



# RR4 radiosonde receiver

RR4 receives data from Sparv Embedded 'S2' radiosondes. It forwards the data to a PC and/or logs data internally. Thanks to its small size, environmental protection and built-in battery, RR4 is ideal for mobile, outdoor use.

## Main features

- Receives telemetry from S2 radiosonde
- USB port for charging and reporting real-time data
- Logs data to a SD card (optional)
- Cable to connect an S2 sonde to
  - Charge S2
  - Power S2
  - Synchronize settings with S2
- Internal battery with charging from USB
- Barometer
- GNSS receiver
- Uninterrupted real-time clock (RTC)



## Physical features

Power button	On/off pushbutton
Antenna connector	SMA
Antenna	Included: <ul style="list-style-type: none"><li>• Omnidirectional whip antenna 400-435 MHz</li><li>• Omnidirectional antenna with magnetic base and 2m coaxial cable (preferred). 3 dBi gain.</li></ul>
PC connection and battery charging	USB-C (2 meter cable included)
Sonde cable connection	20 cm custom shielded cable (included), attached via 7-pole screw-on connector
Status signalling	Buzzer and three LEDs: <ul style="list-style-type: none"><li>• RR4 status (RGB)</li><li>• RR4 charging (yellow when charging from USB)</li><li>• Sonde status (RGB)</li></ul>
Pressure equalization	Weather-proof vent



Size	116 x 80 x 31 mm (without cables)
Weight	180 gram (without cables)

## Operating conditions

Operating temperature range	-20 ~ +50 °C
Environmental protection	Designed for IP65, when cables or connector caps are inserted
Operating elevation range	0 ~ 4000 m MSL

These figures are by design and are not tested in production.

## Barometer

Calibrated range	300 - 1200 hPa
Resolution	0.01 hPa
Accuracy	Typical 0.5 hPa

## Power

Power draw from USB	Max 500 mA (when charging) Typical 66 mA (when RR4 is turned on and fully charged)
Battery type	Rechargeable Lithium-polymer 3.7V, 1800 mAh
Battery time	20 hours (at 25 C, not connected to a sonde via cable)
Battery charging	From USB, in conditions +10 ~ +45 C
Batter charging time	Ca 4 h when RR4 is turned off

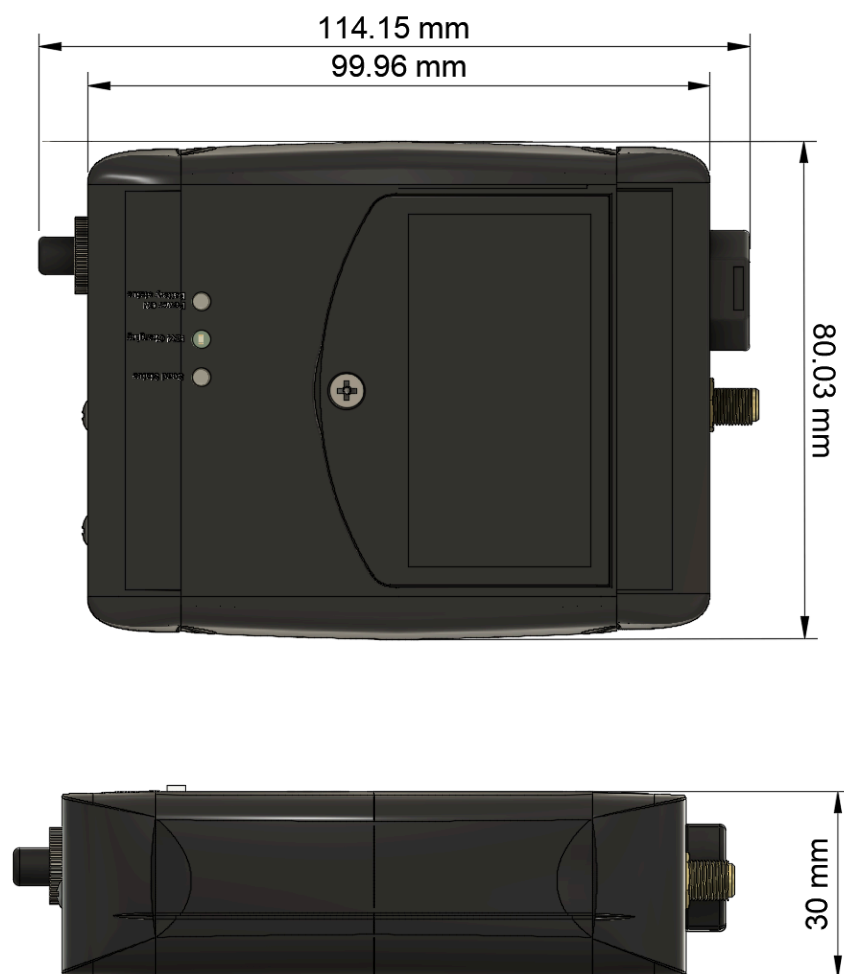
## Radio receiver

Frequency range	400 ~ 436 MHz
Tuning step	1 Hz
Frequency accuracy	+/- 2 ppm



Modulation	LoRa
Receiving range	> 120 km (with included magnetic antenna and free line-of-sight)
Simultaneous soundings	3 (default settings) 127 (max configurable)
Sampling rate	1 Hz per sonde (default settings)

## Physical appearance





# Disclaimer

RR4 is produced by  
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Errors and omissions excepted.

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