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Thermometer hygrometer data logger - Economy Version



code: S3120E

Data logger is designed for record of temperature and humidity. Values are stored to a non volatile electronic memory. Data transfer to the personal computer for further analysis is performed via USB, RS232, GSM.



The device **includes Traceable calibration certificate** with declared metrological traceability of etalons is based



Free Android Downloader for Data Loggers

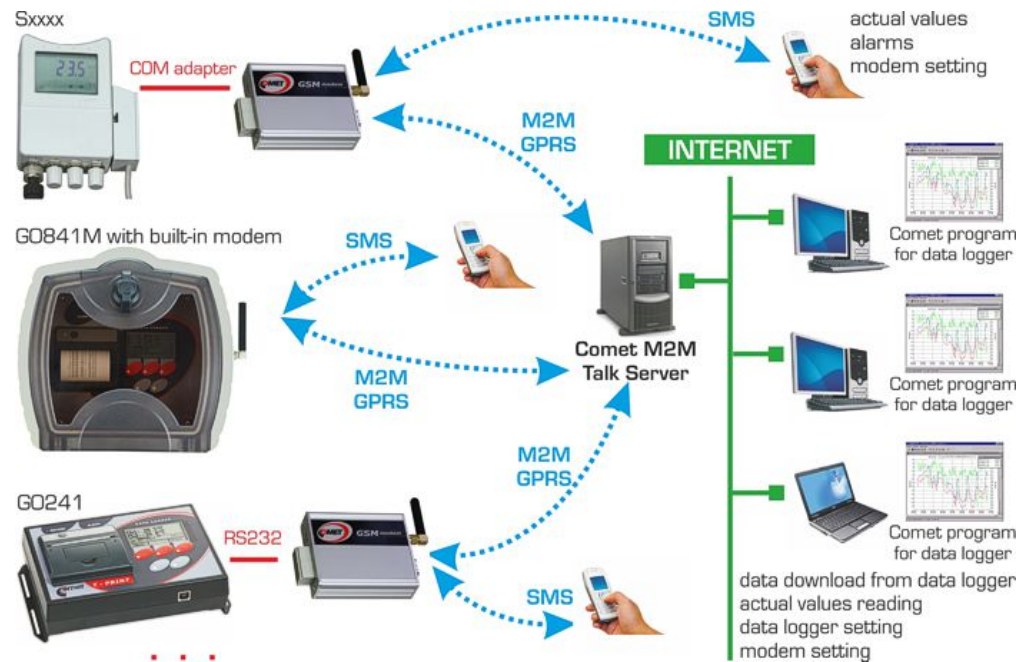
17025 standard.

on requirements of **EN ISO/IEC**

For communication with the PC must be from Optional accessories ordered [USB adapter](#), [COM adapter](#) or [start/stop magnet](#) if is needed to control logging the other way than directly from computer.

Features

Main applications of data logger:



- Food and beverage industry (HACCP)
- Pharmaceutical industry
- Horticulture and cultivation of plants
- HVAC (heating, ventilation, air conditioning, cooling)
- Building and energy management
- Research and development
- Laboratories (GLP)
- Warehouses
- Technological processes
- Museums, archives, galleries

Advantages of data logger:

- included traceable calibration certificate from the manufacturer - Comet
- fast data transfer to the PC (full memory for approximately 30s)
- variability of connection to the computer - USB, RS232, [GSM modem](#)
- 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 from the PC)
- robust watertight case
- easy installation, locking enabled



GSM Communication
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low power consumption from battery, battery

life up to 6 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
- also special logging mode is enabled, when logging runs only, if some of measured values are out of adjusted alarm limits
- each data 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

Included in delivery:

- Data logger including the battery
- Traceable calibration certificate with declared metrological traceability of etalons is based on requirements of EN ISO/IEC 17025 standard.
- Quick start manual
- Free basic Windows software is ready to download at folder [Download](#)

