value) exported in Wh or kWh in tariff 2 is transferred via the group address linked to this object.				

Reactive energy, reactive power

No.	Name	Function	Length	Flag
24	Reactive energy, import, phase L1, tariff 1 (VArh)	Value	4 bytes (DPT 13.012)	KLÜ
24	Reactive energy, import, phase L1, tariff 1 (kVArh)	Value	4 bytes (DPT 13.015)	KLÜ
The value of the reactive energy of phase L1 imported in VArh or kVArh in tariff 1 is transferred via the group address linked to this object.				
25	Reactive energy, import, phase L2, tariff 1 (VArh)	Value	4 bytes (DPT 13.012)	KLÜ
25	Reactive energy, import, phase L2, tariff 1 (kVArh)	Value	4 bytes (DPT 13.015)	KLÜ

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No.	Name	Function	Length	Flag
The value of the reactive energy of phase L2 imported in VArh or kVArh in tariff 1 is transferred via the group address linked to this object.				
26	Reactive energy, import, phase L3, tariff 1 (VArh)	Value	4 bytes (DPT 13.012)	KLÜ
26	Reactive energy, import, phase L3, tariff 1 (kVArh)	Value	4 bytes (DPT 13.015)	KLÜ
The value of the reactive energy of phase L3 imported in VArh or kVArh in tariff 1 is transferred via the group address linked to this object.				
27	Reactive energy, import, total, tariff 1 (VArh)	Value	4 bytes (DPT 13.012)	KLÜ
27	Reactive energy, import, total, tariff 1 (kVArh)	Value	4 bytes (DPT 13.015)	KLÜ
The value of the reactive energy of all phases (total value) imported in VArh or kVArh in tariff 1 is transferred via the group address linked to this object.				
28	Reactive energy, import, phase L1, tariff 2 (VArh)	Value	4 bytes (DPT 13.012)	KLÜ
28	Reactive energy, import, phase L1, tariff 2 (kVArh)	Value	4 bytes (DPT 13.015)	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The value of the reactive energy of phase L1 imported in VArh or kVArh in tariff 2 is transferred via the group address linked to this object.				
29	Reactive energy, import, phase L2, tariff 2 (VArh)	Value	4 bytes (DPT 13.012)	KLÜ
29	Reactive energy, import, phase L2, tariff 2 (kVArh)	Value	4 bytes (DPT 13.015)	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The value of the reactive energy of phase L2 imported in VArh or kVArh in tariff 2 is transferred via the group address linked to this object.				
30	Reactive energy, import, phase L3, tariff 2 (VArh)	Value	4 bytes (DPT 13.012)	KLÜ
30	Reactive energy, import, phase L3, tariff 2 (kVArh)	Value	4 bytes (DPT 13.015)	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The value of the reactive energy of phase L3 imported in VArh or kVArh in tariff 2 is transferred via the group address linked to this object.				

No.	Name	Function	Length	Flag
31	Reactive energy, import, total, tariff 2 (VArh)	Value	4 bytes (DPT 13.031, 13.012)	KLÜ
31	Reactive energy, import, total, tariff 2 (kVArh)	Value	4 bytes (DPT 13.015)	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The value of the reactive energy of all phases (total value) imported in VArh or kVArh in tariff 2 is transferred via the group address linked to this object.				
32	Reactive energy, export, phase L1, tariff 1 (VArh)	Value	4 bytes (DPT 13.012)	KLÜ
32	Reactive energy, export, phase L1, tariff 1 (kVArh)	Value	4 bytes (DPT 13.015)	KLÜ
The value of the reactive energy of phase L1 exported in VArh or kVArh in tariff 1 is transferred via the group address linked to this object.				
33	Reactive energy, export, phase L2, tariff 1 (VArh)	Value	4 bytes (DPT 13.012)	KLÜ
33	Reactive energy, export, phase L2, tariff 1 (kVArh)	Value	4 bytes (DPT 13.015)	KLÜ
The value of the reactive energy of phase L2 exported in VArh or kVArh in tariff 1 is transferred via the group address linked to this object.				
34	Reactive energy, export, phase L3, tariff 1 (VArh)	Value	4 bytes (DPT 13.012)	KLÜ
34	Reactive energy, export, phase L3, tariff 1 (kVArh)	Value	4 bytes (DPT 13.015)	KLÜ
The value of the reactive energy of phase L3 exported in VArh or kVArh in tariff 1 is transferred via the group address linked to this object.				
35	Reactive energy, export, total, tariff 1 (VArh)	Value	4 bytes (DPT 13.012)	KLÜ
35	Reactive energy, export, total, tariff 1 (kVArh)	Value	4 bytes (DPT 13.015)	KLÜ
The value of the reactive energy of all phases (total value) exported in VArh or kVArh in tariff 1 is transferred via the group address linked to this object.				

