

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

DO calibration parameters Lot No. 2007181 (BioLector® I, filter module ID-103/-303)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	72.66	72.63	72.60	72.57	72.54	72.51	72.48
ϕ cal100	44.07	43.86	43.65	43.45	43.24	43.03	42.82
Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	72.45	72.43	72.40	72.37	72.34	72.31	72.28
ϕ cal100	42.62	42.41	42.20	41.99	41.78	41.58	41.37
Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	72.25	72.22	72.19	72.16	72.13	72.10	72.07
ϕ cal100	41.16	40.95	40.75	40.54	40.33	40.12	39.91

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_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, T = 20-40 °C, 800 rpm, 1000 µL/well, shaking diameter 3 mm, MTP-type = Flower Plate (MTP-48-BOH1)
Calibration device	Hardware ID: BL092-CX-4A7394
Calibration phase offset	332.50 (DO Ser.3402, gain 70)
Date of calibration	2020/08/06

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	787233
Date of sterilization	2020/07/30

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