

PRODUCT IKA

1. Bioreactor

HABITAT research is a smart benchtop bioreactor and fermenter from IKA, designed for both cell culture and microbial fermentation. As the first bioreactor with a lid stand, it ensures ergonomic working and a well-organized laboratory, ideal for various bioprocessing applications.

To operate HABITAT research, you only need a control unit package and a vessel package. For sensitive mammalian cell culture techniques, select the cell variant, with gassing rates from 0 - 2000 cc/min. For microbial fermentation, we recommend the ferment variant, with gassing rates of 0 - 20,000 cc/min. The photobioreactor version with LED panels is perfect for photosynthetic organisms.

Each package offers precise temperature control and pH control, essential for optimal cell growth and fermentation processes. The suffix 'cct' in each package indicates connection options for three additional sensors: turbidity, CO₂, and conductivity, enhancing your ability to monitor cell culture media and fermentation progress.

Types of Bioreactor :

a. **Habitat Cell** Cat.No., 0010007533



The HABITAT cell control tower offers an optimized bioreactor-solution for cell culture applications, enabling precise monitoring and control of cell culture processes. It consists of a control unit with comprehensive connectivity options for gas supply, liquid addition, multi-parameter sensors, and temperature regulation, along with a user-friendly tablet interface for seamless bioreactor operation and control.

Precise and adjustable gassing is achieved through four individual built-in mass flow controllers for four each separate gas line (N₂, O₂, air and CO₂), enabling flow rates of 0.01 – 2 L / min. tailored to cell growth requirements. By using the integrated and freely customizable cascade control system, each gas flow can be automatically adjusted by the software at any time according to the ambient conditions in order to maintain the target parameters.

HABITAT Bioreactor comes equipped with latest technology sensors to precisely monitor and control critical bioprocess parameters. The following sensors are included in our standard sales vessel packages pH, Dissolved Oxygen (DO), Temperature, Filling Level, and Foam. Optional sensors: CO₂, Conductivity, Turbidity, Viable cell mass, Redox, Off-gas analysis and more.

Technical Data

- Controller : Cell Growth
- Operating mode : timer, continuous and program operation
- Display : Tablet PC
- Operation : touch screen

- Data memory size : 32 GB
- Auto restart after power failure : yes
- Ethernet interface : yes
- Single use reactor interface : yes
- Thermostat interface : yes
- Ext. pump interface : yes
- Gravimetric feeding : yes
- Exponential feeding : yes
- Biomass feeding : yes, with Excell Sensor
- OPC UA interface : yes
- Filter heater : yes
- LED light panel : Accessory
- Stirring motor : yes
- Calibration guide temperature : yes
- Calibration guide pH : yes
- Calibration guide pO₂ : yes
- pH - temperature compensation : yes
- Mode hose filling : yes
- Stirrer control mode : off, manual, profile, Cascade-pO₂ control, chaotic
- Speed range : 1 - 2200 rpm
- Speed deviation ≥ 100 rpm : ± 2 %
- Speed deviation ≤ 100 rpm : ± 5 rpm
- Speed display : TFT
- Reversible direction of rotation : yes
- Timer : yes
- Timer display : TFT
- Time setting range : 1 - 120 min
- Heating blanket : yes
- Heat output : 250 W
- Heat control : TFT
- Temperature control : PID
- Working temperature : 5 - 80 °C
- Connection for ext. temperature sensor : PT1000
- Temperature display : yes
- Temperature measuring range : 0 - 100 °C
- Temperature measurement resolution : 0.1 K
- Temperature control accuracy : ± 0.2 °C
- Temperature limit min. : 0 °C
- Temperature limit max. : 110 °C
- pH measurement : yes
- pH control mode : off, auto, profile

- pH value display : TFT
- pH measuring range : 0 - 14 pH
- pH measurement resolution : 0.01 pH
- Accuracy of pH measurement : ± 0.02 pH
- Set resolution pH value : 0.01 pH
- pH control accuracy : ± 0.05 pH
- Connction for pO2 sensor : yes
- pO2 control mode : off, manual, auto, profile
- Measurement range pO2 min. : 0 %sat
- Measurement range pO2 max. : 200 %sat
- Resolution pO2 measurement : 0.01 %sat
- Accuracy of pO2 measurement : ± 0.3 %sat
- pO2 control accuracy : 0.3 %sat
- Exhaust Gas Analyzer : yes, with Blue Vary Sensor
- OUR,CER,RQ calculation : yes, with Blue Vary Sensor
- RQ feeding : yes, with Blue Vary Sensor
- Digital pH sensor : yes, with EasyFerm Bio Arc Sensor
- Measuring Range min. digital pH : 0 pH
- Measuring Range max. digital pH : 14 pH
- Accuracy digital pH : ± 0.02 pH
- Digital DO sensor : yes, with OxyFerm FDA Arc
- Measuring Range min. digital DO : 0 %sat
- Measuring Range max. digital DO : 200 %sat
- Accuracy digital DO : ± 2 %
- Optical DO sensor : yes, with VisiFerm RS485-ECS
- Measuring Range min. optical DO : 0 %sat
- Measuring Range max. optical DO : 300 %sat
- Accuracy optical DO : ± 1 %
- Biomass sensor : yes, with CGQ BioR Sensor
- Measuring Range min. Biomass : 0.5 OD
- Measuring Range max. Biomass : 50 OD
- Digital Redox / ORP sensor : yes, with EasyFerm Plus ORP Arc
- Measuring Range min. digital ORP : -1500 mV
- Measuring Range max. digital ORP : 1500 mV
- Digital biomass sensor : yes, with Excell Sensor
- Measuring Range min. digital biomass : 0 AU
- Measuring Range max. digital biomass : 6 AU
- Accuracy digital biomass : ± 1 %
- Viable Cell Density Sensors : yes, with Incyte Sensor
- Measuring Range min. cell density : 5×10^5 cells/mL
- Measuring Range max. cell density : 8×10^9 cells/mL

- Accuracy cell density : ± 1 %
- Gas in connection Air : 6 mm
- Gas out connection Air : 6 mm
- Gas in connection O₂ : 6 mm
- Gas out connection O₂ : 6 mm
- Gas in connection N₂ : 6 mm
- Gas out connection N₂ : 6 mm
- Gas in connection CO₂ : 6 mm
- Gas out connection CO₂ : 6 mm
- Aeration mode : continuous & automatic
- Display flowrate : l/min, cc/min
- Input pressure : 200 - 3000 mbar
- Pressure out min. : 200 mbar
- Pressure out max. : 1000 mbar
- Flowrate Air min. : 10 cc/min
- Flowrate Air max. : 2000 cc/min
- Flowrate O₂ min. : 10 cc/min
- Flowrate O₂ max. : 2000 cc/min
- Flowrate N₂ min. : 10 cc/min
- Flowrate N₂ max. : 2000 cc/min
- Flowrate CO₂ min. : 10 cc/min
- Flowrate CO₂ max. : 2000 cc/min
- Measuring and control accuracy of the gas control units : ± 2 % fsr
- Peristaltic pump : yes
- Numbers of pump headsc : 4
- Pump head function : Acid, Base, AntiFoam, Level
- Pump head : Watson Marlow 114DV
- Number of pump tubes : 4
- Number of pump rollers : 4
- Flow rate min : 0.3 ml/min
- Flow rate max : 270 ml/min
- Flow rate control accuracy : ± 0.3 ml/min
- Pump Speed min. : 33 rpm
- Pump Speed max : 400 rpm
- Pump reversible direction of rotation : yes
- Pump speed display : TFT
- Inner tube diameter min. : 0.5 mm
- Inner tube diameter max. : 4.8 mm
- Tube outer diameter min. : 4.1 mm
- Tube outer diameter max. : 8.4 mm
- Tube material : Silicone

- Tube hardness : 50 - 60 Shore A
- Dimensions (W x H x D) : 224 x 624 x 405 mm
- Weight : 14 kg
- Packing unit : 1 pcs
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80% (up to 31°C), decreasing linearly to max. 50 (@40°C)
- Protection class according to DIN EN 60529 : IP 20
- RS 232 interface : yes
- USB interface : USB-B
- WiFi Interface : yes
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 300 W
- Power input max. : 1100 W
- Power input standby : 10 W
- Fuse : 2x T5.0A 250V

Scope of Delivery :

- Habitat photo cell S099
- Tablet with software for bioreactor
- HA. pl. Peltier cooling element

b. Habitat Photo Cell Cat.No., 0010007553



Technical Data

- Controller : Cell Growth
- Operating mode : timer, continuous and program operation
- Display : Tablet PC
- Operation : touch screen
- Data memory size : 32 GB
- Auto restart after power failure : yes
- Ethernet interface : yes
- Single use reactor interface : yes
- Thermostat interface : yes
- Ext. pump interface : yes
- Gravimetric feeding : yes
- Exponential feeding : yes

- Biomass feeding : yes, with Excell Sensor
- OPC UA interface : yes
- Filter heater : yes
- LED light panel : yes
- Stirring motor : yes
- Calibration guide temperature : yes
- Calibration guide pH : yes
- Calibration guide pO2 : yes
- pH - temperature compensation : yes
- Mode hose filling : yes
- Stirrer control mode : off, manual, profile, Cascade-pO2 control, chaotic
- Speed range : 1 - 2200 rpm
- Speed deviation ≥ 100 rpm : ± 2 %
- Speed deviation ≤ 100 rpm : ± 5 rpm
- Speed display : TFT
- Reversible direction of rotation : yes
- Timer : yes
- Timer display : TFT
- Time setting range : 1 - 120 min
- Heating blanket : yes
- Heat output : 250 W
- Heat control : TFT
- Temperature control : PID
- Working temperature : 5 - 80 °C
- Connection for ext. temperature sensor : PT1000
- Temperature display : yes
- Temperature measuring range : 0 - 100 °C
- Temperature measurement resolution : 0.1 K
- Temperature control accuracy : ± 0.2 °C
- Temperature limit min. : 0 °C
- Temperature limit max. : 110 °C
- pH measurement : yes
- pH control mode : off, auto, profile
- pH value display : TFT
- pH measuring range : 0 - 14 pH
- pH measurement resolution : 0.01 pH
- Accuracy of pH measurement : ± 0.02 pH
- Set resolution pH value : 0.01 pH
- pH control accuracy : ± 0.05 pH
- Connction for pO2 sensor : yes
- pO2 control mode : off, manual, auto, profile

