

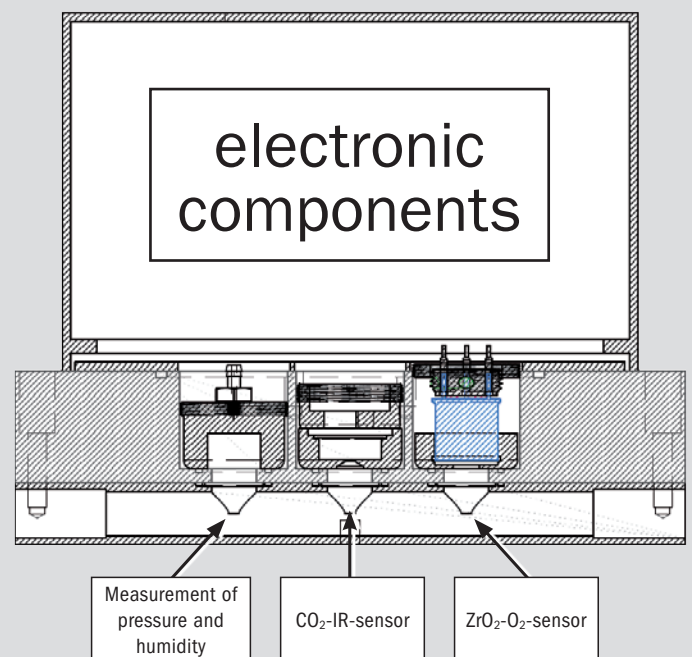
Advantages

- > parallel measurement of O₂ and CO₂
- > compact stainless steel housing
- > PAT conform in-situ- measurement
- > auto compensated humidity and pressure
- > no gas cooler, pumps or valves needed
- > connectable to any hose/tube or pipe
- > status display by luminous pushbuttons



Application areas

- > online fermentation monitoring
- > real time process optimization
- > from lab to industrial scale



Concentration ranges

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|--|
| 0 - 10 Vol.% CO ₂ , 0.1 - 25 Vol.% O ₂ |
| 0 - 25 Vol.% CO ₂ , 0.1 - 25 Vol.% O ₂ |
| 0 - 10 Vol.% CO ₂ , 1 - 50 Vol.% O ₂ |
| 0 - 25 Vol.% CO ₂ , 1 - 50 Vol.% O ₂ |

O₂ sensor unit

| | |
|---------------------------------------|--------------------------------|
| Gas | O ₂ |
| Measuring principle | Zirconium dioxide |
| Accuracy | < 0,2% FS* ± 3% value |
| Drift | < ± 2% value / year |
| Lifetime of sensor element | Approx. 15 000 operating hours |
| Temperature inside of the sensor unit | 580°C / 1076°F |

CO₂ sensor unit

| | |
|---------------------------------------|---|
| Gas | CO ₂ |
| Measuring principle | Infrared: dual wavelength |
| Accuracy | < 0,2% FS* ± 3% value |
| Drift | < ± 2% value / year |
| Lifetime of optical components | approx. 3 years |
| Temperature inside of the sensor unit | 3°C / 5.4°F higher than process temperature |

General

| | |
|---------------------------------------|---|
| Temperature range | 15 - 40°C / 59°F - 104°F |
| Pressure range | 0,8 - 1,3 bar / 11.6 - 18.85 psi |
| Operating humidity | 0 - 100% RH, integrated humidity compensation |
| Housing | Stainless steel, IP65 |
| Dimension (WxLxH) / weight | 170 x 150 x 120 mm (6.69" x 5.91" x 4.72") ** / 3 kg (6.61 lb) |
| Mechanical connection | ¼" - 1¼" *** |
| Materials in contact with process gas | steel 1.4571, viton, sapphire, PTFE, Polymer H.L., nitrile, tygon |
| Filters | PTFE 0,22 µm, PTFE 5 µm |
| Power supply | 24V 1A |

Electronic connections

| | |
|---------------------|--|
| Power supply | 8 pin M12 male |
| Output connection | 8 pin M12 female |
| Electronic Output | Active output, maximum 500 Ohm at 24V power supply RS232, RS485, USB, Ethernet (with BACCom), Modbus |
| Storage temperature | 0 - +60°C / 32- 140°F ; < 75% RH non-condensing |
| Maintenance | One point calibration with ambient air (0,04 Vol.% CO ₂ , 20,97 Vol.% O ₂) once a month (other conditions possible) Optional factory calibration once a year |
| CE/FCC/ICES | EN61326-1:2006 / FCC 15:2009 Subpart 107/109, ICES-001:2006 |
| Remarks | Don't use in explosive atmosphere, in anoxic atmosphere, in gases with polymers or silicon components or in gases with halogens (F, Cl, Br, etc.), CFC or SO _x and H ₂ S |

* FS= full scale ** depends on flow adapter dimension ***others on request