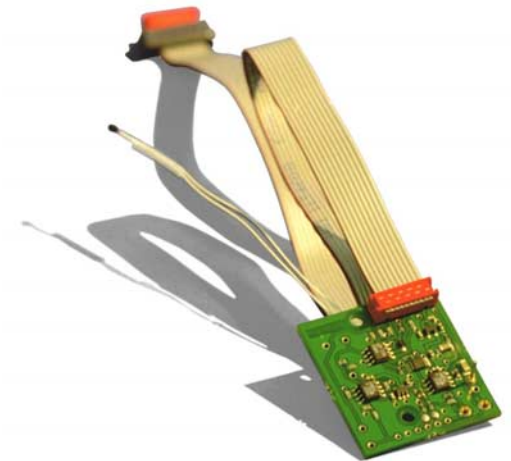


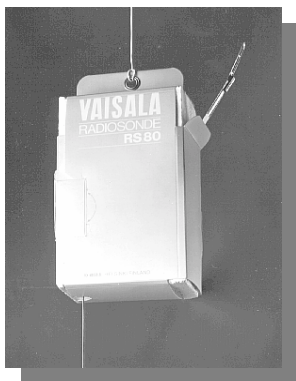
Ozone Sounding with the Vaisala Radiosonde RS92

A New Era in Ozone Measurement



A New Special Measurement Era Begins

1983
RS80



+ Ozone measurement
+ Radioactivity measurement

1997
RS90



No special measurements

2004...
RS92



+ Ozone measurement
+ Other measurements coming soon

Ozone Measurements ...

... can be made with the following 400 MHz RS92 models:

Digital

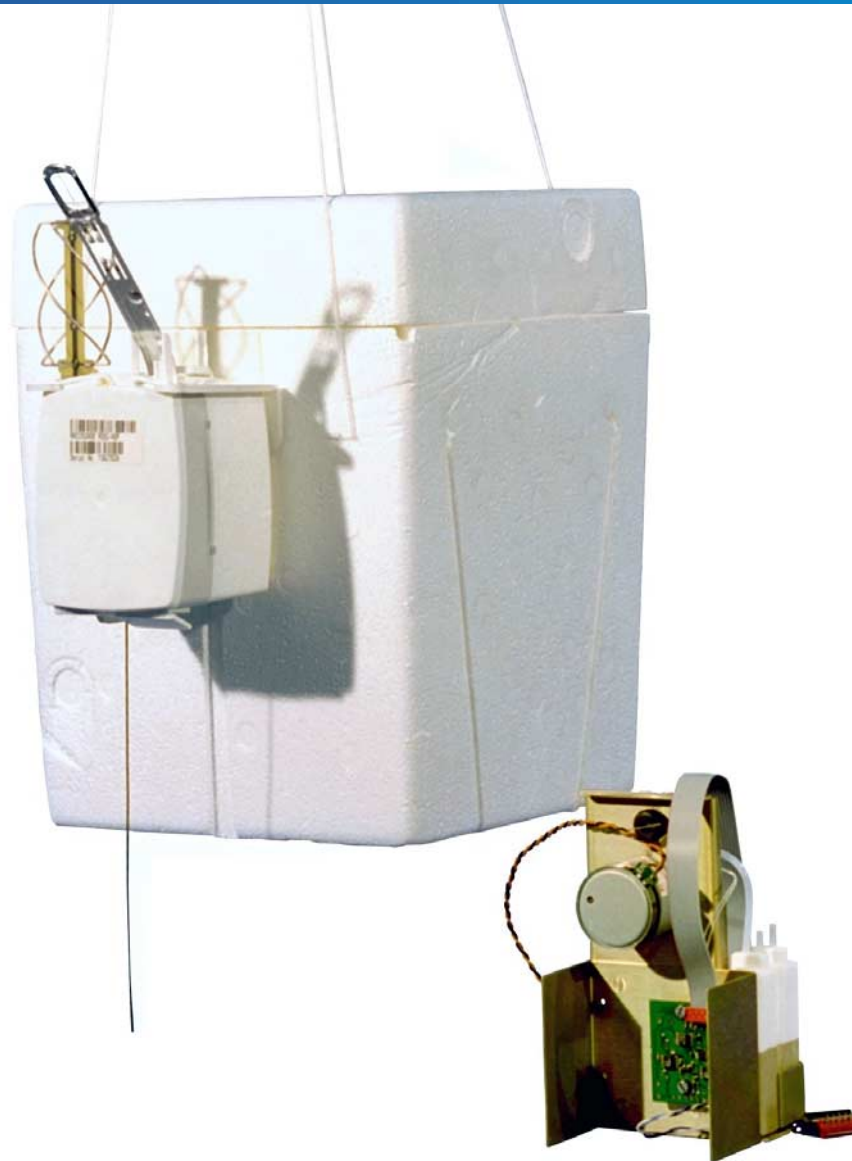
- RS92-AGP: Code correlating GPS wind-finding with digital transmission
- RS92-SGP: Code correlating GPS wind-finding with digital transmission