- Measurement range pO₂ min. : 0 %sat
- Measurement range pO₂ max. : 200 %sat
- Resolution pO₂ measurement : 0.01 %sat
- Accuracy of pO₂ measurement : ±0.3 %sat
- pO₂ control accuracy : 0.3 %sat
- Exhaust Gas Analyzer : yes, with Blue Vary Sensor
- OUR,CER,RQ calculation : yes, with Blue Vary Sensor
- RQ feeding : yes, with Blue Vary Sensor
- Digital pH sensor : yes, with EasyFerm Bio Arc Sensor
- Measuring Range min. digital pH : 0 pH
- Measuring Range max. digital pH : 14 pH
- Accuracy digital pH : ±0.02 pH
- Digital DO sensor : yes, with OxyFerm FDA Arc
- Measuring Range min. digital DO : 0 %sat
- Measuring Range max. digital DO : 200 %sat
- Accuracy digital DO : ±2 %
- Optical DO sensor : yes, with VisiFerm RS485-ECS
- Measuring Range min. optical DO : 0 %sat
- Measuring Range max. optical DO : 300 %sat
- Accuracy optical DO : ±1 %
- Biomass sensor : yes, with CGQ BioR Sensor
- Measuring Range min. Biomass : 0.5 OD
- Measuring Range max. Biomass : 50 OD
- Digital Redox / ORP sensor : yes, with EasyFerm Plus ORP Arc
- Measuring Range min. digital ORP : -1500 mV
- Measuring Range max. digital ORP : 1500 mV
- Digital biomass sensor : yes, with Excell Sensor
- Measuring Range min. digital biomass : 0 AU
- Measuring Range max. digital biomass : 6 AU
- Accuracy digital biomass : ±1 %
- Viable Cell Density Sensors : yes, with Incyte Sensor
- Measuring Range min. cell density : 5 x 10⁵ cells/mL
- Measuring Range max. cell density : 8 x 10⁹ cells/mL
- Accuracy cell density : ±1 %
- Gas in connection Air : 6 mm
- Gas out connection Air : 6 mm
- Gas in connection O₂ : 6 mm
- Gas out connection O₂ : 6 mm
- Gas in connection N₂ : 6 mm
- Gas out connection N₂ : 6 mm
- Gas in connection CO₂ : 6 mm

- Gas out connection CO2 : 6 mm
- Aeration mode : continuous & automatic
- Display flowrate : l/min, cc/min
- Input pressure : 200 - 3000 mbar
- Pressure out min. : 200 mbar
- Pressure out max. : 1000 mbar
- Flowrate Air min. : 10 cc/min
- Flowrate Air max. : 2000 cc/min
- Flowrate O2 min. : 10 cc/min
- Flowrate O2 max. : 2000 cc/min
- Flowrate N2 min. : 10 cc/min
- Flowrate N2 max. : 2000 cc/min
- Flowrate CO2 min. : 10 cc/min
- Flowrate CO2 max. : 2000 cc/min
- Measuring and control accuracy of the gas control units : ± 2 % fsr
- Peristaltic pump : yes
- Numbers of pump headsc : 4
- Pump head function : Acid, Base, AntiFoam, Level
- Pump head : Watson Marlow 114DV
- Number of pump tubes : 4
- Number of pump rollers : 4
- Flow rate min : 0.3 ml/min
- Flow rate max : 270 ml/min
- Flow rate control accuracy : ± 0.3 ml/min
- Pump Speed min. : 33 rpm
- Pump Speed max : 400 rpm
- Pump reversible direction of rotation : yes
- Pump speed display : TFT
- Inner tube diameter min. : 0.5 mm
- Inner tube diameter max. : 4.8 mm
- Tube outer diameter min. : 4.1 mm
- Tube outer diameter max. : 8.4 mm
- Tube material : Silicone
- Tube hardness : 50 - 60 Shore A
- Dimensions (W x H x D) : 224 x 624 x 405 mm
- Weight : 14 kg
- Packing unit : 1 pcs
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80% (up to 31°C), decreasing linearly to max. 50 (@40°C)
- Protection class according to DIN EN 60529 : IP 20
- RS 232 interface : yes

- USB interface : USB-B
- WiFi Interface : yes
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 300 W
- Power input max. : 1100 W
- Power input standby : 10 W
- Fuse : 2x T5.0A 250V

Scope of delivery

- HABITAT photo cell S099
- **Tablet with software for bioreactor**
- **HA.pl. Peltier cooling element**
- **LED panel (2pcs)**

c. Habitat Cel cct Cat.No., 0010007573

Scope of delivery

- HABITAT Cell CCT S099
- Tablet with software für Bioreactor
- HA.pl S099

Technical Data

- Controller : Cell Growth
- Operating mode : timer, continuous and program operation
- Display : Tablet PC
- Operation : touch screen
- Data memory size : 32 GB
- Auto restart after power failure : yes
- Ethernet interface : yes
- Single use reactor interface : yes
- Thermostat interface : yes
- Ext. pump interface : yes
- Gravimetric feeding : yes
- Exponential feeding : yes
- Biomass feeding : yes, with Excell Sensor
- OPC UA interface : yes
- Filter heater : yes
- LED light panel : Accessory
- Stirring motor : yes

- Calibration guide temperature : yes
- Calibration guide pH : yes
- Calibration guide pO₂ : yes
- pH - temperature compensation : yes
- Mode hose filling : yes
- Stirrer control mode : off, manual, profile, Cascade-pO₂ control, chaotic
- Speed range : 1 - 2200 rpm
- Speed deviation ≥ 100 rpm : ± 2 %
- Speed deviation ≤ 100 rpm : ± 5 rpm
- Speed display : TFT
- Reversible direction of rotation : yes
- Timer : yes
- Timer display : TFT
- Time setting range : 1 - 120 min
- Heating blanket : yes
- Heat output : 250 W
- Heat control : TFT
- Temperature control : PID
- Working temperature : 5 - 80 °C
- Connection for ext. temperature sensor : PT1000
- Temperature display : yes
- Temperature measuring range : 0 - 100 °C
- Temperature measurement resolution : 0.1 K
- Temperature control accuracy : ± 0.2 °C
- Temperature limit min. : 0 °C
- Temperature limit max. : 110 °C
- pH measurement : yes
- pH control mode : off, auto, profile
- pH value display : TFT
- pH measuring range : 0 - 14 pH
- pH measurement resolution : 0.01 pH
- Accuracy of pH measurement : ± 0.02 pH
- Set resolution pH value : 0.01 pH
- pH control accuracy : ± 0.05 pH
- Connction for pO₂ sensor : yes
- pO₂ control mode : off, manual, auto, profile
- Measurement range pO₂ min. : 0 %sat
- Measurement range pO₂ max. : 200 %sat
- Resolution pO₂ measurement : 0.01 %sat
- Accuracy of pO₂ measurement : ± 0.3 %sat
- pO₂ control accuracy : 0.3 %sat

- Connection for turbidity sensor : yes
- Turbidity control mode : monitoring
- Connection for conductivity sensor : yes
- Conductivity control mode : monitoring
- Connection for CO2 sensor : yes
- CO2 control mode : monitoring
- Exhaust Gas Analyzer : yes, with Blue Vary Sensor
- OUR,CER,RQ calculation : yes, with Blue Vary Sensor
- RQ feeding : yes, with Blue Vary Sensor
- Digital pH sensor : yes, with EasyFerm Bio Arc Sensor
- Measuring Range min. digital pH : 0 pH
- Measuring Range max. digital pH : 14 pH
- Accuracy digital pH : ± 0.02 pH
- Digital DO sensor : yes, with OxyFerm FDA Arc
- Measuring Range min. digital DO : 0 %sat
- Measuring Range max. digital DO : 200 %sat
- Accuracy digital DO : ± 2 %
- Optical DO sensor : yes, with VisiFerm RS485-ECS
- Measuring Range min. optical DO : 0 %sat
- Measuring Range max. optical DO : 300 %sat
- Accuracy optical DO : ± 1 %
- Biomass sensor : yes, with CGQ BioR Sensor
- Measuring Range min. Biomass : 0.5 OD
- Measuring Range max. Biomass : 50 OD
- Digital Redox / ORP sensor : yes, with EasyFerm Plus ORP Arc
- Measuring Range min. digital ORP : -1500 mV
- Measuring Range max. digital ORP : 1500 mV
- Digital biomass sensor : yes, with Excell Sensor
- Measuring Range min. digital biomass : 0 AU
- Measuring Range max. digital biomass : 6 AU
- Accuracy digital biomass : ± 1 %
- Viable Cell Density Sensors : yes, with Incyte Sensor
- Measuring Range min. cell density : 5×10^5 cells/mL
- Measuring Range max. cell density : 8×10^9 cells/mL
- Accuracy cell density : ± 1 %
- Gas in connection Air : 6 mm
- Gas out connection Air : 6 mm
- Gas in connection O2 : 6 mm
- Gas out connection O2 : 6 mm
- Gas in connection N2 : 6 mm
- Gas out connection N2 : 6 mm

