

TEMPERATURE RECORDERS WITH PRINTER

T-PRINT G0221E - dual channel temperature recorder

T-PRINT G0241 - dual channel temperature recorder

with two-state inputs and RS232 output

USE:

- printout of temperature record during transport of food, pharmaceuticals, flowers, live animals and other goods
- designed especially for installation in driver's cabin

FEATURES:

- record from one or two temperature probes
- Delivery Ticket, Journey Ticket and Multi Day printouts
- graphical and numerical printout of temperature
- easy history printouts
- fast print to usual 57mm thermo paper in 10m rolls
- 3400 record lines/one paper roll, 5 years printout archivability
- large graphic illuminated display
- indication of temperature exceeding by LED and acoustically
- record of actual or average values at logging interval
- cyclic record - after filling the memory oldest records are overwritten by new
- no need to download data - large 1MB memory stores up to 5 years of record permanently in memory
- USB interface for record download to the PC, free PC software
- calculated MKT - mean kinetic temperature of pharmaceuticals in the PC program
- optional RS232 link for GSM modem connection
- fifteen selectable languages - e.g. English, German, French, Italian, Polish, Dutch, Spanish, Portuguese, Romanian, Czech
- degrees of Celsius and Fahrenheit



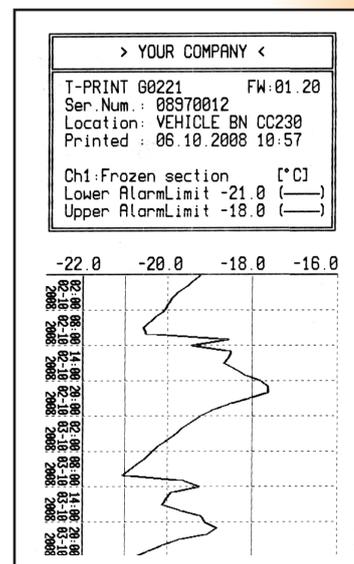
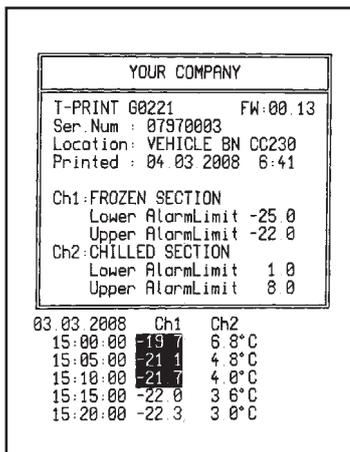
TECHNICAL PARAMETERS

Measuring temperature range:	-90 to +260°C
Operating temperature range:	-30 to +65°C
Operating temperature range of the printer:	-20 to +50°C
Compatible temperature probes:	with Pt1000 sensor with maximum cable length 10 meters
Accuracy of the input without probe:	±0.2°C
Resolution:	0.1°C
Logging interval:	user selectable from 1 minute to 60 minutes
Memory capacity:	1MB - 172 032 records from one probe, 102 400 records from two probes (up to 5 years with 15 minutes interval and one probe)
Power:	9 to 32Vdc, protected against alternator load shedding+internal Lithium battery
Consumption while printing:	approximately 8 W
Consumption - not printing:	approximately 0.1 W
Dimensions without holders, connectors: Weight:	175 x 124 x 51 mm (w x h x d) approximately 430 grams
Protection:	IP20

Included accessories:

Traceable calibration certificate from the manufacturer with declared metrological traceability of ethalons is based on requirements of EN ISO/IEC 17025 standard. Included are also metal wall holders for recorder mounting, roll of paper with 5 years print-out archivability, USB cable for communication with the PC, battery for internal clock.

Anytime it is possible to download free basic program for Windows. Program enables to control all recorder functions and viewing and printing of record in numerical and simple graphic format. It is necessary to order temperature probes - see further.



Sxxxx Rxxxx Gxxxx

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Optional accessories:



DBL

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 the 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, export to PDF - table and graph.

Other freeware needed for system operation:

- database server Microsoft SQL or MySQL
- see also page 23



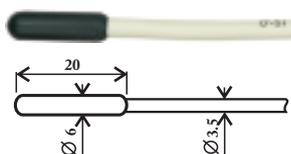
SWR004

Optional software for Windows - color printing, vertical and horizontal zooming of graphs and other functions. Calculation of MKT - mean kinetic temperature of pharmaceuticals in the program - see also page 23.



SW100

CD with free PC program.



**Probes
Pt1000**

Temperature probes with Pt1000 sensors equipped with no connector - there is a symbol /0 behind probe name. Recommended is watertight probe Pt1000TR160/0 on the cable. Specify required cable length 1, 2, 5, 10, 15 or 20 meters. Available probes: Pt1000TR160/0-2m, Pt1000TR160/0-5m, Pt1000TR160/0-10m, Pt1000TR160/0-15m, Pt1000TR160/0-20m.



SA200A

Magnetic door contact, connectable to recorder's binary inputs, without cable.