Analog models for special measurements

- RS92-KLE: Loran-C wind-finding
- RS92-KE: PTU only

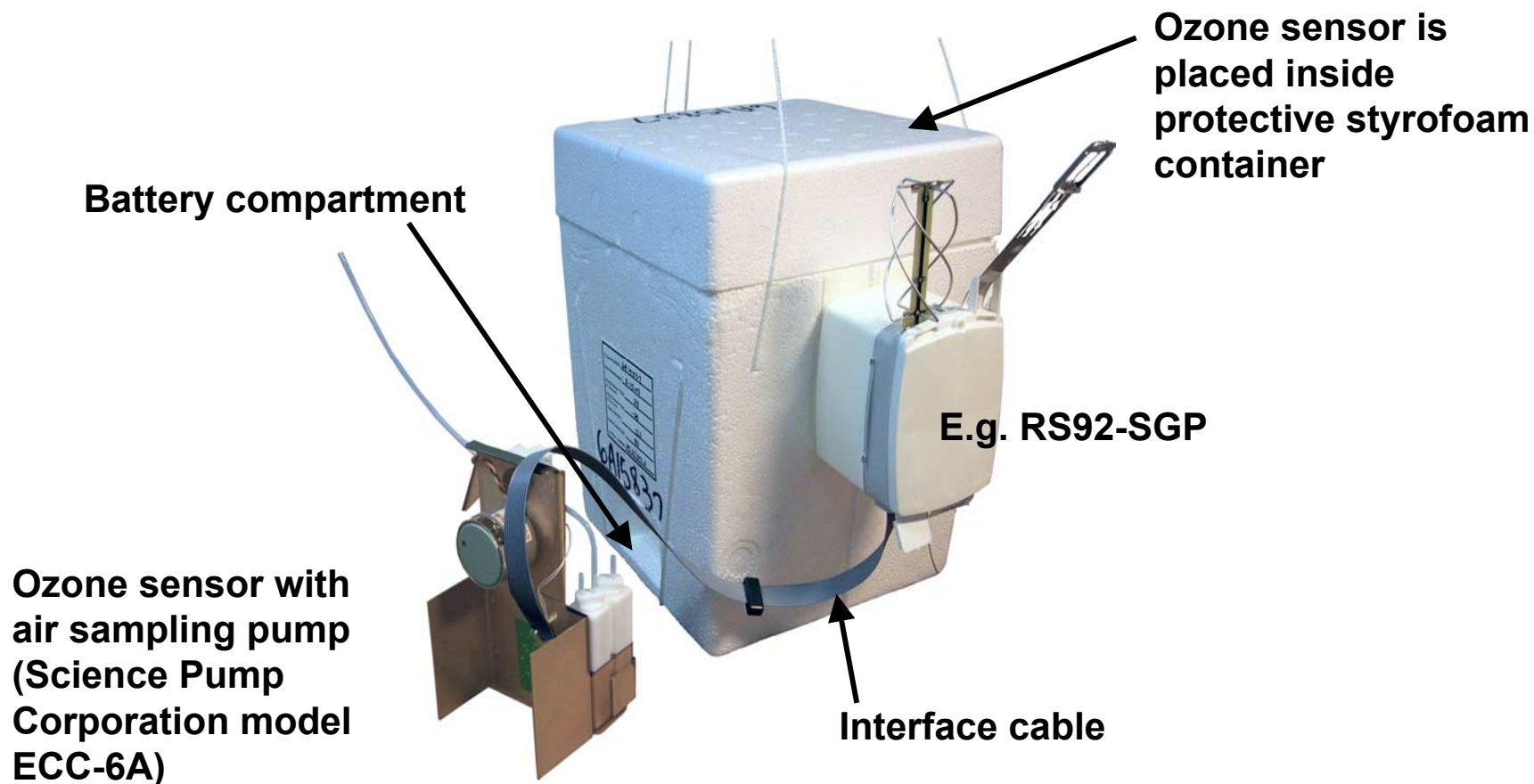


Ozone Sounding with the Vaisala Radiosonde RS92



Ozone Sounding with the Vaisala Radiosonde RS92

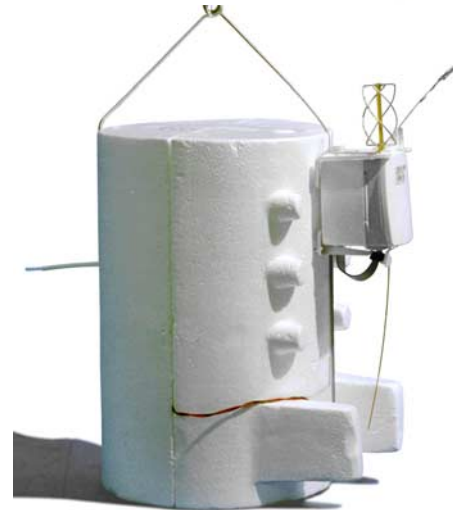
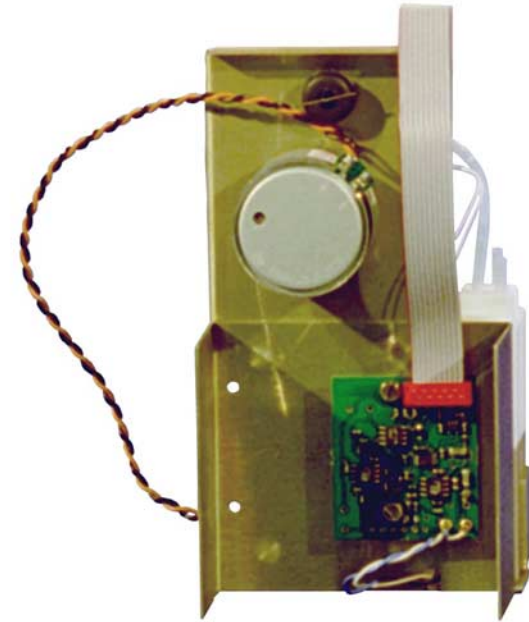
You need a Vaisala Radiosonde RS92, an ozone interface and an ozone sensor