- Gas in connection CO2 : 6 mm
- Gas out connection CO2 : 6 mm
- Aeration mode : continuous & automatic
- Display flowrate : l/min, cc/min
- Input pressure : 200 - 3000 mbar
- Pressure out min. : 200 mbar
- Pressure out max. : 1000 mbar
- Flowrate Air min. : 10 cc/min
- Flowrate Air max. : 2000 cc/min
- Flowrate O2 min. : 10 cc/min
- Flowrate O2 max. : 2000 cc/min
- Flowrate N2 min. : 10 cc/min
- Flowrate N2 max. : 2000 cc/min
- Flowrate CO2 min. : 10 cc/min
- Flowrate CO2 max. : 2000 cc/min
- Measuring and control accuracy of the gas control units : ± 2 % fsr
- Peristaltic pump : yes
- Numbers of pump headsc : 4
- Pump head function : Acid, Base, AntiFoam, Level
- Pump head : Watson Marlow 114DV
- Number of pump tubes : 4
- Number of pump rollers : 4
- Flow rate min : 0.3 ml/min
- Flow rate max : 270 ml/min
- Flow rate control accuracy : ± 0.3 ml/min
- Pump Speed min. : 33 rpm
- Pump Speed max : 400 rpm
- Pump reversible direction of rotation : yes
- Pump speed display : TFT
- Inner tube diameter min. : 0.5 mm
- Inner tube diameter max. : 4.8 mm
- Tube outer diameter min. : 4.1 mm
- Tube outer diameter max. : 8.4 mm
- Tube material : Silicone
- Tube hardness : 50 - 60 Shore A
- Dimensions (W x H x D) : 224 x 624 x 405 mm
- Weight : 14 kg
- Packing unit : 1 pcs
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80% (up to 31°C), decreasing linearly to max. 50 (@40°C)
- Protection class according to DIN EN 60529 : IP 20

- RS 232 interface : yes
- USB interface : USB-B
- WiFi Interface : yes
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 300 W
- Power input max. : 1100 W
- Power input standby : 10 W
- Fuse : 2x T5.0A 250V

d. Habitat Photo Cell cct Cat.No., 0010007595

Scope of delivery

- HABITAT photo cell cct S099
- Tablet with software for bioreactor
- HA.pl. Peltier cooling element
- LED panel (2pcs)

Technical Data

- Controller : Cell Growth
- Operating mode : timer, continuous and program operation
- Display : Tablet PC
- Operation : touch screen
- Data memory size : 32 GB
- Auto restart after power failure : yes
- Ethernet interface : yes
- Single use reactor interface : yes
- Thermostat interface : yes
- Ext. pump interface : yes
- Gravimetric feeding : yes
- Exponential feeding : yes
- Biomass feeding : yes, with Excell Sensor
- OPC UA interface : yes
- Filter heater : yes
- LED light panel : yes
- Stirring motor : yes
- Calibration guide temperature : yes
- Calibration guide pH : yes
- Calibration guide pO2 : yes
- pH - temperature compensation : yes
- Mode hose filling : yes

- Stirrer control mode : off, manual, profile, Cascade-pO2 control, chaotic
- Speed range : 1 - 2200 rpm
- Speed deviation ≥ 100 rpm : ± 2 %
- Speed deviation ≤ 100 rpm : ± 5 rpm
- Speed display : TFT
- Reversible direction of rotation : yes
- Timer : yes
- Timer display : TFT
- Time setting range : 1 - 120 min
- Heating blanket : yes
- Heat output : 250 W
- Heat control : TFT
- Temperature control : PID
- Working temperature : 5 - 80 °C
- Connection for ext. temperature sensor : PT1000
- Temperature display : yes
- Temperature measuring range : 0 - 100 °C
- Temperature measurement resolution : 0.1 K
- Temperature control accuracy : ± 0.2 °C
- Temperature limit min. : 0 °C
- Temperature limit max. : 110 °C
- pH measurement : yes
- pH control mode : off, auto, profile
- pH value display : TFT
- pH measuring range : 0 - 14 pH
- pH measurement resolution : 0.01 pH
- Accuracy of pH measurement : ± 0.02 pH
- Set resolution pH value : 0.01 pH
- pH control accuracy : ± 0.05 pH
- Connction for pO2 sensor : yes
- pO2 control mode : off, manual, auto, profile
- Measurement range pO2 min. : 0 %sat
- Measurement range pO2 max. : 200 %sat
- Resolution pO2 measurement : 0.01 %sat
- Accuracy of pO2 measurement : ± 0.3 %sat
- pO2 control accuracy : 0.3 %sat
- Connection for turbidity sensor : yes
- Turbidity control mode : monitoring
- Connection for conductivity sensor : yes
- Conductivity control mode : monitoring
- Connection for CO2 sensor : yes

- CO2 control mode : monitoring
- Exhaust Gas Analyzer : yes, with Blue Vary Sensor
- OUR,CER,RQ calculation : yes, with Blue Vary Sensor
- RQ feeding : yes, with Blue Vary Sensor
- Digital pH sensor : yes, with EasyFerm Bio Arc Sensor
- Measuring Range min. digital pH : 0 pH
- Measuring Range max. digital pH : 14 pH
- Accuracy digital pH : ± 0.02 pH
- Digital DO sensor : yes, with OxyFerm FDA Arc
- Measuring Range min. digital DO : 0 %sat
- Measuring Range max. digital DO : 200 %sat
- Accuracy digital DO : ± 2 %
- Optical DO sensor : yes, with VisiFerm RS485-ECS
- Measuring Range min. optical DO : 0 %sat
- Measuring Range max. optical DO : 300 %sat
- Accuracy optical DO : ± 1 %
- Biomass sensor : yes, with CGQ BioR Sensor
- Measuring Range min. Biomass : 0.5 OD
- Measuring Range max. Biomass : 50 OD
- Digital Redox / ORP sensor : yes, with EasyFerm Plus ORP Arc
- Measuring Range min. digital ORP : -1500 mV
- Measuring Range max. digital ORP : 1500 mV
- Digital biomass sensor : yes, with Excell Sensor
- Measuring Range min. digital biomass : 0 AU
- Measuring Range max. digital biomass : 6 AU
- Accuracy digital biomass : ± 1 %
- Viable Cell Density Sensors : yes, with Incyte Sensor
- Measuring Range min. cell density : 5×10^5 cells/mL
- Measuring Range max. cell density : 8×10^9 cells/mL
- Accuracy cell density : ± 1 %
- Gas in connection Air : 6 mm
- Gas out connection Air : 6 mm
- Gas in connection O2 : 6 mm
- Gas out connection O2 : 6 mm
- Gas in connection N2 : 6 mm
- Gas out connection N2 : 6 mm
- Gas in connection CO2 : 6 mm
- Gas out connection CO2 : 6 mm
- Aeration mode : continuous & automatic
- Display flowrate : l/min, cc/min
- Input pressure : 200 - 3000 mbar

- Pressure out min. : 200 mbar
- Pressure out max. : 1000 mbar
- Flowrate Air min. : 10 cc/min
- Flowrate Air max. : 2000 cc/min
- Flowrate O2 min. : 10 cc/min
- Flowrate O2 max. : 2000 cc/min
- Flowrate N2 min. : 10 cc/min
- Flowrate N2 max. : 2000 cc/min
- Flowrate CO2 min. : 10 cc/min
- Flowrate CO2 max. : 2000 cc/min
- Measuring and control accuracy of the gas control units : ± 2 % fsr
- Peristaltic pump : yes
- Numbers of pump headsc : 4
- Pump head function : Acid, Base, AntiFoam, Level
- Pump head : Watson Marlow 114DV
- Number of pump tubes : 4
- Number of pump rollers : 4
- Flow rate min : 0.3 ml/min
- Flow rate max : 270 ml/min
- Flow rate control accuracy : ± 0.3 ml/min
- Pump Speed min. : 33 rpm
- Pump Speed max : 400 rpm
- Pump reversible direction of rotation : yes
- Pump speed display : TFT
- Inner tube diameter min. : 0.5 mm
- Inner tube diameter max. : 4.8 mm
- Tube outer diamter min. : 4.1 mm
- Tube outer diamter max. : 8.4 mm
- Tube material : Silicone
- Tube hardness : 50 - 60 Shore A
- Dimensions (W x H x D) : 224 x 624 x 405 mm
- Weight : 14 kg
- Packing unit : 1 pcs
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80% (up to 31°C), decreasing linearly to max. 50 (@40°C)
- Protection class according to DIN EN 60529 : IP 20
- RS 232 interface : yes
- USB interface : USB-B
- WiFi Interface : yes
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz

- Power input : 300 W
- Power input max. : 1100 W
- Power input standby : 10 W
- Fuse : 2x T5.0A 250V

e. Habitat Ferment Cat.No., 0010007543

The HABITAT ferment control tower offers an optimized bioreactor-solution for fermentation applications, enabling precise monitoring and control of fermentation processes. It consists of a control unit with comprehensive connectivity options for gas supply, liquid addition, multi-parameter sensors, and temperature regulation, along with a user-friendly tablet interface for seamless bioreactor operation and control.

Scope of delivery

- HABITAT ferment S099
- Tablet with software for bioreactor
- HA.pl. Peltier cooling element

Technical Data

- Controller : Fermenter
- Operating mode : timer, continuous and program operation
- Display : Tablet PC
- Operation : touch screen
- Data memory size : 32 GB
- Auto restart after power failure : yes
- Ethernet interface : yes
- Single use reactor interface : yes
- Thermostat interface : yes
- Ext. pump interface : yes
- Gravimetric feeding : yes
- Exponential feeding : yes
- Biomass feeding : yes, with Excell Sensor
- OPC UA interface : yes
- Filter heater : yes
- LED light panel : Accessory
- Stirring motor : yes
- Calibration guide temperature : yes
- Calibration guide pH : yes
- Calibration guide pO2 : yes
- pH - temperature compensation : yes
- Mode hose filling : yes

