

Introducing the AberProbe

- a unique option
for monitoring
live cellmass

The monitoring and control of Biomass is one of the more important parameters in a biotechnological process. For on-line biomass measurement, the Aber Instruments **Biomass Monitor** using radio-frequency impedance, is now established in a diverse range of applications with yeast, animal, fungal, bacterial and plant cells.

Biomass probes incorporating a patented four pin electrode design have been traditionally used with the **Biomass Monitor** and related instruments at over 400 different sites in biotechnology and brewing. For smaller fermenters with only 12mm diameter entry ports or for the more demanding applications with low levels of biomass, there has been a requirement for an alternative probe. Combined with the new **Biomass Monitor 220 series**, the **AberProbe**, incorporating four annular ring electrodes, provides a unique solution.

When used with the **Biomass Monitor 220** the unique design of probe provides the optimum radio-frequency field for measuring live biomass in microbial fermentations and cell culture. The sensitivity of the probe to cells is distributed more evenly over a large volume compared to the traditional probes: this also reduces the size of the disturbance caused by any large gas bubbles in a fermenter.



For fermentation and cell culture the **AberProbe** can provide you with a number of key benefits:

- High sensitivity extending the concentration range of viable biomass detection and especially suitable for bacterial fermentations.
- The flush electrode arrangement has no sharp or protruding surfaces: ideal for adherent or filamentous cell types.
- Probe manufactured from traceable wetted materials that conform to FDA: ideal for use in GMP conditions.
- Available in diameters 12mm and 25mm in various lengths and can be used in most types of fermenters.
- Probe tip dimensions common to all probes, so ideal for scale up.

In common with all other probe types from Aber Instruments, the **AberProbe** is steam sterilizable *in situ* and can be autoclaved. For further information on the new range of probes, contact Aber Instruments or your local distributor.



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AberProbe

Physical Description

Designed to fit either standard 25mm Ingold Port with optional O-ring position or head plates with 12mm ports on most fermenters

Materials

Flush annular Platinum electrodes, FDA conforming PEEK, 316L Stainless Steel, Silicone O-ring (on 25mm diameter probes).

Dimensions

Fits standard 25mm Ingold type port
25mm diameter (96mm flange to tip)
12mm diameter (240mm flange to tip)
12mm diameter (340mm flange to tip)

Other options are available including various screwed fittings for small glass reactors. Please contact local distributor or Aber Instruments Ltd.



For an initial evaluation of the Biomass Monitor 220, instruments are now available for evaluation or rental. Brochures on the Biomass Monitor 220 and case studies can be downloaded from the Aber Instruments web site.



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