Tebis application software

TYC701E
TYC702E

	Product Reference	Description
	TYC701E TYC702E	Pulses gateway 1 input Pulses gateway 2 inputs

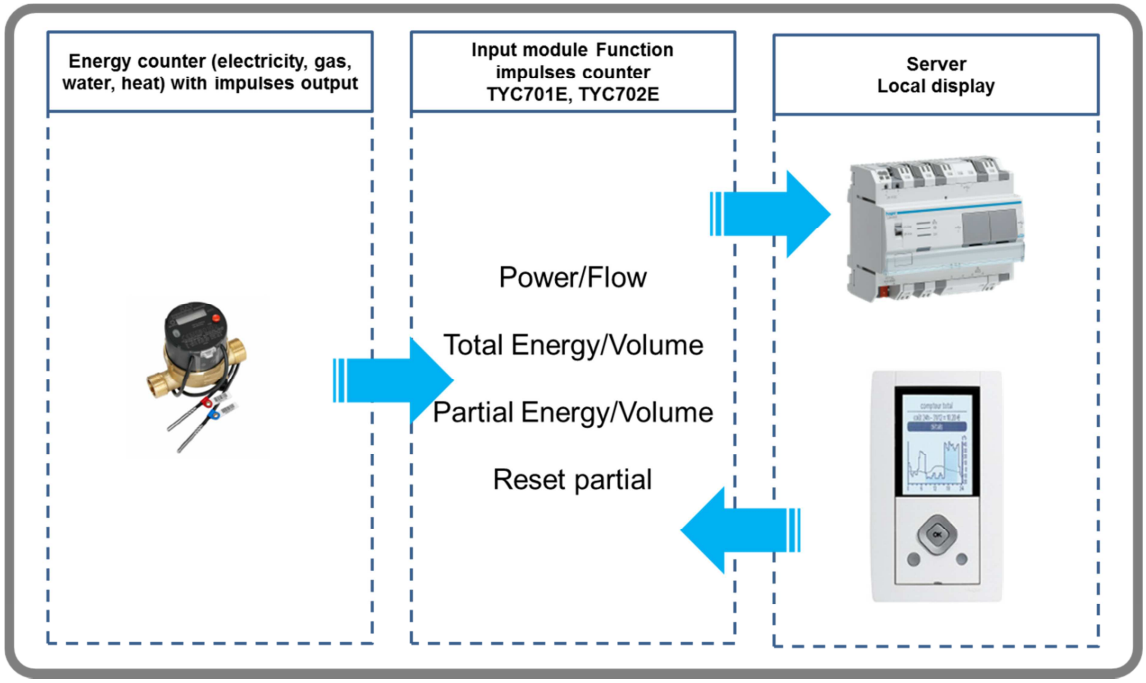


Table of Contents

1. Application Description

a. Operating Principals and Areas of Application

The pulses gateways consist of a counter module with a battery buffered data memory and a KNX bus coupler.

The input are operable with most EN 43864 S0-interfaces without help of an external polarization. They can also be wired with a potential-free contact.

The gateways are set up using the ETS (KNX Tool Software) with the associated application program.