- Stirrer control mode : off, manual, profile, Cascade-pO2 control, chaotic
- Speed range : 1 - 2200 rpm
- Speed deviation ≥ 100 rpm : ± 2 %
- Speed deviation ≤ 100 rpm : ± 5 rpm
- Speed display : TFT
- Reversible direction of rotation : yes
- Timer : yes
- Timer display : TFT
- Time setting range : 1 - 120 min
- Heating blanket : yes
- Heat output : 250 W
- Heat control : TFT
- Temperature control : PID
- Working temperature : 5 - 80 °C
- Connection for ext. temperature sensor : PT1000
- Temperature display : yes
- Temperature measuring range : 0 - 100 °C
- Temperature measurement resolution : 0.1 K
- Temperature control accuracy : ± 0.2 °C
- Temperature limit min. : 0 °C
- Temperature limit max. : 110 °C
- pH measurement : yes
- pH control mode : off, auto, profile
- pH value display : TFT
- pH measuring range : 0 - 14 pH
- pH measurement resolution : 0.01 pH
- Accuracy of pH measurement : ± 0.02 pH
- Set resolution pH value : 0.01 pH
- pH control accuracy : ± 0.05 pH
- Connction for pO2 sensor : yes
- pO2 control mode : off, manual, auto, profile
- Measurement range pO2 min. : 0 %sat
- Measurement range pO2 max. : 200 %sat
- Resolution pO2 measurement : 0.01 %sat
- Accuracy of pO2 measurement : ± 0.3 %sat
- pO2 control accuracy : 0.3 %sat
- Exhaust Gas Analyzer : yes, with Blue Vary Sensor
- OUR,CER,RQ calculation : yes, with Blue Vary Sensor
- RQ feeding : yes, with Blue Vary Sensor
- Digital pH sensor : yes, with EasyFerm Bio Arc Sensor
- Measuring Range min. digital pH : 0 pH

- Measuring Range max. digital pH : 14 pH
- Accuracy digital pH : ± 0.02 pH
- Digital DO sensor : yes, with OxyFerm FDA Arc
- Measuring Range min. digital DO : 0 %sat
- Measuring Range max. digital DO : 200 %sat
- Accuracy digital DO : ± 2 %
- Optical DO sensor : yes, with VisiFerm RS485-ECS
- Measuring Range min. optical DO : 0 %sat
- Measuring Range max. optical DO : 300 %sat
- Accuracy optical DO : ± 1 %
- Biomass sensor : yes, with CGQ BioR Sensor
- Measuring Range min. Biomass : 0.5 OD
- Measuring Range max. Biomass : 50 OD
- Digital Redox / ORP sensor : yes, with EasyFerm Plus ORP Arc
- Measuring Range min. digital ORP : -1500 mV
- Measuring Range max. digital ORP : 1500 mV
- Digital biomass sensor : yes, with Excell Sensor
- Measuring Range min. digital biomass : 0 AU
- Measuring Range max. digital biomass : 6 AU
- Accuracy digital biomass : ± 1 %
- Viable Cell Density Sensors : yes, with Incyte Sensor
- Measuring Range min. cell density : 5×10^5 cells/mL
- Measuring Range max. cell density : 8×10^9 cells/mL
- Accuracy cell density : ± 1 %
- Gas in connection Air : 6 mm
- Gas out connection Air : 6 mm
- Gas in connection O2 : 6 mm
- Gas out connection O2 : 6 mm
- Gas in connection N2 : 6 mm
- Gas out connection N2 : 6 mm
- Gas in connection CO2 : 6 mm
- Gas out connection CO2 : 6 mm
- Aeration mode : continuous & automatic
- Display flowrate : l/min, cc/min
- Input pressure : 200 - 3000 mbar
- Pressure out min. : 200 mbar
- Pressure out max. : 1000 mbar
- Flowrate Air min. : 100 cc/min
- Flowrate Air max. : 20000 cc/min
- Flowrate O2 min. : 100 cc/min
- Flowrate O2 max. : 20000 cc/min

- Flowrate N2 min. : 100 cc/min
- Flowrate N2 max. : 20000 cc/min
- Flowrate CO2 min. : 100 cc/min
- Flowrate CO2 max. : 20000 cc/min
- Measuring and control accuracy of the gas control units : ± 2 % fsr
- Peristaltic pump : yes
- Numbers of pump headsc : 4
- Pump head function : Acid, Base, AntiFoam, Level
- Pump head : Watson Marlow 114DV
- Number of pump tubes : 4
- Number of pump rollers : 4
- Flow rate min : 0.3 ml/min
- Flow rate max : 270 ml/min
- Flow rate control accuracy : ± 0.3 ml/min
- Pump Speed min. : 33 rpm
- Pump Speed max : 400 rpm
- Pump reversible direction of rotation : yes
- Pump speed display : TFT
- Inner tube diameter min. : 0.5 mm
- Inner tube diameter max. : 4.8 mm
- Tube outer diameter min. : 4.1 mm
- Tube outer diameter max. : 8.4 mm
- Tube material : Silicone
- Tube hardness : 50 - 60 Shore A
- Dimensions (W x H x D) : 224 x 624 x 405 mm
- Weight : 14 kg
- Packing unit : 1 pcs
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80% (up to 31°C), decreasing linearly to max. 50 (@40°C)
- Protection class according to DIN EN 60529 : IP 20
- RS 232 interface : yes
- USB interface : USB-B
- WiFi Interface : yes
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 300 W
- Power input max. : 1100 W
- Power input standby : 10 W
- Fuse : 2x T5.0A 250V

f. Habitat Photo Ferment Cat.No., 0010007563

The HABITAT photo ferment control tower features LED panels essential for transforming your HABITAT research bioreactor into a photobioreactor. This system functions as a photo fermenter,

suitable for specialized applications that integrate light into fermentation processes.

Photo fermenters enhance bioprocesses through controlled light and optimal conditions, crucial for specific biochemical reactions and microbial activities. For instance, they activate metabolic pathways in microorganisms to produce complex pharmaceuticals or boost the production of vitamins and beneficial metabolites in fermented food products.

Scope of delivery

- HABITAT photo ferment S099
- Tablet with software for bioreactor
- HA.pl. Peltier cooling element
- LED panel (2pcs)

Technical Data

- Controller : Fermenter
- Operating mode : timer, continuous and program operation
- Display : Tablet PC
- Operation : touch screen
- Data memory size : 32 GB
- Auto restart after power failure : yes
- Ethernet interface : yes
- Single use reactor interface : yes
- Thermostat interface : yes
- Ext. pump interface : yes
- Gravimetric feeding : yes
- Exponential feeding : yes
- Biomass feeding : yes, with Excell Sensor
- OPC UA interface : yes
- Filter heater : yes
- LED light panel : yes
- Stirring motor : yes
- Calibration guide temperature : yes
- Calibration guide pH : yes
- Calibration guide pO₂ : yes
- pH - temperature compensation : yes
- Mode hose filling : yes
- Stirrer control mode : off, manual, profile, Cascade-pO₂ control, chaotic
- Speed range : 1 - 2200 rpm
- Speed deviation ≥ 100 rpm : ± 2 %
- Speed deviation ≤ 100 rpm : ± 5 rpm
- Speed display : TFT
- Reversible direction of rotation : yes
- Timer : yes
- Timer display : TFT

- Time setting range : 1 - 120 min
- Heating blanket : yes
- Heat output : 250 W
- Heat control : TFT
- Temperature control : PID
- Working temperature : 5 - 80 °C
- Connection for ext. temperature sensor : PT1000
- Temperature display : yes
- Temperature measuring range : 0 - 100 °C
- Temperature measurement resolution : 0.1 K
- Temperature control accuracy : ± 0.2 °C
- Temperature limit min. : 0 °C
- Temperature limit max. : 110 °C
- pH measurement : yes
- pH control mode : off, auto, profile
- pH value display : TFT
- pH measuring range : 0 - 14 pH
- pH measurement resolution : 0.01 pH
- Accuracy of pH measurement : ± 0.02 pH
- Set resolution pH value : 0.01 pH
- pH control accuracy : ± 0.05 pH
- Connction for pO2 sensor : yes
- pO2 control mode : off, manual, auto, profile
- Measurement range pO2 min. : 0 %sat
- Measurement range pO2 max. : 200 %sat
- Resolution pO2 measurement : 0.01 %sat
- Accuracy of pO2 measurement : ± 0.3 %sat
- pO2 control accuracy : 0.3 %sat
- Exhaust Gas Analyzer : yes, with Blue Vary Sensor
- OUR,CER,RQ calculation : yes, with Blue Vary Sensor
- RQ feeding : yes, with Blue Vary Sensor
- Digital pH sensor : yes, with EasyFerm Bio Arc Sensor
- Measuring Range min. digital pH : 0 pH
- Measuring Range max. digital pH : 14 pH
- Accuracy digital pH : ± 0.02 pH
- Digital DO sensor : yes, with OxyFerm FDA Arc
- Measuring Range min. digital DO : 0 %sat
- Measuring Range max. digital DO : 200 %sat
- Accuracy digital DO : ± 2 %
- Optical DO sensor : yes, with VisiFerm RS485-ECS
- Measuring Range min. optical DO : 0 %sat

- Measuring Range max. optical DO : 300 %sat
- Accuracy optical DO : ± 1 %
- Biomass sensor : yes, with CGQ BioR Sensor
- Measuring Range min. Biomass : 0.5 OD
- Measuring Range max. Biomass : 50 OD
- Digital Redox / ORP sensor : yes, with EasyFerm Plus ORP Arc
- Measuring Range min. digital ORP : -1500 mV
- Measuring Range max. digital ORP : 1500 mV
- Digital biomass sensor : yes, with Excell Sensor
- Measuring Range min. digital biomass : 0 AU
- Measuring Range max. digital biomass : 6 AU
- Accuracy digital biomass : ± 1 %
- Viable Cell Density Sensors : yes, with Incyte Sensor
- Measuring Range min. cell density : 5×10^5 cells/mL
- Measuring Range max. cell density : 8×10^9 cells/mL
- Accuracy cell density : ± 1 %
- Gas in connection Air : 6 mm
- Gas out connection Air : 6 mm
- Gas in connection O2 : 6 mm
- Gas out connection O2 : 6 mm
- Gas in connection N2 : 6 mm
- Gas out connection N2 : 6 mm
- Gas in connection CO2 : 6 mm
- Gas out connection CO2 : 6 mm
- Aeration mode : continuous & automatic
- Display flowrate : l/min, cc/min
- Input pressure : 200 - 3000 mbar
- Pressure out min. : 200 mbar
- Pressure out max. : 1000 mbar
- Flowrate Air min. : 100 cc/min
- Flowrate Air max. : 20000 cc/min
- Flowrate O2 min. : 100 cc/min
- Flowrate O2 max. : 20000 cc/min
- Flowrate N2 min. : 100 cc/min
- Flowrate N2 max. : 20000 cc/min
- Flowrate CO2 min. : 100 cc/min
- Flowrate CO2 max. : 20000 cc/min
- Measuring and control accuracy of the gas control units : ± 2 % fsr
- Peristaltic pump : yes
- Numbers of pump headsc : 4
- Pump head function : Acid, Base, AntiFoam, Level