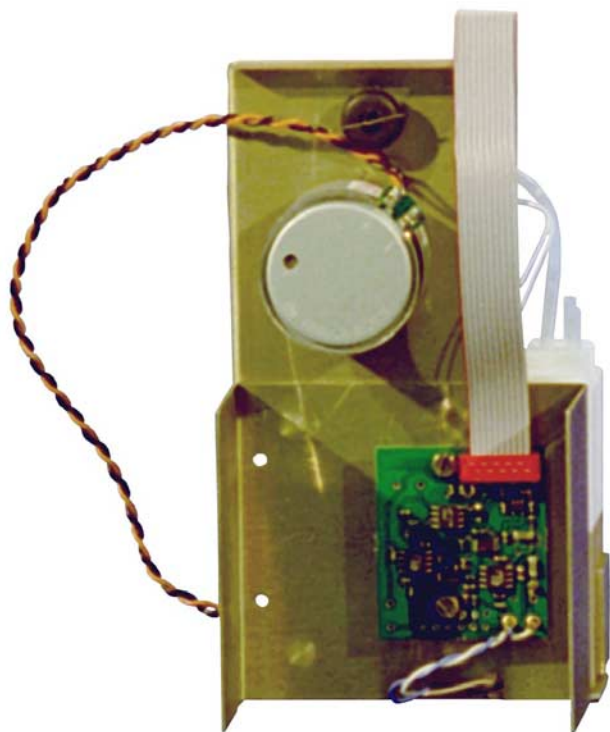
Ozone Sounding with the Vaisala Radiosonde RS92

Three ozone sensors are available:

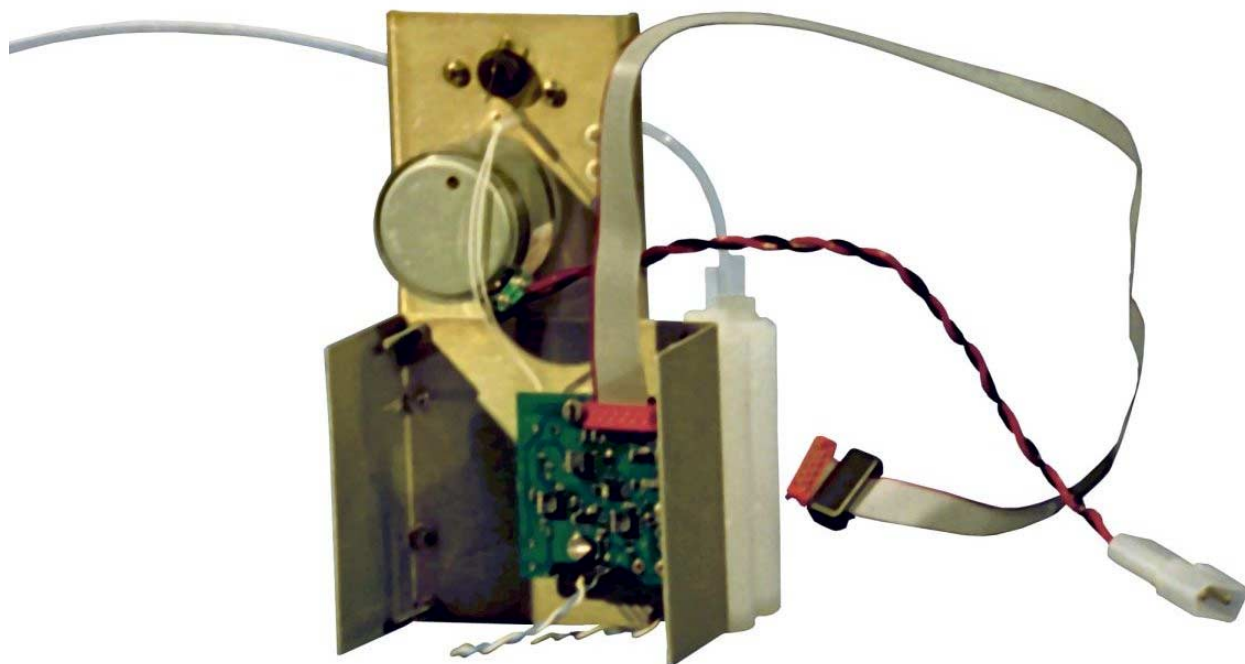
- Science Pump Corporation model ECC-6A (ECC-type sensor)
- EN-SCI Corporation model Z (ECC-type sensor)
- MAST Corporation model 730-10 (Brewer-Mast type sensor)



