

# Radiosounding System ARGUS 37



*Radiosounding System ARGUS 37 with Radiosonde SRS-C34*

The Radiosounding System ARGUS 37 has been specifically developed for meteorological research, with mobility, ease of set-up and affordability important factors in its design. Meteorological researchers can now receive and process radiosonde data at little expense. The system consists of the ARGUS 37 interface unit with Radiosonde SRS-C34, the lightweight AR8600 Receiver, a small helix antenna, a high performance laptop computer and software for receiving of the radiosonde data.

The Radiosonde SRC-C34 is a high-quality measuring unit containing a controlled hypsometer, a temperature sensor with small time constant and a "Hygristor" humidity sensor. It features additional channels for direct inputs from a Snow White® dew point mirror as well as GPS windfinding unit or ozone sensor. It is modular in design for efficient addition of other measuring devices which can be attached to spare measurement channels (voltages).

The measuring unit is fully configured and adjusted at **meteolabor ag**, eliminating elaborate start preparations and calibration procedures. Simply running a "Base Line Check" on the hypsometer is all that is required.

The SRS C34 radiosonde features a modular design. Various types and options can be supplied:

Sensors: Hypsometer, thermo elements, Hygristor, ozone sensor, Snow White®, GPS windfinding

Output: ASCII, binary

## Data processing and data interface

The controller calculates the physical quantity from its current measured values and the data determined during initial adjustment and the base line check. This value is output via the FM transmitter with the channel number and the checksum. These data are then received by the FM receiver and stored as physical ASCII values in the laptop computer. Converting to WMO TEMP and Pilot format and other scientific calculation is possible with other software like Excel, MatCad, Matlab or other mathematical applications. A simple software for basic calculations, plausibility control and graphical view of the data and transforming the data to Excel format, is available free through our website (download area).

## Technical data

Measurement		Meas. range	Accuracy	Unit
Modulation	FM	FM	-	-
Frequency range	Selectable in 20 kHz steps	402...407	<0.002	MHz
Transmitter output power	Software adjustable	5...100		mW
Sounding range	With directional antenna	250	-	km
	With omnidirectional antenna	100	-	km
Sounding altitude		Up to 35		km
<b>Available radiosondes</b>				
SRS-C34	7 measurement channels			
SRS-C34a	11 measurement channels			
<b>Interface</b>	<b>Description</b>		<b>Setting</b>	
Type	Asynchronous, serial, UART			
Baud rate	Transmission speed		2400	bps
GPS option	Available for all radiosondes			
Ozon measuring option	Model Z ECC system from EN-SCI	See datasheet		
Baud rate GPS	Transmission speed GPS	4800		bps
<b>Power supply</b>	<b>Description</b>		<b>Range</b>	
Supply source	230/115 or 12			V
Power input	Power requirement of the system including laptop computer		Approx. 5	W

### Physical dimensions (l x b x d)

ARGUS 37 unit	200 x 157 x 62 mm
Receiver AR8600	155 x 197 x 57 mm
Radio sonde	345 x 210 x 90 mm
SnowWhite® sensor	210 x 215 x 100 mm
Ozone sensor	191 x 191 x 254 mm
GPS unit	built into sonde
Helix antenna	160 (diam.) x 350 mm
Laptop computer	260 x 310 x 50 mm

### Weight

ARGUS 37 unit	0.66 kg
Receiver AR8600	1.5 kg
Radio sonde	0.5 kg
SnowWhite® sensor	0.4 kg
Helix antenna	2.0 kg
Laptop computer	3.0 kg

Weight of complete mobile radiosounding system including all material needed for 2 radiosonde starts, i.e. balloons, radiosondes, PC, receiver, antenna, ARGUS 37 interface, cables (excluding gas tank) :  
**Approximately 8 kg**

### Ordering information

**We can fit the system to your requirements by various options:**

- **Receivers: AOR AR8600, ICOM IC-R8500 and others.**
- **Antennas: omnidirectional helix antenna, high gain Yagi antenna, various antenna rotors, preamplifier.**
- **Radiosondes and sensors for other applications.**
- **Please contact Meteolabor for detailed pricing and availability**
- **Visit our website for more information:**

[www.meteolabor.ch/ARGUS37](http://www.meteolabor.ch/ARGUS37)