- Pump head : Watson Marlow 114DV
- Number of pump tubes : 4
- Number of pump rollers : 4
- Flow rate min : 0.3 ml/min
- Flow rate max : 270 ml/min
- Flow rate control accuracy : ± 0.3 ml/min
- Pump Speed min. : 33 rpm
- Pump Speed max : 400 rpm
- Pump reversible direction of rotation : yes
- Pump speed display : TFT
- Inner tube diameter min. : 0.5 mm
- Inner tube diameter max. : 4.8 mm
- Tube outer diameter min. : 4.1 mm
- Tube outer diameter max. : 8.4 mm
- Tube material : Silicone
- Tube hardness : 50 - 60 Shore A
- Dimensions (W x H x D) : 224 x 624 x 405 mm
- Weight : 14 kg
- Packing unit : 1 pcs
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80% (up to 31°C), decreasing linearly to max. 50 (@40°C)
- Protection class according to DIN EN 60529 : IP 20
- RS 232 interface : yes
- USB interface : USB-B
- WiFi Interface : yes
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 300 W
- Power input max. : 1100 W
- Power input standby : 10 W
- Fuse : 2x T5.0A 250V

g. Habitat Ferment cct Cat.No., 0010007585

Scope of delivery

- HABITAT ferment cct S099
- Tablet with software for bioreactor
- HA.pl. Peltier cooling element
- H 11 Mains cable Euro plug

Technical Data

- Controller : Fermenter
- Operating mode : timer, continuous and program operation
- Display : Tablet PC

- Operation : touch screen
- Data memory size : 32 GB
- Auto restart after power failure : yes
- Ethernet interface : yes
- Single use reactor interface : yes
- Thermostat interface : yes
- Ext. pump interface : yes
- Gravimetric feeding : yes
- Exponential feeding : yes
- Biomass feeding : yes, with Excell Sensor
- OPC UA interface : yes
- Filter heater : yes
- LED light panel : Accessory
- Stirring motor : yes
- Calibration guide temperature : yes
- Calibration guide pH : yes
- Calibration guide pO₂ : yes
- pH - temperature compensation : yes
- Mode hose filling : yes
- Stirrer control mode : off, manual, profile, Cascade-pO₂ control, chaotic
- Speed range : 1 - 2200 rpm
- Speed deviation ≥ 100 rpm : ± 2 %
- Speed deviation ≤ 100 rpm : ± 5 rpm
- Speed display : TFT
- Reversible direction of rotation : yes
- Timer : yes
- Timer display : TFT
- Time setting range : 1 - 120 min
- Heating blanket : yes
- Heat output : 250 W
- Heat control : TFT
- Temperature control : PID
- Working temperature : 5 - 80 °C
- Connection for ext. temperature sensor : PT1000
- Temperature display : yes
- Temperature measuring range : 0 - 100 °C
- Temperature measurement resolution : 0.1 K
- Temperature control accuracy : ± 0.2 °C
- Temperature limit min. : 0 °C
- Temperature limit max. : 110 °C
- pH measurement : yes

- pH control mode : off, auto, profile
- pH value display : TFT
- pH measuring range : 0 - 14 pH
- pH measurement resolution : 0.01 pH
- Accuracy of pH measurement : ± 0.02 pH
- Set resolution pH value : 0.01 pH
- pH control accuracy : ± 0.05 pH
- Connction for pO2 sensor : yes
- pO2 control mode : off, manual, auto, profile
- Measurement range pO2 min. : 0 %sat
- Measurement range pO2 max. : 200 %sat
- Resolution pO2 measurement : 0.01 %sat
- Accuracy of pO2 measurement : ± 0.3 %sat
- pO2 control accuracy : 0.3 %sat
- Connection for turbidity sensor : yes
- Turbidity control mode : monitoring
- Connection for conductivity sensor : yes
- Conductivity control mode : monitoring
- Connection for CO2 sensor : yes
- CO2 control mode : monitoring
- Exhaust Gas Analyzer : yes, with Blue Vary Sensor
- OUR,CER,RQ calculation : yes, with Blue Vary Sensor
- RQ feeding : yes, with Blue Vary Sensor
- Digital pH sensor : yes, with EasyFerm Bio Arc Sensor
- Measuring Range min. digital pH : 0 pH
- Measuring Range max. digital pH : 14 pH
- Accuracy digital pH : ± 0.02 pH
- Digital DO sensor : yes, with OxyFerm FDA Arc
- Measuring Range min. digital DO : 0 %sat
- Measuring Range max. digital DO : 200 %sat
- Accuracy digital DO : ± 2 %
- Optical DO sensor : yes, with VisiFerm RS485-ECS
- Measuring Range min. optical DO : 0 %sat
- Measuring Range max. optical DO : 300 %sat
- Accuracy optical DO : ± 1 %
- Biomass sensor : yes, with CGQ BioR Sensor
- Measuring Range min. Biomass : 0.5 OD
- Measuring Range max. Biomass : 50 OD
- Digital Redox / ORP sensor : yes, with EasyFerm Plus ORP Arc
- Measuring Range min. digital ORP : -1500 mV
- Measuring Range max. digital ORP : 1500 mV

- Digital biomass sensor : yes, with Excell Sensor
- Measuring Range min. digital biomass : 0 AU
- Measuring Range max. digital biomass : 6 AU
- Accuracy digital biomass : ± 1 %
- Viable Cell Density Sensors : yes, with Incyte Sensor
- Measuring Range min. cell density : 5×10^5 cells/mL
- Measuring Range max. cell density : 8×10^9 cells/mL
- Accuracy cell density : ± 1 %
- Gas in connection Air : 6 mm
- Gas out connection Air : 6 mm
- Gas in connection O₂ : 6 mm
- Gas out connection O₂ : 6 mm
- Gas in connection N₂ : 6 mm
- Gas out connection N₂ : 6 mm
- Gas in connection CO₂ : 6 mm
- Gas out connection CO₂ : 6 mm
- Aeration mode : continuous & automatic
- Display flowrate : l/min, cc/min
- Input pressure : 200 - 3000 mbar
- Pressure out min. : 200 mbar
- Pressure out max. : 1000 mbar
- Flowrate Air min. : 100 cc/min
- Flowrate Air max. : 20000 cc/min
- Flowrate O₂ min. : 100 cc/min
- Flowrate O₂ max. : 20000 cc/min
- Flowrate N₂ min. : 100 cc/min
- Flowrate N₂ max. : 20000 cc/min
- Flowrate CO₂ min. : 100 cc/min
- Flowrate CO₂ max. : 20000 cc/min
- Measuring and control accuracy of the gas control units : ± 2 % fsr
- Peristaltic pump : yes
- Numbers of pump headsc : 4
- Pump head function : Acid, Base, AntiFoam, Level
- Pump head : Watson Marlow 114DV
- Number of pump tubes : 4
- Number of pump rollers : 4
- Flow rate min : 0.3 ml/min
- Flow rate max : 270 ml/min
- Flow rate control accuracy : ± 0.3 ml/min
- Pump Speed min. : 33 rpm
- Pump Speed max : 400 rpm

- Pump reversible direction of rotation : yes
- Pump speed display : TFT
- Inner tube diameter min. : 0.5 mm
- Inner tube diameter max. : 4.8 mm
- Tube outer diameter min. : 4.1 mm
- Tube outer diameter max. : 8.4 mm
- Tube material : Silicone
- Tube hardness : 50 - 60 Shore A
- Dimensions (W x H x D) : 224 x 624 x 405 mm
- Weight : 14 kg
- Packing unit : 1 pcs
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80% (up to 31°C), decreasing linearly to max. 50 (@40°C)
- Protection class according to DIN EN 60529 : IP 20
- RS 232 interface : yes
- USB interface : USB-B
- WiFi Interface : yes
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 300 W
- Power input max. : 1100 W
- Power input standby : 10 W
- Fuse : 2x T5.0A 250V

h. Habitat photo ferment cct Cat.No., 0010007605

The HABITAT photo ferment control tower features LED panels essential for transforming your HABITAT research bioreactor into a photobioreactor. This system functions as a photo fermenter, suitable for specialized applications that integrate light into fermentation processes.

Photo fermenters enhance bioprocesses through controlled light and optimal conditions, crucial for specific biochemical reactions and microbial activities. For instance, they activate metabolic pathways in microorganisms to produce complex pharmaceuticals or boost the production of vitamins and beneficial metabolites in fermented food products.

