

# CALIBRATION CERTIFICATE

Electronic board: 3623 Product: RCM 9 MkII Electronic board serial: 1104 Serial No: 870

Reference reading: 648 Calibration Date: February 25, 2011

For details; see the individual Calibration Sheets.

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

Sensor	Type	Serial No.	Range		
Doppler Current Sensor	3920	441			
Temperature Sensor	3621	1137			
			Arctic:	-3.03 to 5.89	
			High:	9.77 to 36.58	
			Low:	-2.72 to 21.71	
			Wide:	-0.65 to 32.81	
Conductivity Sensor					
Pressure Sensor	3815C	373	0 - 7000 kPa		
Turbidity Sensor	3612	738	0 - 20 NTU		
Oxygen Sensor					

#### Calibration Coefficients:

Ch. No.	Parameter	A	В	C	D	Unit
1	Reference	0.000E+00	1.00E+00	0.000E+00	0.000E+00	-
2	Current Speed	0.000E+00	2.93E-01	0.000E+00	0.000E+00	cm/s
3	Current Direction	0.000E+00	3.52E-01	0.000E+00	0.000E+00	Deg. M
4	Temperature Range					
	Arctic	-3.031E+00	8.961E-03	-3.476E-07	1.134E-10	Deg. C
	High	9.770E+00	2.387E-02	-5.941E-07	2.820E-09	Deg. C
	Low	-2.717E+00	2.402E-02	-2.238E-06	2.056E-09	Deg. C
	Wide	-6.547E-01	3.412E-02	-6.292E-06	4.800E-09	Deg. C
	Other					
5	Conductivity					mS/cm
6	Pressure	-1.310E+02	7.084E+00	3.815E-05	0.000E+00	kPa
7	Turbidity	-1.835E+00	3.248E-02	-2.822E-05	2.532E-08	NTU
8	Oxygen	•				uM
		•				

Date:

February 25, 2011

Sign: Shawn A. Sneddon

Service and Calibration Engineer



#### 1. Visual and Mechanical Checks:

- 1.1 Sensors fixed in correct position
- 1.2 Wire harness, screws and sensor plugs
- 1.3 Epoxy coating intact
- 1.4 Zinc anode installed
- 1.5 Clean and inspect O-ring groove

#### 2. Performance Tests of complete instrument:

- 2.1 Current consumption at continuous operation, maximum 120 mA
- 2.2 Current consumption between measurements at 120 min. interval, maximum 1.0 mA average
- 2.3 Check operation with Test Unit 3751,-5C to +35C, (all channels tested, 16 hour run, data stored in DSU 2990)
- 2.4 Check remote start, PDC-4 output and external powering
- 2.5 Electrical isolation between system ground and Top end-plate
- 2.6 Compass verification every 15° (max error ±5°)

#### 3. Final Check prior to Shipment:

- 3.1 Doppler Current Sensor is tested with Test Unit 3731
- 3.2 Temperature readings correspond to room temperature
- 3.3 Conductivity Sensor reads correct with seawater loop
- 3.4 Check that the pressure sensor is oil filled
- 3.5 Pressure Sensor gives correct reading at air pressure
- 3.6 Turbidity reading increases when a reflector is placed 20cm in front of it
- 3.7 The oxygen sensor reads maximum in air
- 3.8 Erased DSU installed
- 3.9 Set temperature range switch to default setting and conductivity range to 0-74 mS/cm
- 3.10 Set to customer settings
- 3.11 Inspect O-ring groove and clean
- 3.12 Replace Top-End Plate and Receptacle O-ring



## CALIBRATION CERTIFICATE

**Product:** Pressure Sensor 3815C **Serial No:** 373

**Calibration Date:** February 15, 2011

### **Range:** 0 - 7000 kPa

#### Calibration

**Layout No:** 

The calibration of each sensor is carried out at the factory and the calibration is valid for all following data handling. The form below is filled in only where necessary, depending upon which type of sensor it concerns.

Pressure		Coefficients (kPa)		
Bar	Reading N			
Air	33	A	-1.310E+02	
16	258	В	7.084E+00	
33	497	С	3.815E-05	
50	736	D	0.000E+00	
65	945			

Date:

February 15, 2011

Sign: Shawn Sneddon

Service and Calibration Engineer



ITT Analytics Company