Now part of
Beckman Coulter Life Sciences

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

pH calibration parameters Lot No.2102291 (BioLector® II/Pro, filter module ID-221/-421)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	70.21	70.14	70.07	69.99	69.92	69.85	69.78
ϕ max	13.24	13.18	13.12	13.05	12.99	12.93	12.87
dpH	0.87	0.86	0.86	0.86	0.86	0.86	0.86
pH_0	6.54	6.53	6.52	6.51	6.50	6.49	6.48

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ min	69.71	69.64	69.56	69.49	69.42	69.35	69.28
ϕ max	12.81	12.75	12.69	12.63	12.57	12.51	12.45
dpH	0.86	0.85	0.85	0.85	0.85	0.85	0.85
pH_0	6.47	6.46	6.45	6.44	6.43	6.42	6.41

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ min	69.21	69.13	69.06	68.99	68.92	68.85	68.78
ϕ max	12.39	12.33	12.27	12.21	12.15	12.08	12.02
dpH	0.85	0.84	0.84	0.84	0.84	0.84	0.84
pH_0	6.40	6.39	6.38	6.36	6.35	6.34	6.33

pH sensor properties

Dynamic range	pH 3.65 - 8.80
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.55-5.15; ± 0.1 pH at pH 5.15-7.35; ± 0.25 pH at pH 7.35-7.95 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 ± 0.01 / 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 = LG1-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BH2)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	pH -360.15 (pH Ser. 3305, gain 8)
Date of calibration	2021-03-18

HEADQUARTERS EUROPE

m2p-labs GmbH
Arnold-Sommerfeld-Ring 2
52499 Baesweiler, Germany
Phone +49 -2401 805 330
Fax +49 -2401 805 33
info@m2p-labs.com

SUPPORT

EUROPE
Phone +49 - 2401 805 335
support@m2p-labs.com

N./S. AMERICAS
Phone +1 631 501 1878
supportUS@m2p-labs.com

ASIA PACIFIC
Phone +852 6092 6778
supportAsia@m2p-labs.com

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

DO calibration parameters Lot No.0 (BioLector® II/Pro, filter module ID-228/-428)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ϕ cal100	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ϕ cal100	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ϕ cal100	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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 0,00 (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 = LG1-RF-calibration, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BH2)
Calibration device	Hardware ID: BL-09-000F-0032
Calibration phase offset	DO 0.00 (DO Ser. 4302-RD, gain 4)
Date of calibration	2021-03-18

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	867189
Date of sterilization	2021-03-03

HEADQUARTERS EUROPE

m2p-labs GmbH
Arnold-Sommerfeld-Ring 2
52499 Baesweiler, Germany
Phone +49 -2401 805 330
Fax +49 -2401 805 33
info@m2p-labs.com

SUPPORT

EUROPE
Phone +49 - 2401 805 335
support@m2p-labs.com

N./S. AMERICAS
Phone +1 631 501 1878
supportUS@m2p-labs.com

ASIA PACIFIC
Phone +852 6092 6778
supportAsia@m2p-labs.com