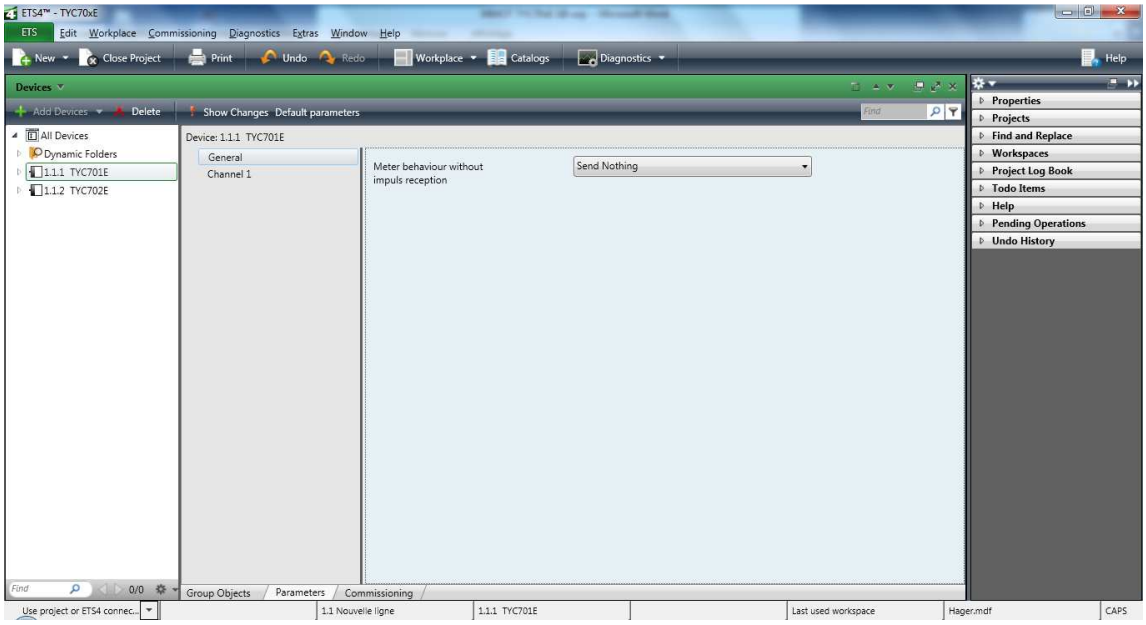
b. Functions

- Power / Flow (calculated values)
- Energy / Volume (counted total values)
- Energy / Volume (partial values)
- Independent reset (partial values)

2. KNX Parameters

a. Parameters General Settings

Parameters General Settings Screen

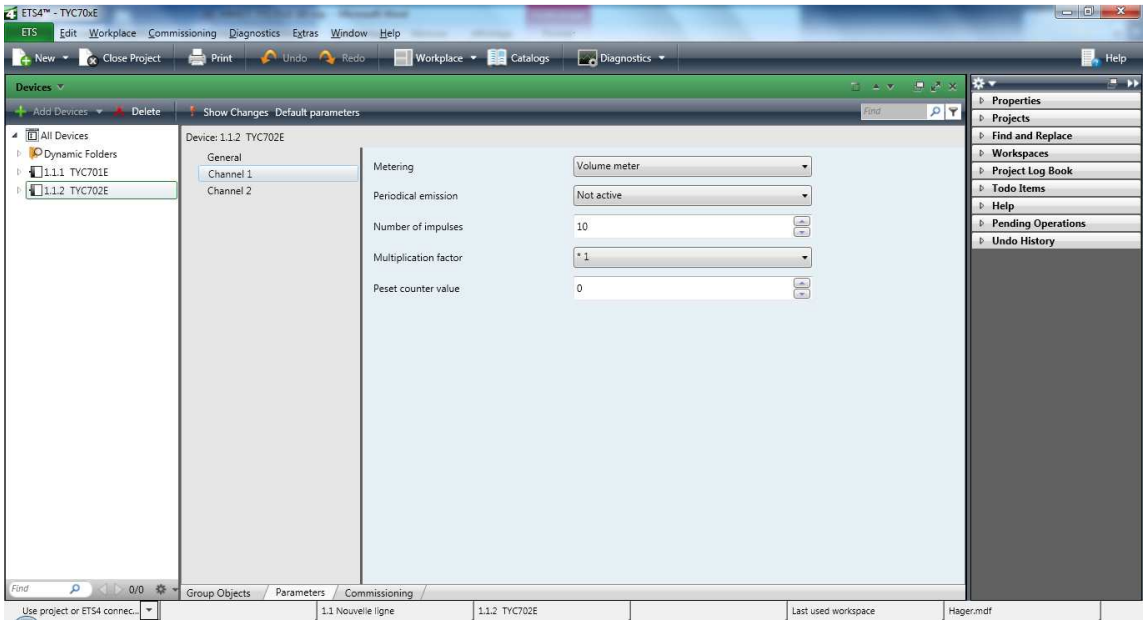


- Parameters General Settings

Parameter	Setting	Description
Meter behavior without impulses reception	Send Nothing Send 0	If "Send Nothing ", the values of power and flow remain unchanged when no pulse. If "Send 0" values of power and flow are set to 0 when no pulse.

