

# S7841 EVENT LOGGER

## WITH FOUR BINARY INPUTS

### Applications:

- record of door opening / closing
- monitoring of functions of a machine
- record of technological processes
- record of running hours of a machine

Event logger records beginning and end of monitored event by sensing logical state of signal coming to its input from monitored object.

It is possible to download recorded values to the PC by a communication adapter.



### Advantages:

- Variability of PC connectivity - RS232, USB, Ethernet, GSM modem.
- Permanent connection to the PC enabled, data is possible to download even during logging.
- Large dual line display, switchable.
- Robust case, easy installation, locking enabled.
- Low power consumption from battery, battery life up to 4 years.
- Indication of remaining battery life, easy replacement of the battery.
- Logging start/stop is enabled in several ways: at certain time and date programmed from computer, by delivered magnet or depending on logical state on channel 4 input.
- Each logical state is possible to describe from the PC with the text of maximum 8 characters.
- Description is used on the list of the recorded values.
- Each logger is possible to describe with text of maximum 32 characters.
- Each channel is possible to describe with text of maximum 16 characters.
- Password protection is enabled to prevent unauthorized manipulation with logger.

### TECHNICAL PARAMETERS

Number of binary inputs:	4
Input signals:	from potential-less contact or two-state voltage signal - selection by the switch
Parameters of the potential-less contact input:	
- minimum pulse duration:	500 ms (shorter pulses may not be recorded)
- max.number of changes at input:	maximum 20 changes on all inputs in 10s interval
- current through closed contact:	5 $\mu$ A
- voltage at open contact:	< 3.6 V
- maximum voltage at the input:	$\pm$ 30 V
Parameters of voltage input:	inputs are mutually galvanically isolated
- minimum pulse duration:	500 ms (shorter pulses may not be recorded)
- max.number of changes at input:	maximum 20 changes on all inputs in 10s interval
- low voltage level:	0 to +2.0 V
- high voltage level:	+4.5 to +30.0 V
- current to the input:	maximum 1.5 mA at 30V
Terminal of input signals:	removeable WAGO 734, maximum cross section of leads 1,5mm <sup>2</sup>
Data logging modes:	noncyclic – logging stops after filling the memory cyclic – after filling memory oldest data is overwritten by new
Memory capacity:	noncyclic record - 16254 input signal changes cyclic mode - 15778 input signal changes
Real time clock:	integrated calendar including leap years
Real time clock error:	< 200 ppm (i.e. 0.02%, 17.28 s in 24 h)
LCD display refresh:	5 s
Communication with the PC:	via RS232 by means of COM adapter via USB by means of USB adapter via Ethernet by means of LAN adapter

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Operating temperature range:	-30 to +70°C
Power:	Lithium battery 3,6V, size AA, typical life 4 years, indication of remaining life
Dimensions without terminals:	93 x 64 x 29 mm
Weight:	130g
Protection:	IP20
Warranty:	2 years

**No accessories 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 record the different way than **directly from computer or by logical state on channel 4 input.**

**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:

- SWR004 - optional software for Windows color print, vertical and time zooming of graphs and other functions
- DBL Logger Program - database program for work with data from Comet loggers. Program enables i.a.:
  - To set locally the GSM modem via RS232 link by means of QMS2901 cable.
  - To view selected channels from any Comet logger together with selected channels of other Comet loggers.
  - Measurement from different Comet devices is possible to combine in one table or graph.
  - To choose any time interval for analysis, print or export to PDF - table and graph - see also page 23.
- SW100 - CD with free PC program
- LP012 - 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 with 50cm cable for communication with the PC via Ethernet, including ac/dc adapter
- LP005-5 - LAN adapter with 5m cable for communication with the PC via Ethernet, including ac/dc adapter
- Accessories for wireless communication with loggers via GSM - see further
- LP004 - start/stop magnet
- MD036 - self adhesive Dual Lock for easy installation
- F9000 - wall holder secured against unauthorized removal
- A4203 - spare Lithium battery 3.6V, size AA, no leads



