DASGIP BioLector

Calibration Data Sheet for *pH & DO optodes*

BioLector Calibration Data

Please enter these **calibration parameters** and the **Lot.-No.** in the BioLection software!

Lot.-No.: 1106
Filter: HC

Date of calibration: 2011/05/03

pH calibration parameters

Buffer	150 mM Na-Phosphate buffer, *CertiPUR* buffer pH 4.01 (25°C), *CertiPUR* buffer pH 10.00 (25°C) (18 point calibration)						
Temperature	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**
ϕ min	57.80	57.78	57.75	57.73	57.70	57.67	57.65
ϕ max	12.03	12.04	12.05	12.06	12.07	12.08	12.09
dpH	0.55	0.55	0.55	0.55	0.55	0.55	0.55
pHo	6.11	6.10	6.08	6.07	6.05	6.04	6.02
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ min	57.62	57.60	57.57	57.54	57.52	57.49	57.47
ϕ max	12.10	12.11	12.12	12.13	12.14	12.15	12.16
dpH	0.55	0.56	0.56	0.56	0.56	0.56	0.56
pHo	6.01	5.99	5.98	5.96	5.95	5.94	5.92
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ min	57.44	57.42	57.39	57.36	57.34	57.31	57.29
ϕ max	12.17	12.17	12.18	12.19	12.20	12.21	12.22
dpH	0.56	0.56	0.56	0.56	0.56	0.56	0.56
pHo	5.91	5.89	5.88	5.86	5.85	5.83	5.82

Sensor properties

Dynamic range	pH 4.3-8.0
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.10 pH (pH 5-7.5); ± 0.25 pH (> pH 7.5) (batch calibration)
Response time (t90)	At 25°C < 30 s
Drift at pH = 7	< 0.005 pH per day (sampling interval of 1 min)
Temperature range	5°C to 50°C
Compatibility	Aqueous solutions, ethanol, methanol (max. 10% v/v)
Cross-sensitivity	Reduced to ionic strength (salinity); a high concentration of fluorescent molecules in the visible range can interfere
Basic material	pH sensor HP8-1004-01

Calibration

Buffer	CertiPUR Reference Material Buffer solutions Set 2 Lot No.: HC701006 (pH 4.01 ± 0.015 / pH 10.00 ± 0.03, 25°C); 150 mM Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = pH-DO-calibration, T = 20-40°C, 1000 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = CellCulture plate (MTP-R48-BOH)
Calibration device	BioLector CX_05B838(BL007)
Calibration phase offset	pH 255.8 (pH Ser.3010-hc)

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DASGIP BioLector

Calibration Data Sheet for *pH & DO optodes*

BioLector Calibration Data

Please enter these **calibration parameters** and the **Lot.-No.** in the BioLection software!

Lot.-No.: 1104
Filter: HC

Date of calibration: 2011/05/03

DO calibration parameters

Buffer	Sulfite system						
Temperature	**20°C**	**21°C**	**22°C**	**23°C**	**24°C**	**25°C**	**26°C**
ϕ cal0	75.40	75.35	75.30	75.25	75.20	75.16	75.11
ϕ cal100	46.28	46.06	45.84	45.62	45.40	45.18	44.97
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ cal0	75.06	75.01	74.96	74.91	74.86	74.81	74.76
ϕ cal100	44.75	44.53	44.31	44.09	43.87	43.76	43.43
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ cal0	74.72	74.67	74.62	74.57	74.52	74.47	74.42
ϕ cal100	43.22	43.00	42.78	42.56	42.34	42.12	41.90

Sensor properties

Dynamic range	0-100% air saturation (a.s.)
Resolution	Up to 0.1% O_2 (software)
Accuracy	± 2% dissolved oxygen (batch calibration)
Drift at 0% oxygen	< 0.03% O_2 within 30 days (sampling interval of 1 min)
Response time (t90)	< 30 s
Temperature range	0-50°C
Cross-sensitivity to	Organic solvents, such as acetone, toluene, chloroform or methylene chloride Chlorine gas
Basic material	Oxygen sensor PSt3-HG-1042-01

Calibration

Calibration	0.5 M Sulfite system (Two-point calibration with oxygen-free environment (nitrogen, sodium sulfite) and air-saturated environment)
Settings	BioLector protocol = pH-DO-calibration, T = 20-40°C, 1000 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = CellCulture plate (MTP-R48-BOH)
Calibration device	BioLector CX_05B838(BL007)
Calibration phase offset	DO 332.3 (DO Ser.4010-hc)

Sterilization procedure

Sterilization	Gamma irradiation (15 kGy)
BGS-certificate No	31105840
Date of sterilization	2011/04/22

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