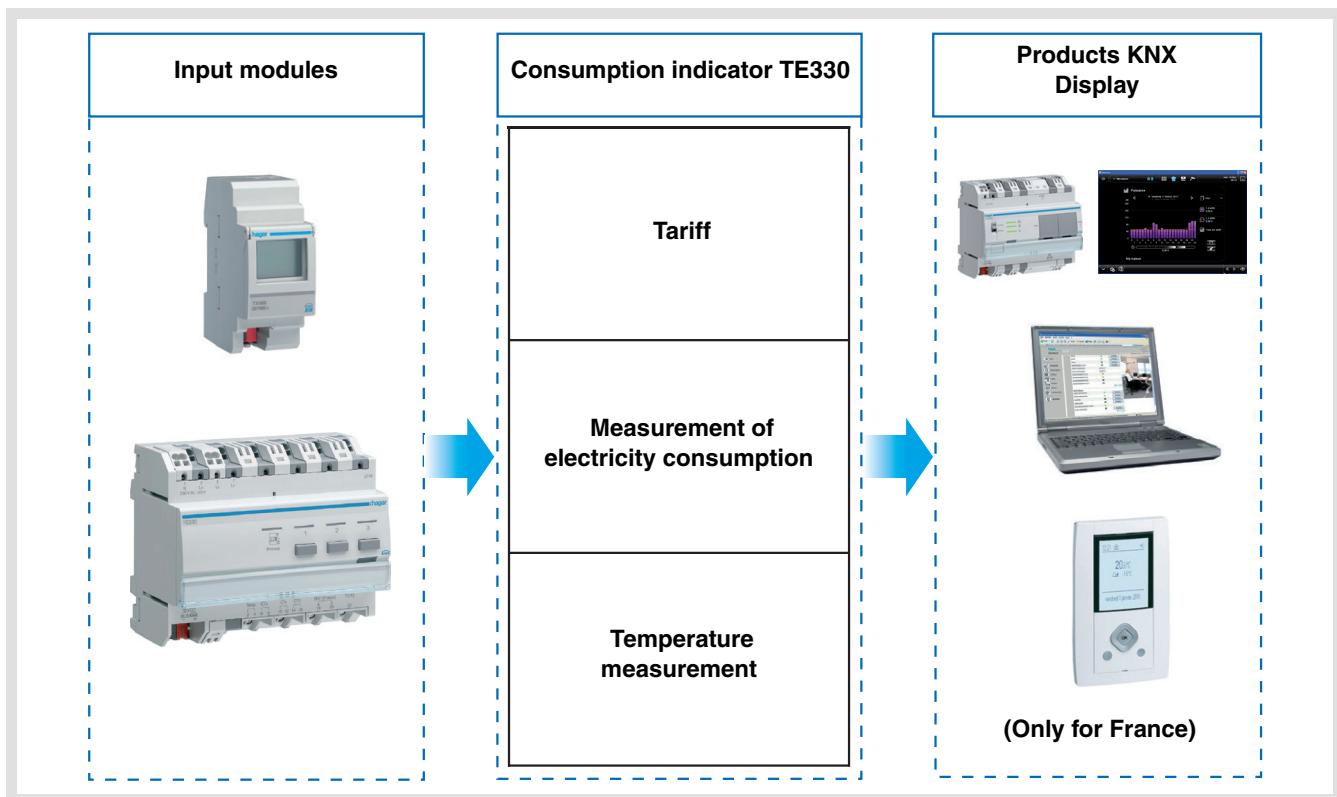


Tebis application software

STE330 - Consumption indicator

Electrical / Mechanical characteristics: see product information

	Product reference	Product designation
	TE330	Consumption indicator



Summary

1. Description of the system.....	3
1.1 General overview.....	3
1.2 General outline	4
2. Presentation of the functions	5
2.1 The main functions are the following.....	5
2.2 Description of measurement.....	6
2.3 "Tele-information" tariff	8
2.4 Description of temperature measurement	8
2.5 Tariff management for the product: with or without tariff	8
3. Configuration and settings	9
3.1 Objects List.....	9
3.2 General parameters.....	12
3.3 Metering input.....	14
4. Configuration and use with domovea.....	16
4.1 Adding the device	16
4.2 Configuration of the Meter device (Consumption	17
4.3 Configuration the Meter device (Production).....	19
4.4 Configuration of the Energy device	21
4.5 Configuration of the Power device.....	23
4.6 Configuration of the Sub-counter device (Consumption).....	25
4.7 Choice of tariff under domovea	27
5. Technical characteristics.....	29
5.1 Installation	29
5.2 Meaning of the LED's	29
5.3 Current outage and return	31
5.4 Connection of the toroids according to the number of phases	31
6. Main characteristics	33
7. Physical addressing	33

1. Description of the system

1.1 General overview

The consumption indicator informs users of their consumption through 4 metering channels including one specifically dedicated to "Tele-information"*. It is used to monitor and control energy consumption and is built into an automatic global energy management system.

It is also used to measure the energy produced for installations with a photovoltaic system.

This product can be used in a single-phase or three-phase installation. In three-phase, consumption is measured phase by phase.

All this data is sent on the KNX bus.

In addition to metering, the consumption indicator also has:

- 2 tariff inputs: "Tele-information" and "T1 / T2",
- a temperature input for the connection of a probe.

The system can be constructed with several TE330 on the bus. This thus makes it possible to measure one or more circuits using toroids.

The consumption indicator is adapted for use with domovia. In this case, the display devices are:

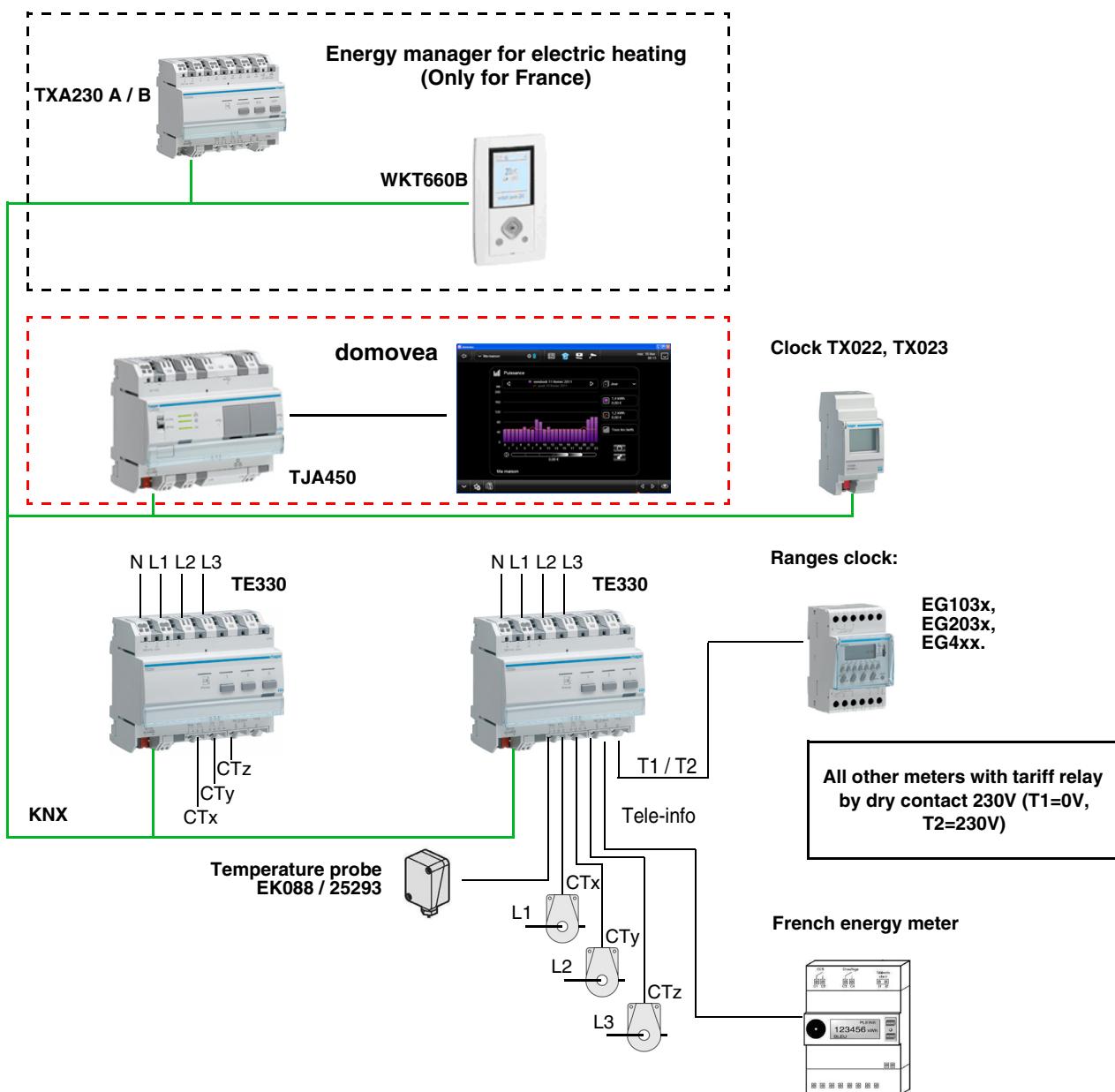
- Meter (Consumption),
- Meter (Production),
- Energy,
- Power,
- Sub-counter (Consumption).

It can also be interfaced with the ambiance units or other display systems thanks to objects sent on the KNX bus.

It is used to display the current tariff and the energy consumption according to the current tariff. The tariff can also be distributed to other devices on the bus.

* Only used in France - See chapter 2.3.

1.2 General outline



2. Presentation of the functions

2.1 The main functions are the following

■ Tariff

The function is used to:

- Supply the value of the current tariff on the bus for an ambiance display,
- Supply the value of the tariff to come on the bus for an ambiance display - only available with Tele-information in France,
- Index the current tariff to each metering measurement.

■ Power

The function is used to supply the power demand value on the bus for each metering channel.

■ Energy

The function is used to supply the consumed energy value on the bus for each metering input. It is available in 4 byte or 6 byte format.

■ Voltage

The function is used to supply the voltage demand value for each metering input.

■ Strength

The function is used to supply the current demand value for each metering input.

■ Partial meter Reset

The function is used to reset the partial counters to zero for all the metering inputs.

■ Metering data dynamic mode

The function is used to refresh the metering data at a higher frequency.

The control is received from a display interface when the request for data display is made.