**SA200A-2
SA200A-5
SA200A-10
SA200A-20
SA200A-30**

Magnetic door contact, connectable to recorder's binary inputs with cable lengths 2, 5, 10, 20, 30 meters.



PR033

Wireless communication with recorders via GSM/GPRS - see page 17



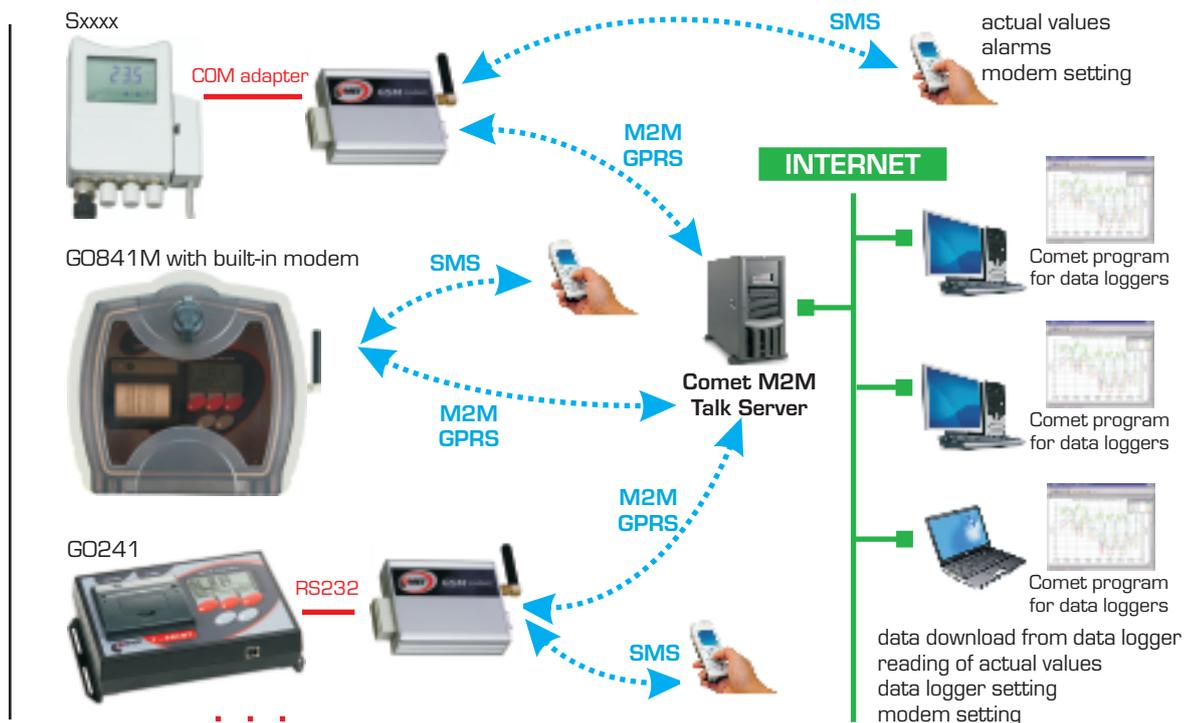
A1940

Spare roll of thermo paper - width 57mm, length 10m, 5 years archivability.



Acadc adapter 230V-50Hz/24Vdc/24W for power outside of the vehicle.

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

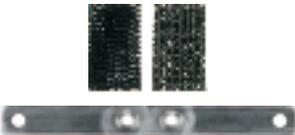
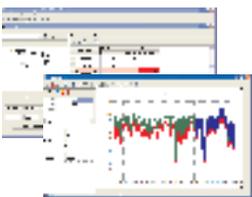
- a) Local - service setting via RS232 link from user program:
 - Setting of configuration
 - Download and erasing of diagnostic log file from modem
 - Upload of new firmware to modem
- b) Remote - via M2MTalk server from user program
 - Setting of configuration
 - Download and erasing of diagnostic 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:

	LP040	<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>
	MP001/1	<p>GSM antenna 3dB for modem, right angled.</p>
	A1940	<p>Power adapter 230V-50Hz/24Vdc/24W for modem.</p>
	QMS2901	<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>
	MP006 MD036	<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>
	MP036	<p>Modem wall holder.</p>
	MP037	<p>Modem DIN rail 35mm holder.</p>
	LP012	<p>COM adapter for Sxxxx, Rxxxx logger connection to modem via serial link RS232.</p>
	DBL	<p>DBL Logger Program - database program. Program enables i.a.:</p> <ul style="list-style-type: none"> - To set locally the GSM modem via RS232 link by means of the QMS2901 cable. - To view selected channels from any Comet logger together with selected channels of other Comet loggers. - Measurement from different devices is possible to combine in one table or graph. - To choose any time interval for analysis. - Print, export to PDF - table and graph.
	SWR004 M2M server	<p>Optional program for data loggers enables</p> <ul style="list-style-type: none"> * local GSM modem setting via serial link RS232 by means of QMS2901 cable * numerical list of recorded values * comfortable work with graphs * export to dbf or txt format <p>One time fee for using M2M server - applied for each data logger with modem.</p>