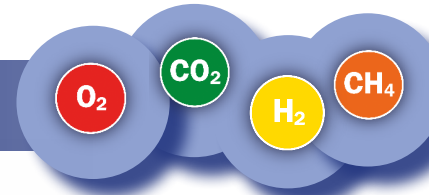


OPTIMIZE YOUR BIOPROCESS

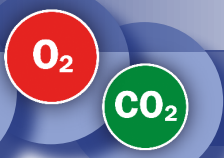
BLUESENS ONLINE GAS ANALYSIS



APPLICATIONS:
Cell Culture & Fermentation - R&D, Pilot & Production

GAS: O₂ - CO₂ - H₂ - CH₄

- Available as a single channel or combined version
- Continuous measurement – no sampling required
- No pre-treatment of the exhaust stream required sensor can operate in fully saturated gas streams
- No maximum or minimum flow rates
- Plug & Play
- Universal mounting
- Easy integration on new or existing equipment
- Compatible with all types of bioreactors/fermenters: stainless steel, single use, autoclavable
- Digital and Analogue data communication - RS232, RS485, Ethernet, 4-20mA
- PAT and QbD compliant
- Online monitoring of culture parameters: CER, OUR, RQ, biomass, growth rate, μ_{max} , Xs, Yxs, ...



BCP-SERIES: EASY IN-SITU GAS ANALYSIS O₂ & CO₂

BCP-SERIES SPECIFICATION



Fits on every scale

- Gain important parameters and measure accurately – no matter if benchtop or production scale



Gas choice

- Single channel sensor available for O₂ or CO₂
Concentration range:
O₂: 0.1-25 ; 0.1-50 ; 0-100 Vol. %
CO₂: 0-10 ; 0-25 ; 0-50 Vol. %



Housing choice

- All BCP sensors are available with:
 - Aluminium housing IP65, 12 – 24V (pilot & industrial production)
 - PA Polyamide plastic IP40, 12 V (lab)



BLUEINONE: COMBINED O₂ & CO₂ SENSOR

BLUEINONE SPECIFICATION



4 in 1

One device for 4 parallel measurements

- O₂ & CO₂, humidity and pressure. No minimal gas flow needed
- Autocompensated for fluctuations in humidity and pressure



Perfect gas analyzer for microbial & cell culture processes

- Continuous real-time measurements without gaps or interruptions



	BlueInOne FERM	BlueInOne CELL
Operating range	0.1 - 25 % or 1 - 50 % oxygen	0 - 100 % oxygen
Anaerobic	—	✓
Aerobic	✓	✓
Cell culture	—	✓
Inflammable gases	—	✓
High concentration of O₂	—	✓
Dry gas	✓	—
Higher pressure conditions up to 1.3 bar	✓	—

BLUEVARY: MAINTENANCE FREE OFF-GAS SENSOR

BLUEVARY SPECIFICATION



Maintenance free

- Performing our established one-point calibration regularly is all you have to do



Plug & Play

- No specific training
- Easy to install and handle



Maximum flexibility

- Combine two gases for parallel measuring O₂, CO₂, H₂, CH₄



MAINTENANCE FREE



	MEASUREMENT RANGE
O ₂	0-25, 0-50, 0-100 vol.-%
CO ₂	0-10, 0-25, 0-50 vol.-%
H ₂	0-10, 0-50, 0-100 vol.-%
CH ₄	0-100 vol.-%
Humidity Pressure	0-100% rH, 5-55°C, 0.8 to 1.3 bar absolute