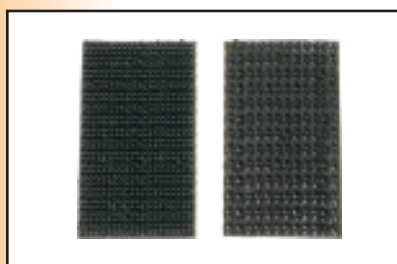
LP003 USB adapter for communication with the PC



LP012 COM adapter for communication with the PC via COM port



LP005 LAN adapter for communication with the PC via LAN network



MD036 self adhesive Dual Lock

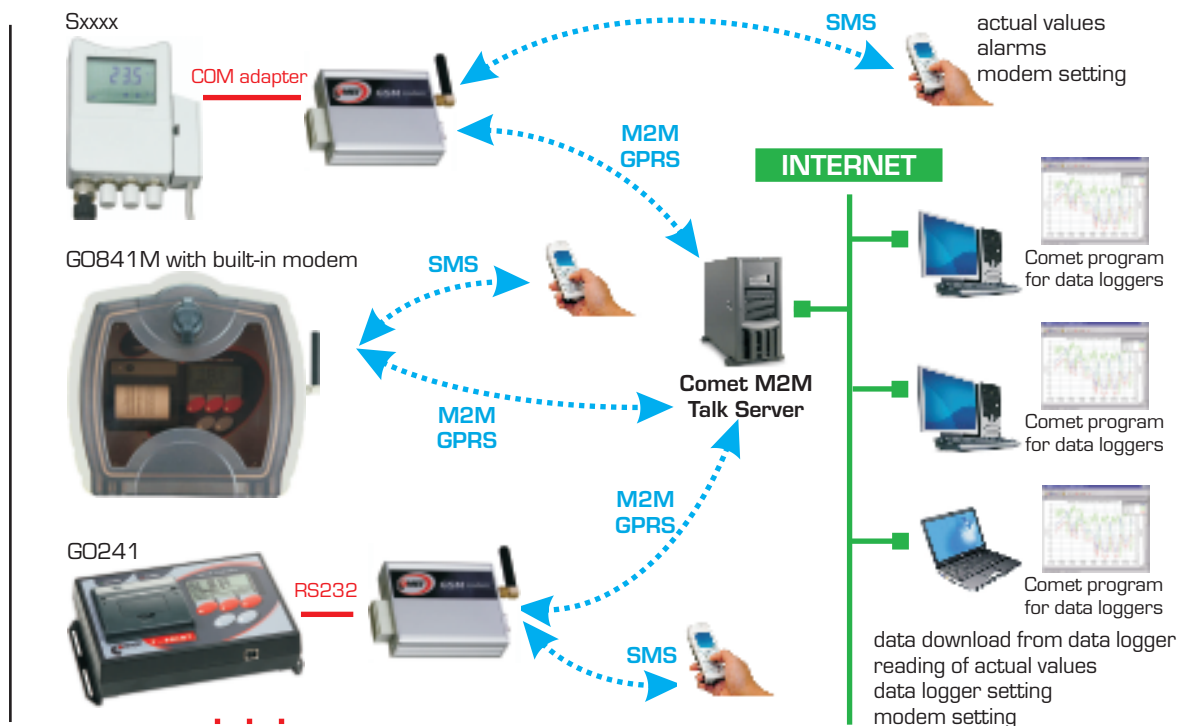


LP004 start/stop magnet



F9000 wall holder with lock

# WIRELESS COMMUNICATION WITH LOGGERS VIA GSM



## FEATURES:

### 1. Wireless communication with Sxxxx, Rxxxx loggers via GPRS

- Remote data download from logger
- Logger configuration (setting, erasing of data, etc.)
- Reading of actual values (online display mode)
- All actions available as via COM/USB adapter
- Connection realized via M2M Talk server
- Communication via M2M server can be disabled, if data download is not required = saving of cost (no need to pay GPRS data tariff)

### 2. SMS queries about actual values

- Sending of SMS query to modem phone number returns actual values. After receiving of SMS query modem sends required info in SMS.
- It is possible to limit phone numbers SMS commands are sent from. Same it is also for configuration-service SMS commands.

