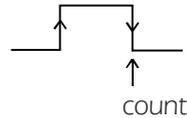


# Eltek TU1040 - User Instructions for GC62EX transmitter

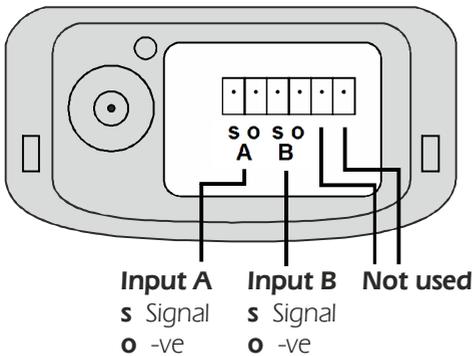
## Product summary

The GC62EX is designed to meet the requirements of IGEM / GM / 7A communications 1731 for connection to a domestic gas meter.

- 2 x pulse inputs (voltage free or digital)
- Maximum pulse rate is 250 Hz.
- A maximum of 65,000 pulses can be counted every logging interval. When the maximum count is reached the counter rolls over and continues counting.
- At the (random) transmission time, the value of the pulse count register is transmitted.
- The pulse input can be voltage input or voltage-free contacts (< 1V = low, > 2.7V = high).
- Program only with the GCAsI adapter supplied with SMA to 3.5mm jack leads.
- The counter increments on the falling edge of a pulse:

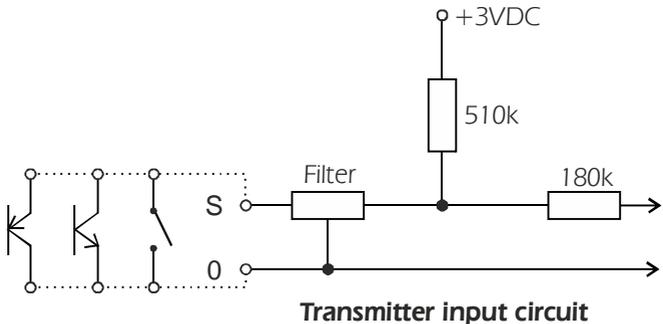


## Wired connections



## Input type

open collector npn /  
open emitter pnp /  
contact closure



Transmitter input circuit

# Eltek TU1040 - User Instructions for GC62EX transmitter

## Scaling (adding Engineering Units) to the GC62EX

Ensure that the device connected to the GC62EX transmitter output does not exceed 250 pulses per second and that the number of pulses does not exceed 65,000 pulses per LOGGING interval.

## Using Darca Plus to configure the transmitter

In the **Squirrel Channel to Transmitter Channel Assignments** window:

Check **Sensor-On time** is 0

Click **Set Log Int & Preferred Tx Int** and follow prompts

**Squirrel Channel to Transmitter Channel Assignments**

Help Refresh Next Transmitter >> Close Transmitter Connections

**Transmitter:** Tx-17523  
Sensor-On time (s): 0  
User Preferred Tx Int: 00:00:03  
Tx Interval: 00:05:00  
 Match

Set Sensor On Time  
> Set Log Int & Preferred Tx Int  
Set Tx Interval

Total transmitter channels: 2  
Used transmitter Channels: 0  
Free transmitter Channels: 2  
Battery Level (%): 100

Delete All Tx Channels  
Set/Delete Selected Tx Channels  
Auto Set (All Channels + Interval)-User Preferred

**Channel:** Current Squirrel Start Channel: 13 Update Channel Allocation

Tx Chan:	Range:	Sq Chan:	Match:	Alarms:	Hi:	Lo:
A	[EU Range] Pulse Count (0.00 to 100.00 %)	2	<input type="checkbox"/>			
B	Not Configured	3	<input type="checkbox"/>			

**Squirrel:** K01139-10380

Save Configuration Delete Channels Transmitter Setup Send to Squirrel

Channel	Ident	Input	Range	Unit	Transmitter ID	Transmitter Channel	Transmit Interval	Hi Alarm	Lo Alarm
1	Channel 001	State	0.0 to 1.0		17459	A	00:00:03		0.0
2									

