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

pH calibration parameters Lot No.2202321 (BioLector Pro Microbioreactor, filter module ID-424)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	63.21	63.38	63.56	63.73	63.91	64.08	64.26
ϕ max	11.71	11.73	11.76	11.79	11.81	11.84	11.87
dpH	-0.39	-0.39	-0.39	-0.39	-0.39	-0.39	-0.39
pH_0	5.53	5.53	5.52	5.51	5.51	5.50	5.49

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	64.44	64.61	64.79	64.96	65.14	65.32	65.49
ϕ max	11.89	11.92	11.95	11.97	12.00	12.02	12.05
dpH	-0.39	-0.39	-0.39	-0.39	-0.39	-0.39	-0.39
pH_0	5.49	5.48	5.47	5.47	5.46	5.46	5.45

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	65.67	65.84	66.02	66.19	66.37	66.55	66.72
ϕ max	12.08	12.10	12.13	12.16	12.18	12.21	12.24
dpH	-0.39	-0.39	-0.39	-0.39	-0.39	-0.39	-0.39
pH_0	5.44	5.44	5.43	5.42	5.42	5.41	5.41

pH sensor properties

Dynamic range	pH 3.30 - 6.50
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 3.80-4.05; ± 0.1 pH at pH 4.05-5.75; ± 0.25 pH at pH 5.75-6.05 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 pH51-202850565 (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 7.00 ± 0.02 / pH 8.00 ± 0.03, 20 °C); 150 mM Citrat-Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = pH51-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Flower Plate (MTP-MF32C-BOH3)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	pH -360.10 (pH Ser. 3288, gain 6)
Date of calibration	2022-03-09

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.2202321 (BioLector Pro Microbioreactor, filter module ID-228/-428)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	70.52	70.50	70.49	70.47	70.45	70.44	70.42
ϕ cal100	41.25	41.07	40.89	40.71	40.53	40.35	40.17

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	70.41	70.39	70.38	70.36	70.35	70.33	70.31
ϕ cal100	39.99	39.81	39.62	39.44	39.26	39.08	38.90

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	70.30	70.28	70.27	70.25	70.24	70.22	70.21
ϕ cal100	38.72	38.54	38.36	38.18	38.00	37.82	37.64

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-213550642 (at least stable for 7 days with CertiPUR-buffer)
	DO sensors are light-sensitive; please protect them from direct light!

DO calibration

Calibration	1.0 M Sulfite system (Two-point calibration with oxygen-free environment (sodium sulfite) and air-saturated environment)
Settings	BioLector protocol = pH51-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Microfluidic Flower Plate (MTP-MF32C-BOH3)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	DO -360.44 (DO Ser. 4302-RD, gain 4)
Date of calibration	2022-03-09

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	1001695
Date of sterilization	2022-02-16

Contact us

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