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No.	Name	Function	Length	Flag
36	Reactive energy, export, phase L1, tariff 2 (VArh)	Value	4 bytes (DPT 13.012)	KLÜ
36	Reactive energy, export, phase L1, tariff 2 (kVArh)	Value	4 bytes (DPT 13.015)	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The value of the reactive energy of phase L1 exported in VArh or kVArh in tariff 2 is transferred via the group address linked to this object.				
37	Reactive energy, export, phase L2, tariff 2 (VArh)	Value	4 bytes (DPT 13.012)	KLÜ
37	Reactive energy, export, phase L2, tariff 2 (kVArh)	Value	4 bytes (DPT 13.015)	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The value of the reactive energy of phase L2 exported in VArh or kVArh in tariff 2 is transferred via the group address linked to this object.				
38	Reactive energy, export, phase L3, tariff 2 (VArh)	Value	4 bytes (DPT 13.012)	KLÜ
38	Reactive energy, export, phase L3, tariff 2 (kVArh)	Value	4 bytes (DPT 13.015)	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The value of the reactive energy of phase L3 exported in VArh or kVArh in tariff 2 is transferred via the group address linked to this object.				
39	Reactive energy, export, total, tariff 2 (VArh)	Value	4 bytes (DPT 13.012)	KLÜ
39	Reactive energy, export, total, tariff 2 (kVArh)	Value	4 bytes (DPT 13.015)	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The value of the reactive energy of all phases (total value) exported in VArh or kVArh in tariff 2 is transferred via the group address linked to this object.				
40	Reactive power, phase L1 (VAr)	Value	4 bytes (DPT 14.056)	KLÜ
The current reactive power of phase L1 in VAr is transferred via the group address linked to this object.				
41	Reactive power, phase L2 (VAr)	Value	4 bytes (DPT 14.056)	KLÜ
The current reactive power of phase L2 in VAr is transferred via the group address linked to this object.				
42	Reactive power, phase L3 (VAr)	Value	4 bytes (DPT 14.056)	KLÜ
The current reactive power of phase L3 in VAr is transferred via the group address linked to this object.				
43	Reactive power, total (VAr)	Value	4 bytes (DPT 14.056)	KLÜ
The current reactive power of phases L1-L3 in VAr is transferred via the group address linked to this object.				

Status information

No.	Name	Function	Length	Flag
65	Limit alarm	Status	1 byte	KLÜ
Which voltage limits are overshot or undershot can be read out via the group address linked to this object.				

Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
res.	res.	V3H	V3L	V2H	V2L	V1H	V1L

The bits for overvoltage in phases 1 (V1H), 2 (V2H) and 3 (V3H) have the value

0 when the voltage of the applicable phase is below the high limit;
1 when the voltage of the applicable phase is above the high limit.

The bits for undervoltage in phases 1 (V1L), 2 (V2L) and 3 (V3L) have the value

0 when the relevant phase voltage is above the low limit;
1 when the relevant phase voltage is below the low limit.

Object 90 (General Warning) is sent automatically if the status value changes.