ECC-type Ozone Sensors

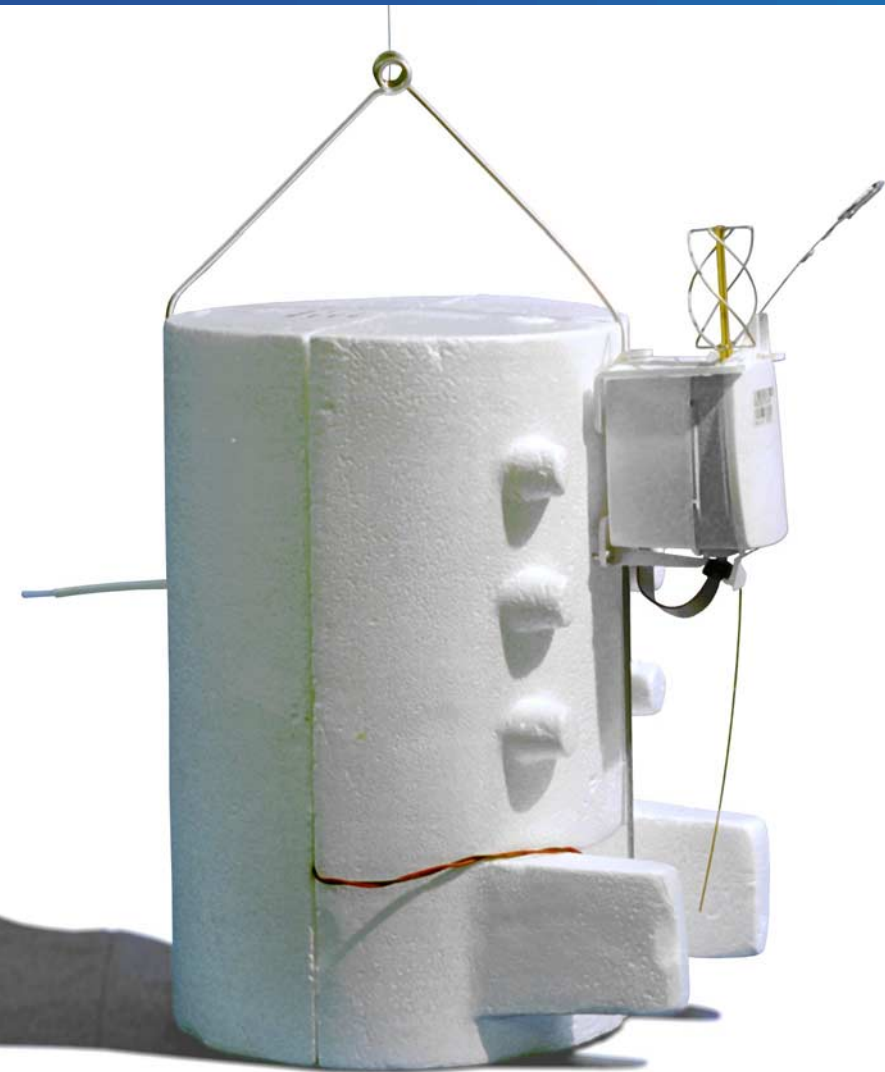


**Science Pump Corporation
model ECC-6A ozone sensor**

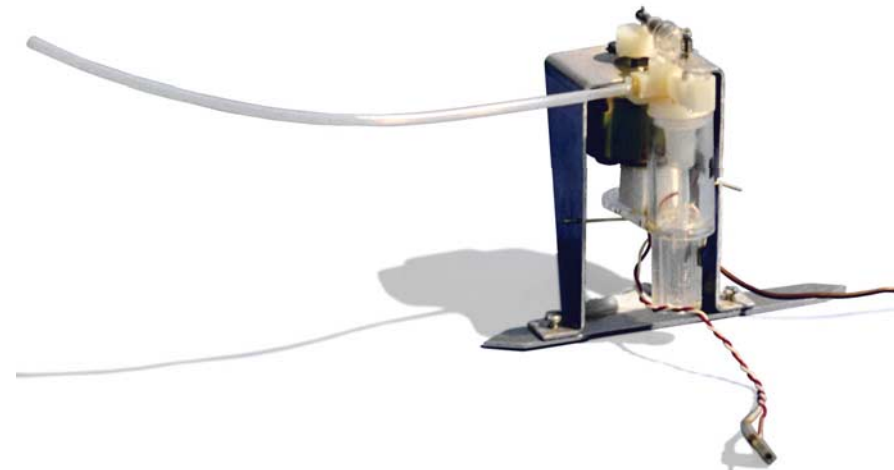


**EN-SCI Corporation
model Z ozone sensor**

MAST Corporation Model 730-10 Ozone Sensor (Brewer-Mast type)



