



Fermenters - Bioreactors  
Shakers - Mixers - Autoclaves

# Fermenters BRIO BT Series

Optimized for your exact needs in the 2, 3, 5, 7 & 10 litre BT series.

Built on the basic BRIO design, various options are available for various applications such as for controlled growth of microbial and mammalian cells.

Advanced options such as fully automated PC based parameter setting, control and data logging for a bank of Fermenters and Biomass measurements are also offered.

## Features

- Ergonomic, Modular and Compact System.
- Control of all process parameters ensuring optimal culture conditions.
- Interchangeable vessels, working volumes 2, 3, 5 & 10 liters for Microbial or Cell culture.
- 5.7" Touch Screen based control system or Modular control systems offered as per customers requirement.
- Full package for Fermentation process optimization available.

## Selection Guide

Model	Vessel Volume	Autoclavable	In-situ Sterilizable
BRIO BT 2.0	2/3 L	✓	✓
BRIO BT 3.0	3/5 L	✓	✓
BRIO BT 5.0	5/7 L	✓	✓
BRIO BT 7.0	7/10 L		✓
BRIO BT 10.0	10/13 L		✓

*All models are available with Glass & SS vessel options*



## Technical Specifications

### VESSEL

- Available Sizes: 2/3L, 3/5L, 5/7L, 7/10L, 10/13L -Other sizes on request.
- Material & Finish: - Borosilicate Glass vessel, autoclavable / In- situ Sterilizable (All Gi&i models) - 316L Ra <0.8um Stainless Steel Head Plate
- Temperature Control via Heating Fingers placed inside the vessel or Jacketed options available.

### AGITATION

- Agitation is equipped with 3 Rushton Turbines (Microbial culture) or 2 Marine impeller (Cell culture).
- Single Lip Seal
- Number of Baffles : 4 - cage type.
- Adjustable Speed 100 - 1000rpm (Microbial) or 50 - 500rpm (Cell Culture)

### AERATION

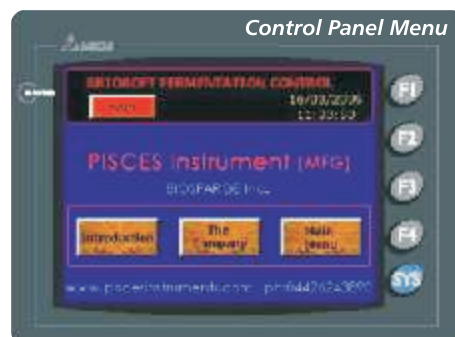
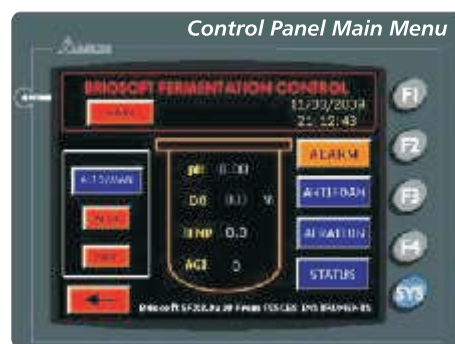
- Adjustable air flow via Rotameter or Mass flow using inbuilt diaphragm pump.
- Air Inlet with 0.2um absolute filter, L - sparger or ring sparger option available.
- Condensor on exhaust line (Optional)
- Supplementary gas lines for O<sub>2</sub>, N<sub>2</sub>, CO<sub>2</sub> gases, rotameter and Solenoid Valves etc.(Optional)

### ACCESSORIES

- Three Fixed Speed Peristaltic Pumps for acid,alkali and feed addition. Additional Variable Speed Peristaltic pumps are available optionally for Fed-batch and continuous culture applications.
- Five ports (12mm) for Probes, Heaters, Cooling fingers and Sensors.
- Three Bottom ports for Heaters, Cooling fingers, Temperature sensor (All Gi&i models).
- Inoculation port (12mm) for Sterile addition (septum technique) Sample / Harvest tube (will be from bottom port in case of Gi&i models).
- Acid & Alkali,media transfer port.

### INSTRUMENTATION - CONTROL SYSTEMS

- Modular Control systems, with individual controllers for all parameters or Integrated 5.7" Touch Screen Based control system with options for controlling all parameters.
- Options include software based parametersetting, logging and control, clubbed with real time data acquisition and graphical display.
- Control types include : PID, Digital on/off and others. Cascade mode for advanced control strategies.
- Touch Screen control includes trends of all parameters used.



## Validation & Testing

- Comprehensive test and documentation program designed to ease and support validation.
- Purely custom built made system are possible.

## Dimensions

Vessel Volume	Overall Dimensions			Autoclave	
	Width (W)	Depth (D)	Height (H)	Diameter	Height (H)
2/3 L	680	400	600	400	600
3/5 L	680	400	600	400	600
5/7 L	750	450	700	500	700
7/10 L	750	450	700	-	-
10/13 L	820	450	800	-	-

All the dimensions are in mm



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Piscas Instrument (Mfg.)