66	Installation error	Status	1 bit	KLÜ
An error in installation of the three phases (incorrect cable connection) is transferred via the group address linked to this object. The value of the object is set to 1 if the three phases are connected incorrectly to the counter. Object 90 (General Warning) is sent automatically if the status value changes.				
67	Measurement range overflow	Status	1 byte	KLÜ

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No.	Name	Function	Length	Flag
For each phase, via the group address linked to this object it is possible to read out whether the voltage or current measurement range has been exceeded.				
Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
res.	res.	OFV3	OFI3	OFV2	OFI2	OFV1	OFI1
The bits for measurement range overflow with regard to the voltages in phases 1 (OFV1), 2 (OFV2) and 3 (OFV3) or the current in phases 1 (OFI1), 2 (OFI2) and 3 (OFI3) have the value 0 if the voltage (or the current) of the relevant phase is within the counter's measurement range; 1 if the voltage (or the current) of the relevant phase is outside the counter's measurement range; Object 90 (General Warning) is sent automatically if the status value changes.				
68	Load information, phase L1	Status	1 byte	KLÜ
69	Load information, phase L2	Status	1 byte	KLÜ
70	Load information, phase L3	Status	1 byte	KLÜ
The load information for the phase L1 (L2, L3) is transferred via the group address linked to this object.				
Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
res.	res.	res.	res.	Act IMP	Act EXP	React IND	React CAP
The load information bits indicate the following information: Bit 0: capacitive load Bit 1: inductive load Bit 2: active power export Bit 3: active power import Example: 00001001 means that capacitive active power is being imported.				
90	General warning	Status	1 bit	KLÜ
The fact that one of the objects 65, 66 or 67 has changed is transferred via the group address linked to this object. This is transferred automatically if the status value changes.				
91	IR interface warning	Status	1 bit	KLÜ
Via the group address linked to this object, an error in communication through the IR interface to the counter is transferred on the bus. The value is set to "1" if communication through the IR interface to the counter is disrupted, i.e. no data is received. Failure of IR communication is detected after the time that has been defined with the "Signal failure of IR communication after (seconds)" parameter. A communication disruption may be caused by the fact that the counter is deactivated or the counter's IR signal is not reaching the communication module. The value is set to "0" as soon as the disruption is rectified. This is transferred automatically if the status value changes.				

No.	Name	Function	Length	Flag
92	Current tariff	Status	1 bit	KLÜ
This object is visible only when the "Double tariff counter" parameter is set to "Yes". The currently valid tariff is transferred via the group address linked to this object. Tariff 1 applies if the value is "0". Tariff 2 applies if the value is "1". This is transferred automatically if the status value changes.				

Counter reset

No.	Name	Function	Length	Flag
78	Active energy register	Reset	1 bit	KLSÜ
This object is visible only when the "Reset energy registers is allowed" parameter is set to "Yes". Via the group address linked with this object, the active energy registers in the counter are reset to zero when the value 1 is written to the object. After reset of the active energy registers, the counter sets the object's value to 0. *Note: counters can only be reset if this is permitted for them.*				
81	Reactive energy register	Reset	1 bit	KLSÜ
This object is visible only when the "Reset energy registers is allowed" parameter is set to "Yes". Via the group address linked with this object, the reactive energy registers in the counter are reset to zero when the value 1 is written to the object. After reset of the active energy registers, the counter sets the object's value to 0. *Note: counters can only be reset if this is permitted for them.*				

Product information

No.	Name	Function	Length	Flag
126	Product code	Description	14 bytes	KLÜ
The product code is transferred via the group address linked to this object.				

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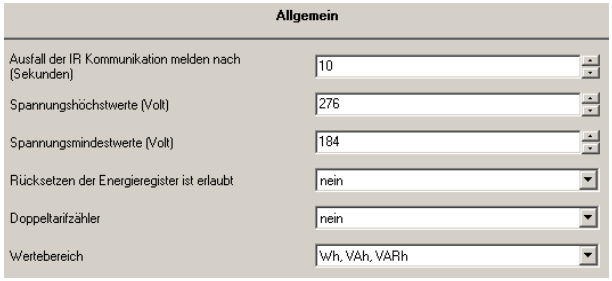
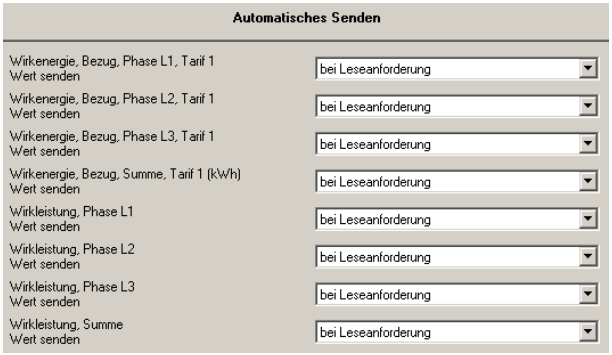
General parameters