Ozone sensor is placed
inside styrofoam casing



Vaisala Ozone Interface Kit RSA921

Vaisala Ozone Interface Kit RSA922

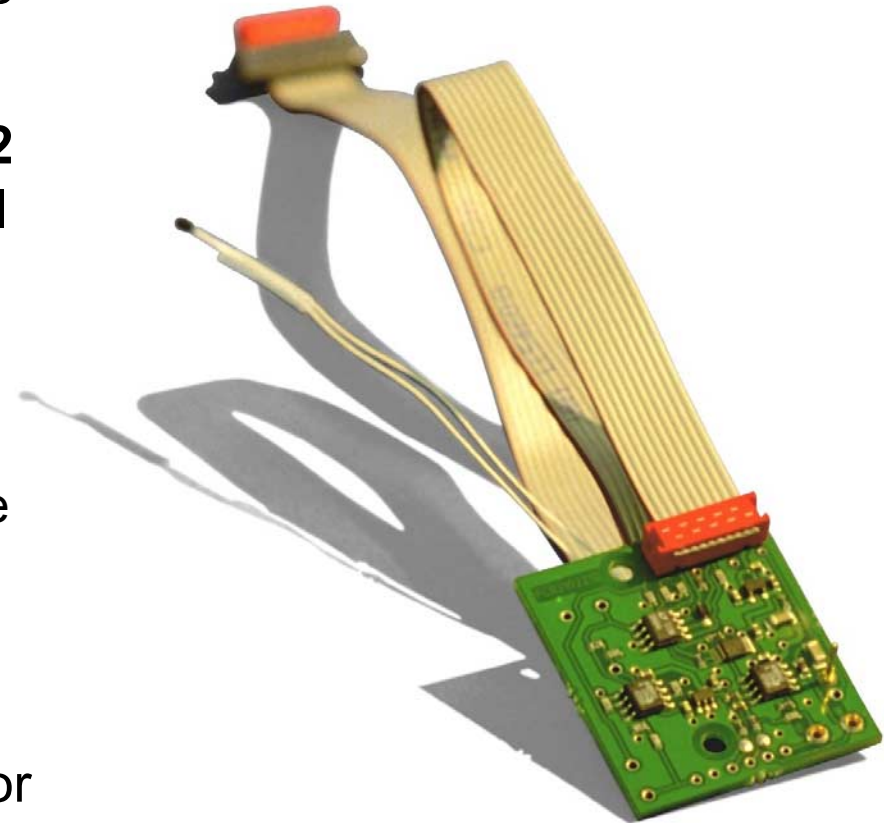
The Vaisala Ozone Interface Kit RSA921 is used with ECC-type ozone sensors

Vaisala Ozone Interface Kit RSA922 is used with MAST Corporation model 730-10 ozone sensor

Both kits are built around the OIF92 digital ozone interface, which has:

- Two channels dedicated to the ozone sensor current and temperature
- Two voltage measurement channels for other purposes

The kits include other items needed for ozone sounding



Vaisala Ozone Interface Kit RSA111

Built around OIF11 analog interface: two channels dedicated to ozone sensor current and temperature

