

# FUTURA

## STANDARD REMOTE FUTURA



### Standard Remote Futura (SRF)

The design of the Standard Remote Futura is best suited to small vessels where the available head space is often limited to a small footprint. It incorporates a slim, light-weight pre-amplifier making it ideal for small bioreactors with as low as 100ml working volume. The main Futura housing can be mounted away from the bioreactor vessel. (Up to a maximum of 1 metre).

Description	Part Number
STANDARD REMOTE FUTURA	2343-00

### Technical Specifications

Frequency Range:	50KHz to 20MHz
Measuring Ranges:	Capacitance: 0.0 to 400pF/cm Conductivity: 1.0 to 40 mS/cm +/-0.1 mS/cm (Higher ranges available with compatible probes)
Cell Concentration Range:	Depends on cell sizes but typically: Yeast (6 µm): 10 <sup>6</sup> cells/ml to 10 <sup>10</sup> Cells/ml Bacteria (1 µm): 10 <sup>9</sup> cells/ml to 10 <sup>13</sup> Cells/ml Animal Cell (12 µm): 10 <sup>5</sup> cells/ml to 10 <sup>9</sup> Cells/ml Plant Cell (50 µm): 10 <sup>3</sup> cells/ml to 10 <sup>7</sup> Cells/ml
Resolution:	Resolution: 0.1 pF/cm. Bacteria typically 0.1 g/L dry weight or 2x10 <sup>9</sup> Cells/ml for <i>E. Coli</i> . Yeast or Animal Cells 0.05g/L or 1 x10 <sup>5</sup> Cells/ml The relationship of these capacitance values to biomass levels depends upon the cell type and cell line.
Accuracy:	Typically better than ± 3% or ± 2% of the reading
Stability:	Better than ± 0.2 pF/cm at constant temperature with standard conductivity solution of ~12 mS/cm
Linearity:	Better than ± 1% over 100 pF/cm
Precision:	Typically <±0.5 pF/cm, no filter active.
Power Supply:	24V DC typically supplied by an Aber Hub running on 110V AC to 240V AC mains.
Environmental:	IP65 rated ; Recommended ambient operating temperature range: 5°C to 40°C
Weight:	Main enclosure: 211g ; Remote enclosure: 203g

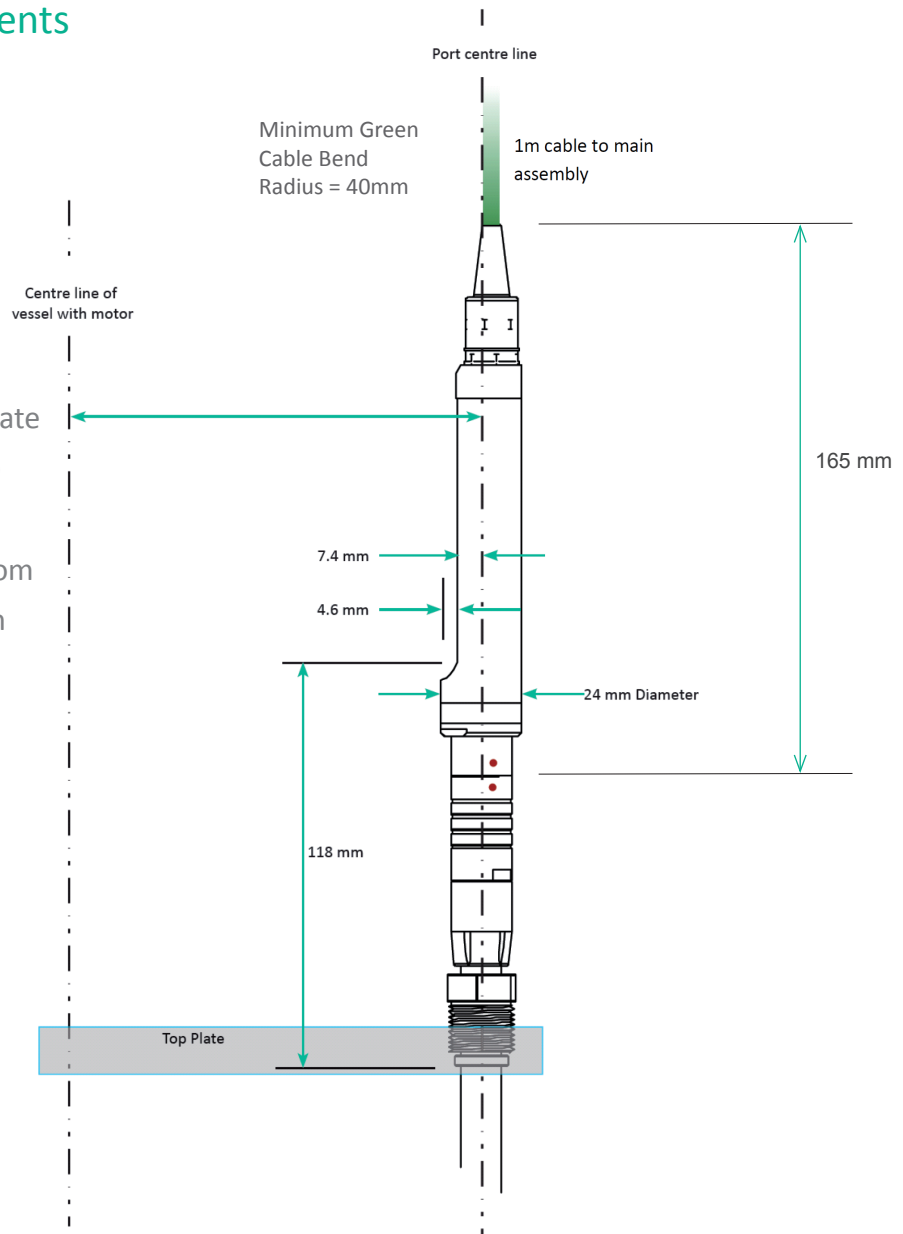
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BIOTECH RANGE

### Dimensional Measurements

The dimensions from the top plate of a vessel and a (top mounted) motor should be such that the motor is higher than 118mm from the plate and more than 7.4mm from the centre line of the port holding the ABER probe.



### Main Enclosure

