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

pH calibration parameters Lot No.2117101 and 2117107 (BioLector II/Pro Microbioreactor, filter module ID-202/402)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	64.82	64.73	64.65	64.57	64.49	64.40	64.32
ϕ max	14.16	14.16	14.16	14.17	14.17	14.17	14.18
dpH	0.56	0.56	0.56	0.56	0.56	0.56	0.56
pH_0	6.17	6.16	6.16	6.15	6.14	6.13	6.13

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	64.24	64.16	64.07	63.99	63.91	63.83	63.74
ϕ max	14.18	14.18	14.19	14.19	14.19	14.20	14.20
dpH	0.56	0.56	0.56	0.56	0.56	0.56	0.56
pH_0	6.12	6.11	6.10	6.10	6.09	6.08	6.07

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	63.66	63.58	63.50	63.41	63.33	63.25	63.17
ϕ max	14.20	14.21	14.21	14.22	14.22	14.22	14.23
dpH	0.56	0.56	0.57	0.57	0.57	0.57	0.57
pH_0	6.07	6.06	6.05	6.04	6.04	6.03	6.02

pH sensor properties

Dynamic range	pH 4.20 - 7.75
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.65 - 4.95 ; ± 0.1 pH at pH 4.95 - 6.90 ; ± 0.25 pH at pH 6.90 - 7.25 (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 HP8-1811-01_6 (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 ± 0.01 / pH 3.00 ± 0.015 / pH 9.00 ± 0.01 / pH 10.00 ± 0.03, 20 °C); 150 mM Citrat-Na-Phosphate buffer (16 solutions)
Settings	BioLector protocol = pH_DO_calibration_BOH1 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Round Well Plate (MTP-R48-BOH1
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	pH -2.45 (pH Ser. 3511, gain 7)
Date of calibration	2021-12-23

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.2117101 and 2117107 (BioLector II/Pro Microbioreactor, filter module ID-203/403)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	73.11	73.06	73.01	72.96	72.91	72.86	72.81
ϕ cal100	43.44	43.20	42.96	42.72	42.48	42.24	42.00

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	72.76	72.71	72.66	72.62	72.57	72.52	72.47
ϕ cal100	41.76	41.52	41.28	41.05	40.81	40.57	40.33

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	72.42	72.37	72.32	72.27	72.22	72.17	72.13
ϕ cal100	40.09	39.85	39.61	39.37	39.13	38.89	38.65

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 Pst3-HG-1921-01_2 (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 = pH_DO_calibration_BOH1 ,T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Round Well Plate (MTP-R48-BOH1
Calibration device	Hardware ID: 03166164 (BLXT Pilot 1)
Calibration phase offset	DO -360.83 (DO Ser. 4446, gain 7)
Date of calibration	2021-12-23

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	979401
Date of sterilization	2021-12-14

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