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

pH calibration parameters Lot No. 2010102 (BioLector® I, filter module ID-102/-302)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ min	56.83	56.75	56.67	56.60	56.52	56.44	56.36
ϕ max	11.52	11.52	11.51	11.51	11.51	11.51	11.51
dpH	0.53	0.53	0.53	0.53	0.53	0.53	0.53
pH_0	6.22	6.22	6.21	6.21	6.20	6.20	6.19
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ min	56.28	56.21	56.13	56.05	55.97	55.89	55.81
ϕ max	11.50	11.50	11.50	11.50	11.49	11.49	11.49
dpH	0.53	0.53	0.53	0.53	0.54	0.54	0.54
pH_0	6.18	6.18	6.17	6.17	6.16	6.15	6.15
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ min	55.74	55.66	55.58	55.50	55.42	55.35	55.27
ϕ max	11.49	11.49	11.48	11.48	11.48	11.48	11.48
dpH	0.54	0.54	0.54	0.54	0.54	0.54	0.54
pH_0	6.14	6.14	6.13	6.13	6.12	6.11	6.11

pH sensor properties

Dynamic range	pH 4.30-7.75
Resolution	Up to 0.01 pH (software)
Accuracy	± 0.25 pH at pH 4.80 - 5.10; ± 0.1 pH at pH 5.10 – 6.95; ± 0.25 pH at pH 6.95 - 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_3 (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 3.00 ± 0.01 / pH 4.00 ± 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, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Round Plate (MTP-R48-BOH1)
Calibration device	Hardware ID: BL092-CX-4A7394
Calibration phase offset	pH 255.9 (pH Ser. 3403, gain 55)
Date of calibration	2020/10/22

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
AMERICA
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. 2010102 (BioLector® I, filter module ID-103/-303)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	72.30	72.21	72.12	72.03	71.95	71.86	71.77
ϕ cal100	41.67	41.42	41.17	40.92	40.67	40.42	40.18
Temperature	**27°C**	**28°C**	**29°C**	**30°C**	**31°C**	**32°C**	**33°C**
ϕ cal0	71.68	71.59	71.50	71.41	71.32	71.23	71.14
ϕ cal100	39.93	39.68	39.43	39.18	38.93	38.68	38.44
Temperature	**34°C**	**35°C**	**36°C**	**37°C**	**38°C**	**39°C**	**40°C**
ϕ cal0	71.05	70.96	70.87	70.78	70.69	70.60	70.51
ϕ cal100	38.19	37.94	37.69	37.44	37.19	36.94	36.70

DO sensor properties

Dynamic range	0 - 100 % air saturation (a.s.)
Resolution	Up to 0.5 % O_2 (software)
Accuracy	± 5% dissolved oxygen (batch calibration)
Drift at 0% oxygen	< 0.5% O_2 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-1810-01_3 (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, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Round Plate (MTP-R48-BOH1)
Calibration device	Hardware ID: BL092-CX-4A7394
Calibration phase offset	DO 332.5 (DO Ser.3402, gain 70)
Date of calibration	2020/10/22

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	815113
Date of sterilization	2020/10/15

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
AMERICA
Phone +1 631 501 1878
supportUS@m2p-labs.com
ASIA PACIFIC
Phone +852 6092 6778
supportAsia@m2p-labs.com