

# **TIPPING BUCKET RAIN GAUGE**

*Pluviograf RG-200*



**Rain gauges using Tipping Bucket principle with integral data logger or pulse output.**

- High-resolution electronic tipping bucket system (0,1 mm)
- Instruments suitable with World Meteorological Organization standards (WMO)
- Bucket size; 0,1 mm or 0,2 mm (adjustable)
- Easy to service with low maintenance requirement
- Suitable for solid precipitation (e.g. snow, hail, freezing rain, grain)
- “flood warning alarms” can be sent to; cellular telephones and PC (Auto)
- Long term stable calibration
- 2- lines dot matrix LCD display. Total 32 characters
- 2 MByte Memory (Data Flash Memory)
- Battery life time > 10 years
- Windows data management software
- 3 years warranty

## Function

Automatic logging of rainfall, unlimited rainfall capacity, highly accurate rain gauge with impulse output.

The systems uses the latest data logger series to record rainfall using a precision tipping bucket rain gauge. A divided bucket pivoted at the centre tips when a predetermined amount of rain water is collected at one side of bucket. The tipping action magnetically closes a reed switch which sends a pulse to the logger. The other side of the bucket then will fill up and the process is repeated. A choice of either 0,1 mm or 0,2 mm per tip sensitivity is available.

The system is supplied with an RS-232 cable and evaluation software compatible to use with PC, Lap-Top, Data Flash Card, RF Modem and GSM/GPRS Data Modem device, complete with rain gauge, datalogger, battery, RS-232 cable and Windows data management software.

## Technical Details

Collecting Area	200 cm <sup>2</sup>
Tipping Bucket	Made of plastic material (ABS)
Resolution	1 impulse, $\approx$ 0,1 mm rainfall
Mechanism	Magnetic reed switch
Output	Reed contact impulse (potential free)
Bucket Size	0,1 mm or 0,2 mm (adjustable)
Material	Aluminium or Copper
Max. breaking capacity	3 watts
Max. switching capacity	150 V, 0,25 A
Dimensions	Height: 355 mm, diameter: 205 mm
Weight	$\sim$ 3,7 kg



**Pluviograph Rainfall Station (17351)**  
Adana-TURKEY



## Data Logger

**RG-200**

Digital rainfall tipping bucket impulses as well as date and time stamp on 2 Mbyte memory. Collection and storage of rainfall. Simple operation, high operation reliability, robust, compact housing with watertight foil keyboard. Total rainfall pulse count along with date and time can be displayed using keyboard. After 15 seconds screen will automatically shut off to save energy.

Design	Hellman type (WMO standard)
Ports	RS-232 interface
LCD Display	2 lines dot matrix LCD display, each of 16 (ASCII) characters. (Total:32 characters). display of total rain, date/time, high rain alarms, storage memory, setup parameters and measured values. 15 sec. Auto shut off.
Memory	2 MByte <b>Data Flash Memory</b>
Memory Storage Capacity	Storage capacity 2 MByte <b>Data Flash Memory</b> Approx. 355000 impulses $\approx$ 67000 mm rainfall
Intensity	Approx. 50 impulses / 1 min.
Real Time Clock	24 hour time, accuracy approx. 10 sec. / 1 year. Quartz RTC.
Communication Link	The communication between data logger and Lap-Top is provided through the 5 pin connector at the right side via RS-232 special cable or GSM line with GSM /GPRS Data Modem and RF Modem device. Also 2 Mbyte Data Flash Card data transfer unit is available.
Remote Data Transmission	RS-232 interface (RG-200 data logger) it is enables to connect the rain gauge directly to a GSM/GPRS modem and RF Modem. Data download and system check / setup can be done easily from the office.
Baud Rate	19200 bps Baud Rate.
Setup/Read Out	Setup and read-out is made over Lap-Top, a special transmission RS-232 cable, Data Flash Card (2 Mbyte) or GSM line with GSM/GPRS Data Modem device and RF Modem by an AKIM HYDROMETRY make program PLV3-01.
Software	"Windows data management software" (PLV3-01) works with Vista and Win 7.
Alarm Management	Alarm management automatic alarm messages via GSM/GPRS Data Modem by SMS sent to: cellular telephones and PC. <b>...For flood warning, coast guard service</b>
Power Supply	Single. 3,6 Volt DC 8500 mAh C size Lithium battery
Battery Life Time	>10 years, at normal operation mode
Battery Storage Time	10 years with % 10 capacity loss
Case	Pressure cast aluminium with foil keyboard, acc. to IP 67
Case Dimensions	Length x width x depth 125x80x40 mm
Sealing	Waterproof IP 67
Working Temp.	-30 °C until +80 °C
Storage Temp.	-40 °C until +85 °C
Humidity	98 % relative
Weight	Approx. 495 gr

## Options

Data Flash card	Data Transfer unit, 2 MByte capacity with driver
•GSM/GPRS Data Modem	PC side GSM/GPRS Data MODEM, GSM/GPRS Data Collector and RF Modem device unit with special antenna.
•RF Data Modem	
Heater	70 Watts, 24 V Power Supply (ring heating) systems, Power supply adaptor. (220V/24V, 100 Watts)