## Battery

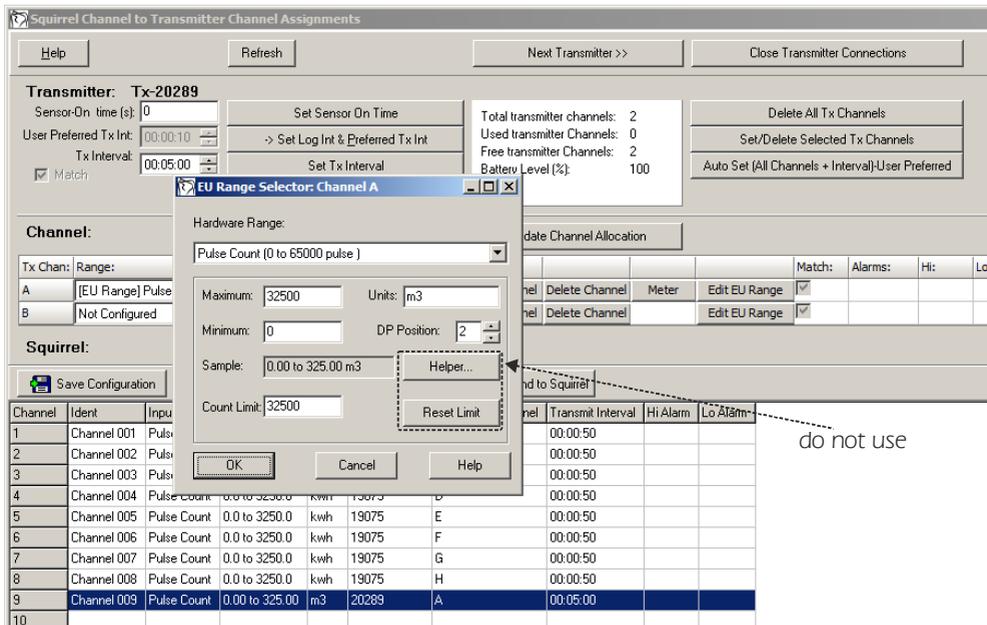
Replace only with Eltek battery assembly part number GX-Li-F. POA Eltek.

# Eltek TU1040 - User Instructions for GC62EX transmitter

## Worked example with Actaris U6 domestic gas meter with pulse option

The U6 is a domestic gas meter with a pulse output of 1 pulse per 0.01 m<sup>3</sup>. The maximum flow rate is 6m<sup>3</sup>/h.

In the **Squirrel Channel to Transmitter Channel Assignments** window, click **Set Channel** and then **Edit EU Range** for the appropriate transmitter channel.



1. Ensure **Hardware Range** is as shown
2. Set **Maximum** to 32500
3. Leave or set **Minimum** at 0
4. Overwrite **Units** as appropriate e.g. m3
5. In **DP Position**, Enter number of decimal points needed.
6. To calculate **Count Limit**, use the formula

Count Limit =  $A / (B \times C)$ , where:

**A** = Maximum (32500)

**B** = Value per pulse (0.01 m<sup>3</sup>)

**C** = Factor calculated from DP Position:  
 =  $32500 / (0.01 \times 100)$   
 = 32500

DP Position	C
0	1
1	10
2	100
3	1000
etc.	etc.

7. Check **Sample** is range as required

Click **OK** to close the window when you are finished.

# Eltek TU1040 - User Instructions for GC62EX transmitter

Your new configuration will appear in the **Squirrel Channel to Transmitter Channel Assignments** window. Check that the Squirrel Channel and Tx Channel detail is as required. Click **Next Transmitter** to set up additional transmitter channels or **Close Transmitter Connections** if you have set up all the channels you require.

## Technical note

Logger pulse channels are not reset to zero when logging is started. This is so that during stop/download/reset/restart of the logger, counts from connected sensors are not lost. Consequently, when a system is first started after configuration or a period of no use, no transmissions have been received from the transmitters, so the first reading logged on a pulse count channel will be meaningless. If you want the first recorded value to be meaningful, then do the following:

1. Start the logger logging
2. Wait for at least 2 transmission intervals so that a value is definitely received from each pulse transmitter channel
3. Stop logging
4. Reset and restart the logger

The first value logged will now represent the pulses counted between the first two received transmissions.

## Eltek

Specialist Data Loggers  
Eltek Ltd, 35 Barton Road, Haslingfield  
Cambridge, CB23 1LL, England  
Tel: +44 (0) 1223 872111  
Fax: +44 (0) 1223 872521  
email: [sales@eltekdataloggers.co.uk](mailto:sales@eltekdataloggers.co.uk)  
<http://www.eltekdataloggers.co.uk>