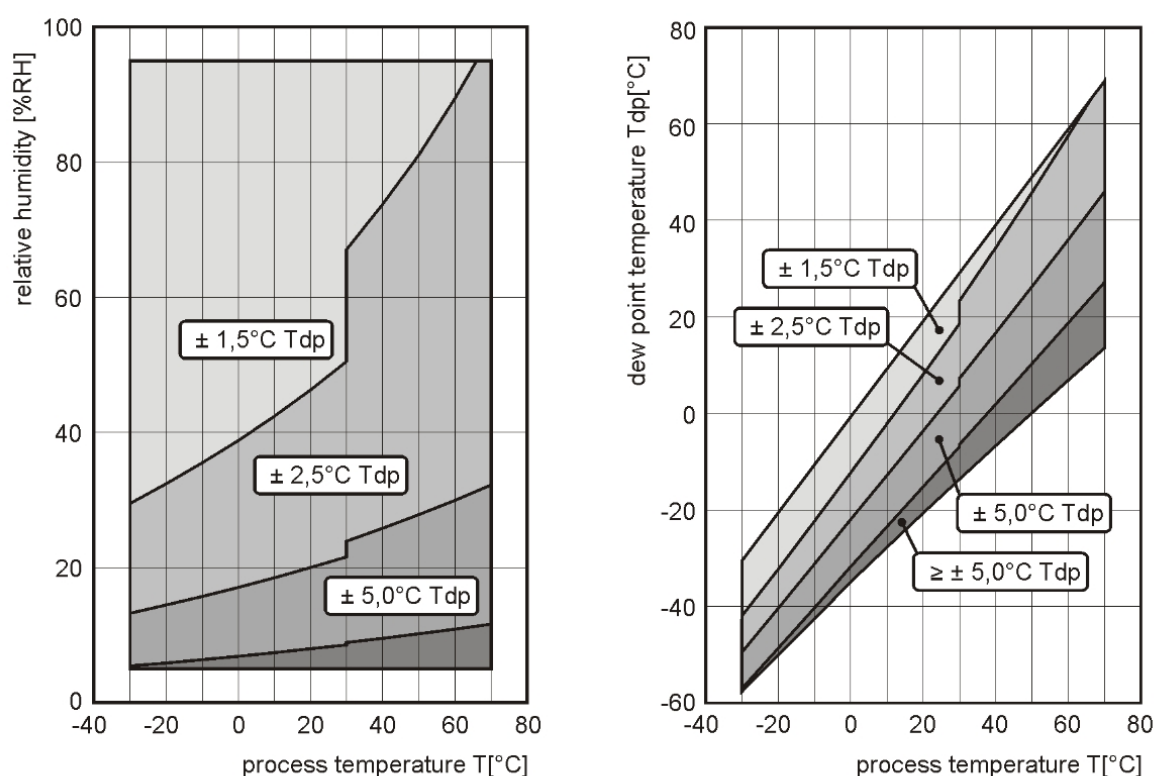


Figure: Accuracy of dew-point measurement

Differences between S3120 and **S3120E**

	S3120 - <i>precise version</i>	S3120E - <i>economy version</i>
Accuracy of temperature measurement	±0.4°C	±0.6°C from -30 to +30°C ±0.8°C from +30 to +70°C
Accuracy of air humidity measurement	±2,5% RH from 5 to 95% at 23°C	±3% RH from 5 to 95% at 23°C
Accuracy of dew point measurement	1,5 °C at ambient temperature lower than 25°C and RH > 30%; range -60 to +70 °C	2 °C at ambient temperature lower than 25°C and RH > 30%; range -60 to +70 °C
IP protection	plastic case IP67, sensor cover IP30	IP30
Temperature measuring range	-30 to +70°C	
Operating temperature range	-30 to +70°C	
Resolution of the reading	0.1°C, 0.1%RH	

Data logging interval	adjustable from 10s to 24h
Display and alarm refresh	each 10s
Total memory capacity	32000 values
Power	Lithium battery 3,6V, size AA
Typical battery life	6 years
Dimensions	93x64x29mm
Warranty	2 years

Traceable calibration certificate with declared metrological traceability of etalons based on requirements of EN ISO/IEC 17025 standard

Technical Data

Technical parameters	Value
Measured Value	Temperature + Relative Humidity
Construction Type	Ambient Air
Temperature Measuring Range	-30 to 70 °C
Two-State Input	No
Lcd Display	Yes
Built-In Printer	No
Operating temperature range	-30 to +70°C
Accuracy of temperature measurement	±0.6°C from -30 to +30°C ±0.8°C from +30 to +70°C
Accuracy of air humidity measurement	±3% RH from 5 to 95% at 23°C
Accuracy of dew point measurement - see details in graph	2 °C at ambient temperature lower than 25°C and RH > 30%; range -60 to +70 °C
Resolution of the reading	0.1°C, 0.1%RH
Real time clock	year, leap year, month, day, hour, minute, second
Data logging interval	adjustable from 10s to 24h (1minute to 24h in low-power mode)
Display and alarm refresh	each 10 s (each 1 minute in low-power mode)
Total memory capacity	32000 temperature, humidity values in noncyclic logging mode
Data logging modes	noncyclic - data logging stops after filling the memory cyclic - after filling memory oldest data is overwritten by new
Power	Lithium battery 3,6V, size AA
Typical battery life in low-power mode (1 minute sampling)	6 years
Typical battery life in fast mode (10 second sampling)	2.5 years
Battery life in continuous on-line mode with interval 1 minute	reduced to 70% of the above lives in fast mode
Battery life in continuous on-line mode with interval 10 second	1 year
IP protection	IP30
Dimensions	93x64x29mm

Weight including battery	approximately 115g
Warranty	3 years