■ Temperature measurement

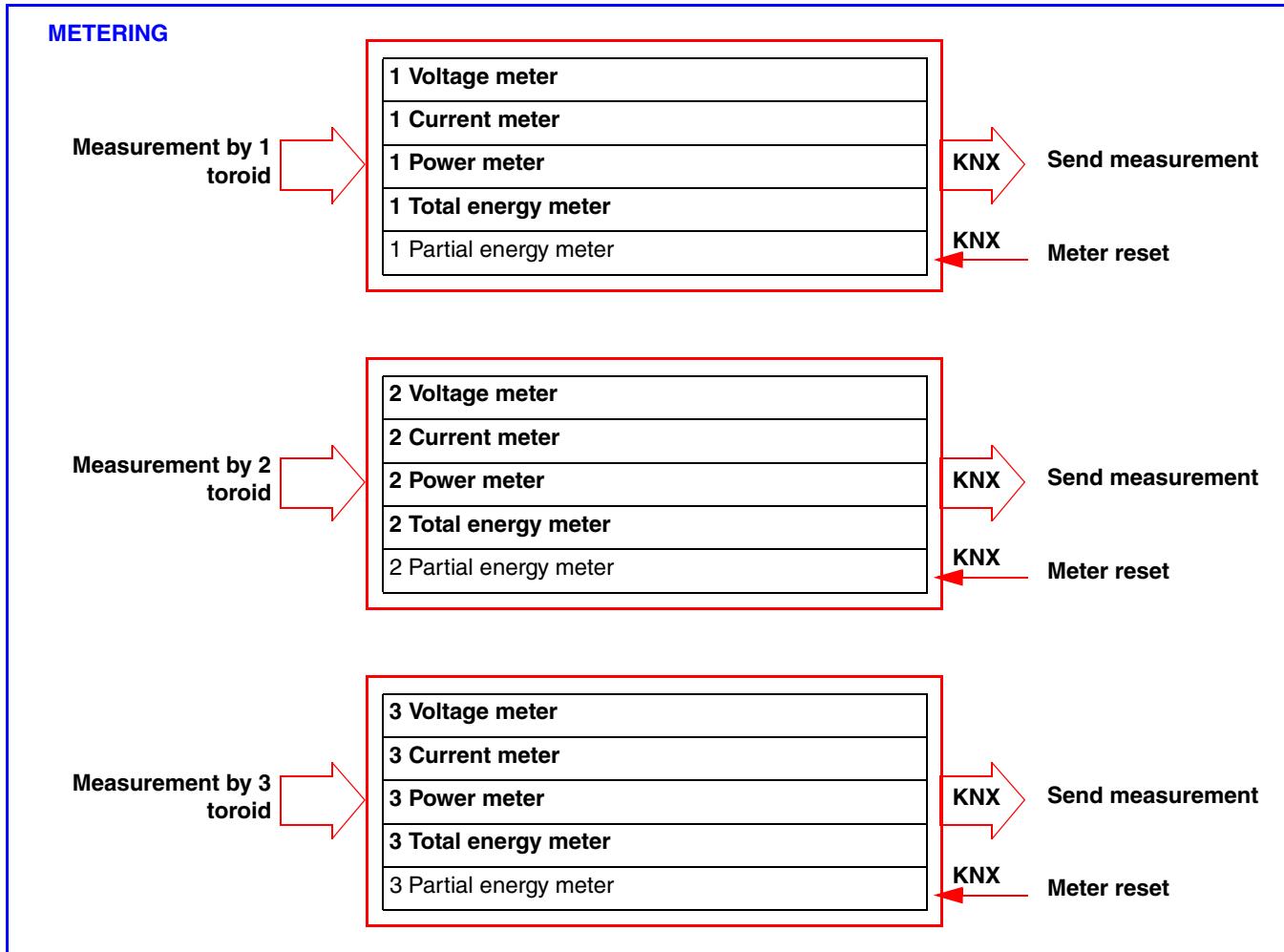
The function is used to measure the temperature via a temperature probe.

The data is sent on the bus for remote display.

2.2 Description of measurement

The consumption indicator has 4 measurement channels.

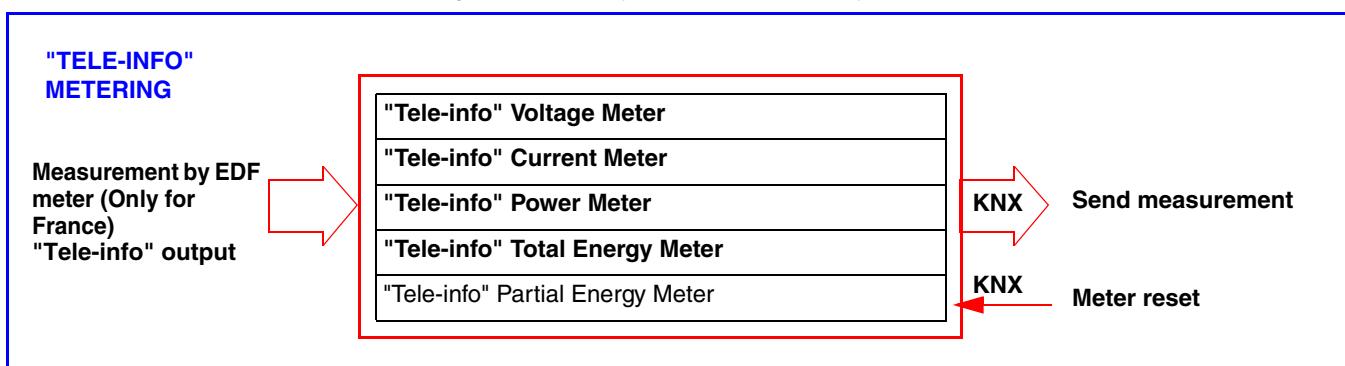
- 3 measurement channels per toroid



The current is measured using toroids. The polarity of the toroids is of no importance.

Optional

- 1 channel to report the data from the general meter by tele-information (Only for France).



■ Installation type

This product can be used in a single-phase or three-phase installation. In three-phase, consumption is measured phase by phase. The measurement is an absolute value.

The measurement channels are used to meter either consumption of energy production (e.g. in the case of a photovoltaic installation).

It is the display system (in domovea for example) which defines the display of consumption or energy production.

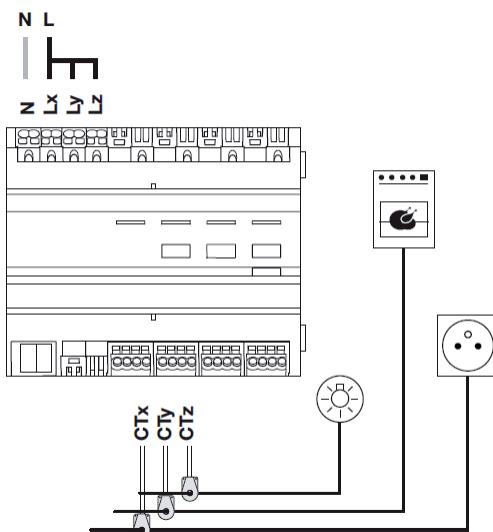
■ Precaution for connection

Voltage measurement is performed between a phase and neutral. Each toroid can meter a current up to 90 A. It is possible to pass several conductors in one toroid. The metering channel CTx is referenced to the Lx phase, CTy to the Ly phase and CTz to the Lz phase.

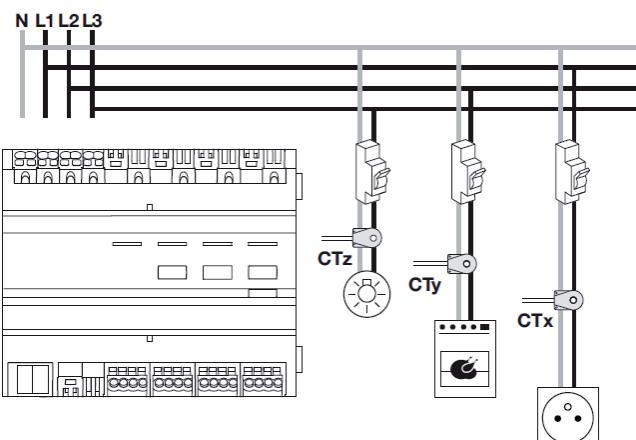
In the single-phase version, it is essential to bridge phases Ly and Lz when outputs CTy and CTz are used for metering. Straps are provided for this bridging.

(See chapter 5.4 for all the connection cases).

Single-phase version



Three-phase version



■ Reset

The total energy is the energy counted since the product was installed and cannot be reset.
The partial energy can be reset manually by the user using a control on the KNX bus.

■ Last mode stored

Only the indexes for the current total and partial energies are saved in the TE330.

■ Updating the data

The metering channels give the instantaneous power and the total and partial energy. This data is sent when the value changes or periodically.

2.3 "Tele-information" tariff

The "Tele-information" link is a standardised bus **used only in France** which is used to connect electricity management equipment to one's electronic meter (EDF). It uses the data available in the meter such as the tariff option subscribed to, the power subscribed to and the consumption data.

By connecting this interface to equipment, it is possible to monitor the development of one's consumption in real time, to calculate costs or control equipment according to the tariff.

2.4 Description of temperature measurement

The function is used to measure the temperature via a temperature probe (Ref: EK088 / 25293). This additional input has no connection with consumption measurement.

It is used to measure temperature without adding additional devices to the KNX bus and send the measurement to a display interface (measurement range: -30°C to +70°C).

2.5 Tariff management for the product: with or without tariff

There are 2 different function types:

- Tariff metering:
 - Each channel sends the energy value per tariff,
 - This object is in 6 byte format.



- Metering without tariff:
 - Each channel sends the overall value of the energy without the tariff,
 - This object is in 4 byte format.

Remark: The product is used to send the tariff on the bus based on the "Tele-information" or "T1/T2" inputs.



3. Configuration and settings

3.1 Objects List

Nº	Name	Function of the object	Length	K	L	E	T	
0	Current tariff	Emission	1 byte	K	L	-	T	(1)
1	Coming tariff	Emission	3 bytes	K	L	-	T	(1) (4)
37	1 byte tariff	Reception	1 byte	K	L	E	-	(1)
39	1 bit Tariff	Reception	1 bit	K	L	E	-	(1)
9	Metering input 1	Power	4 bytes	K	L	-	T	
10	Metering input 1	Total energy	6 bytes / 4 bytes	K	L	-	T	(3)
11	Metering input 1	Dynamic mode activation	1 bit	K	L	E	-	
13	Metering input 1	Partial energy	6 bytes / 4 bytes	K	L	-	T	(3)
12	Activation partial meter reset Input 1	Control	1 bit	K	L	E	-	
31	Metering input 1	Voltage	2 bytes	K	L	-	T	
32	Metering input 1	Strength	2 bytes	K	L	-	T	
8	Metering input 1	Current tariff	1 byte	K	L	E	-	(2)
15	Metering input 2	Power	4 bytes	K	L	-	T	
16	Metering input 2	Total energy	6 bytes / 4 bytes	K	L	-	T	(3)
17	Metering input 2	Dynamic mode activation	1 bit	K	L	E	-	
19	Metering input 2	Partial energy	6 bytes / 4 bytes	K	L	-	T	(3)
18	Activation partial meter reset Input 2	Control	1 bit	K	L	E	-	
33	Metering input 2	Voltage	2 bytes	K	L	-	T	
34	Metering input 2	Strength	2 bytes	K	L	-	T	
14	Metering input 2	Current tariff	1 byte	K	L	E	-	(2)
21	Metering input 3	Power	4 bytes	K	L	-	T	
22	Metering input 3	Total energy	6 bytes / 4 bytes	K	L	-	T	(3)
23	Metering input 3	Dynamic mode activation	1 bit	K	L	E	-	
25	Metering input 3	Partial energy	6 bytes / 4 bytes	K	L	-	T	(3)
24	Activation partial meter reset Input 3	Control	1 bit	K	L	E	-	
35	Metering input 3	Voltage	2 bytes	K	L	-	T	
36	Metering input 3	Strength	2 bytes	K	L	-	T	
20	Metering input 3	Current tariff	1 byte	K	L	E	-	(2)
3	Télé-info metering input	Power	4 bytes	K	L	-	T	(1) (4)
4	Télé-info metering input	Total energy	6 bytes / 4 bytes	K	L	-	T	(1) (3) (4)
5	Télé-info metering input	Dynamic mode activation	1 bit	K	L	E	-	(1)
7	Télé-info metering input	Partial energy	6 bytes / 4 bytes	K	L	-	T	(1) (3) (4)
6	Activation partial meter reset Tele-info input	Control	1 bit	K	L	E	-	(1) (4)
29	Télé-info metering input	Voltage	2 bytes	K	L	-	T	(1) (4)
30	Télé-info metering input	Strength	2 bytes	K	L	-	T	(1) (4)
26	Temperature	Emission	2 bytes	K	L	-	T	

(1) The display of these objects depends on the common settings (refer to chapter 3.2).

