

# S7021 DUAL-CHANNEL LOGGER WITH COUNTING AND BINARY INPUTS

- record of pulses from water meter, gas meter, electrometer, flow meter, revolution counter
- time event record from binary signal (e.g. door opening/closing .. )
- production monitoring
- long term field measurement

Logger is designed for counting of pulses, optionally for logging of time events from binary signal. Counter reading and actual state of binary input are displayed on dual line LCD display. Counter status is stored in adjustable time interval into logger's non-volatile memory. Time of event (change of binary input state) is stored immediately after event. Data transfer to the personal computer for further analysis is performed via serial interface RS232, USB or Ethernet by means of a proper adapter or GSM modem.



- counter reading is possible to display in real value, range of the LCD display is 19999, after exceeding of displayable value only lowest places are displayed with warning symbol
- counter has two modes enabled: after counting of maximum value counter stops or overflows and counts again, counter reset enabled from the PC
- in the record is possible to indicate counter state or counter state increment between logging intervals
- record from binary input contains date and time (resolution of 1 s) when change of input logic level appeared and its logic state
- record from binary input is possible to disable.
- it is possible from the PC to assign both logic states of binary input a description, which is displayed on the record. On the LCD logic states are always displayed as ON (contact closed) and OFF (contact opened)
- variability of connection to the computer - USB, RS232, Ethernet, GSM modem
- permanent connection to the PC enabled, data is possible to download even during logging
- logging start/stop is enabled: at certain time and date programmed from computer, by signal connected to binary input or by delivered magnet
- also special logging mode is enabled, when logging runs only, if counter reading is out of adjusted alarm limits
- input pulse signal is recalculated and displayed in real measured physical units by means of the PC software
- each channel is possible to describe with text of maximum 16 characters, each logger with text of 32 characters
- password protection enabled to prevent unauthorized manipulation
- extremely low consumption from the battery, indication of remaining battery life, easy battery replacement
- robust watertight case, easy installation, locking enabled

## TECHNICAL PARAMETERS

<b>Counter range user selectable:</b>	in 16bit mode: 0 to 61 695 pulses, memory of 32 504 records in non-cyclic mode in 32bit mode: 0 to 2 021 654 527 pulses, memory of 16 252 records in non-cyclic mode
<b>Input signals:</b>	from potential-less contact or two state voltage signal
<b>Parameters of counting input:</b>	minimum pulse duration: 1 ms (shorter pulses may not be recorded) maximum frequency: 500 Hz current through closed contact: 30uA, maximum voltage across opened contact: 3.6V LOW voltage level: 0 to +0.2V (current from input max 30uA) HIGH voltage level: +3.0 to +30V (current to input max 100nA)
<b>Parameters of binary input:</b>	minimum pulse duration: 500 ms (shorter pulses may not be recorded) maximum frequency: 0.5Hz (i.e. maximum 5 pulses in 10s) current through closed contact: 3uA, maximum voltage across opened contact: 3.6V LOW voltage level: 0 to +0.2V (current from input max 3uA) HIGH voltage level: +3.0 to +30V (current to input max 100nA)
<b>Operational temperature range:</b>	-30 to +70°C
<b>Real time clock:</b>	year, leap year, month, day, hour, minute, second
<b>Logging interval of counting input:</b>	adjustable from 10s to 24hours
<b>Refresh of display and alarm state:</b>	every 10 s
<b>Logging modes:</b>	<b>noncyclic</b> logging stops after filling the memory <b>cyclic</b> after filling memory oldest data is overwritten by new
<b>Built-in connector for input signals:</b>	male Canon 9 pins
<b>Dimensions without connector,</b>	93x64x29mm

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<b>Weight:</b>	130g
<b>Power:</b>	Lithium battery 3,6V, size AA, typical life 3 years, indication of remaining life
<b>Protection:</b>	IP67- protected against influence of temporary immersion into water

Logger includes no accessories. For basic use it is necessary to order at minimum a COM adapter or USB adapter for communication with computer, optionally a start/stop magnet, if needed to control logging the other way than directly from computer or external binary signal. Also connector for input signals connection is necessary to order.

**INCLUDED ACCESSORIES:** battery, free program for Windows is ready to download from [www.cometsystem.cz](http://www.cometsystem.cz). Program enables to control all logger functions and viewing and printing of record in numerical and simple graphic format. It is possible to export logged values to dbf or txt formats for further analysis.

**OPTIONAL ACCESSORY:**

- SW100 - CD with free PC program**
- LP002 - COM adapter** for communication with personal computer via RS232 serial port
- LP003 - USB adapter** for communication with personal computer via USB port
- LP005 - LAN adapter** for communication with the PC via Ethernet, including ac/dc adapter 230Vac/5Vdc.  
Exceeding of adjusted limits is alarmed by sending e-mail message or trap.
- LP004 - start/stop magnet**
- MD036 - self adhesive Dual Lock** for easy installation
- K0921 - watertight female connector Canon 9 pins** with cover for connection of input signal, protection IP67
- K0925 - female connector Canon 9 pins** with cover for connection of input signal, no protection (IP20)
- K0945 - adapter with terminals for easy connection of input signals**, protection IP20
- F9000 - wall holder** secured against unauthorized removal
- A4203 - spare Lithium battery 3.6V**, size AA, no leads
- SWR004 - optional software for Windows** color print, vertical and time zooming of graphs and other functions



K0945 adapter with terminals for easy connection of signals



COM adapter and USB adapter for communication with the PC



K0921 watertight connector - IP67



LAN adapter LP005



Start/stop magnet



F9000 wall holder with lock