

# LOGGERS for current 0-20mA, voltage 0-5Vdc and binary signal



- locations with no electric power
- technological processes and laboratories
- long term field measurement

Loggers are designed for record of voltage signal 0-5V or current signal 0-20mA. Values are stored to a non volatile electronic memory. Data transfer to the personal computer for further analysis is performed via serial interface RS232 or USB by means of a proper adapter.

- included calibration certificate from the manufacturer
- fast data transfer to the PC (full memory for approximately 30s)
- permanent connection to the PC enabled, data is possible to download even during logging
- large data memory 32000 values
- large dual line display with special symbols, switchable
- optional display of minimum and maximum measured values (reset of min/max memory from PC or by magnet)
- dual level alarm is enabled for each channel, alarm is indicated by blinking of the value on the LCD display
- two alarm modes are enabled: instant or with memory (detected alarm is indicated permanently till alarm memory is cleared)
- robust watertight case, easy installation, locking enabled
- low power consumption, battery life up to 6 years, indication of remaining battery life, easy battery replacement
- logging start/stop is enabled: at certain time and date programmed from computer or by delivered magnet
- also special logging mode is enabled, when logging runs only, if some of measured values are out of adjusted alarm limits
- input 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 is possible to describe with text of maximum 32 characters
- password protection enabled to prevent unauthorized manipulation

## TECHNICAL PARAMETERS

Measurement accuracy:	±0.2% FS
Resolution of voltage input:	13 bits (8192 levels)
Resolution of current input:	7900 levels
Signal character at binary input:	from potential-less contact or two-state voltage signal
Minimum pulse duration at binary input:	500 ms (shorter pulses may not be recorded)
Maximum frequency at binary input:	0.5 Hz (i.e. maximum 5 pulses for 10 s)
Power current through contact at binary input:	3 µA (contact closed)
Voltage across open contact at binary input:	maximum 3.6 V
Low voltage level at binary input:	0 to +0.2 V (maximum current from the input 3 µA)
High voltage level at binary input:	+3.0 to +30 V (maximum current to the input 100 nA)
Logging interval:	adjustable from 10s to 24hours
Display refresh and alarm state refresh:	every 10 s
Total memory capacity:	32000 values (in non cyclic mode)
Logging modes:	<b>noncyclic</b> logging stops after filling the memory <b>cyclic</b> after filling memory oldest data is overwritten by new
Operation temperature range:	-30 to +70 °C
Real time clock:	year, leap year, month, day, hour, minute, second
Built-in connector for input signals:	Canon 9 pins, male
Dimensions without connectors:	93x64x29mm
Weight including battery:	130g
Power:	Lithium battery 3.6V, size AA
Typical battery life:	6 years
Battery life in on-line mode with interval 1min:	4 years
Battery life in on-line mode with interval 10s:	1 year
Protection:	IP67 - protected against influence of temporary immersion into water



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Model	DESCRIPTION	Measuring range
S5011	Single channel voltage logger	0-5V dc + binary signal
S5021	Dual channel voltage logger. Input channels are not galvanic isolated and have common ground.	0-5V dc + binary signal
S6011	Single channel current logger. The current loop should be powered from external power supply.	0-20mA dc + binary signal
S6021	Dual channel current logger. The current loops should be powered from external power supply. Input channels are not galvanic isolated and have common ground.	0-20mA dc + binary signal

No accessory is included. 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 by binary signal. Also connector for input signals connection is necessary to order.

**INCLUDED ACCESSORIES:** Calibration certificate from the manufacturer, 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
- LP004 - start/stop magnet
- MD036 - self adhesive Dual Lock for easy installation
- K092 - 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, no leads, size AA
- SWR004 - optional software for Windows - color print, vertical and time zoom of graphs and other functions

**WARRANTY:** 2 years



K0945 - adapter with terminals for easy connection of signals



COM adapter and USB adapter for communication with the PC



K0921 - watertight connector IP67



K0925 - connector IP20



Start/stop magnet



F9000 wall holder with lock