

RT 2014 data logger

The new generation of RT data loggers enables continuous measurement of temperature and/or humidity values in thermostatic equipment (thermostatic chambers, incubators, refrigerators, freezers, etc...), as well as in the air. In case of temperature increases beyond acceptable range (set by the user) or in case of power failures, the RT 2014 logger can send SMS notifications to selected phone numbers.

The following notifications are available:

- alarm on temperature fluctuations (high/low) with possibility of alarm notification delay
- alarm on 230V power shortage with possibility of alarm notification delay
- automatic reports at certain time of the day or on request

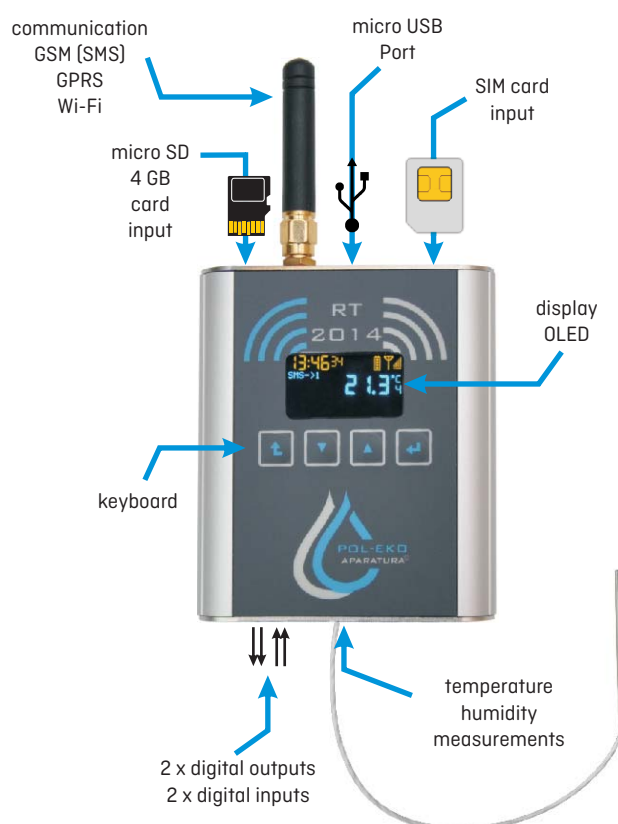
■ Data logger models

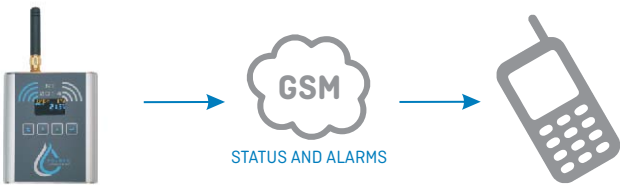
RT 2014_1T - temperature or humidity data logger with GSM, single channel model dedicated to temperature or humidity measurements in the thermostatic chamber (single channel for one Pt 100 sensor or for one humidity sensor); internal memory (stored data can be downloaded to a PC with EasyLab Professional software); GSM (sends SMS alarms for 5 phone numbers).

RT 2014_2T - temperature and/or humidity data logger with GSM module, double channel model dedicated to temperature and/or humidity measurements in the thermostatic chamber (double channel for two Pt 100 sensors or one Pt 100 and one humidity sensor); internal memory (stored data can be downloaded to a PC with EasyLab Professional software); GSM (sends SMS alarms for 5 phone numbers).

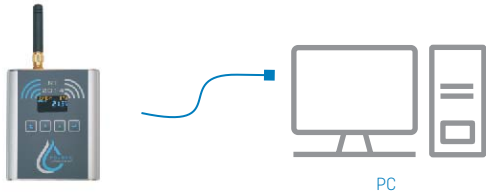
RT 2014_1T_WIFI - temperature or humidity data logger with Wi-Fi single channel model dedicated to temperature or humidity measurements in the thermostatic chamber (single channel for one Pt 100 sensor or for one humidity sensor); internal memory (stored data can be downloaded to a PC with EasyLab Professional software).

RT 2014_2T_WIFI - temperature or humidity data logger with Wi-Fi, double channel model dedicated to temperature or humidity measurements in the thermostatic chamber (double channel for two Pt 100 sensors or one Pt 100 and one humidity sensor); internal memory (stored data can be downloaded to a PC with EasyLab Professional software).





The data logger logged in to the GSM network has the option of sending out alarms to 5 recipients in the form of SMS, ringing or both forms simultaneously. There is possibility to check the recorder status by initiating a connection with the phone number of the logger. It is required to have active SIM card of the selected GSM network operator.



- a) Parameters are configured by connecting the data logger to the USB port and sending parameters using the Avia application.
b) Registered data can be transferred using:
I. connecting the data logger to the USB port
II. drawing a microSD card
III. Avia application (only for the Wi-Fi data logger version)



The function of the data receiver is here the device with the Android system. It can pick up data from data loggers and send alarms:
- SMS (GSM network access required)
- e-mail (Internet access required)
There is possibility to read the current measurements from the data loggers.