Scope of delivery

- HABITAT photo ferment cct S099
- Tablet with software for bioreactor
- HA.pl. Peltier cooling element
- LED panel (2pcs)

Technical Data

- Controller : Fermenter
- Operating mode : timer, continuous and program operation
- Display : Tablet PC
- Operation : touch screen

- Data memory size : 32 GB
- Auto restart after power failure : yes
- Ethernet interface : yes
- Single use reactor interface : yes
- Thermostat interface : yes
- Ext. pump interface : yes
- Gravimetric feeding : yes
- Exponential feeding : yes
- Biomass feeding : yes, with Excell Sensor
- OPC UA interface : yes
- Filter heater : yes
- LED light panel : yes
- Stirring motor : yes
- Calibration guide temperature : yes
- Calibration guide pH : yes
- Calibration guide pO₂ : yes
- pH - temperature compensation : yes
- Mode hose filling : yes
- Stirrer control mode : off, manual, profile, Cascade-pO₂ control, chaotic
- Speed range : 1 - 2200 rpm
- Speed deviation ≥ 100 rpm : ± 2 %
- Speed deviation ≤ 100 rpm : ± 5 rpm
- Speed display : TFT
- Reversible direction of rotation : yes
- Timer : yes
- Timer display : TFT
- Time setting range : 1 - 120 min
- Heating blanket : yes
- Heat output : 250 W
- Heat control : TFT
- Temperature control : PID
- Working temperature : 5 - 80 °C
- Connection for ext. temperature sensor : PT1000
- Temperature display : yes
- Temperature measuring range : 0 - 100 °C
- Temperature measurement resolution : 0.1 K
- Temperature control accuracy : ± 0.2 °C
- Temperature limit min. : 0 °C
- Temperature limit max. : 110 °C
- pH measurement : yes
- pH control mode : off, auto, profile

- pH value display : TFT
- pH measuring range : 0 - 14 pH
- pH measurement resolution : 0.01 pH
- Accuracy of pH measurement : ± 0.02 pH
- Set resolution pH value : 0.01 pH
- pH control accuracy : ± 0.05 pH
- Connction for pO2 sensor : yes
- pO2 control mode : off, manual, auto, profile
- Measurement range pO2 min. : 0 %sat
- Measurement range pO2 max. : 200 %sat
- Resolution pO2 measurement : 0.01 %sat
- Accuracy of pO2 measurement : ± 0.3 %sat
- pO2 control accuracy : 0.3 %sat
- Connection for turbidity sensor : yes
- Turbidity control mode : monitoring
- Connection for conductivity sensor : yes
- Conductivity control mode : monitoring
- Connection for CO2 sensor : yes
- CO2 control mode : monitoring
- Exhaust Gas Analyzer : yes, with Blue Vary Sensor
- OUR,CER,RQ calculation : yes, with Blue Vary Sensor
- RQ feeding : yes, with Blue Vary Sensor
- Digital pH sensor : yes, with EasyFerm Bio Arc Sensor
- Measuring Range min. digital pH : 0 pH
- Measuring Range max. digital pH : 14 pH
- Accuracy digital pH : ± 0.02 pH
- Digital DO sensor : yes, with OxyFerm FDA Arc
- Measuring Range min. digital DO : 0 %sat
- Measuring Range max. digital DO : 200 %sat
- Accuracy digital DO : ± 2 %
- Optical DO sensor : yes, with VisiFerm RS485-ECS
- Measuring Range min. optical DO : 0 %sat
- Measuring Range max. optical DO : 300 %sat
- Accuracy optical DO : ± 1 %
- Biomass sensor : yes, with CGQ BioR Sensor
- Measuring Range min. Biomass : 0.5 OD
- Measuring Range max. Biomass : 50 OD
- Digital Redox / ORP sensor : yes, with EasyFerm Plus ORP Arc
- Measuring Range min. digital ORP : -1500 mV
- Measuring Range max. digital ORP : 1500 mV
- Digital biomass sensor : yes, with Excell Sensor

- Measuring Range min. digital biomass : 0 AU
- Measuring Range max. digital biomass : 6 AU
- Accuracy digital biomass : ± 1 %
- Viable Cell Density Sensors : yes, with Incyte Sensor
- Measuring Range min. cell density : 5×10^5 cells/mL
- Measuring Range max. cell density : 8×10^9 cells/mL
- Accuracy cell density : ± 1 %
- Gas in connection Air : 6 mm
- Gas out connection Air : 6 mm
- Gas in connection O₂ : 6 mm
- Gas out connection O₂ : 6 mm
- Gas in connection N₂ : 6 mm
- Gas out connection N₂ : 6 mm
- Gas in connection CO₂ : 6 mm
- Gas out connection CO₂ : 6 mm
- Aeration mode : continuous & automatic
- Display flowrate : l/min, cc/min
- Input pressure : 200 - 3000 mbar
- Pressure out min. : 200 mbar
- Pressure out max. : 1000 mbar
- Flowrate Air min. : 100 cc/min
- Flowrate Air max. : 20000 cc/min
- Flowrate O₂ min. : 100 cc/min
- Flowrate O₂ max. : 20000 cc/min
- Flowrate N₂ min. : 100 cc/min
- Flowrate N₂ max. : 20000 cc/min
- Flowrate CO₂ min. : 100 cc/min
- Flowrate CO₂ max. : 20000 cc/min
- Measuring and control accuracy of the gas control units : ± 2 % fsr
- Peristaltic pump : yes
- Numbers of pump headsc : 4
- Pump head function : Acid, Base, AntiFoam, Level
- Pump head : Watson Marlow 114DV
- Number of pump tubes : 4
- Number of pump rollers : 4
- Flow rate min : 0.3 ml/min
- Flow rate max : 270 ml/min
- Flow rate control accuracy : ± 0.3 ml/min
- Pump Speed min. : 33 rpm
- Pump Speed max : 400 rpm
- Pump reversible direction of rotation : yes

- Pump speed display : TFT
- Inner tube diameter min. : 0.5 mm
- Inner tube diameter max. : 4.8 mm
- Tube outer diameter min. : 4.1 mm
- Tube outer diameter max. : 8.4 mm
- Tube material : Silicone
- Tube hardness : 50 - 60 Shore A
- Dimensions (W x H x D) : 224 x 624 x 405 mm
- Weight : 14 kg
- Packing unit : 1 pcs
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80% (up to 31°C), decreasing linearly to max. 50 (@40°C)
- Protection class according to DIN EN 60529 : IP 20
- RS 232 interface : yes
- USB interface : USB-B
- WiFi Interface : yes
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 300 W
- Power input max. : 1100 W
- Power input standby : 10 W
- Fuse : 2x T5.0A 250V

Vessel Packages.

a. HABITAT cell sw 0.5 single-wall, for 0.5 l Cat.No., 0010007644



The 0.5-liter vessel package for the bioreactor HABITAT research contains a 0.5-liter single-walled glass vessel for cell culture applications as well as the appropriate stirring drive, including the following sensors: temperature-, pH-, DO-, level- and foam sensors. Additionally, the necessary connection accessories are included. Together with the separately available control tower package (e.g. HABITAT cell) you receive all necessary components for a successful cultivation.

Scope of delivery

- Stand 0.5
- HA.gv.sw.0.5 Glass vessel, single-wall, for 0.5 l
- HA.mt.s.2 Motor, small, for 0.5, 1 and 2 l

- HA.hp.s.0.5 Harvest pipe, straight, for 0.5 l
- HA.fd Feeding port (2 pcs.)
- HA.sp.m.0.5 Micro sparger, for 0.5 l
- HA.cn Condenser
- HA.ip.pi.0.5 3-pitched blade impeller, for 0.5 l
- HA.s.tm.1 Temperature sensor, for 1 l
- HA.s.ph.0.5 Hamilton pH sensor, for 0.5 l
- HA.s.do.0.5 Hamilton DO analogue sensor, for 0.5 l
- HA.s.fo Foam sensor
- HA.s.lv.1 Fill level sensor, for 0.5 to 1 l
- HA.hbl.0.5 Heating blanket, for 0.5 l
- HA.cab.sw Cable & tube set, for single-wall vessels
- HA.sf.250 Sample flask, 250 ml (4 pcs.)

Technical Data

- Reactor : Cell Growth
- Volume : 0.5 l
- Type : single wall
- Heating blanket : yes
- Heating sleeve voltage : 48 V
- Heating sleeve power : 75 W
- Multi use : yes
- Autoclavable : yes
- Inner diameter : 90 mm
- Ratio = height / inner diameter : 1.67
- Useable volume min. : 0.25 l
- Useable volume max. : 0.8 l
- Reactor vessel material : borosilicate glass
- Reactor lid material : stainless steel 1.4404
- Net weight reactor vessel : 0.34 kg
- Net weight reactor assembled : 6.4 kg
- Number lid ports : 10
- Lid ports (Baffle) : 1
- Lid ports (pH) : 1
- Lid ports (Reserve) : 0
- Lid ports (Condenser) : 1
- Lid ports (Cooling Finger) : 0

- Lid ports (Inoculation) : 0
- Lid ports (Harvest Pipe) : 1
- Lid ports (Sparger) : 1
- Lid ports (Feed) : 2
- Lid ports (4in1) : 0
- Lid ports (Temperature) : 1
- Lid ports (DO) : 1
- Lid ports (Level) : 1
- Material in contact with medium : AISI 316L, borosilicate glass 3.3, silicone USP class VI
- Motor coupling : shaft feedthrough
- Harvest pipe outer diameter : 6 mm
- Harvest pipe inner diameter : 4
- Harvest pipe design : straight
- Harvest pipe, height adjustable : yes
- Feeding port, outer diameter : 4.5 mm
- Feeding port, inner diameter : 2 mm
- Feeding port, amount : 4
- Sparger : Micro sparger
- Sparger, outer diameter : 8 mm
- Sparger, inner diameter : 6 mm
- Sparger pore size : 5 μm
- Stirrer design : Centrifugal stirrer, 2-bladed
- Stirrer diameter 3 pitchblade : 34 mm
- Ratio = stirrer diameter 3 blade / inner diameter reactor : 0.38
- Stirrer quantity : 1
- Condenser : yes
- Condenser, connection threat : M16x2
- Type of cooling : Vertical condenser
- Condenser Temperature min : 5 °C
- Temperature min. / Condenser with Peltier : 15 °C
- Temperature min. / Condenser with water cooling : 5 °C
- Filter type : sterile filter

- Filtermaterial : PTFE reinforced with PP
- Filter housing material : PP
- Pore size : 0.22 µm
- Filter heater : yes
- Baffle : Accessory
- Temperature measuring : yes
- Working temperature sensor : PT1000
- pH sensor : yes
- pH sensor connection threat : PG 13.5
- pO2 sensor : yes
- pO2 sensor connection threat : PG 13.5
- Level sensor : IKA HA.s.lv
- Foam sensor : IKA HA.s.fo
- Turbidity sensor : Accessory
- Conductivity sensor : Accessory
- CO2 sensor : Accessory
- Stirring motor : yes
- Speed range : 1 - 1400 rpm
- Heat control : Touch display
- Flowrate Air min. : 10 cc/min
- Flowrate Air max. : 2000 cc/min
- Flowrate O2 min. : 10 cc/min
- Flowrate O2 max. : 2000 cc/min
- Flowrate N2 min. : 10 cc/min
- Flowrate N2 max. : 2000 cc/min
- Flowrate CO2 min. : 10 cc/min
- Flowrate CO2 max. : 2000 cc/min
- Dimensions (W x H x D) :
- 185 x 365 x 185 mm

b. HABITAT cell dw 0.5 double-wall, for 0.5 l Cat.No., 0010007645



The 0.5 l vessel package for the bioreactor HABITAT research contains a 0.5 l double-walled glass vessel for cell culture applications as well as the appropriate stirring drive, including the following sensors: temperature-, pH-, DO-, level- and foam sensors. For temperature control via the double jacket we recommend one of our circulators such as the HRC basic or control.