Parameter	Settings
Signal failure of IR communication after (seconds)	[7...255] **10**
This parameter is used to set the time (in seconds) after which failure of IR communication with the counter is to be signaled.	
Maximum voltage values (Volt)	[184...276] **276**
The maximum permissible voltage values are defined with this parameter. If the value in one phase is exceeded, the associated bit for the phase is set to "1" in the object 65.	
Minimum voltage values (Volt)	[184...276] **184**
The minimum permissible voltage values are defined with this parameter. If the value in one phase falls below the minimum, the associated bit for the phase is set to "1" in the object 65.	
Energy register reset is allowed	**No**; Yes
This parameter is used to define whether the counter registers may be reset via the communication objects 78 and 81. The objects 78 and 81 become visible if the parameter is set to "Yes". *Note: counters can only be reset if this is permitted for them.*	
Double tariff counter	**No**; Yes
This parameter is used to define whether the counter is a double tariff counter, i.e. whether the communication objects for tariff 2 are to be switched to the visible state.	
Value range	**Wh, VAh, VArh**; kWh, kVAh, kVArh
This parameter is used to define whether the communication module is to transfer the energy values registered by the counter in Wh (VAh, VArh) or in kWh (kVAh, kVArh).	

Automatic sending parameter



Parameter	Settings
Active energy, import, phase L1, tariff 1 Send value	**if read request;** if change
Active energy, import, phase L2, tariff 1 Send value	**if read request;** if change
Active energy, import, phase L3, tariff 1 Send value	**if read request;** if change
Active energy, import, total, tariff 1 Send value	**if read request;** if change
These parameters define whether counter values for the imported active energy of phases L1, L2 or L3 and the sum of the phases in tariff 1 are sent only in the event of a read request or automatically in the event of a change. If sending "in the event of a change" is selected, a further parameter appears with which you can define the value change for sending.	
Active energy, import, phase L1, tariff 2 Send value	**if read request;** if change
Active energy, import, phase L2, tariff 2 Send value	**if read request;** if change
Active energy, import, phase L3, tariff 2 Send value	**if read request;** if change
Active energy, import, total, tariff 2 Send value	**if read request;** if change
These parameters define whether counter values for the imported active energy of phases L1, L2 or L3 and the sum of the phases in tariff 2 are sent only in the event of a read request or automatically in the event of a change.	

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Parameter	Settings
If sending "in the event of a change" is selected, a further parameter appears with which you can define the value change for sending.	
Send difference	10Wh, 20Wh, 30Wh, ..., 1000Wh **10Wh**
Send difference	1.0kWh, 2.0kWh, 3.0kWh, ..., 20.0kWh, 25.0kWh, 30.0kWh, ..., 100.0kWh, 110.0kWh, 120.0kWh, ..., 1000.0kWh **10.0kWh**
The value change for sending is defined with this parameter. The value range (Wh or kWh) is defined by the "Value range" parameter on the "General" parameter tab.	
Active power, phase L1 **Send value**	**if read request;** if change
Active power, phase L2 **Send value**	**if read request;** if change
Active power, phase L3 **Send value**	**if read request;** if change
Active power, total **Send value**	**if read request;** if change
This parameter defines whether the active power is sent only after a read request or automatically in the event of a change. If sending "in the event of a change" is selected, a further parameter appears with which you can define the value change for sending.	
Send difference	1(W),10(W),100(W), 200(W)... 900(W), 1.0(kW), 1.1(kW)...2.0 (kW), 2.5 (kW), 3.0 (kW), 3.5 (kW)...9.5 (kW), 10.0(kW), 11.0(kW) ... 100.0 (kW) **1.0 (kW)**
The value change for sending the active power is defined with this parameter.	

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Space for notes