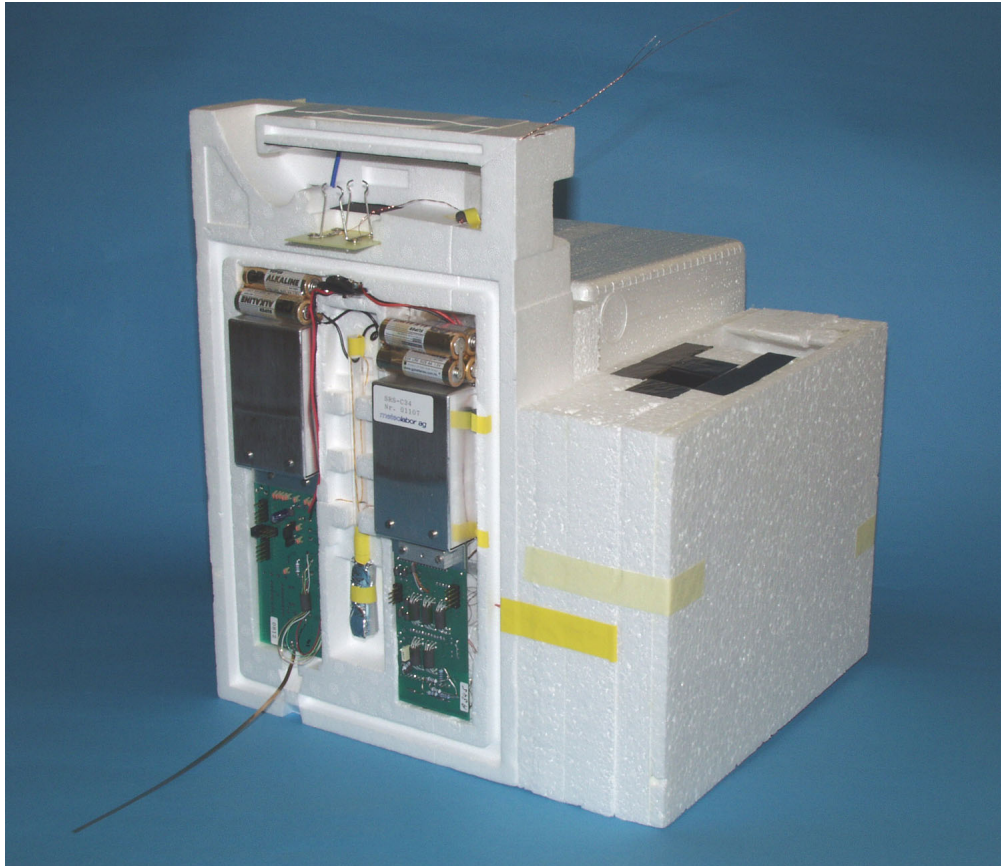


Radiosonde SRS-C34 Type 10003

PTU-Sonde for ARGUS37 with SnowWhite® incl. house keeping data, Ozone sensor ECC with pump thermometer and spare thermometer



The Sonde SRS-C34 Type 10003 contained a high-quality measuring unit with full-range water hypsometer, temperature sensor with small time constant, humidity sensor Hygristor, a Snow White® dew point mirror sensor with house keeping data, interface for the ozone sensor ECC as well as a spare thermometer.

The measuring unit has been specifically developed for meteorological research. It is supplied with a transponder for the ARGUS sounding system.

The measuring unit is fully configured and adjusted at **meteolabor ag**. This eliminates elaborate start preparations and calibration procedures. However the Hypsometer pressure measurement accuracy can be improved by a "Base Line Check".

Data processing and data interface

The controller calculates the physical quantity from its current measured values and the coefficients stored in the controllers

The SRS C34 features a modular design. Thus various other types can be supplied:

Sensors: Hypsometer, thermocouple-thermometer, Hygristor, ozone sensor, SnowWhite®, GPS

Output: ASCII, binary, pulse modulation for secondary radar system, 403MHz FM narrow band crystal controlled synthesized transmitter.

Because of its unique measurement technique SRS-C34 does not need any individual sensor calibration and can easily be used again if recovered.