Scope of delivery

- Stand 0.5
- HA.gv.dw.0.5 Glass vessel, double-wall, for 0.5 l
- HA.mt.s.2 Motor, small, for 0.5, 1 and 2 l
- HA.hp.s.0.5 Harvest pipe, straight, for 0.5 l
- HA.fd Feeding port (2 pcs.)
- HA.sp.m.0.5 Micro sparger, for 0.5 l
- HA.cn Condenser
- HA.ip.pi.0.5 3-pitched blade impeller, for 0.5 l
- HA.s.tm.1 Temperature sensor, for 1 l
- HA.s.ph.0.5 Hamilton pH sensor, for 0.5 l
- HA.s.do.0.5 Hamilton DO analogue sensor, for 0.5 l
- HA.s.fo Foam sensor
- HA.s.lv.1 Fill level sensor, for 0.5 to 1 l
- HA.cab.dw Cable & tube set, for double-wall vessels
- HA.sf.250 Sample flask, 250 ml (4 pcs.)
-

Technical Data

- Reactor : Cell Growth
- Volume : 0.5 l
- Type : double wall
- Multi use : yes
- Autoclavable : yes
- Inner diameter : 90 mm
- Ratio = height / inner diameter : 1.67
- Useable volume min. : 0.25 l
- Useable volume max. : 0.8 l
- Reactor vessel material : borosilicate glass
- Reactor lid material : stainless steel 1.4404
- Net weight reactor vessel : 0.71 kg

- Net weight reactor assembled : 6.77 kg
- Number lid ports : 10
- Lid ports (Baffle) : 1
- Lid ports (pH) : 1
- Lid ports (Reserve) : 0
- Lid ports (Condenser) : 1
- Lid ports (Cooling Finger) : 0
- Lid ports (Inoculation) : 0
- Lid ports (Harvest Pipe) : 1
- Lid ports (Sparger) : 1
- Lid ports (Feed) : 2
- Lid ports (4in1) : 0
- Lid ports (Temperature) : 1
- Lid ports (DO) : 1
- Lid ports (Level) : 1
- Material in contact with medium : AISI 316L, borosilicate glass 3.3, silicone USP class VI
- Motor coupling : shaft feedthrough
- Harvest pipe outer diameter : 6 mm
- Harvest pipe inner diameter : 4
- Harvest pipe design : straight
- Harvest pipe, height adjustable : yes
- Feeding port, outer diameter : 4.5 mm
- Feeding port, inner diameter : 2 mm
- Feeding port, amount : 4
- Sparger : Micro sparger
- Sparger, outer diameter : 8 mm
- Sparger, inner diameter : 6 mm
- Sparger pore size : 5 μ m
- Stirrer design : Centrifugal stirrer, 2-bladed
- Stirrer diameter 3 pitchblade : 34 mm
- Ratio = stirrer diameter 3 blade / inner diameter reactor : 0.38
- Stirrer quantity : 1
- Condenser : yes
- Condenser, connection threat : M16x2
- Type of cooling : Vertical condenser
- Condenser Temperature min. : 5 °C
- Temperature min. / Condenser with Peltier : 15 °C
- Temperature min. / Condenser with water cooling : 5 °C
- Filtertype : sterile filter
- Filtermaterial : PTFE reinforced with PP
- Filter housing material : PP

- Pore size : 0.22 µm
- Filter heater : yes
- Spin filter : 40 µm
- Baffle : Accessory
- Temperature measuring : yes
- Working temperature sensor : PT1000
- pH sensor : yes
- pH sensor connection threat : PG 13.5
- pO2 sensor : yes
- pO2 sensor connection threat : PG 13.5
- Level sensor : IKA HA.s.lv
- Foam sensor : IKA HA.s.fo
- Turbidity sensor : Accessory
- Conductivity sensor : Accessory
- CO2 sensor : Accessory
- Stirring motor : yes
- Speed range : 1 - 1400 rpm
- Flowrate Air min. : 10 cc/min
- Flowrate Air max. : 2000 cc/min
- Flowrate O2 min. : 10 cc/min
- Flowrate O2 max. : 2000 cc/min
- Flowrate N2 min. : 10 cc/min
- Flowrate N2 max. : 2000 cc/min
- Flowrate CO2 min. : 10 cc/min
- Flowrate CO2 max. : 2000 cc/min
- Dimensions (W x H x D) : 185 x 365 x 185 mm

c. HABITAT cell sw 1 single-wall, for 1 l Cat.No., 0010007646

The 1-liter vessel package for the bioreactor HABITAT research contains a 1-liter single-walled glass vessel for cell culture applications as well as the appropriate stirring drive, including the following sensors: temperature-, pH-, DO-, level- and foam sensors.

Scope of delivery

- Stand 1
- HA.gv.sw.1 Glass vessel, single-wall, for 1 l
- HA.mt.s.2 Motor, small, for 0.5, 1 and 2 l
- HA.hp.s.1 Harvest pipe, straight, for 1 l
- HA.ino Port for inoculation
- HA.sp.m.1 Micro sparger, for 1 l
- HA.cn Condenser
- HA.ip.pi.1 3-pitched blade impeller, for 1 l
- HA.s.tm.1 Temperature sensor, for 1 l
- HA.s.ph.1 Hamilton pH sensor, for 1 l
- HA.s.do.1 Hamilton DO analogue sensor, for 1 l

- HA.s.fo Foam sensor
- HA.s.lv.1 Fill level sensor, for 0.5 to 1 l
- HA.hbl.1 Heating blanket, for 1 l
- HA.cab.sw Cable & tube set, for single-wall vessels
- HA.sf.250 Sample flask, 250 ml (4 pcs.)

Technical Data

- Reactor : Cell Growth
- Volume : 1 l
- Type : single wall
- Heating blanket : yes
- Heating sleeve voltage : 48 V
- Heating sleeve power : 100 W
- Multi use : yes
- Autoclavable : yes
- Inner diameter : 110 mm
- Ratio = height / inner diameter : 1.73
- Useable volume min. : 0.3 l
- Useable volume max. : 1.6 l
- Reactor vessel material : borosilicate glass
- Reactor lid material : stainless steel 1.4404
- Net weight reactor vessel : 0.92 kg
- Net weight reactor assembled : 7.87 kg
- Number lid ports : 12
- Lid ports (Baffle) : 1
- Lid ports (pH) : 1
- Lid ports (Reserve) : 2
- Lid ports (Condenser) : 1
- Lid ports (Cooling Finger) : 1
- Lid ports (Inoculation) : 1
- Lid ports (Harvest Pipe) : 1
- Lid ports (Sparger) : 1
- Lid ports (Feed) : 0
- Lid ports (4in1) : 1
- Lid ports (Temperature) : 1
- Lid ports (DO) : 1
- Lid ports (Level) : 1
- Material in contact with medium : AISI 316L, borosilicate glass 3.3, silicone USP class VI
- Motor coupling : shaft feedthrough
- Harvest pipe outer diameter : 6 mm
- Harvest pipe inner diameter : 4
- Harvest pipe design : straight
- Harvest pipe, height adjustable : yes

- Feeding port, outer diameter : 4.5 mm
- Feeding port, inner diameter : 2 mm
- Feeding port, amount : 4
- Inoculation port, outer diameter : 6mm
- Inoculation port, inner diameter : 4mm
- Sparger : Micro sparger
- Sparger, outer diameter : 8 mm
- Sparger, inner diameter : 6 mm
- Sparger pore size : 5 μm
- Stirrer design : Centrifugal stirrer, 2-bladed
- Stirrer diameter 3 pitchblade : 41 mm
- Ratio = stirrer diameter 3 blade / inner diameter reactor : 0.37
- Stirrer quantity : 1
- Condenser : yes
- Condenser, connection threat : M16x2
- Type of cooling : Vertical condenser
- Condenser Temperature min. : 5 °C
- Temperature min. / Condenser with Peltier : 15 °C
- Temperature min. / Condenser with water cooling : 5 °C
- Filter type : sterile filter
- Filter material : PTFE reinforced with PP
- Filter housing material : PP
- Pore size : 0.22 μm
- Filter heater : yes
- Spin filter : 40 μm
- Baffle : Accessory
- Temperature measuring : yes
- Working temperature sensor : PT1000
- pH sensor : yes
- pH sensor connection threat : PG 13.5
- pO2 sensor : yes
- pO2 sensor connection threat : PG 13.5
- Level sensor : IKA HA.s.lv
- Foam sensor : IKA HA.s.fo
- Turbidity sensor : Accessory
- Conductivity sensor : Accessory
- CO2 sensor : Accessory
- Stirring motor : yes
- Speed range : 1 - 2000 rpm
- Flowrate Air min. : 10 cc/min
- Flowrate Air max. : 2000 cc/min
- Flowrate O2 min. : 10 cc/min
- Flowrate O2 max. : 2000 cc/min

- Flowrate N2 min. : 10 cc/min
- Flowrate N2 max. : 2000 cc/min
- Flowrate CO2 min. : 10 cc/min
- Flowrate CO2 max. : 2000 cc/min
- Dimensions (W x H x D) : 210 x 415 x 210 mm

d. HABITAT cell dw 1 double-wall, for 1 l Cat.No.,0010007647

The 1-liter vessel package for the bioreactor HABITAT research contains a 1-liter double-walled glass vessel for cell culture applications as well as the appropriate stirring drive, including the following sensors: temperature-, pH-, DO-, level- and foam sensors. For temperature control via the double jacket we recommend one of our circulators such as the HRC 2 basic or control.