(2) The display of these objects depends on the settings per channel (refer to chapter 3.3).

(3) The length of these objects depends on the common settings (refer to chapter 3.2).

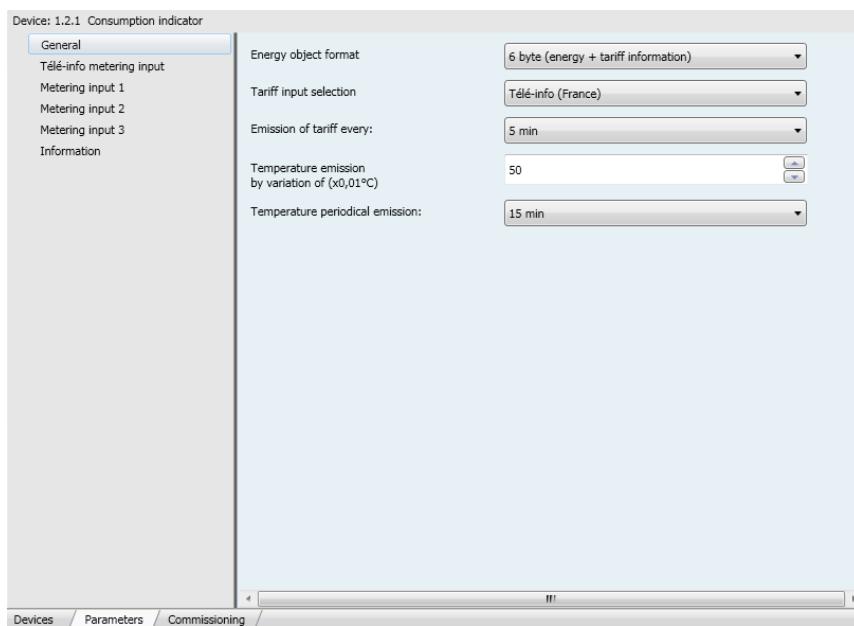
(4) Only for France.

Designation	Function	Value
Current tariff	<p>The Current tariff – Emission object is a value sent by the TE330 module on the bus for display and indexing of the energy values.</p> <p>The object is used to publish on the bus the current tariff received by the physical tele-information input or T1 / T2.</p> <p>The input must be configured between (See paragraph 3.2):</p> <p>Tele-information: (Only for France)</p> <p>0 = Basic tariff 1 = Heures creuses (HC) 2 = Heures pleines (HP) 3 = EJP 4 = EJP Pointe mobile 5 = Bleu heures creuses (bleu HC) 6 = Blanc heures creuses (blanc HC) 7 = Rouge heures creuses (rouge HC) 8 = Bleu heures pleines (bleu HP) 9 = Blanc heures pleines (blanc HP) 10 = Rouge heures pleines (rouge HP)</p> <p>T1 / T2: 0 = T1 or Heures Pleines (HP) 1 = T2 or Heures Creuses (HC)</p> <p>When several TE330 are installed on the same bus, the Current tariff - Emission object must be linked to the 1 byte tariff – Reception.</p>	1 byte
Coming tariff	<p>The Coming tarif – Emission object is a value sent by the TE330 module on the bus for display.</p> <p>The data comes from the tele-information and is only available in this case of application.</p> <p>Only for France ("Tele-information Setting)</p> <p>0 = Basic tariff 1 = Heures creuses (HC) 2 = Heures pleines (HP) 3 = EJP 4 = EJP Pointe mobile 5 = Bleu heures creuses (bleu HC) 6 = Blanc heures creuses (blanc HC) 7 = Rouge heures creuses (rouge HC) 8 = Bleu heures pleines (bleu HP) 9 = Blanc heures pleines (blanc HP) 10 = Rouge heures pleines (rouge HP)</p> <p>+ Indication of the duration in minutes before changeover</p>	3 bytes
Metering power	The Metering Input x – Power object is a value sent on the bus.	4 bytes
Total metering energy	The Metering Input x – Total energy object is a value sent on the bus.	6 bytes / 4 bytes
Dynamic mode	<p>The Metering Input x – Activation dynamic mode object is information received from the input module.</p> <p>When the user consults the consumption pages on the input module or the domovea server, the consumption data displayed on the screen is refreshed at the highest frequency.</p> <p>0 = Stopping of dynamic mode 1 = Start-up of dynamic mode</p>	1 bit
Partial meter reset	The Activation partial meter reset Input x – Control object is a control received from the input module.	1 bit
Partial energy metering	The Metering Input x – Partial energy object is a value sent on the bus. (Value in Wh)	6 bytes / 4 bytes
Metering voltage	The Metering Input x – Voltage object is a value sent on the bus. (Value in volts)	2 bytes
Metering current	The Metering Input x – Current is a value sent on the bus.(Value in amperes)	2 bytes

Designation	Function	Value
1 byte tariff	<p>The 1 byte tariff - Reception is a value received from the bus. The object is used to cascade several TE330 in the same installation. It can be linked to the Current tariff - Emission objct of another TE330.</p> <p>The values of the object are:</p> <ul style="list-style-type: none"> 0 = Tariff 0 1 = Tariff 1 2 = Tariff 2 3 = Tariff 3 4 = Tariff 4 5 = Tariff 5 6 = Tariff 6 7 = Tariff 7 8 = Tariff 8 9 = Tariff 9 10 = Tariff 10 	1 byte
1 bit Tariff	<p>The 1 byte tariff - Reception is a value received from the bus.</p> <p>0 = T1 or Basic tariff 1 = T2 or Heures Creuses (HC)</p>	1 bit
Metering current tariff	<p>The Metering Input x - Current tariff is a value received from the bus.</p> <p>The object is used to allocate a different tariff to each channel.</p>	1 byte
Temperature	<p>The Temperature - Emission is a value sent by the TE330 module when a probe is connected.</p> <p>The temperature is sent on the bus for display.</p>	2 bytes

3.2 General parameters

→ Parameter Setting screen



→ Parameters

Designation	Function	Value
Energy object format	This parameter defines the type of metering of the Energy objects used by the product for the metering channels. (refer to chapter 2.5)	6 byte (energy + tariff information) 4 byte (energy only) Default value: 6 byte (energy + tariff information)
Tarif input selection	This parameter defines the type of tariff used by the product for the metering channels. (refer to chapter 2.3)	Tele-info (Only for France) T1 / T2 (Double tariff HP / HC) 1 byte object 1-bit object Default value: Tele-info (Only for France)
Emission of tariff every	This parameter defines the refreshment period for the current tariff value.	Range [60 s - 24 h]* Default value: 5 min
Temperature emission by variation of (x0.01°C)	This parameter defines the emission threshold for the Temperature object.	Range [10 - 1000] Default value: 50 (50 * 0.01°C = 0.5°C)
Temperature periodical emission	This parameter defines the emission frequency for the Temperature object.	Range [60 s - 24 h]* Default value: 15 min

* Setting range [60 s - 24 h]

Not active, 60 s, 1 min 15 s, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 5 min, 15 min, 20 min, 30 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h.

Remark: **Tariff** object under ETS:

- The **Tariff** object is used to allocate an index to the energy meter,
 - A **Tariff** object is distinguished for the product and for each metering channel.
- Case of the tariff for the product: the chosen tariff is allocated to all the channels.

There are 4 statuses:

- Tele-info (Only for France) (Default value): Only used in French installations with an electronic electricity meter,
- T1 / T2 (Double tariff HP / HC): Used in all installations having a meter with a tariff output for which the characteristics are compatible $T1 = 0 \text{ V}$, $T2 = 230 \text{ V} \pm 15\%$,
- **1 byte** object: Used in installations having an external tariff in 1 byte format sent on the KNX bus,
- **1-bit** object: Used in installations having an external tariff in 1 bit format sent on the KNX bus.

By selecting the "Tele-info" or "T1 / T2", the consumption indicator sends the tariff on the KNX bus. If not, it receives the tariff from an external device via the KNX bus.

When modifying settings (e.g. change from "Tele-info" to 1 byte object) on a link already in place, ETS erases the object and breaks the link.

The following message appears on the screen:



Confirm by "yes" to validate your choice. Then create the link with the new object.

- Case of a tariff for each channel: the selected tariff is only allocated to the channel.

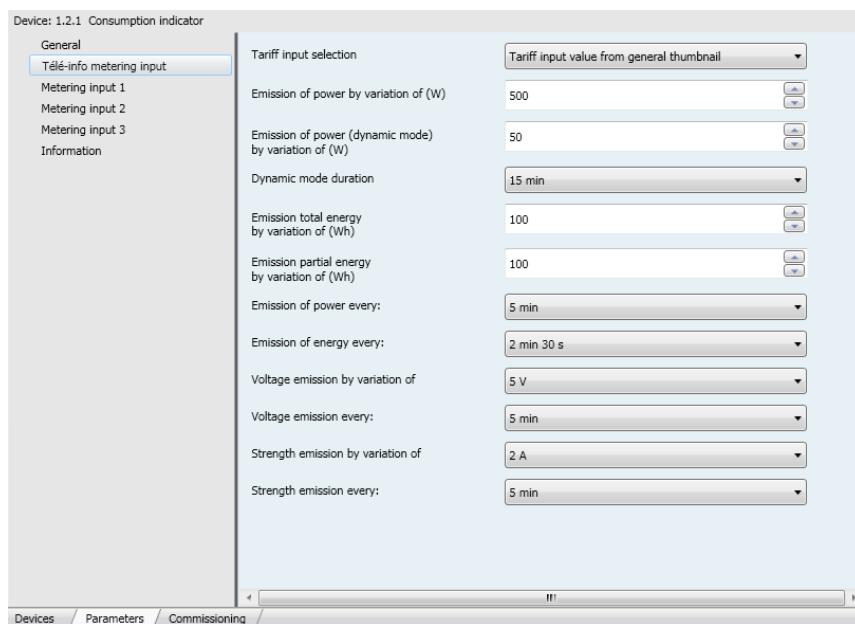
There are 3 statuses:

- No Change (Default function): The tariff used is that of the product,
- Not used: The channel does not use the tariff information. The energy values are not indexed,
- **Current tariff metering** object: A new tariff object is available for the channel. It is different to the tariff for the product. This provides another tariff band to that for the product.

If several links are made to the **1 byte tariff – Reception** object, the last tariff received is the one taken into account.

