

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

DO calibration parameters Lot No. 2005181 (BioLector® I, filter module ID-103/-303)

Temperature	20°C	21°C	22°C	23°C	24°C	25°C	26°C
ϕ cal0	73.40	73.35	73.30	73.25	73.20	73.14	73.09
ϕ cal100	44.94	44.75	44.55	44.36	44.16	43.96	43.77
Temperature	27°C	28°C	29°C	30°C	31°C	32°C	33°C
ϕ cal0	73.04	72.99	72.94	72.88	72.83	72.78	72.73
ϕ cal100	43.57	43.38	43.18	42.98	42.79	42.59	42.40
Temperature	34°C	35°C	36°C	37°C	38°C	39°C	40°C
ϕ cal0	72.68	72.62	72.57	72.52	72.47	72.42	72.36
ϕ cal100	42.20	42.00	41.81	41.61	41.41	41.22	41.02

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-BO1)
Calibration device	Hardware ID: BL092-CX-4A7394
Calibration phase offset	DO -332.50 (DO Ser.3402, gain 70)
Date of calibration	2020/08/05

Sterilization procedure

Sterilization	Beta irradiation (20 kGy)
BGS-certificate No	754295
Date of sterilization	2020/04/20

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