b. Parameters Channels

- Parameters Channels Screen



- Parameters Channels

Parameter	Setting	Description
Metering	Volume meter (m^3) Energy meter (Wh)	Volume are transmitted in m^3 Energy are transmitted in Wh
Periodical emission	Not active 1…120 min	When “Not active”, measured values will only be sent if change occurs (a minimum interval of 10 seconds is maintained in order to restrict the bus load). When “1…120 min”, measured values will be sent in the preset cycle time.
Number of impulses	0…99	See Note
Multiplication factor	10^-10…10^10	See Note
Preset Counter Value	0…4294967295	When “0”, there is no correction on the values total and partial. When “1…”, total value is corrected and partial value will be corrected after first “Reset”. Example of correction: preset of 123 and 1 Imp. / 100Wh equal a correction value of 12300 Wh is applied.

3. KNX Objects

- Objects List

Label	Data Point Type			Function
Power channel 1	14.056	DPT_Value_Power	4 Byte	Calculated value
Power channel 2	14.056	DPT_Value_Power	4 Byte	Calculated value
Total energy channel 1	13.010	DPT_ActiveEnergy	4 Byte	Measured value
Total energy channel 2	13.010	DPT_ActiveEnergy	4 Byte	Measured value
Partial energy channel 1	13.010	DPT_ActiveEnergy	4 Byte	Measured value
Partial energy channel 2	13.010	DPT_ActiveEnergy	4 Byte	Measured value
Flow channel 1	14.077	DPT_Value_Volume_Flux	4 Byte	Calculated value
Flow channel 2	14.077	DPT_Value_Volume_Flux	4 Byte	Calculated value
Total volume channel 1	14.076	DPT_Value_Volume	4 Byte	Measured value
Total volume channel 2	14.076	DPT_Value_Volume	4 Byte	Measured value
Partial volume channel 1	14.076	DPT_Value_Volume	4 Byte	Measured value
Partial volume channel 2	14.076	DPT_Value_Volume	4 Byte	Measured value
Partial meter reset channel 1	1.015	DPT_Reset	1 Byte	Logical value
Partial meter reset channel 2	1.015	DPT_Reset	1 Byte	Logical value

4. Note for Settings the Pulse Rating

- For example, water

Impulse Valence Counter	Number of impulses	Multiplication factor
1 Imp. / Liter 1 000 Imp. / m^3	1	* 10 ^ 3
1 Imp. / 10 Liter 100 Imp. / m^3	1	* 10 ^ 2
1 Imp. / 25 Liter 40 Imp. / m^3	4	* 10 ^ 1
1 Imp. / 50 Liter 20 Imp. / m^3	2	* 10 ^ 1
1 Imp. / 100 Liter 10 Imp. / m^3	1	* 10 ^ 1
1 Imp. / 1 000 Liter 1 Imp. / m^3	1	* 1
1 Imp. / 100 m^3	1	* 10 ^ -2
1 Imp. / 200 m^3 5 Imp. / 1 000 m^3	5	* 10 ^ -3

For example, current

Impulse Valence Counter	Number of impulses	Multiplication factor
1 Imp. / 1 000 Wh	1	* 10 ^ -3
1 Imp. / 500 Wh 2 Imp. / 1 000 Wh	2	* 10 ^ -3
1 Imp. / 100 Wh	1	* 10 ^ -2
1 Imp. / Wh	1	* 1
500 Imp. / Wh	5	* 10 ^ 2
1 000 Imp. / Wh	1	* 10 ^ 3
2 000 Imp. / Wh	2	* 10 ^ 3
5 000 Imp. / Wh	5	* 10 ^ 3

For example, gas

Impulse Valence Counter	Number of impulses	Multiplication factor
1 000 Imp. / m^3	1	* 10 ^ 3
500 Imp. / m^3	5	* 10 ^ 2
5 Imp. / m^3	5	* 1
1 Imp. / m^3	1	* 1

5. Physical addressing

A short press (T < 2s) of pushbutton (1) initiates product physical addressing and checks the presence of the bus: indicator 2 ON = bus presence and product in physical addressing.

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