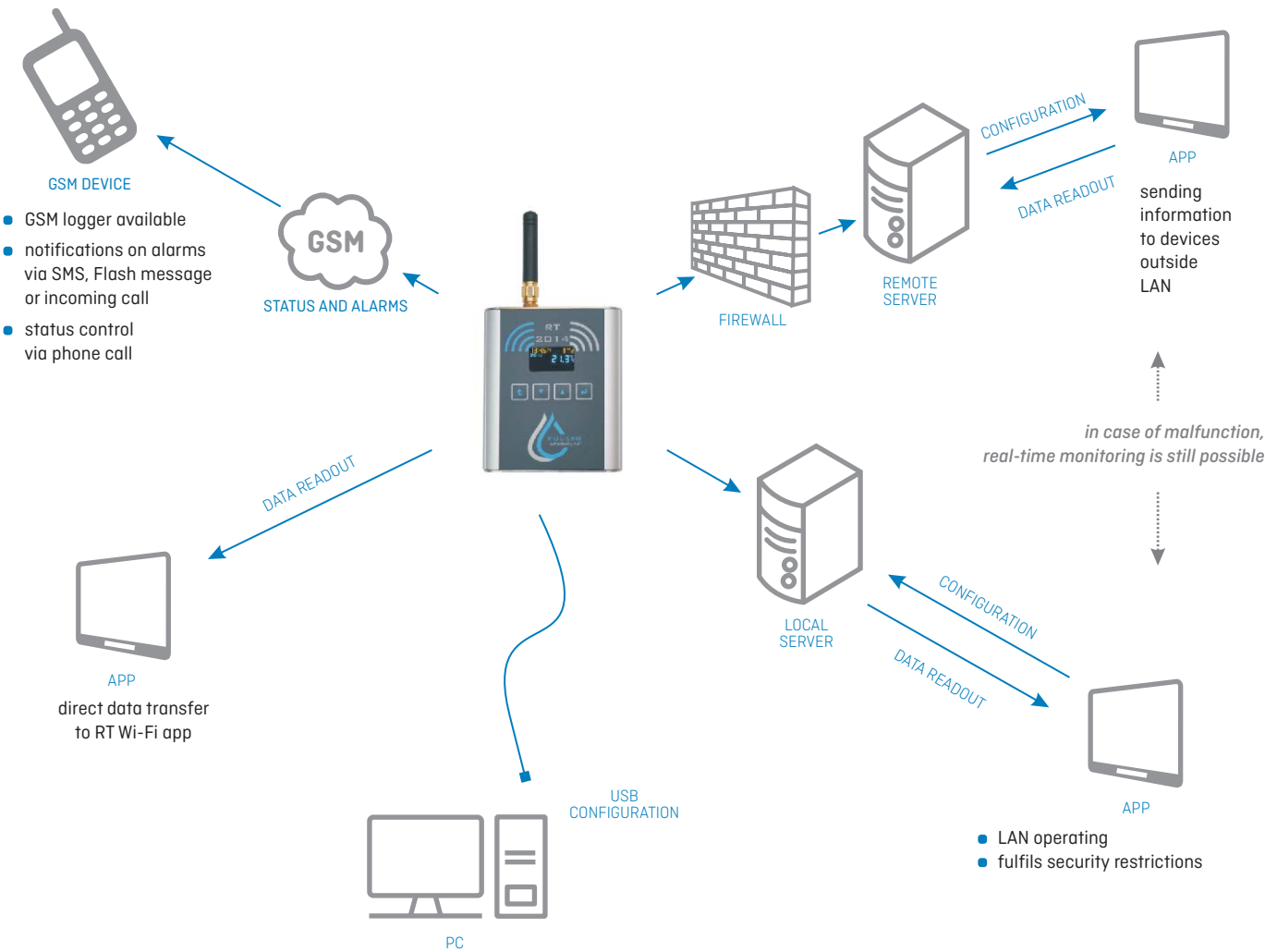
Accessories

Model	Photo	Description	Measuring range	Cable length
PT 100 H		temperature sensor for RT 2014 data logger, for high temperatures (recommended for CL/SL)	temp.: 0...+400°C	length 2,5 m
PT 100 S		standard temperature sensor for RT 2014 data logger (recommended for ST/CHL/IL/KK)	temp.: -40...+180°C	length 2,5 m
PT 100 L		temperature sensor for RT 2014 data logger, for low temperatures (recommended for ZL)	temp.: -110...+120°C	length 2,5 m
RH_STD		humidity and temperature sensor for RT 2014 data logger (recommended for ST/IL)	rH: 0...80% temp.: 0...60°C	length 2,5 m
RH_PREM		humidity and temperature sensor for RT 2014 data logger (recommended for KK)	rH: 0...100% temp.: -50...100°C	length 2,5 m
Software		software for making settings and downloading data	-	-
FIT		fitting	-	-

