AR236
Recorder of temperature and humidity

AR236/1

AR236/2

AR236/3

Logger for recording humidity and temperature of air or other neutral gases with LCD

- recording measured values and events in a standard text file stored in the internal memory of the recorder or on SD card in FAT system, with access via the USB port
- high-quality digital sensor of relative humidity and temperature (integrated in the housing or in an external probe)
- portable housing (IP20) adapted for wall mounting
- battery power supply, with the battery replaced by the user
- LCD display showing the measured values, messages and errors
- operation with a new battery up to 5 years (depending on the mode and working conditions)
- option of moving archive and configuration data on SD card
- available protection against unauthorized data copying and modification
- internal real time clock with a battery backup power supply
- included software to adjust the device parameters and produce graphical or textual representation of recorded data
- temperature compensation of humidity measurement
- long-term high stability of the measurements
- methods for configuring parameters:
  - via USB interface and a computer program (Windows 2000/XP/Vista/7)
  - using a configuration file stored on an SD/MMC card
- checksum to detect unauthorized changes in the archive
- uniquely identifying multiple recorders of the same type by assigning unique identifier (ID) to each of them
- low and high value alerts, in-band and out-of-band alert, LED indicators
- programmable measurement period, start and end point of recording and other configuration parameters: measured signal zero adjustment, "COPY" button lock, authorization request for SD/MMC card, disable writing data to SD/MMC card, operation mode of LCD display, alerts, identification number (ID)
- option to prevent unauthorized modification of recorder parameters from SD/MMC card and moving archived data from internal storage to an SD/MMC card (card authorization or free access required)
- protection against improper placement of batteries
- possibility to update recorder's firmware

Contents of the set:
- recorder with a lithium battery 3,6V type AA, (SAFT LS14500)
- 2-meter long USB cable (A4 – miniA4) to connect to a computer
- CD with drivers and software
- user manual
- warranty

Available accessories::
- lithium battery 3,6V type AA (R6), 2450mAh
- SD memory card (1GB)
- SD/MMC card reader
- stabilized AC adapter 5V/150mA
- filter with metal mesh to protect the sensor from dust for external probes

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Technical Data

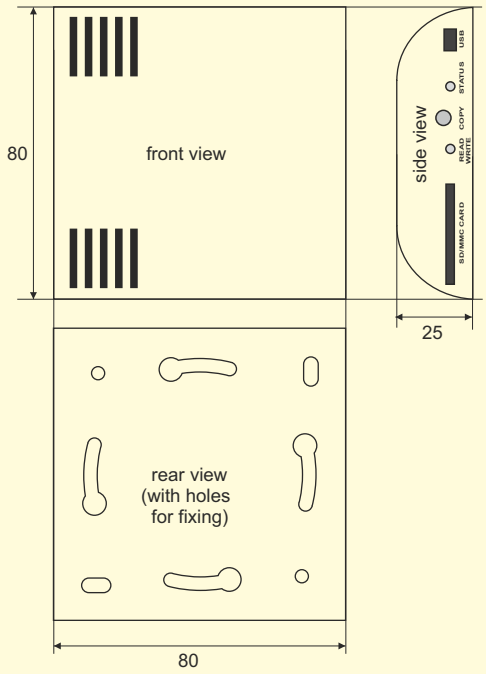
Measuring probe	internal or external protective sheath (ABS, slit width 1mm)
Measurement range	
-humidity	0 ÷ 100 %RH
- temperature	-30 ÷ 80 °C
Measurement accuracy	
- humidity	±3 %RH (in range 20 ÷ 80 %RH) ±3 ÷ 5 %RH (in the remaining measurement range)
- temperature	±0,5°C (in range 20 ÷ 30°C) ±0,5 ÷ 1,8°C (in the remaining measurement range)
Measurement resolution	0,1 %RH i 0,1 °C
Hysteresis	±1% RH
Long-lasting stability	<0,5% RH/year
Response time (63%)	10s (air flow > 1m/s)
Measurement and writing period	programmable from 10s to 24h
Operating environment	air and neutral gases
Communication interface	USB (to communicate with computer), drivers compatible with Windows 2000/ XP/Vista/7 OS
Storage (non-volatile)	
- interior	4MB FLASH memory, file system FAT12, record up to 75,000 meas.
- exterior	SD/MMC card, FAT16, FAT32, recommended capacity ≤ 1GB i FAT16, max. capacity 2GB
Real-time clock (RTC)	quartz, date (yyyy:mm:dd), time (hh:mm:ss), remembers about leap year
Optical indication	LED diodes: "READ/WRITE", "STATUS", 1 or 2 alerts
LCD display (7 segments)	number of digits: 3, digits height 10 mm
Power	lithium battery 3.6 V type AA (R6), 2450 mAh, (SAFT LS14500)
Working time on new battery (1)	up to 5 years (in ambient temperature 20 ÷ 30 °C)
Nominal operation environment	-20 ÷ 70°C, <100 %RH (non condesing)
Enclosure	on-wall, material ABS UL94-V0, white
Protection level	IP20 (no protection against water penetration and condensation)
Enclosure dimensions	80 x 80 x 25 mm
Working position	any
Weight	~97g (with battery)

(1)

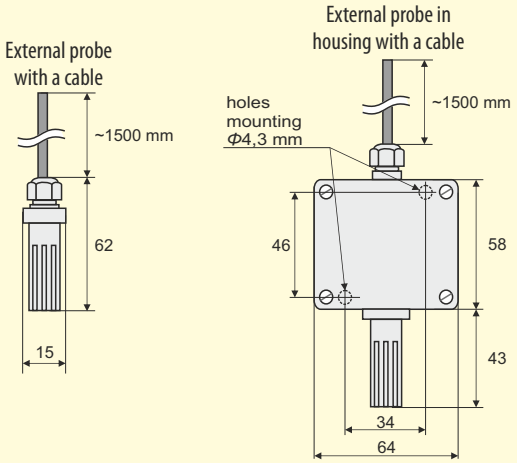
- working time depends on measurement period, whether SD/MMC card is used, working mode of LCD display and working temperature:
  - 5 years (measurement period > 10 min., data recorded in internal storage, copying data only via USB, LCD in economic mode, 20÷30 °C), 20 months with LCD display constantly enabled
  - 7 months (measurement period 10 s, internal memory, copying data only via USB, 25 °C)
  - 1.5 years (measurement period > 10 min., data recorded on SD/MMC card, LCD display in economic mode, 20÷30 °C)
  - 4 months (measurement period 10 s, data recorded on SD/MMC card, 20÷30 °C)
- unused card left in card slot also wears out the batteries
- moving the contents of full internal storage (4 MB) to an SD/MMC card takes about 2 min. and uses about 1÷2 mAh of the battery power (tests run on SanDisk and Kingston cards)
- when optional adapter is used, new battery working time may be extended up to about 8 years (20÷30°C)

Installation data

Enclosure	80x80x25 mm
Mounting	4 screw M3
Material	ABS UL94-V0



External measuring probes



How to order

AR236 / ☐

Type of measuring probe	Code
integrated with housing (standard)	**1**
external with cable 1,5m	**2**
external probe in housing with cable1,5m	**3**

For example: AR236 / 1
Recorder AR236 with internal probe

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