Used with ECC-type ozone sensors

Includes other items needed for ozone sounding

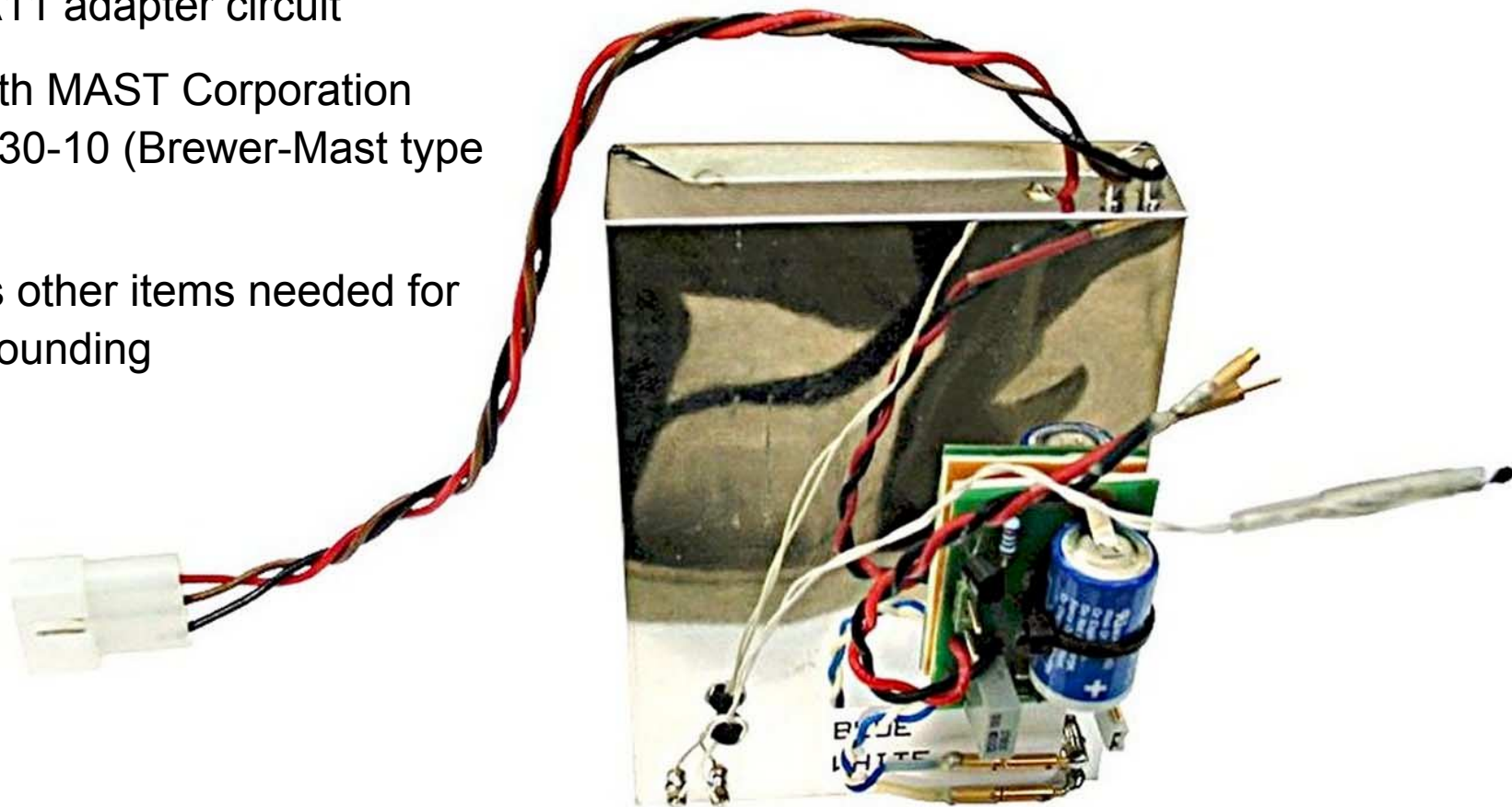


Vaisala Ozone Interface Kit RSA112

Built around OIF11 analog interface
and OIA11 adapter circuit

Used with MAST Corporation
model 730-10 (Brewer-Mast type
sensor)

Includes other items needed for
ozone sounding



Ozone Sounding Accessories

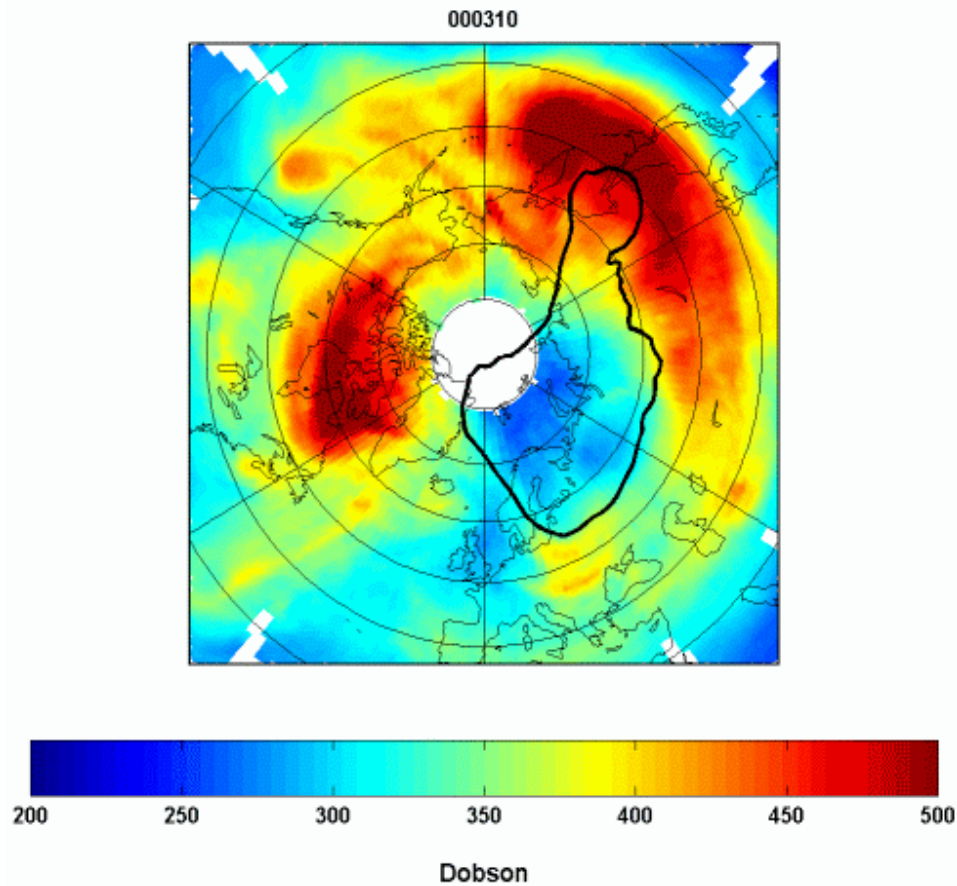
Vaisala supplies all the consumable items and accessories needed for ozone sounding with Vaisala radiosondes.

A special start-up kit is also available for introducing ozone sounding to your upper-air program or another weather station.

