



## Equipment for determining atmospheric parameters in the surface layer and at altitudes up to 40,000 meters

### Weather station using GNSS ACH-5802

#### Function:

Determination of atmospheric parameters:

- air temperature;
- atmospheric pressure;
- humidity of air;
- speed and direction of wind.

Formation of meteorological information:

- on a tablet, a notebook;
- in the form of sentences in the NMEA-0183;
- formation of the bulletin "Meteorological".

#### Interfaces:

- RS-232;
- Bluetooth;
- Wi-Fi;
- Ethernet.

#### Advantages:

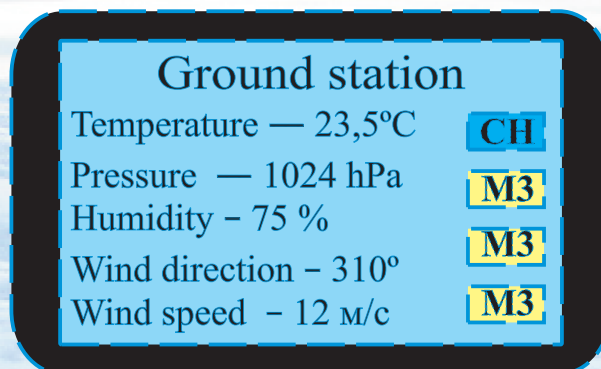
- measurements the atmospheric parameters of layers by the stationary fixing weather balloon;
- high efficiency;
- low cost;
- low power consumption;
- rapid deployment in field conditions;
- increased battery life without recharging.

#### Complement

##### Ground station



##### Tablet



##### Weather balloon



#### Filling the ball with helium



## Specifications

### Errors

Parametres	Value	Error
Temperature, °C	-60...+60	0,5
Pressure, hPa	4...1100	1
Humidity, %	0...100	4
Wind speed, m/c	0...30	+/- 0,05
Wind direction, degree	0...360	+/- 1
Coordinates at surface	No limit	+/- 8 m
Coordinates at high	0-18000 above sea level	+/- 12m

- The distance data transmission from weather balloon to a ground station of up to 50 km
- The output power of the transmitter does not exceed 20 mW
- Automatic control of the output power of the transmitter of the weather balloon depending on the distance between the weather balloon and the ground station
- Battery life of weather balloon for power:
  - in free flight mode - at least 2.5 hours,
  - in working mode on a stationary suspension - from 10 to 24 hours,
- Mode of transmitting the weather data:
  - in time with a period of 3, 10, 30 seconds;
  - by changing the height of 30, 50 or 100 meters;
- Frequency of data transmission channel 1677,72 Mhz;
- Ground station power supply - onboard power from 10 to 36V;
- The protection of the ground station is not worse than the IR67

### Determining the speed and direction of the wind using a weather balloon on a stationary suspension