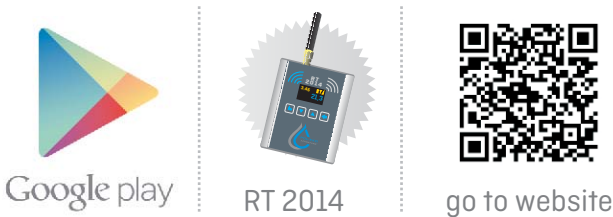
RT 2014 GSM & Wi-Fi operating diagram

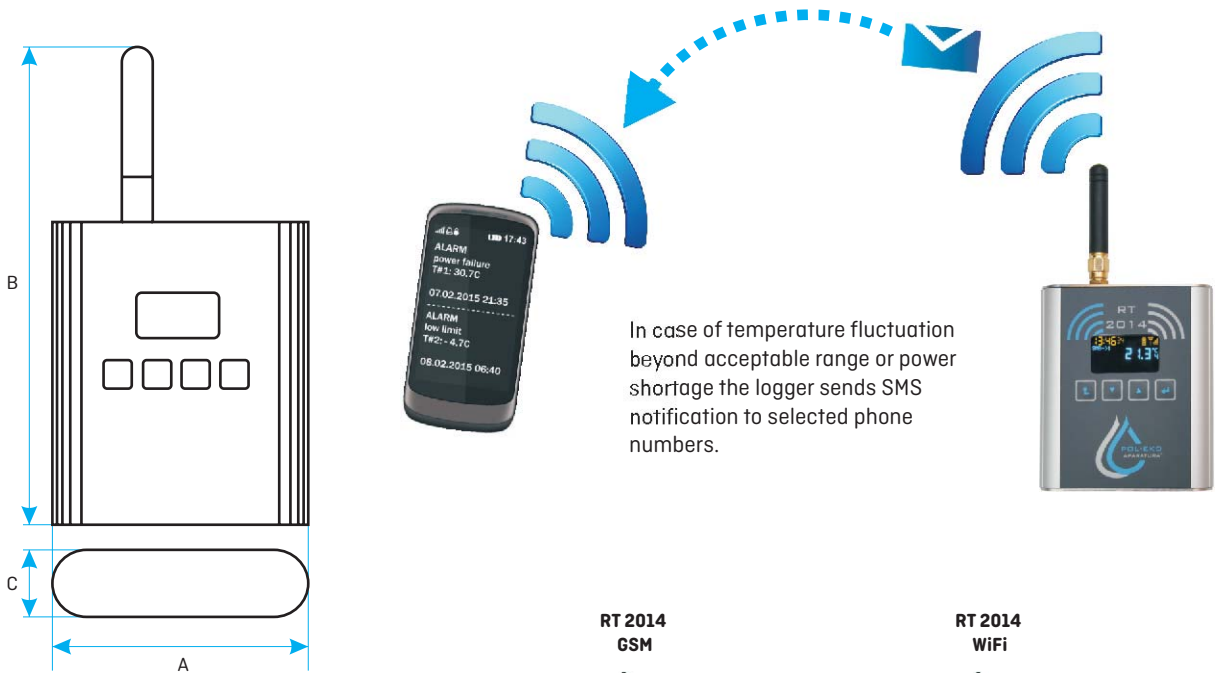
RT 2014 monitoring system complies with requirements of Sanitary-Epidemiological Stations on vaccines storage conditions.

All available alarms ensure safe and proper storage of significant value vaccines in refrigerators. Temperature fluctuations beyond acceptable range not only can cause financial losses, but also health and life threat for people who undergo vaccinations.



RT 2014 app allows communication between data logger and smartphone (available for download in Google Play)





Parameter		RT 2014 GSM	RT 2014 WiFi
temperature measurement		external Pt 100	
temperature measurement range [according to sensor] [°C]		-110 ... +400	
temperature measurement range [according to sensor] [°F]		-166 ... +752	
resolution of temperature measurement [-40...+200°C] [°C]		0,1	
accuracy of temperature measurement [-40...+200°C][°C]		+/- 0,5	
humidity measurement		external RH_STD / RH_PREM	
humidity measurement range [%]		RH_STD: 0-80, RH_PREM: 0-100	
resolution / accuracy of humidity measurement [%]		1% / RH_STD: 1,8, RH_PREM: 0,8	
length of sensors cables [m]		2,5	
real time clock		yes	
data record interval [min]		1/5/15/30/60	
internal memory		1 mln data measurements	
additional (external) memory		microSD 4 GB card	
interface		micro USB	
power supply		5 VDC via USB port	
display		OLED 128x64 px	
overall dims [mm]	A width	72	
	B height	85	
	C depth	20	
weight [g]		165	
battery operating time		up to 40 hours	up to 6 hours
GSM frequency [MHz]		850/900/1800/1900	-
quantity of phone numbers for SMS notification		5	-
warranty		24 months	
manufacturer		POL-EKO-APARATURA	

Calibration



All thermostatic equipment manufactured by POL-EKO-APARATURA can be provided with Calibration Certificate issued by accredited Measurement Laboratory. Detailed information on accreditation is available on website: www.pol-eko.eu.