3.3 Metering input

→ Parameter Setting screen



→ Parameters

Designation	Function	Value
Tarif input selection	<p>This parameter defines the type of tariff used by the metering channel (See chapter 3.2).</p> <p>No Change: The tariff used is that defined in the general tab and allocated to all the metering channels.</p> <p>Not used: The tariff information is not used. The meter counts the basic tariff.</p> <p>Current tariff metering object: When this parameter is selected the metering channel can receive a different tariff to that selected in the general tab and allocated to all the metering channels.</p> <p>The Metering input x – Current tariff object appears in the list of objects for the channel in question.</p>	No Change Not used Current tariff metering object Default value: No Change
Emission of power by variation of input (W)	This parameter defines the Power object transmission threshold.	Range [0 - 1000000] Default value: 500
Emission of power (dynamic mode) by variation of input (W)	This parameter defines the threshold for the emission of Power objects in dynamic mode (during Dynamic mode activation).	Range [0 - 1000000] Default value: 50
Dynamic mode duration	This parameter defines the frequency for emission of Dynamic mode activation objects.	Range [60 s - 24 h]* Default value: 15 min
Emission of total energy by variation of the input (Wh)	This parameter defines the threshold for emission of Total energy objects.	Range [0 - 1000000] Default value: 100
Emission partial energy by variation of (Wh)	This parameter defines the threshold for emission of Partial energy objects.	Range [0 - 1000000] Default value: 100
Emission of power every	This parameter defines the Power object transmission frequency.	Range [60 s - 24 h]* Default value: 5 min

Designation	Function	Value
Emission of energy every	This parameter defines the frequency of emission of Energy objects.	Range [60 s - 24 h]* Default value: 2 min 30 s
Emission of voltage by variation of the input	This parameter defines the threshold for emission of Voltage objects.	Range [1 V - 35 V] Default value: 5 V
Voltage emission every	This parameter defines the frequency of emission of Voltage objects.	Range [60 s - 24 h]* Default value: 5 min
Emission of current by variation of the input	This parameter defines the threshold for emission of Current objects.	Range [0.1 A - 20 A]** Default value: 2 A
Strength emission every	This parameter defines the frequency of emission of Current objects.	Range [60 s - 24 h]* Default value: 5 min

* Setting range [60 s - 24 h]

Not active, 60 s, 1 min 15 s, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 5 min, 15 min, 20 min, 30 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h.

** Setting range [0.1 A - 20 A]

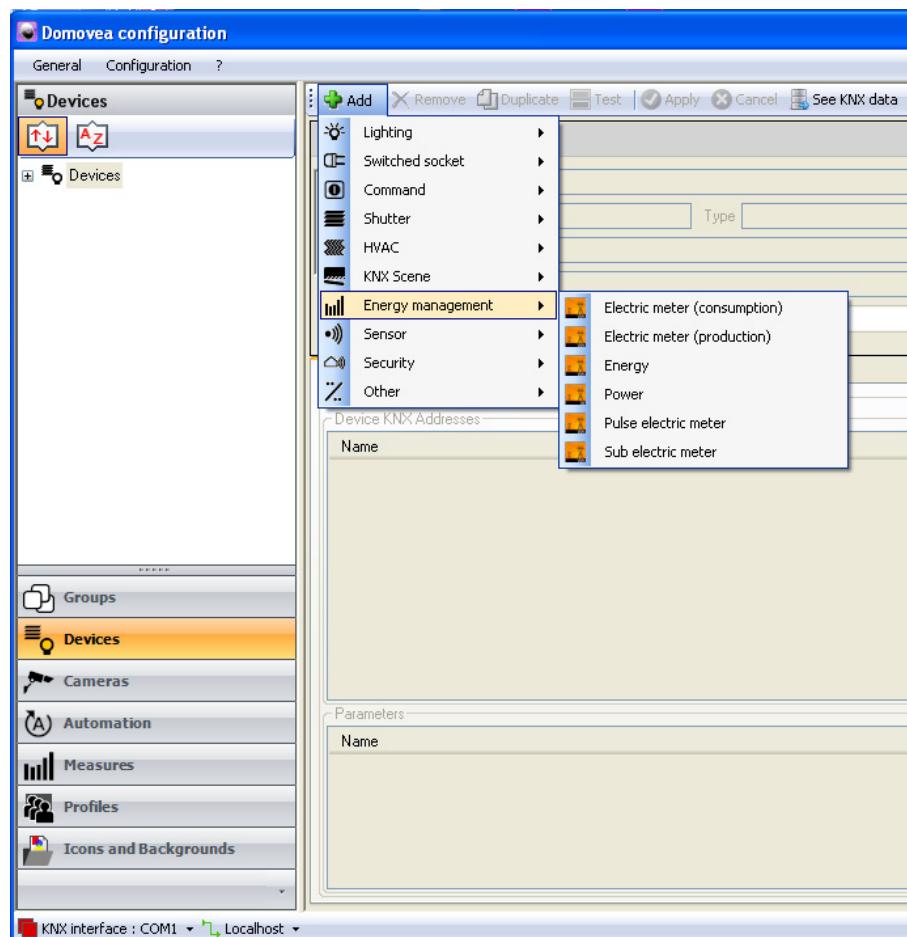
0.1 A, 0.5 A, 1 A, 2 A, 3 A, 4 A, 5 A, 6 A, 7 A, 8 A, 9 A, 10 A, 11 A, 12 A, 13 A, 14 A, 15 A, 16 A, 17 A, 18 A, 19 A, 20 A.

4. Configuration and use with domovea

In the domovea configurator, 6 "Energy management" type devices are available:

- **Meter (Consumption)**: Device used to display the instantaneous power and energy consumed by an electrical circuit and including tariff management,
- **Meter (Production)**: Device used to display the instantaneous power and energy produced in an energy production installation,
- **Impulsion electricity meter**: Device used to recover the impulsions from a meter and convert them into energy value (Do not use with TE330),
- **Energy**: Device used to display the energy consumed by an electrical circuit,
- **Power**: Device used to display the instantaneous power consumed by an electrical circuit,
- **Sub-counter (Consumption)**: Device used to display the instantaneous power and energy consumed by an electrical circuit without including tariff management.

4.1 Adding the device



Type of counter	See chapter
Meter (Consumption)	4.2
Meter (Production)	4.3
Energy	4.4
Power	4.5
Sub-counter (Consumption)	4.6

4.2 Configuration of the Meter device (Consumption)

The screenshot shows the configuration interface for a 'Meter device (Consumption)'. The top navigation bar has tabs for 'Configuration' and 'Measure', with 'Configuration' being the active tab. Under 'Configuration', the 'Device KNX Addresses' section is expanded, showing a table with columns 'Name' and 'Value'. The table includes entries for 'Electrical Power', 'Electrical Energy', 'Electrical Tariff Indication', and 'Dynamic boost'. Below this is a 'Parameters' section, also with a table for 'Name' and 'Value'. It includes entries for 'Maximum displayed value' (set to 10000), 'Maximum euro per day value' (set to 0.00), 'Reading of indications on KNX bus' (set to 'Only at KNX bus connection'), and 'Delay after send' (set to 80).

→ KNX addresses for the device

Designation	Function
Electrical power	This parameter is used to display the value of the electrical power consumed.
Electrical energy	This parameter is used to display the value of the electrical energy consumed.
Indication of electricity tariff	This parameter is used to display the current tariff.
Dynamic restart	This parameter is used to force send mode for the electrical power value to update the value faster. It is activated for a duration that can be configured in ETS.

→ Parameters

Designation	Function	Value
Maximum displayed power	Used to define the upper limit of the meter displaying the electrical power.	Range [100 W - 100.000 W] Default value: 10.000 W
Alarm threshold	Used to define the alarm threshold beyond which the electricity consumption indicator sends a threshold exceeded alarm.	Range [0 €/Day - 100.000 €/Day] Default value: 10.000 €/Day
Reading of the status indications on the KNX bus	Used to define the frequency at which the status indications are read on the KNX bus.	Only during connection to the bus, 1 min (Risk of bus saturation) 2 min (Risk of bus saturation) 3 min, 5 min, 10 min, 15 min, 30 min, 45 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h, Never Default value: Only during connection to the bus
Delay after sending	Used to define the time delay after which objects are sent.	Range [0 ms - 400 ms] Default value: 80 ms

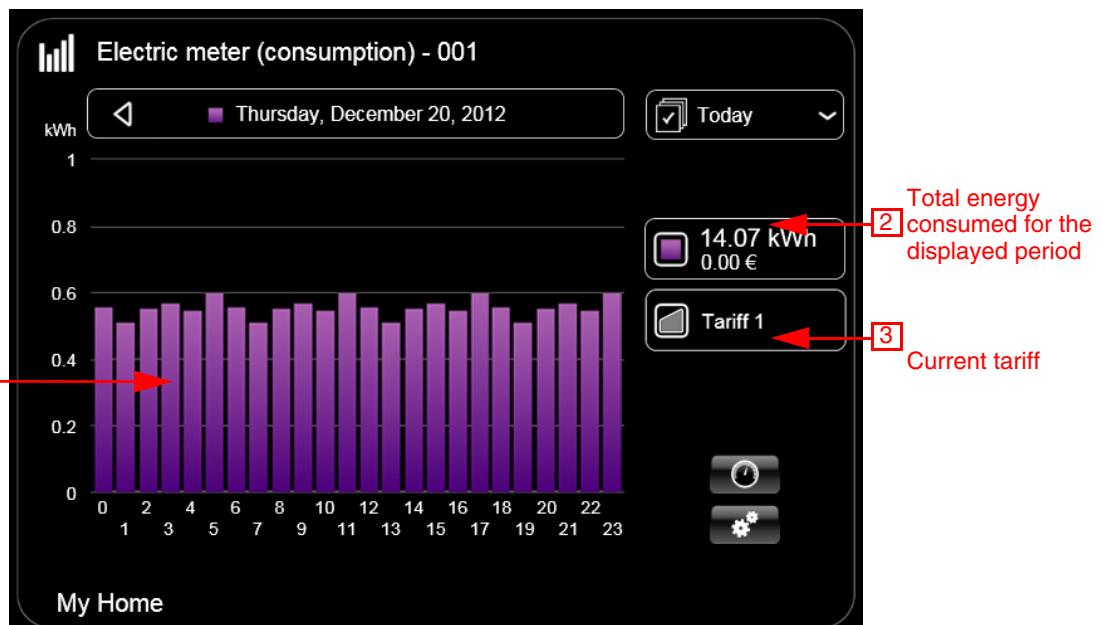
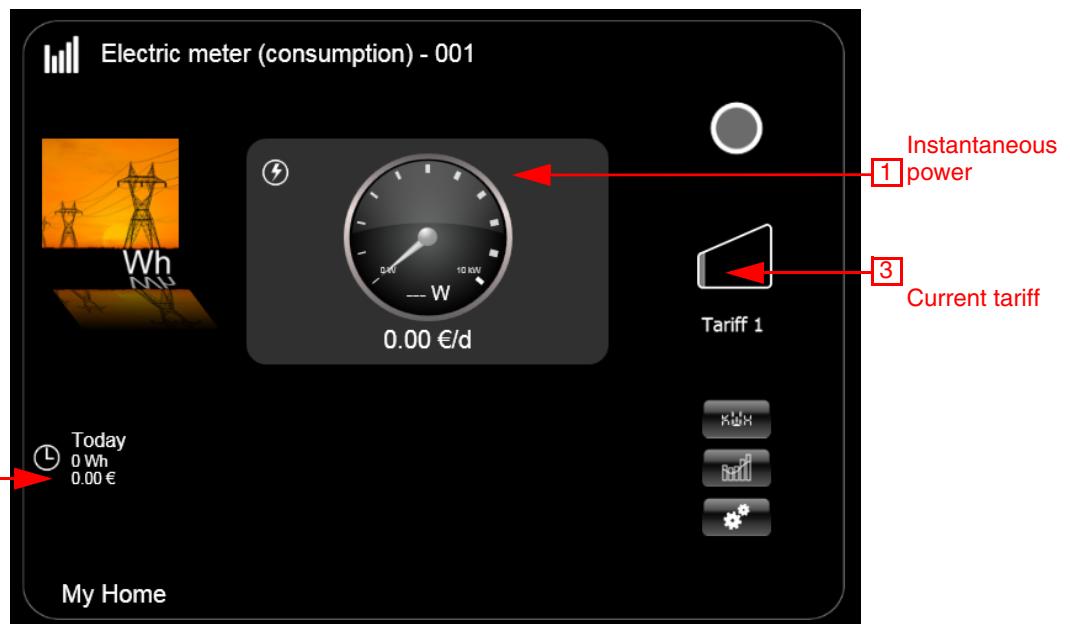
→ Links to be created: Report the addresses of the following objects of the TE330

