

CALIBRATION CERTIFICATE

NAME : COMPACT-CT

MODEL : ACT-HR

SERIAL No. : 1589

Parameter : Temperature
Conductivity



JFE Advantech Co., Ltd.

Temperature Calibration Certificate

Model : ACT-HR
 Serial No. : 1589
 Date : December 02, 2015
 Location : Production Section
 Method : Calibration equation is determined from third order regression of samples of the reference temperature against A/D values. Samples are taken at approximately 3, 10, 17, 24, and 31 °C.

1. Equation Instrument temperature[°C] = $A+B \times N+C \times N^2+D \times N^3$ N: A/D value

2. Coefficients
 A = $-8.230309e00$
 B = $1.062217e-03$
 C = $-8.268582e-09$
 D = $9.039840e-14$

3. Calibration results

Reference temperature [°C]	A/D value	Instrument temperature [°C]	Residual error [°C]	Acceptance [°C]	OK/NG
2.704	11143	2.704	0.000	±0.050	OK
10.770	20403	10.768	-0.002	±0.050	OK
16.872	27831	16.876	0.004	±0.050	OK
24.092	36706	24.090	-0.002	±0.050	OK
30.226	44031	30.226	0.000	±0.050	OK

4. Verification

Criteria of judgement : Residual error of the instrument temperature at arbitrary point is within the acceptance value.

Reference temperature [°C]	Instrument temperature [°C]	Residual error [°C]	Acceptance [°C]	Judgement
19.815	19.817	0.002	±0.050	Passed

Examined M. Kano
 Approved A. FukuoKa

Conductivity Calibration Certificate

Model : ACT-HR
 Serial No. : 1589
 Date : December 01, 2015
 Location : Production Section
 Method : Calibration equation is determined from linear regression of samples of the reference conductivity against A/D values. Samples are taken at approximately 20, 30, 40, and 50 mS/cm.

1. Equation Instrument conductivity[mS/cm] = A+B × N N: A/D value

2. Coefficients A = -6.527404e-01 B = 9.867450e-04

3. Calibration results

Reference conductivity [mS/cm]	A/D value	Instrument conductivity [mS/cm]	Residual error [mS/cm]	Acceptance [mS/cm]	OK/NG
19.038	19953	19.036	-0.002	±0.050	OK
30.031	31099	30.034	0.003	±0.050	OK
39.411	40605	39.414	0.003	±0.050	OK
51.174	52520	51.171	-0.003	±0.050	OK

4. Verification

Criteria of judgement : Residual error of the instrument conductivity at arbitrary point is within the acceptance value.

Reference conductivity [mS/cm]	Instrument conductivity [mS/cm]	Residual error [mS/cm]	Acceptance [mS/cm]	Judgement
45.045	45.045	0.000	±0.050	Passed

Examined M. Kano
 Approved A. Fukuoka