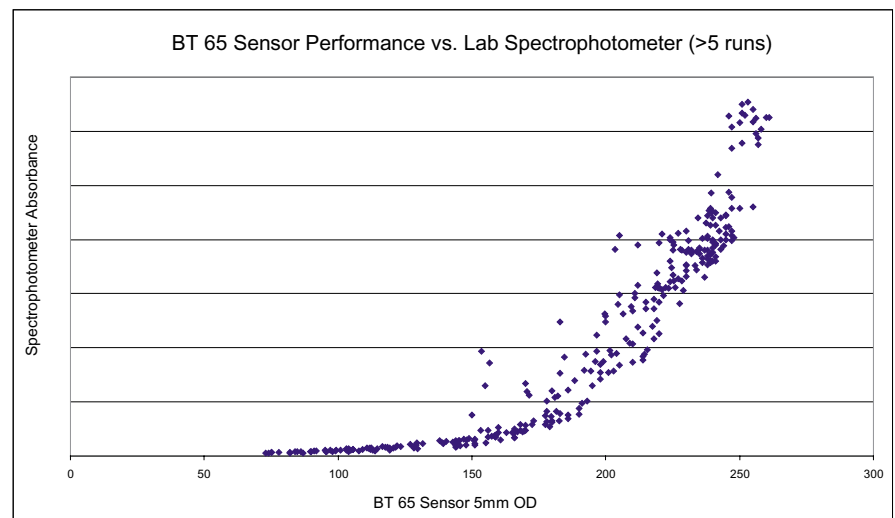


# Model BT65S Cell Growth Sensor



## 12 mm diameter optical insertion probe designed for use in small bioreactor systems

- 12 mm diameter with PG 13.5 thread to fit top plate in small bioreactors
- Accurately tracks cell mass with optical density measurement
- Multiple pathlengths available for measurement optimization
  - 5 mm pathlength for microbial fermentation
  - 20 mm pathlength for mammalian cell culture
- CIP, SIP and scratch resistant sapphire optical windows withstand the harshest of conditions
- Ultra-hygienic, CIP and SIP resistant probe design available with material finish of 16  $\mu$ inch (0.4  $\mu$ m)  $R_a$
- Available in several lengths to accommodate any bioreactor size
- Fully autoclaveable with supplied connector cap in place

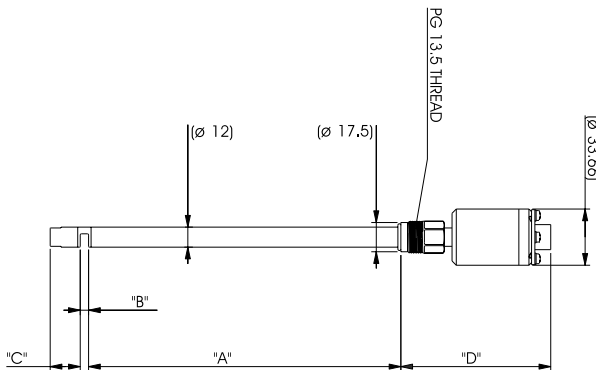


Pathlength	5, 10, and 20 mm available
Measurement wave-length	Broadband NIR from 850 nm
Signal output	Low level current from high stability silicon photodetector
Process connection	PG 13.5 thread
Sensor body materials	316L, others available on request
Sensor finish	Electropolished, 16 µinch (0.4 µmeter) R <sub>a</sub> or better
O-seal material	EPDM. Others available on request
Window material	Sapphire
Lamp type	Miniature incandescent lamp
Lamp power	4 watts max.
Optical filter	Long pass optical filter minimises color sensitivity
Detector type	Solid state silicon photodetector
Cable connectors	6 pin corrosion resistant Bendix connector complete with autoclave cap
Cable length	Standard lengths available are 10, 15, 25 and 50 ft, custom lengths up to 300 ft maximum (3, 5, 7, and 15 m, up to 100 m maximum)
Max pressure	300 psig (20 bar)
Max temperature	90 °C (194 °F) continuous, 130 °C (266 °F) for 2 hours (SIP cycle)
Standard probe lengths	110, 200, 315, 415 (add pathlength for complete length). Custom lengths available on special order

**Specifications**

Description	"A"	"B"	"C"	"D"
110 mm Insertion, 5 mm Pathlength	92 mm	5 mm	18 mm	89.75 mm
110 mm Insertion, 10 mm Pathlength	92 mm	10 mm	18 mm	89.75 mm
110 mm Insertion, 20 mm Pathlength	92 mm	20 mm	18 mm	89.75 mm
205 mm Insertion, 5 mm Pathlength	187 mm	5 mm	18 mm	89.75 mm
205 mm Insertion, 10 mm Pathlength	187 mm	10 mm	18 mm	89.75 mm
205 mm Insertion, 20 mm Pathlength	187 mm	20 mm	18 mm	89.75 mm
315 mm Insertion, 5 mm Pathlength	297 mm	5 mm	18 mm	89.75 mm
315 mm Insertion, 10 mm Pathlength	297 mm	10 mm	18 mm	89.75 mm
315 mm Insertion, 20 mm Pathlength	297 mm	20 mm	18 mm	89.75 mm
415 mm Insertion, 5 mm Pathlength	397 mm	5 mm	18 mm	89.75 mm
415 mm Insertion, 10 mm Pathlength	397 mm	10 mm	18 mm	89.75 mm
415 mm Insertion, 20 mm Pathlength	397 mm	20 mm	18 mm	89.75 mm

**Dimensions**



<b>BT65S-</b>	<b>E</b>	<b>---</b>	<b>-</b>	<b>-</b>
<b>PG</b>			<b>Process Connection</b> PG 13.5 thread	
			<b>Optical Pathlength</b>	
			<b>3</b>	5 mm
			<b>4</b>	10 mm
			<b>5</b>	20 mm
			<b>Insertion Length</b>	
			<b>A</b>	110 mm
			<b>B</b>	200 mm
			<b>C</b>	315 mm
			<b>D</b>	415 mm
			<b>X</b>	Custom length

*Add pathlength for full insertion length*

**Order Code**

Wedgewood Analytical, Inc.  
 4123 East La Palma Avenue, Suite 200  
 Anaheim, CA 92807  
 Toll Free: 1-800-835-5474  
 Direct: 1-714-577-5600  
 Fax: 1-714-577-5688  
[www.WedgewoodAnalytical.com](http://www.WedgewoodAnalytical.com)