Configuration Domovea

Number	Name	Object Function	Length	C	R	W	T
8	Metering input 1	Current tariff	1 Byte	C	R	-	-
9	Metering input 1	Power	4 Byte	C	R	-	T
10	Metering input 1	Total energy	6 Byte	C	R	-	T
11	Metering input 1	Dynamic mode activation	1 bit	C	R	W	-

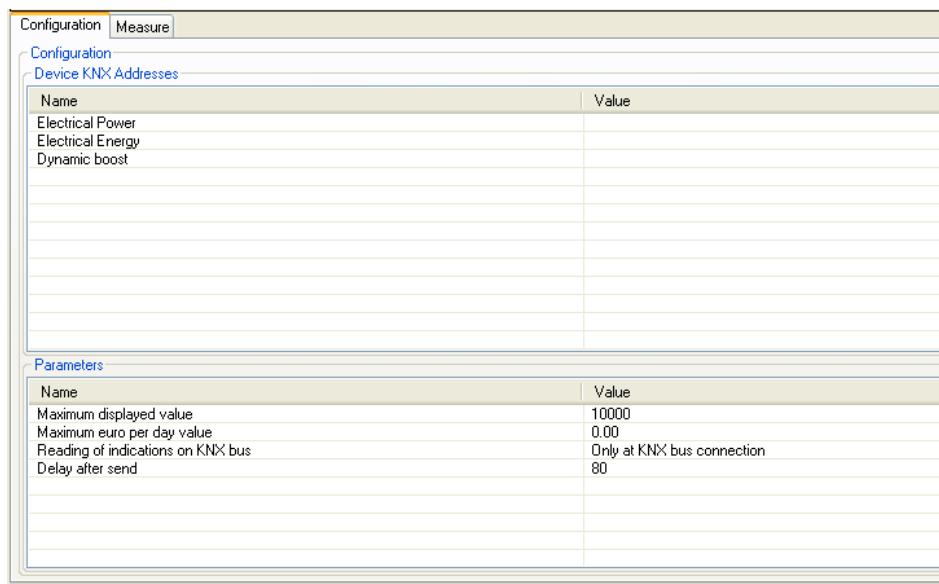
Configuration ETS

Number	Name	Object Function	Length	C	R	W	T
8	Metering input 1	Current tariff	1 Byte	C	R	-	-
9	Metering input 1	Power	4 Byte	C	R	-	T
10	Metering input 1	Total energy	6 Byte	C	R	-	T
11	Metering input 1	Dynamic mode activation	1 bit	C	R	W	-



For more details, see the domovea information sheet "energy display".

4.3 Configuration the Meter device (Production)



→ KNX addresses for the device

Designation	Function
Electrical power	This parameter is used to display the value of the electrical power produced.
Electrical energy	This parameter is used to display the value of the electrical energy produced.
Dynamic restart	This parameter is used to force send mode for the electrical power value to update the value faster. It is activated for a duration that can be configured in ETS.

→ Parameters

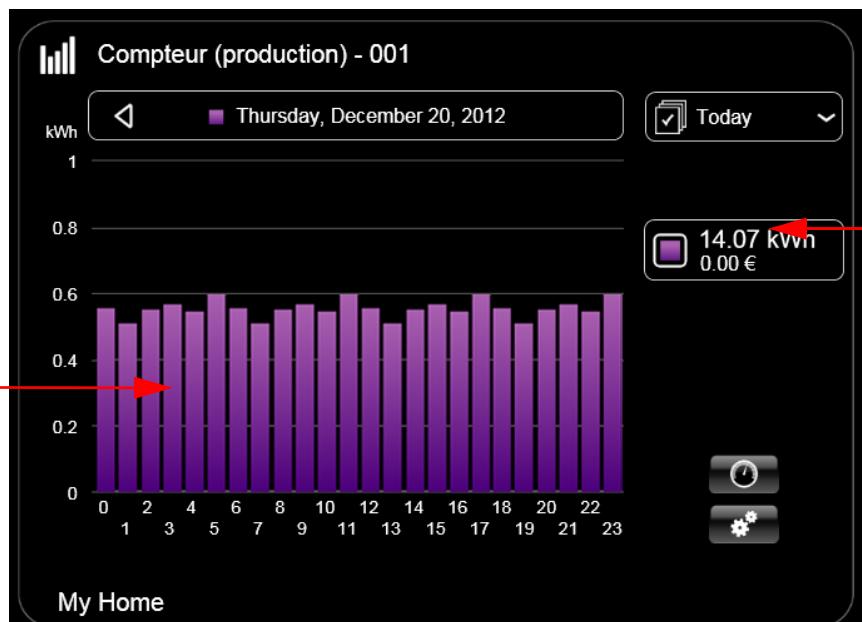
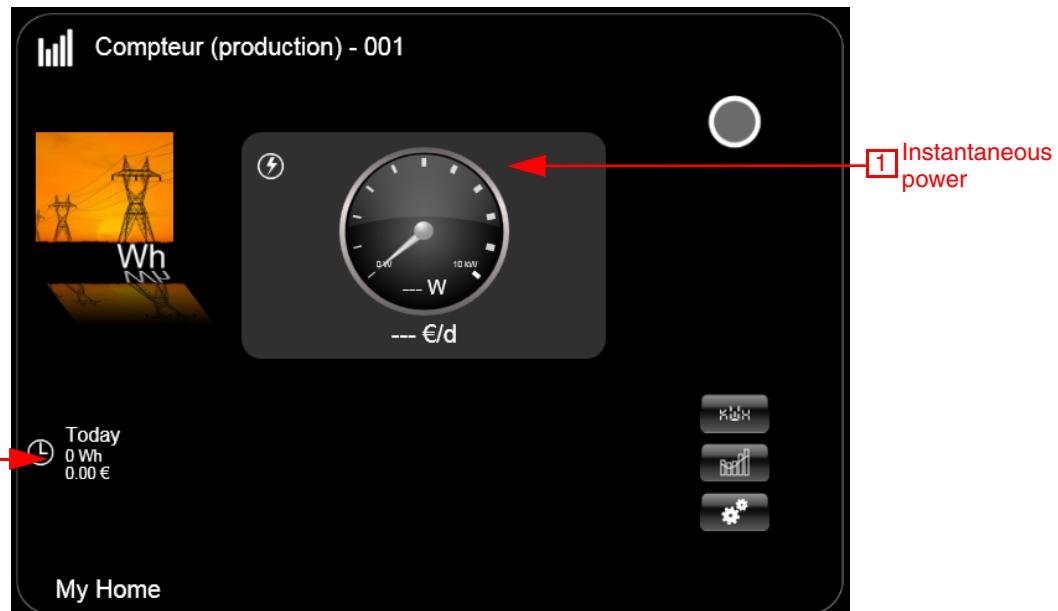
Designation	Function	Value
Maximum displayed power	Used to define the upper limit of the meter displaying the electrical power.	Range [100 W - 100.000 W] Default value: 10.000 W
Alarm threshold	Used to define the alarm threshold beyond which the electricity consumption indicator sends a threshold exceeded alarm.	Range [0 €/Day - 100.000 €/Day] Default value: 10.000 €/Day
Reading of the status indications on the KNX bus	Used to define the frequency at which the status indications are read on the KNX bus.	Only during connection to the bus, 1 min (Risk of bus saturation) 2 min (Risk of bus saturation) 3 min, 5 min, 10 min, 15 min, 30 min, 45 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h, Never Default value: Only during connection to the bus
Delay after sending	Used to define the time delay after which objects are sent.	Range [0 ms - 400 ms] Default value: 80 ms

→ Links to be created: Report the addresses of the following objects of the TE330

Configuration Domovea

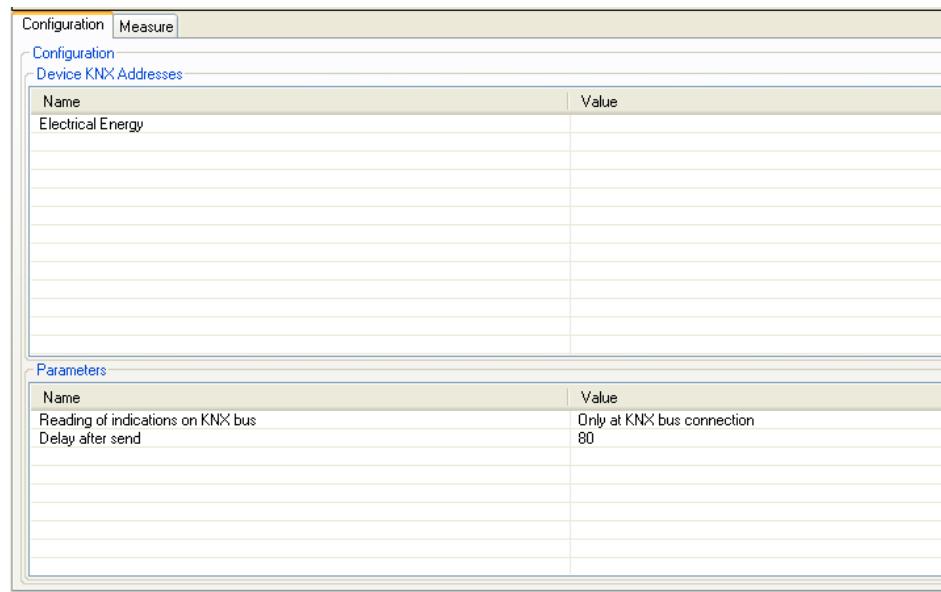
Configuration ETS

Nombr...	Nom	Fonction d'objet	Longueur	C	R	W	T
9	Metering input 1	Power	4 Byte	C	R	-	T
10	Metering input 1	Total energy	6 Byte	C	R	-	T
11	Metering input 1	Dynamic mode activation	1 bit	C	R	W	-



For more details, see the domovea information sheet "energy display".

4.4 Configuration of the Energy device



→ KNX addresses for the device

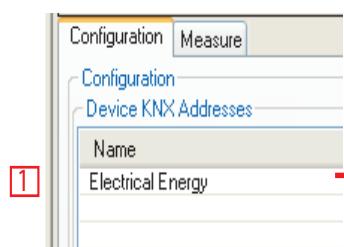
Designation	Function
Electrical energy	This parameter is used to display the value of the electrical energy consumed.

