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

pH calibration parameters Lot No.2116221 (BioLector II/Pro Microbioreactor, filter module ID-221/421)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	67.78	67.69	67.61	67.52	67.44	67.35	67.26
ϕ max	12.34	12.25	12.17	12.09	12.00	11.92	11.84
dpH	0.80	0.79	0.79	0.79	0.79	0.79	0.79
pH_0	6.60	6.59	6.58	6.57	6.56	6.55	6.54

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	67.18	67.09	67.01	66.92	66.83	66.75	66.66
ϕ max	11.75	11.67	11.59	11.50	11.42	11.34	11.25
dpH	0.79	0.79	0.79	0.79	0.78	0.78	0.78
pH_0	6.53	6.52	6.51	6.50	6.49	6.48	6.47

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	66.58	66.49	66.40	66.32	66.23	66.15	66.06
ϕ max	11.17	11.09	11.00	10.92	10.84	10.76	10.67
dpH	0.78	0.78	0.78	0.78	0.78	0.78	0.78
pH_0	6.46	6.45	6.44	6.43	6.42	6.41	6.40

pH sensor properties

Dynamic range	pH 3.90 - 8.65
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.65 - 5.15 ; ± 0.1 pH at pH 5.15 - 7.45 ; ± 0.25 pH at pH 7.45 - 7.95 (batch calibration)
Response time (t90)	At 25 °C < 30 s
Drift at pH = 7	< 0.005 pH per day (sampling interval of 6 min)
Temperature range	5 °C to 50 °C
Compatibility	Aqueous solutions, ethanol, methanol (max. 5 % v/v)
Sensor stability	Sensor material can be degraded by some microorganisms
Cross-sensitivity	Reduced to ionic strength (salinity); high concentration of fluorescent molecules in the visible range can interfere (GFP, (e)YFP); complex media can cause a pH-shift (peptone, yeast extract)
Basic material	pH sensor LG1-1939-01_2 (at least stable for 7 days with CertiPUR-buffer)
	pH sensors are light-sensitive; please protect them from direct light!

pH calibration

Buffer	CertiPUR Reference Material Buffer solutions Set (pH 2.00 ± 0.02 / pH 3.00 ± 0.02 / pH 9.00 ± 0.03 / pH 10.00 ± 0.03, 20 °C); 150 mM Citrat-Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = MF_pH_DO_calibration_BOH2 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Flower Plate (MTP-MF32C-BOH2)
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	pH -360.68 (pH Ser. 3513, gain 8)
Date of calibration	2021-12-07

Contact us

If you have any questions, contact Beckman Coulter Customer Support Center:

· Worldwide, find out in our website at: www.beckman.de/support/technical

· In the USA and Canada, call us at 1-800-369-0333

· Outside the USA and Canada, contact your local Beckman Coulter representative

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

DO calibration parameters Lot No.2116221 (BioLector II/Pro Microbioreactor, filter module ID-228/428)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	70.03	70.01	69.99	69.98	69.96	69.94	69.92
ϕ cal100	41.29	41.09	40.89	40.68	40.48	40.28	40.08

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	69.90	69.88	69.86	69.85	69.83	69.81	69.79
ϕ cal100	39.88	39.67	39.47	39.27	39.07	38.86	38.66

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	69.77	69.75	69.74	69.72	69.70	69.68	69.66
ϕ cal100	38.46	38.26	38.05	37.85	37.65	37.45	37.25

DO sensor properties

Dynamic range	0 - 100 % air saturation (a.s.)
Resolution	Up to 0.1 % O2 (software)
Accuracy	± 5% dissolved oxygen (batch calibration)
Drift at 0% oxygen	< 0.5% O2 per day (sampling interval of 6 min)
Response time (t90)	< 30 s
Temperature range	5 – 50°C
Sensor stability	Sensor material can be degraded by some microorganisms
Cross-sensitivity to	Organic solvents, such as acetone, toluene, chloroform or methylene chloride, Chlorine gas; high concentration of fluorescent molecules in the visible range can interfere (mCherry, tdTomato, dsRed, nile red); complex media can cause a DO-shift
Basic material	Oxygen sensor RF-213550639 (at least stable for 7 days with CertiPUR-buffer)
	DO sensors are light-sensitive; please protect them from direct light!

DO calibration

Calibration	0.5 M Sulfite system (Two-point calibration with oxygen-free environment (sodium sulfite) and air-saturated environment)
Settings	BioLector protocol = MF_pH_DO_calibration_BOH2 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Flower Plate (MTP-MF32C-BOH2)
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	DO -360.83 (DO Ser. 4452, gain 4)
Date of calibration	2021-12-07

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	972085
Date of sterilization	2021-11-25

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