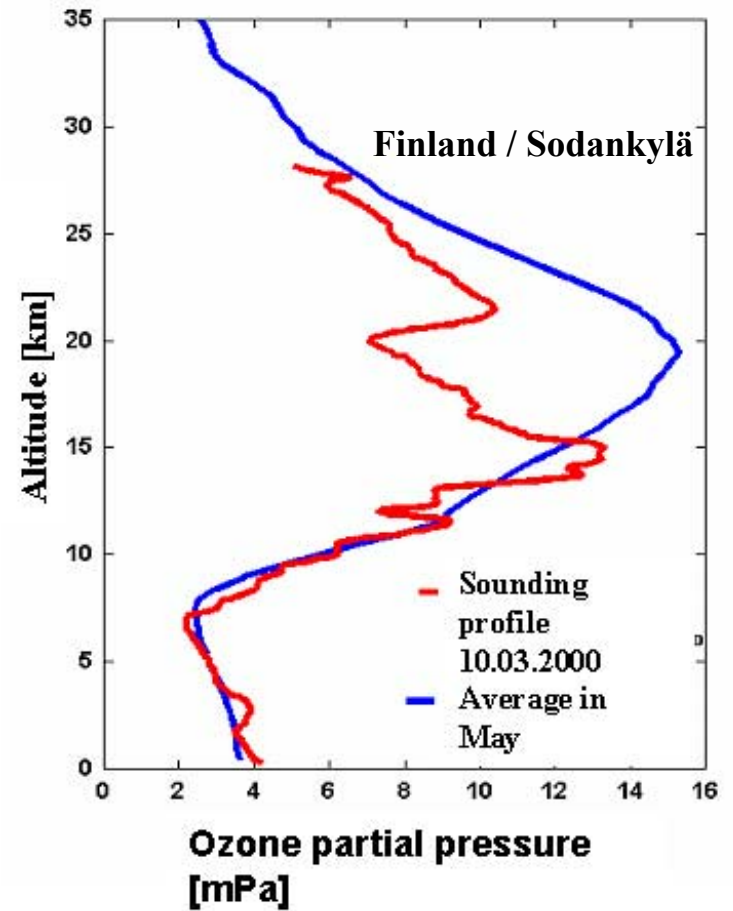


Good and Bad Ozone

Northern ozone hole (www.fmi.fi/IL/)



TOMS satellite 10.03.2000



DigiCORA® MW21 Ozone Sounding Screen and NILU Message

The screenshot shows a dialog box titled "CommonParameters" with the following fields:

ONAME	SCON
<input type="text" value="Lastname, first name"/>	<input type="text"/>
ORG	
<input type="text" value="Organization"/>	
MNAME	Station id
<input type="text" value="Mission name"/>	<input type="text" value="DoinTEST"/>
NEOM	
<input type="text"/>	

Buttons at the bottom: < Back, Next >, Cancel.

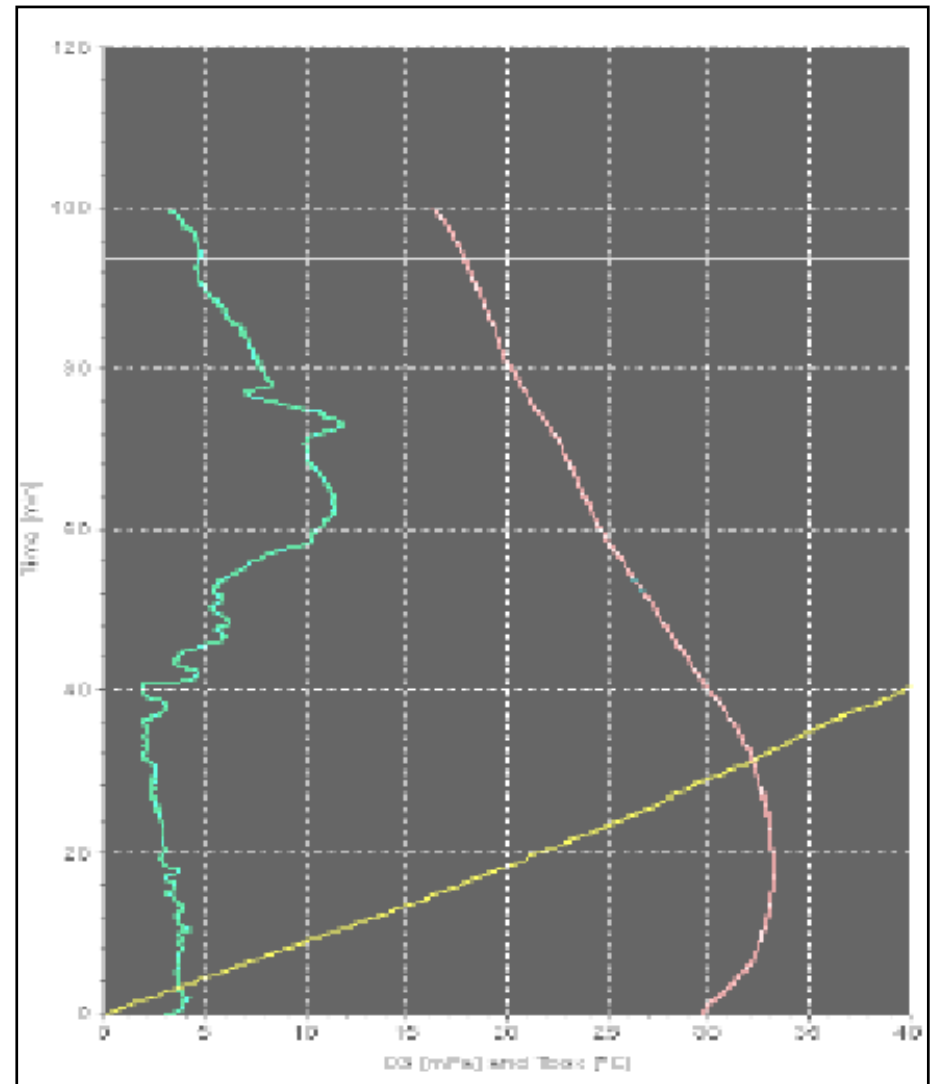
Figure 13 NILU Message Common Parameters

The screenshot shows a dialog box titled "AuxVariables Parameters" with multiple columns of fields:

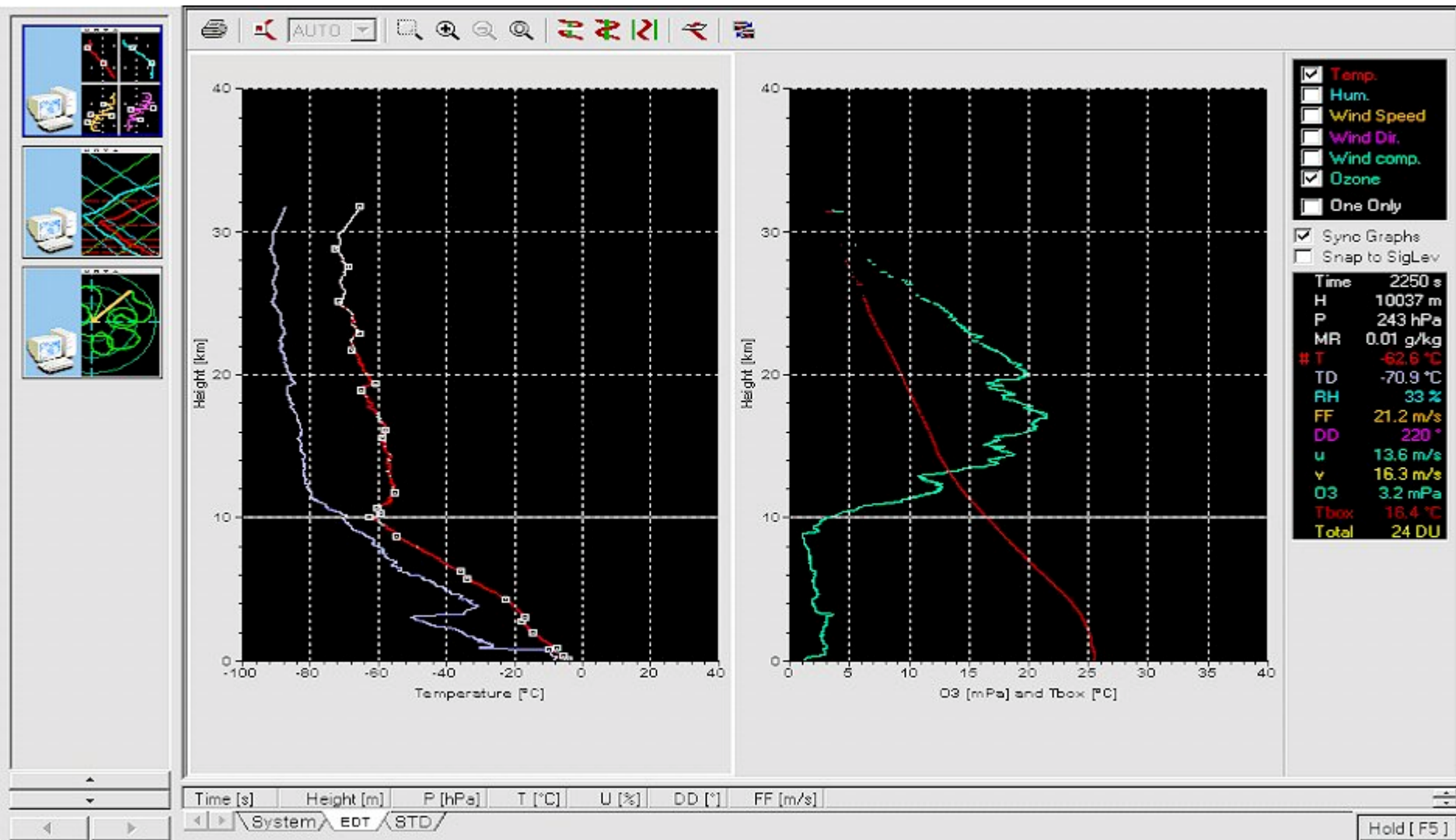
Balloon free lift [g]	Surface ozone time [min]	Inlet tube temp. [°C]	Balloon brand
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Plastic balloon weight [g]	Surface sonde ozone [mPa]	Pump temperature [°C]	Balloon type
<input type="text"/>	<input type="text" value="0.27064817213636"/>	<input type="text"/>	<input type="text"/>
Plastic balloon volume [m³]	Total ozone (profile) (COL1)	Ground equipment	Reason for discontinuation
<input type="text"/>	<input type="text" value="48.302611768648"/>	<input type="text" value="Vaisala DigiCORA II"/>	<input type="text"/>
Rubber balloon weight [g]	Total ozone (daily mean) ..	Pump correction table	Weather condition at launch
<input type="text"/>	<input type="text"/>	<input type="text" value="SPC_ECC"/>	<input type="text" value="Cloudy"/>
Cathode concentration [g/l]	Total ozone (best value) ..	Background current correc.	Balloon pretreatment
<input type="text"/>	<input type="text"/>	<input type="text" value="Pressure dependent"/>	<input type="text" value="None"/>
Calibrator s. [sec/100cm]	Correction factor (COL2W) ..	Place of box temperature ..	Serial number of ECC
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
No ozone background .. [µA]	Laboratory temperature [°C]	Lifting gas	
<input type="text"/>	<input type="text"/>	<input type="text" value="H2"/>	
Pre-flight background .. [µA]	Laboratory relative h. [%]	Balloon material	
<input type="text" value="0.181"/>	<input type="text"/>	<input type="text" value="Rubber"/>	

Buttons at the bottom: < Back, Finish, Cancel.

Figure 14 NILU Message Auxiliary Parameters



DigiCORA® MW21 Ozone Sounding Screen



Thank You!