→ Parameters

Designation	Function	Value
Reading of the status indications on the KNX bus	Used to define the frequency at which the status indications are read on the KNX bus.	Only during connection to the bus, 1 min (Risk of bus saturation) 2 min (Risk of bus saturation) 3 min, 5 min, 10 min, 15 min, 30 min, 45 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h, Never Default value: Only during connection to the bus
Delay after sending	Used to define the time delay after which objects are sent.	Range [0 ms - 400 ms] Default value: 80 ms

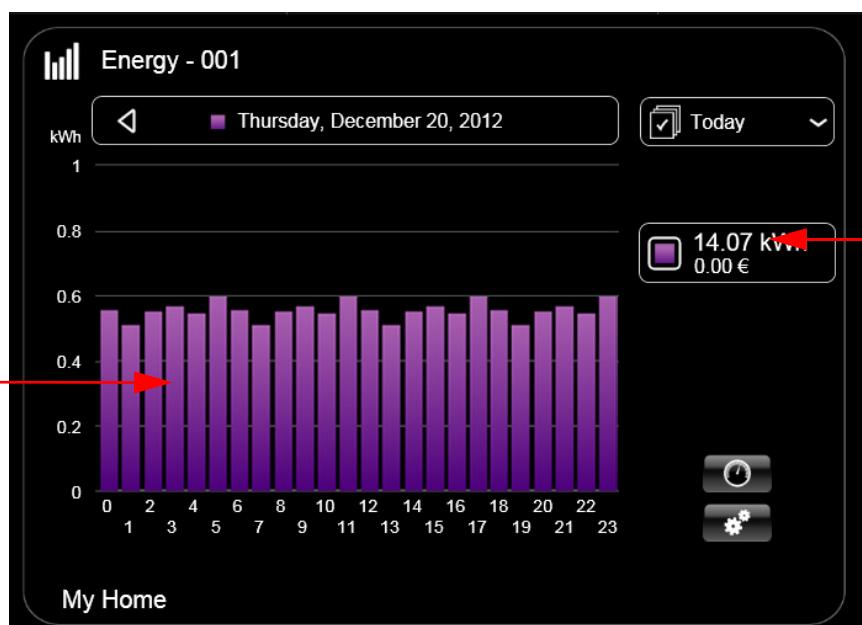
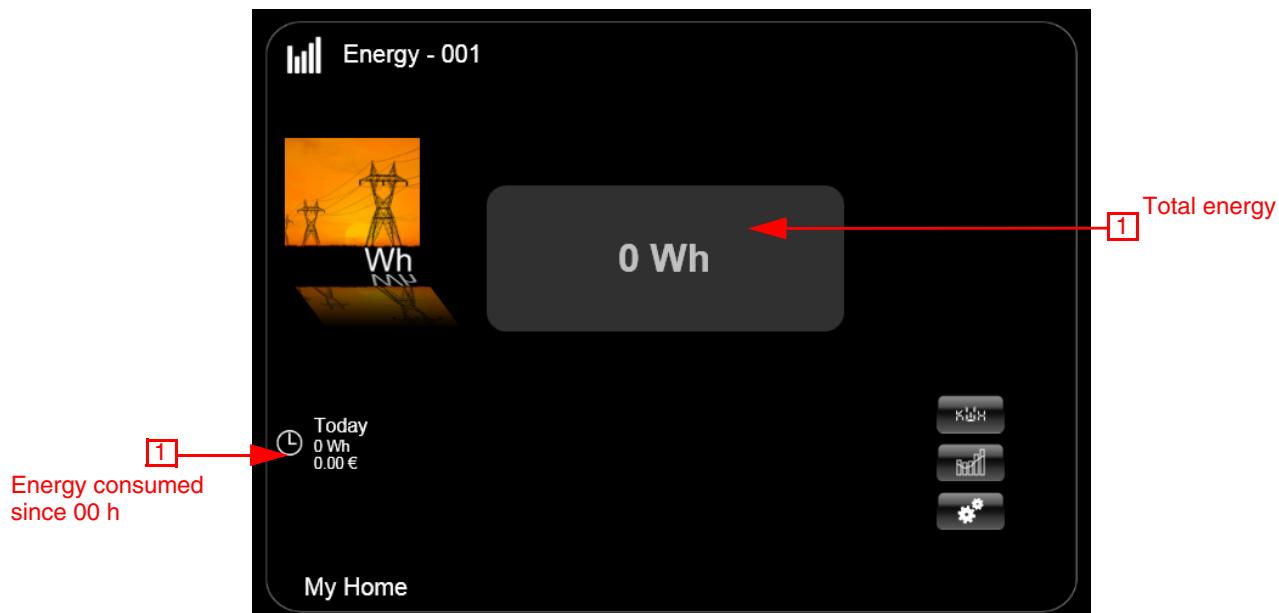
- Links to be created: Report the addresses of the following objects of the TE330

Configuration Domovea



Configuration ETS

	Nombr...	Nom	Fonction d'objet	Longueur	C	R	W	T
10	Metering input 1	Total energy	6 Byte		C	R	-	T



For more details, see the domovea information sheet "energy display".

4.5 Configuration of the Power device

Configuration	
Name	Value
Electrical Power	
Dynamic boost	

Parameters	
Name	Value
Maximum displayed value	10000
Maximum euro per day value	0.00
Reading of indications on KNX bus	Only at KNX bus connection
Delay after send	80

→ KNX addresses for the device

Designation	Function
Electrical power	This parameter is used to display the value of the electrical power consumed.
Dynamic restart	This parameter is used to force send mode for the electrical power value to update the value faster. It is activated for a duration that can be configured in ETS.

→ Parameters

Designation	Function	Value
Maximum displayed power	Used to define the upper limit of the meter displaying the electrical power.	Range [100 W - 100.000 W] Default value: 10.000 W
Alarm threshold	Used to define the alarm threshold beyond which the electricity consumption indicator sends a threshold exceeded alarm.	Range [0 €/Day - 100.000 €/Day] Default value: 10.000 €/Day
Reading of the status indications on the KNX bus	Used to define the frequency at which the status indications are read on the KNX bus.	Only during connection to the bus, 1 min (Risk of bus saturation) 2 min (Risk of bus saturation) 3 min, 5 min, 10 min, 15 min, 30 min, 45 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h, Never Default value: Only during connection to the bus
Delay after sending	Used to define the time delay after which objects are sent.	Range [0 ms - 400 ms] Default value: 80 ms

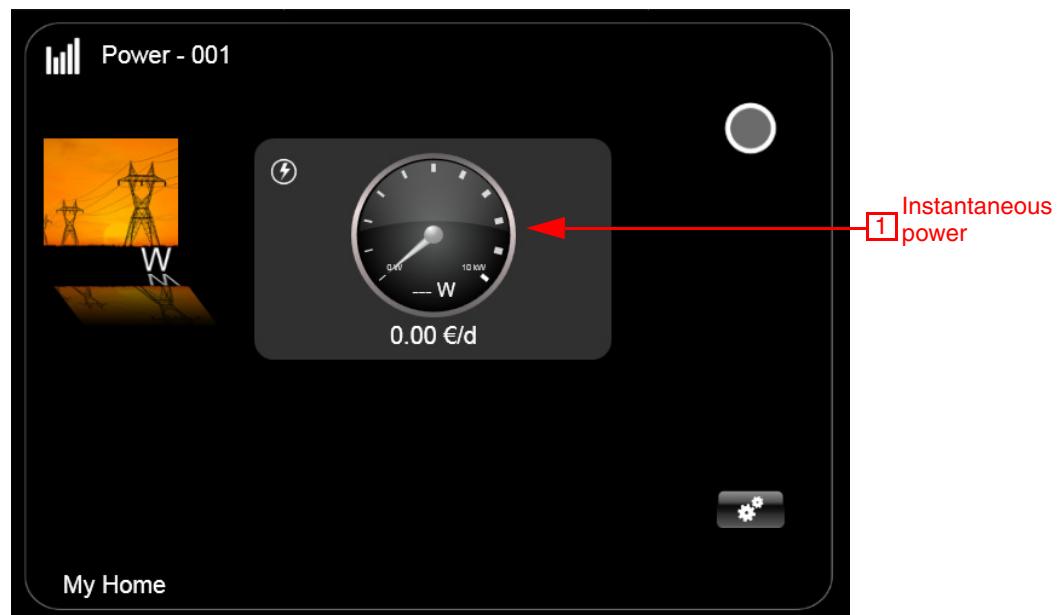
- Links to be created: Report the addresses of the following objects of the TE330

Configuration Domovea

Name
Electrical Power
Dynamic boost

Configuration ETS

Name	Nomb...	Nom	Fonction d'objet	Longueur	C	R	W	T
9	Metering input 1	Power	4 Byte		C	R	-	T
11	Metering input 1	Dynamic mode activation	1 bit		C	R	W	-



For more details, see the domovea information sheet "energy display".

4.6 Configuration of the Sub-counter device (Consumption)

Name	Value
Electrical Power	
Electrical Energy	
Dynamic boost	

Name	Value
Maximum displayed value	10000
Maximum euro per day value	0.00
Reading of indications on KNX bus	Only at KNX bus connection
Delay after send	80

→ KNX addresses for the device

Designation	Function
Electrical power	This parameter is used to display the value of the electrical power consumed.
Electrical energy	This parameter is used to display the value of the electrical energy consumed.
Dynamic restart	This parameter is used to force send mode for the electrical power value to update the value faster. It is activated for a duration that can be configured in ETS.

→ Parameters

Designation	Function	Value
Maximum displayed power	Used to define the upper limit of the meter displaying the electrical power.	Range [100 W - 100.000 W] Default value: 10.000 W
Alarm threshold	Used to define the alarm threshold beyond which the electricity consumption indicator sends a threshold exceeded alarm.	Range [0 €/Day - 100.000 €/Day] Default value: 10.000 €/Day
Reading of the status indications on the KNX bus	Used to define the frequency at which the status indications are read on the KNX bus.	Only during connection to the bus, 1 min (Risk of bus saturation) 2 min (Risk of bus saturation) 3 min, 5 min, 10 min, 15 min, 30 min, 45 min, 1 h, 2 h, 3 h, 5 h, 12 h, 24 h, Never Default value: Only during connection to the bus
Delay after sending	Used to define the time delay after which objects are sent.	Range [0 ms - 400 ms] Default value: 80 ms

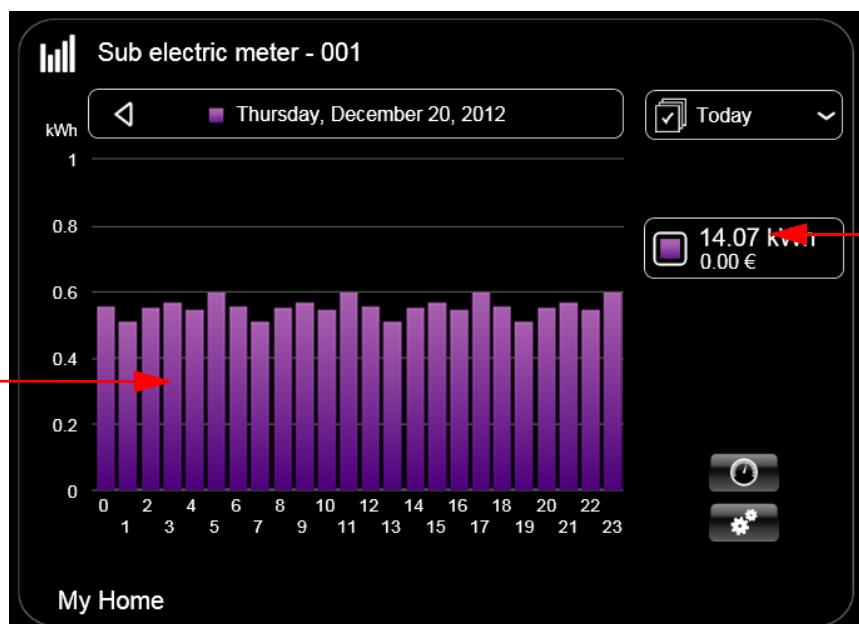
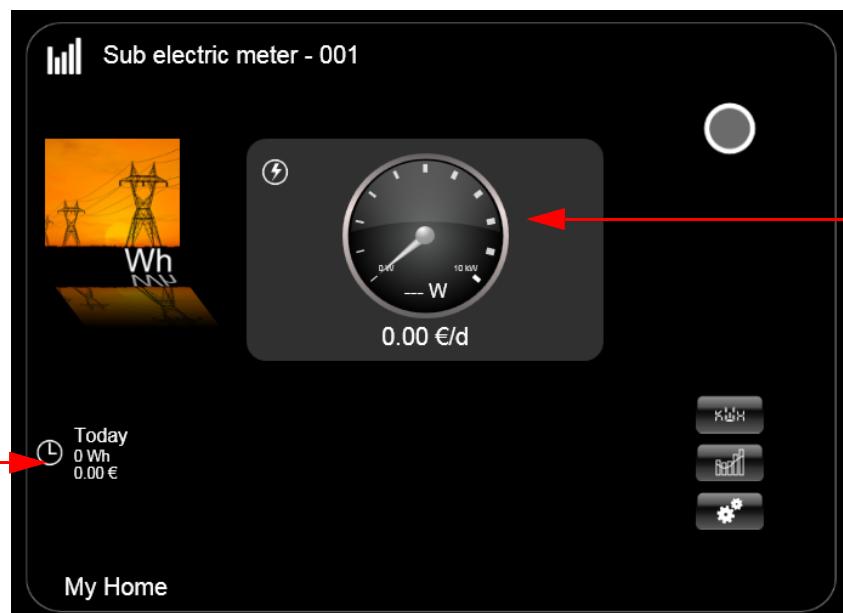
- Links to be created: Report the addresses of the following objects of the TE330

