



AANDERAA
INSTRUMENTS

5852 Bergen, Norway. Tel. + 47 55 10 99 00

212014

Test and Specification Sheet

Recording Current Meter,

RCM 9, Mk II ☐

RCM 11 ☒

Serial No. 53

Main Components

Component	Serial No.	Remarks
Electronic Board 3623	776	Reference reading: 588
Data Storage Unit 2990	12387	Standard <input checked="" type="checkbox"/> Extended <input type="checkbox"/>
Doppler Current Sensor 3620/3820	52	
Temperature Sensor 3621	783	
Conductivity Cell 3619/3819		
Pressure sensor 3815 E	149	
Turbidity sensor 3612		
Oxygen Sensor 3675		

Mechanical Checks:

Sensors fixed in correct position ☒

Wire harness, screws and sensor plugs ☒

Epoxy coating intact ☒

Zinc anode installed ☒

Clean and inspect O-ring groove ☒

Performance Tests of complete instrument:

Tune the transducer so that the acoustic output of 16.384 KHz is equal to the output of 15.7 KHz ☐

Current consumption at continuous operation, maximum 100 mA 99.6 mA

Current consumption between measurements at 120 min. interval. Maximum 1.0 mA average 0.61 mA

Field test 8 hours, 5 min. interval recording in DSU 2990 ☒

Check operation with Test Unit 3731, -5°C to +35°C, (all channels tested, 16 hour run, data stored in DSU 2990) ☒

Check remote start, PDC-4 output and external powering ☒

Electrical isolation between system ground and Top end-plate ☒

Test of Operation in Burst Mode, 2 minutes interval ☒

Date: 31/3-01 Sign: F. Heltne

Final Check prior to Shipment:

Doppler Current Sensor is tested with Test Unit 3731 ☒

Temperature readings correspond to room temperature ☒

Conductivity Sensor reads correct with sea water loop ☐

Pressure Sensor gives correct reading at air pressure ☒

Turbidity reading increases when a reflector is placed 20cm in front of it ☐

The oxygen sensor reads maximum in air ☐

Optional Sensor checked by: (sign.)

Set temperature range switch to "Low" and conductivity range to 0-74 mS ☒

Set interval switch to 10 minutes and turn channel selector switch to OFF position ☒

Erased DSU installed ☒

Install fresh battery, type Alkaline 3614, Open loop voltage: >9.5 Voltage with 100ohms load: >9.2

Inspect O-ring groove and clean and grease O-ring ☒

Check that the pressure sensor is oil filled ☒

Date: 3/4-01 Sign: S. Sejel



Calibration Sheet

Recording Current Meter,

RCM 9, Mk II ☐

RCM 11 ☒

Serial No.: 53

Reference(channel 1): 588

The calibration coefficients listed below are valid for the sensors with the following serial numbers

Sensor	Range	Serial No.
Doppler Current Sensor 3920 /3820		52
Temperature Sensor 3621		783
Conductivity cell 3619/3819		
Pressure sensor 3815 E	0-60 MPa	149
Turbidity sensor 3612		
Oxygen Sensor 3675		

Calibration Coefficients:

Ch.No.	Parameter	A	B	C	D	Unit
1	Reference	0	1.000E+00	0	0	
2	Current Speed	0	2.933E-01	0	0	cm/s
3	Current Direction	0	3.516E-01	0	0	Deg.M
4	Temperature					
	Wide range	-6.926E-01	3.420E-02	-6.292E-06	4.800E-09	Deg.C
	Low range	-2.778E+00	2.410E-02	-2.238E-06	2.056E-09	Deg.C
	High range	9.736E+00	2.399E-02	-5.941E-07	2.820E-09	Deg.C
	Arctic range	-3.078E+00	8.982E-03	-3.476E-07	1.134E-10	Deg.C
5	Conductivity					
	0-74mS/cm			0	0	mS/cm
	24-38mS/cm			0	0	mS/cm
	0-2mS/cm			0	0	mS/cm
6	Pressure	-1.772E+00	6.294E-02	-9.877E-07	0	hPa/MPa
7	Turbidity					NTU
	Oxygen			0	0	% *

*

Oxygen saturation with respect to nominal air pressure (1013.2 hPa)

To obtain the density of oxygen in mg/l, see calibration sheet for the Oxygen Sensor, Form 533

Date: 2/4-2001 Sign: Roar Bergnes