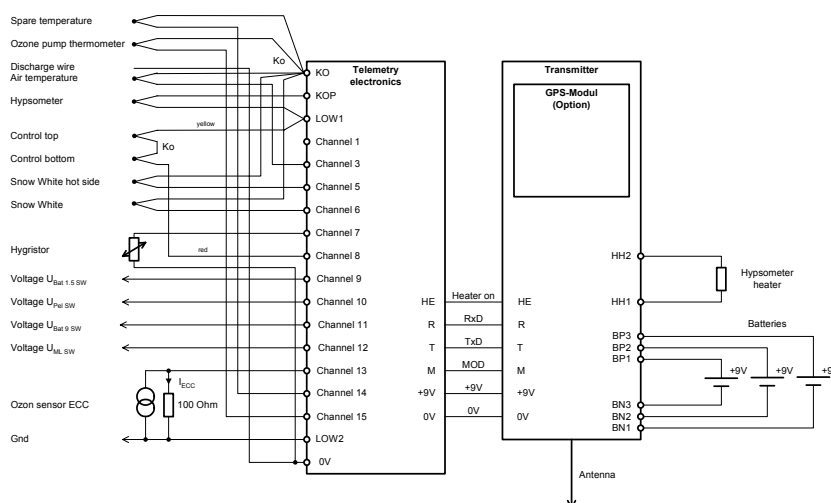
memory. The output is a serial string containing data, channel number and the checksum.

Technical data

Measurement channels	Measured variable	Meas. range	Accuracy	Unit
Channel 0	Offset (internal used value)	-	-	-
Channel 1	Barometric pressure	5 ... 1100	0.2 %*)	hPa
Channel 2	Internal reference temperature	-10 ... + 50	±0.1	°C
Channel 3	Air temperature	-100 ... + 60	±0.1	°C
Channel 4	Span (internal used value)	-	-	-
Channel 5	Snow White® (hot side peltier)	-100 ... + 60	1	°C
Channel 6	Snow White®	-100 ... + 60	±0.1	°C
Channel 7	Hygristor Voltage	- 4 ... 1 x 10 ³	1	µV
Channel 8	Hypsometer heater (internal used value)	-	-	-
Channel 9	Voltage	- 4 ... 1 x 10 ³	1	µV
Channel 10	Voltage	- 4 ... 1 x 10 ³	1	µV
Channel 11	Voltage	- 4 ... 1 x 10 ³	1	µV
Channel 12	Voltage	- 4 ... 1 x 10 ³	1	µV
Channel 13	Current ozone cell ECC	- 40 ... 10	0.01	µA
Channel 14	pump temperature	-100 ... + 60	±0.1	°C
Channel 15	spare temperature	-100 ... + 60	±0.1	°C
Channel sequence	0 ... 15			
Interface	Description		Setting	Unit
Type	AFSK		2900 / 4700	Hz
Baud rate	Transmission speed		2400	bps
Delay t ₁	Time signal TELEM active until 1 st start bit		2	ms
Delay t ₂	Time of last stop bit until TELEM inactive		0	ms
TELEM level	Active level of TELEM signal		0	V
Synch characters	Synchronization of data transmission		2 / 255	
Baud rate GPS	Internal interface GPS to SRS-C34		4800	bps
Power supply	Description		Range	Unit
Supply source	9V battery 6LR61		8.5 ... 12	V
Power input	Without GPS module		ca. 230	mA
Hypsometer heater	With GPS module		ca. 310	mA

*) corresponding about 20m geopotential accuracy

Block diagram



Physical dimensions

Measuring unit	143 x 50 x 25 mm	(l x b x d)
Snow White® Sensor	210 x 260 x 90 mm	(l x b x d)
Hypsometer	15 x 170 mm	(D x l)

Ordering information

- Sonde without GPS, no ECC interf. MRS-SRS-C34/016
 - Sonde without GPS, incl ECC interf. MRS-SRS-C34/017
 - Sonde with GPS, incl ECC interf. MRS-SRS-C34/018
 - ECC Sensor (order sep) HA-ECC-Z
- All sondes include daytime SW (others on request)

meteolabor ag reserves the right to make changes without further noticesrs_c34_typ10003e.doc Bi/ 11.03.2004