Configuration Domovia

Name	Nomb...	Nom	Fonction d'objet	Longueur	C	R	W	T
Electrical Power	9	Metering input 1	Power	4 Byte	C	R	-	T
Electrical Energy	10	Metering input 1	Total energy	6 Byte	C	R	-	T
Dynamic boost	11	Metering input 1	Dynamic mode activation	1 bit	C	R	W	-

Configuration ETS

Nomb...	Nom	Fonction d'objet	Longueur	C	R	W	T
9	Metering input 1	Power	4 Byte	C	R	-	T
10	Metering input 1	Total energy	6 Byte	C	R	-	T
11	Metering input 1	Dynamic mode activation	1 bit	C	R	W	-



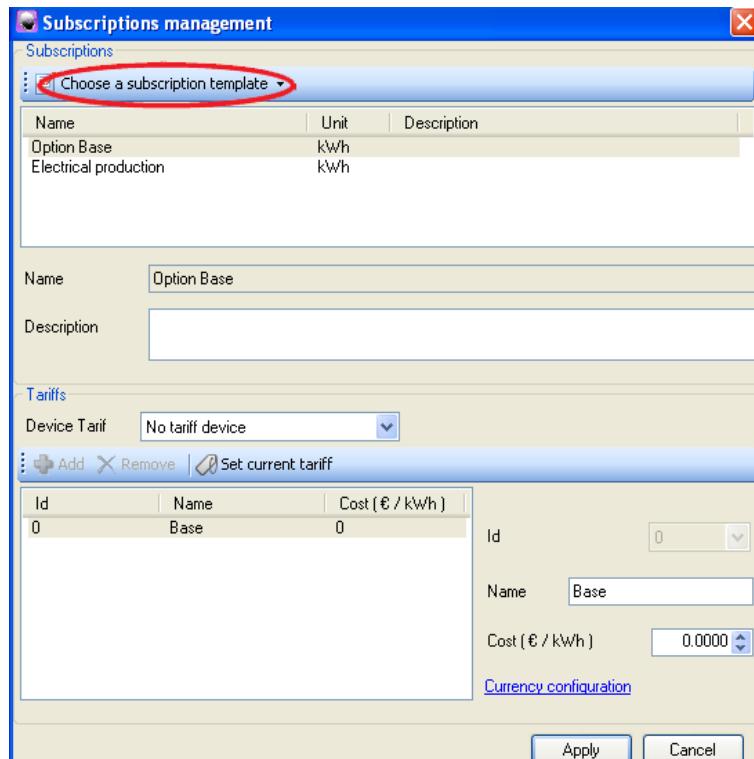
For more details, see the domovia information sheet "energy display".

4.7 Choice of tariff under domovea

Domovea allows a tariff to be defined according to the offer subscribed to. To do so, click on the "Measurements" tab for the device used, then on "Subscription".



Define your subscription by clicking on "Choose a subscription model".



Domovea has tariff models according to the country (France or Germany) and a personalised model (configurable).

Type	Option	Identifier	Name
German	Einzeltarif	0	Basic
	Doppeltarif	0	Tariff 1 (More expensive)
		1	Tariff 2
France	Basic	0	Basic
	Heure pleine / Heure creuse	1	Heure creuse
		2	Heure pleine
	Tempo	5	Blue HC
		6	Blanc HC
		7	Red HC
		8	Blue HP
		9	Blanc HP
		10	Red HP
	EJP	3	Normal day
		4	Peak day
Personalised		0	Tariff 0
		1	Tariff 1
		2	Tariff 2
		3	Tariff 3
		4	Tariff 4
		5	Tariff 5
		6	Tariff 6
		7	Tariff 7
		8	Tariff 8
		9	Tariff 9
		10	Tariff 10

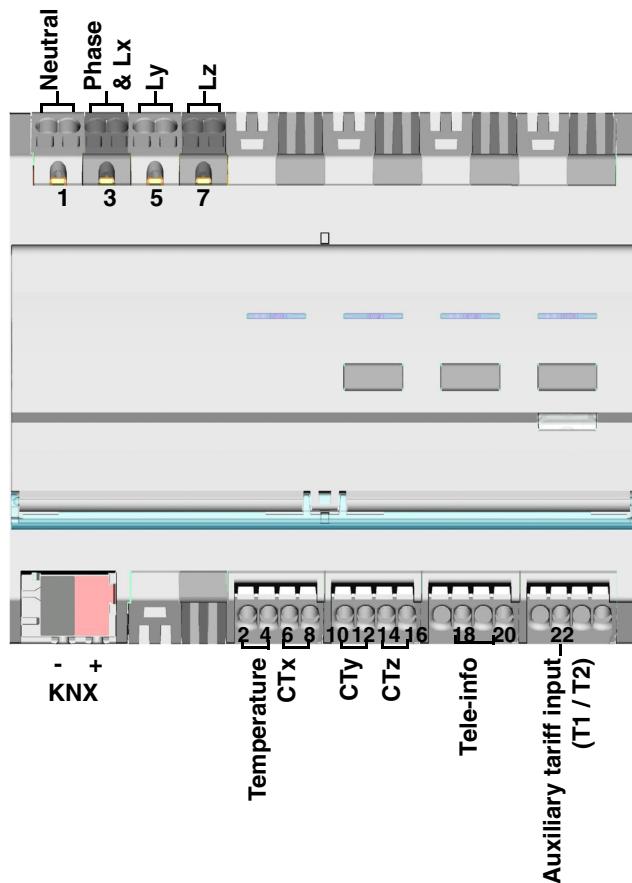
The cost of each tariff can be configured.

Example for:

- **France:** Using the "Tele-information" input
 - Click on "choice of a subscription model" then on "France" then on "EDF",
 - Define the tariff option between "Basic", "Heures pleines / Heures creuses", "Tempo" or "EJP".
- **France:** Using the T1 / T2 input without "Tele-information"
 - **Use the personalised tariff:**
 - Click on "choice of a subscription model" then "Customised model",
 - Define Tariff name0 as Heures pleines,
 - Define Tariff name 1 as Heures creuses,
 - Delete tariffs 2 to 10 which are not used in this case.
- **Germany:** Use input T1 / T2
 - Click on "choice of subscription model" then on "Germany",
 - Define the tariff option between "Einzeltarif" and "Doppeltarif".
- **Other countries: Use the personalised tariff**
 - Click on "choice of a subscription model" then "Customised model",
 - Define the tariff option according to your installation by configuriong the tariff 0 to 10.

5. Technical characteristics

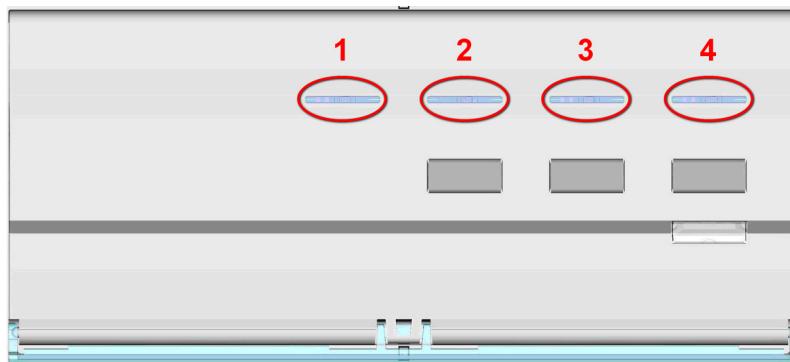
5.1 Installation



Remark:

The 3 buttons are only used for configuration with the TX100.

5.2 Meaning of the LED's



Channel	Function	LED 1	LED 2	LED 3	LED 4
"Tele-information" (Only in France)	Activated	ON	X	X	X
	Deactivated	OFF	X	X	X
	Communication error or error on the channel	Flashing	X	X	X
Channel 1	Operating	X	Flashes for every 1 Wh consumed	X	X
	No bridging in single phase or no phase in three-phase	X	Flashing at a frequency of 2 Hz*	X	X
Channel 2	Operating	X	X	Flashes for every 1 Wh consumed	X
	No bridging in single phase or no phase in three-phase	X	X	Flashing at a frequency of 2 Hz*	X
Channel 3	Operating	X	X	X	Flashes for every 1 Wh consumed
	No bridging in single phase or no phase in three-phase	X	X	X	Flashing at a frequency of 2 Hz*
	No mains power on inputs N and Lx or ETS downloading error	Flashing	Flashing	Flashing	Flashing

* 2 Hz corresponds to 1 s LED ON and 1 s LED OFF.

Remark:

Indication of the presence or absence of a wiring error can take up to one minute.

5.3 Current outage and return

The consumption indicator requires mains power and a power supply to the KNX bus to operate.