### 3. Alarm SMS messages - modem sends to phone numbers alarm SMS messages:

- If upper/lower limit of measured value is exceeded
- Information on filling of the logger memory (90% and 100%)
- Information on low logger battery or end of estimated battery approaches.
- Information on logger on/off.
- Error messages (communication error with logger, internal clock error, measured value error)

### 4. Setting of modem



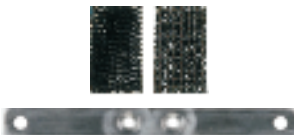

- a) Local - service setting via RS232 link from user program:
  - Setting of configuration
  - Download and erasing of diagnostic log file from modem
  - Upload of new firmware to modem
- b) Remote - via M2MTalk server from user program
  - Setting of configuration
  - Download and erasing of diagnostic log file from modem
  - Log out from M2MTalk server
  - Restart of modem
- c) By means of SMS message
  - Update of application in modem
  - Detection of description and firmware version in GPRS modem
  - Detection of GSM status
  - Enable/disable of alarm evaluation
  - Setting of GPRS parameters for connection
  - Setting of parameters of M2MTalk server
  - Log in and log out with M2MTalk server
  - Halting or restart of application in modem

Every Sxxxx or Rxxxx datalogger in monitoring system is connected via COM adapter to "its" GSM modem LP040. It is necessary to order several items from accessories. Minimum set of one logger connected to GSM contains: Sxxxx or Rxxxx logger, LP002 COM adapter for logger connection to modem, GSM modem LP040, GSM antenna, Ac/dc adapter 230V-50Hz/24Vdc/24W, QMS2901 cable for modem setting, SWR004 Optional PC program for data loggers or DBL Logger Program - database program for work with data from Comet data loggers, fee for using M2M server - see further.

# WIRELESS COMMUNICATION WITH LOGGERS VIA GSM

Sxxxx Rxxxx Gxxxx

## Optional accessories for communication with loggers:

	<b>LP040</b>	<p>GSM/GPRS modem with SIM card holder - without accessories. Enables full communication with data logger via GPRS - data download, logger configuration .. Data logger can be controlled by means of SMS messages from mobile phone. Actual values and alarm status can be received as SMS.</p>
	<b>MP001/1</b>	<p>GSM antenna 3dB for modem, right angled.</p>
	<b>A1940</b>	<p>Power adapter 230V-50Hz/24Vdc/24W for modem.</p>
	<b>QMS2901</b>	<p>Cable for modem setting via serial RS232 link by means of optional PC program for data loggers SWR001. Needed only for local setting of modem during configuration of the operation.</p>
	<b>MP006</b>  <b>MD036</b>	<p>RS232/USB converter to QMS2901 cable for modem setting via USB. Needed only for local setting of modem during configuration of the operation.</p> <p>Self adhesive Dual Lock for modem easy installation.</p>
	<b>MP036</b>	<p>Modem wall holder.</p>
	<b>MP037</b>	<p>Modem DIN rail 35mm holder.</p>
	<b>LP012</b>	<p>COM adapter for Sxxxx, Rxxxx logger connection to modem via serial link RS232.</p>
	<b>DBL</b>	<p>DBL Logger Program - database program. Program enables i.a.:</p> <ul style="list-style-type: none"> <li>- To set locally the GSM modem via RS232 link by means of the QMS2901 cable.</li> <li>- To view selected channels from any Comet logger together with selected channels of other Comet loggers.</li> <li>- Measurement from different devices is possible to combine in one table or graph.</li> <li>- To choose any time interval for analysis.</li> <li>- Print, export to PDF - table and graph.</li> </ul>
	<b>SWR004</b>  <b>M2M server</b>	<p>Optional program for data loggers enables</p> <ul style="list-style-type: none"> <li>* local GSM modem setting via serial link RS232 by means of QMS2901 cable</li> <li>* numerical list of recorded values</li> <li>* comfortable work with graphs</li> <li>* export to dbf or txt format</li> </ul> <p>One time fee for using M2M server - applied for each data logger with modem.</p>