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

pH calibration parameters Lot No.2216321+2216327 (BioLector Pro Microbioreactor, filter module ID-424)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	75.55	75.62	75.69	75.76	75.83	75.90	75.97
ϕ max	19.98	20.03	20.09	20.14	20.19	20.25	20.30
dpH	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38
pH_0	5.29	5.28	5.28	5.27	5.26	5.26	5.25

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	76.04	76.11	76.18	76.25	76.32	76.39	76.46
ϕ max	20.35	20.41	20.46	20.51	20.57	20.62	20.67
dpH	-0.38	-0.38	-0.38	-0.37	-0.37	-0.37	-0.37
pH_0	5.24	5.24	5.23	5.22	5.22	5.21	5.20

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	76.53	76.60	76.67	76.74	76.81	76.88	76.95
ϕ max	20.73	20.78	20.83	20.89	20.94	20.99	21.05
dpH	-0.37	-0.37	-0.37	-0.37	-0.37	-0.37	-0.37
pH_0	5.20	5.19	5.18	5.18	5.17	5.16	5.15

pH sensor properties

Dynamic range	pH 3.85 - 6.35
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.15-4.30; ± 0.1 pH at pH 4.30-5.95; ± 0.25 pH at pH 5.95-6.10 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 pH51-221155385+386 (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	2023-01-16

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.2216321+2216327 (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	70.95	70.93	70.91	70.89	70.87	70.85	70.83
ϕ cal100	42.13	41.94	41.75	41.56	41.37	41.19	41.00

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	70.81	70.79	70.77	70.75	70.73	70.71	70.69
ϕ cal100	40.81	40.62	40.43	40.25	40.06	39.87	39.68

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	70.67	70.65	70.63	70.61	70.59	70.57	70.55
ϕ cal100	39.49	39.31	39.12	38.93	38.74	38.55	38.36

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-222757000 (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	2023-01-16

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
Steris Process Run ID	2324-3217
Date of sterilization	2022-12-23

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