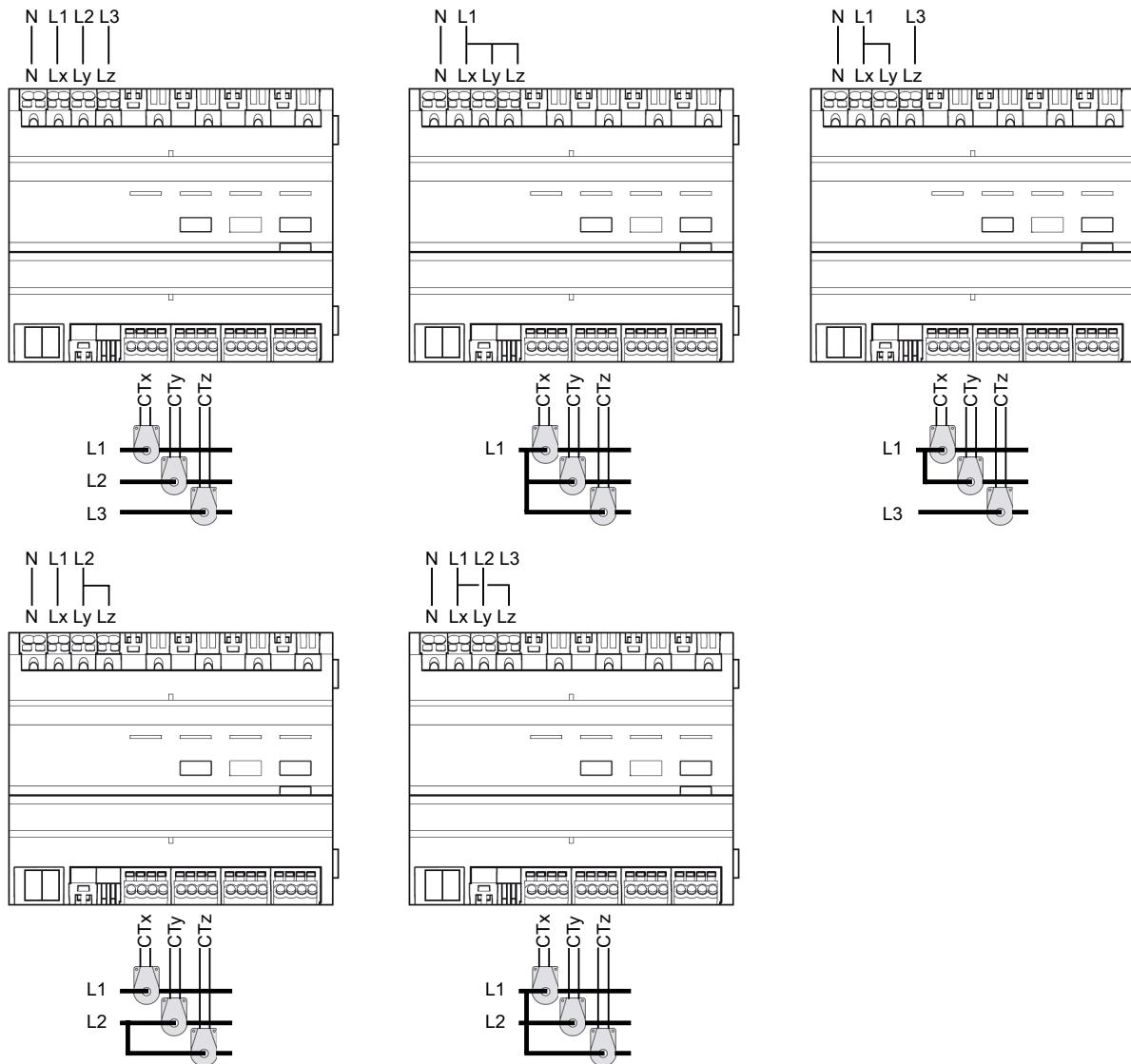
Mains power fault: After 60 s, the energy, current, voltage and power data returns to 0 and is still sent on the bus according to the defined period. When the mains power is restored, the data is sent normally again.

KNX bus fault or mains + KNX bus fault: The consumption indicator is deemed to be out of service. No data is sent. When the bus connection and power supply are restored, the system takes a few minutes to restart and send data normally.

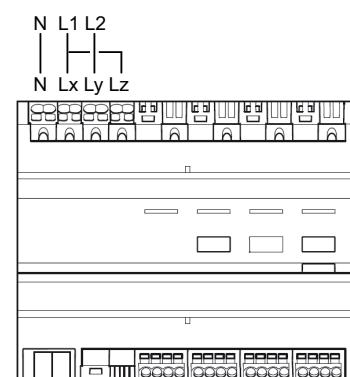
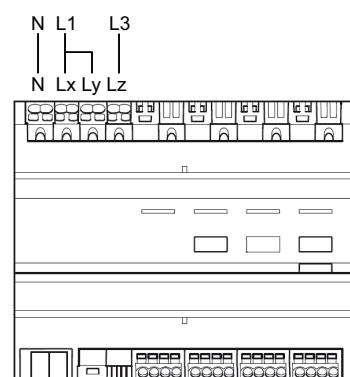
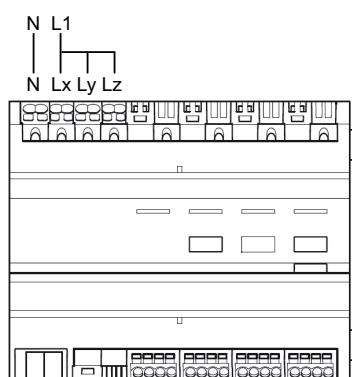
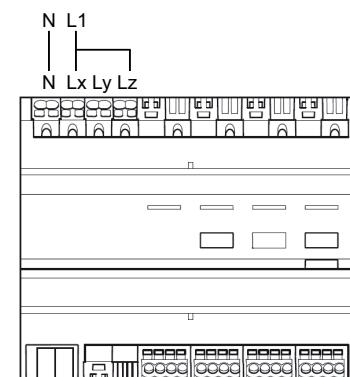
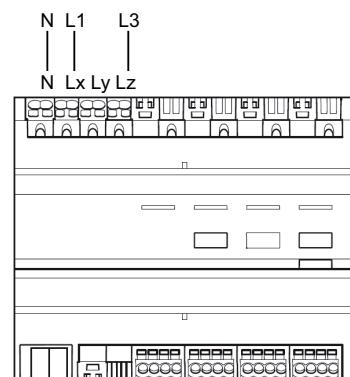
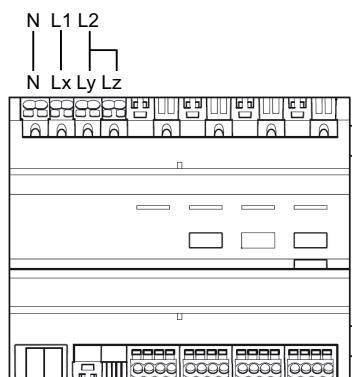
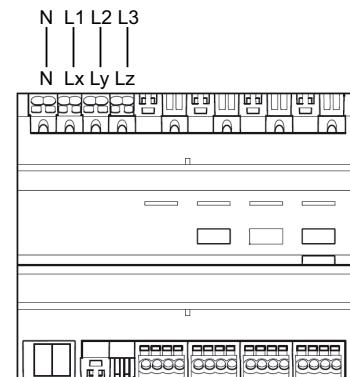
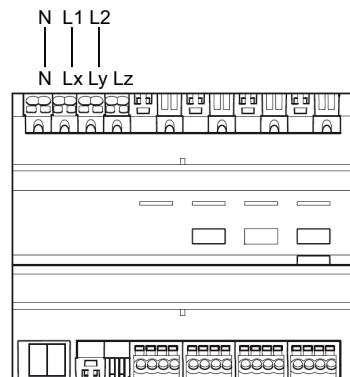
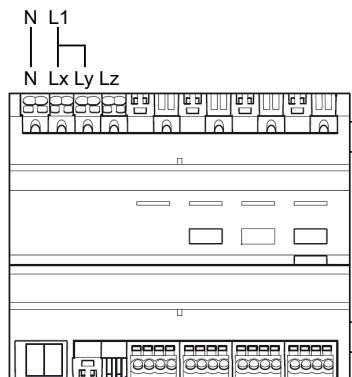
Remark: To address or configure the product, only the KNX bus requires power.

5.4 Connection of the toroids according to the number of phases

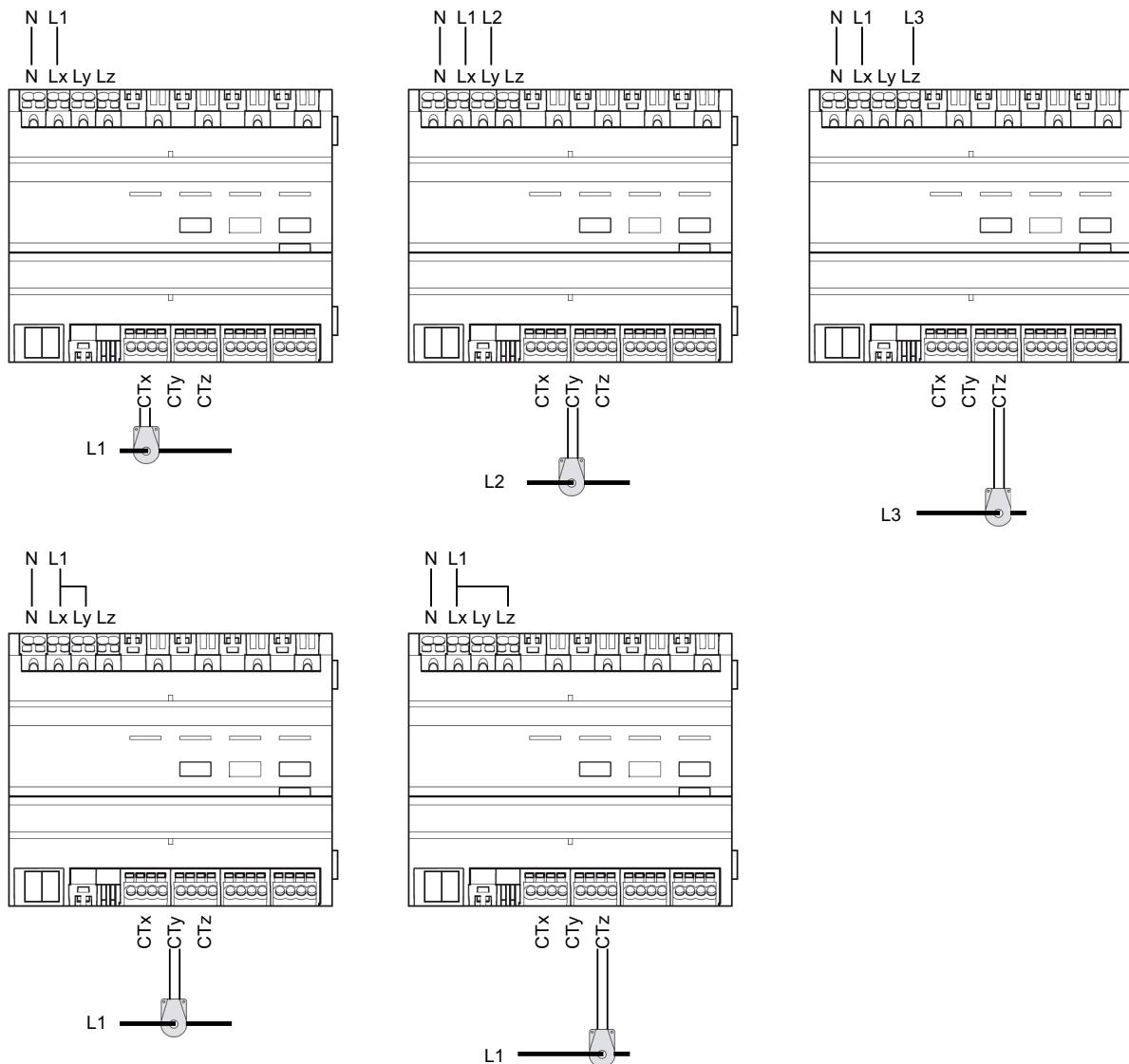
→ 3 metering channels



→ 2 metering channels



→ 1 metering channel



6. Main characteristics

Max. number of group addresses	254
Max. number of links	255
Objects	40

7. Physical addressing

To perform physical addressing or check for the presence of the bus, press the illuminated pushbutton located on the top right of the device above the label holder.

Programming LED ON = Bus present and the product is in programming mode.

The product remains in programming mode until the physical address has been transmitted by ETS. Press again to exit programming mode.