Scope of delivery

- Stand 1
- HA.gv.dw.1 Glass vessel, double-wall, for 1 l
- HA.mt.s.2 Motor, small, for 0.5, 1 and 2 l
- HA.hp.s.1 Harvest pipe, straight, for 1 l
- HA.ino Port for inoculation
- HA.sp.m.1 Micro sparger, for 1 l
- HA.cn Condenser
- HA.ip.pi.1 3-pitched blade impeller, for 1 l
- HA.s.tm.1 Temperature sensor, for 1 l
- HA.s.ph.1 Hamilton pH sensor, for 1 l
- HA.s.do.1 Hamilton DO analogue sensor, for 1 l
- HA.s.fo Foam sensor
- HA.s.lv.1 Fill level sensor, for 0.5 to 1 l
- HA.cab.dw Cable & tube set, for double-wall vessels
- HA.sf.250 Sample flask, 250 ml (4 pcs.)

Technical Data

- Reactor : Cell Growth
- Volume : 1 l
- Type : double wall
- Multi use : yes
- Autoclavable : yes
- Inner diameter : 110 mm
- Ratio = height / inner diameter : 1.73
- Useable volume min. : 0.3 l
- Useable volume max. : 1.6 l
- Reactor vessel material : borosilicate glass
- Reactor lid material : stainless steel 1.4404
- Net weight reactor vessel : 1.14 kg
- Net weight reactor assembled : 8.09 kg

- Number lid ports : 12
- Lid ports (Baffle) : 1
- Lid ports (pH) : 1
- Lid ports (Reserve) : 2
- Lid ports (Condenser) : 1
- Lid ports (Inoculation) : 1
- Lid ports (Harvest Pipe) : 1
- Lid ports (Sparger) : 1
- Lid ports (Feed) : 0
- Lid ports (4in1) : 1
- Lid ports (Temperature) : 1
- Lid ports (DO) : 1
- Lid ports (Level) : 1
- Material in contact with medium : AISI 316L, borosilicate glass 3.3, silicone USP class VI
- Motor coupling : shaft feedthrough
- Harvest pipe outer diameter : 6 mm
- Harvest pipe inner diameter : 4
- Harvest pipe design : straight
- Harvest pipe, height adjustable : yes
- Feeding port, outer diameter : 4.5 mm
- Feeding port, inner diameter : 2 mm
- Feeding port, amount : 4
- Inoculation port, outer diameter : 6mm
- Inoculation port, inner diameter : 4mm
- Sparger : Micro sparger
- Sparger, outer diameter : 8 mm
- Sparger, inner diameter : 6 mm
- Sparger pore size : 5 μ m
- Stirrer design : Centrifugal stirrer, 2-bladed
- Stirrer diameter 3 pitchblade : 41 mm
- Ratio = stirrer diameter 3 blade / inner diameter reactor : 0.37
- Stirrer quantity : 1
- Condenser : yes
- Condenser, connection threat : M16x2
- Type of cooling : Vertical condenser
- Condenser Temperature min. : 5 °C
- Temperature min. / Condenser with Peltier : 15 °C
- Temperature min. / Condenser with water cooling : 5 °C
- Filtertype : sterile filter
- Filtermaterial : PTFE reinforced with PP
- Filter housing material : PP
- Pore size : 0.22 μ m
- Filter heater : yes

- Spin filter : 40 µm
- Baffle : Accessory
- Temperature measuring : yes
- Working temperature sensor : PT1000
- pH sensor : yes
- pH sensor connection threat : PG 13.5
- pO2 sensor : yes
- pO2 sensor connection threat : PG 13.5
- Level sensor : IKA HA.s.lv
- Foam sensor : IKA HA.s.fo
- Turbidity sensor : Accessory
- Conductivity sensor : Accessory
- CO2 sensor : Accessory
- Stirring motor : yes
- Speed range : 1 - 2000 rpm
- Flowrate Air min. : 10 cc/min
- Flowrate Air max. : 2000 cc/min
- Flowrate O2 min. : 10 cc/min
- Flowrate O2 max. : 2000 cc/min
- Flowrate N2 min. : 10 cc/min
- Flowrate N2 max. : 2000 cc/min
- Flowrate CO2 min. : 10 cc/min
- Flowrate CO2 max. : 2000 cc/min
- Dimensions (W x H x D) : 210 x 415 x 210 mm

e. HABITAT cell sw 2 single-wall, for 2 l Cat.No., 0010007648

The 2-liter vessel package for the bioreactor HABITAT research contains a 2-liter single-walled glass vessel for cell culture applications as well as the appropriate stirring drive, including the following sensors: temperature-, pH-, DO-, level- and foam sensors.

Scope of delivery

- Stand 2
- HA.gv.sw.2 Glass vessel, single-wall, for 2 l
- HA.mt.s.2 Motor, small, for 0.5, 1 and 2 l
- HA.hp.s.2 Harvest pipe, straight, for 2 l
- HA.ino Port for inoculation
- HA.sp.m.2 Micro sparger, for 2 l
- HA.cn Condenser
- HA.ip.pi.2 3-pitched blade impeller, for 2 l
- HA.s.tm.2 Temperature sensor, for 2 l
- HA.s.ph.2 Hamilton pH sensor, for 2 l
- HA.s.do.2 Hamilton DO analogue sensor, for 2 l
- HA.s.fo Foam sensor
- HA.s.lv.2 Fill level sensor, for 2 l

- HA.hbl.2 Heating blanket, for 2 l
- HA.cab.sw Cable & tube set, for single-wall vessels
- HA.sf.250 Sample flask, 250 ml (4 pcs)

Technical Data

- Reactor : Cell Growth
- Volume : 2 l
- Type : single wall
- Heating blanket : yes
- Heating sleeve voltage : 48 V
- Heating sleeve power : 100 W
- Multi use : yes
- Autoclavable : yes
- Inner diameter : 130 mm
- Ratio = height / inner diameter : 2
- Useable volume min. : 0.6 l
- Useable volume max. : 3.0 l
- Reactor vessel material : borosilicate glass
- Reactor lid material : stainless steel 1.4404
- Net weight reactor vessel : 1.42 kg
- Net weight reactor assembled : 9.11 kg
- Number lid ports : 14
- Lid ports (Baffle) : 1
- Lid ports (pH) : 1
- Lid ports (Reserve) : 3
- Lid ports (Condenser) : 1
- Lid ports (Cooling Finger) : 1
- Lid ports (Inoculation) : 1
- Lid ports (Harvest Pipe) : 1
- Lid ports (Sparger) : 1
- Lid ports (Feed) : 0
- Lid ports (4in1) : 1
- Lid ports (Temperature) : 1
- Lid ports (DO) : 1
- Lid ports (Level) : 1
- Material in contact with medium : AISI 316L, borosilicate glass 3.3, silicone USP class VI
- Motor coupling : shaft feedthrough
- Harvest pipe outer diameter : 6 mm
- Harvest pipe inner diameter : 4
- Harvest pipe design : straight
- Harvest pipe, height adjustable : yes
- Feeding port, outer diameter : 4.5 mm
- Feeding port, inner diameter : 2 mm

- Feeding port, amount : 4
- Inoculation port, outer diameter : 6mm
- Inoculation port, inner diameter : 4mm
- Sparger : Micro sparger
- Sparger, outer diameter : 8 mm
- Sparger, inner diameter : 6 mm
- Sparger pore size : 5 μ m
- Cooling finger : Accessory
- Cooling finger connection threat : M27x3 mm
- Cooling finger water connection, outer diameter : 8mm
- Stirrer design : Centrifugal stirrer, 2-bladed
- Stirrer diameter 3 pitchblade : 49 mm
- Ratio = stirrer diameter 3 blade / inner diameter reactor : 0.38
- Stirrer quantity : 1
- Condenser : yes
- Condenser, connection threat : M16x2
- Type of cooling : Vertical condenser
- Condenser Temperature min. : 5 °C
- Temperature min. / Condenser with Peltier : 15 °C
- Temperature min. / Condenser with water cooling : 5 °C
- Filtertype : sterile filter
- Filtermaterial : PTFE reinforced with PP
- Filter housing material : PP
- Pore size : 0.22 μ m
- Filter heater : yes
- Spin filter : 40 μ m
- Baffle : Accessory
- Temperature measuring : yes
- Working temperature sensor : PT1000
- pH sensor : yes
- pH sensor connection threat : PG 13.5
- pO2 sensor : yes
- pO2 sensor connection threat : PG 13.5
- Level sensor : IKA HA.s.lv
- Foam sensor : IKA HA.s.fo
- Turbidity sensor : Accessory
- Conductivity sensor : Accessory
- CO2 sensor : Accessory
- Stirring motor : yes
- Speed range : 1 - 2200 rpm
- Heating Blanket : Accesory
- Heat output : 160 W
- Flowrate Air min. : 10 cc/min

- Flowrate Air max. : 2000 cc/min
- Flowrate O2 min. : 10 cc/min
- Flowrate O2 max. : 2000 cc/min
- Flowrate N2 min. : 10 cc/min
- Flowrate N2 max. : 2000 cc/min
- Flowrate CO2 min. : 10 cc/min
- Flowrate CO2 max. : 2000 cc/min
- Dimensions (W x H x D) : 230 x 490 x 230 mm

f. HABITAT cell dw 2 double-wall,, for 2 l Cat. No., 0010007649

The 2-liter vessel package for the bioreactor HABITAT research contains a 2-liter double-walled glass vessel for cell culture applications as well as the appropriate stirring drive, including the following sensors: temperature-, pH-, DO-, level- and foam sensors. For temperature control via the double jacket we recommend one of our circulators such as the HRC 2 basic or control.

Scope of delivery

- Stand 2
- HA.gv.dw.2 Glass vessel, double-wall, for 2 l
- HA.mt.s.2 Motor, small, for 0.5, 1 and 2 l
- HA.hp.s.2 Harvest pipe, straight, for 2 l
- HA.ino Port for inoculation
- HA.sp.m.2 Micro sparger, for 2 l
- HA.cn Condenser
- HA.ip.pi.2 3-pitched blade impeller, for 2 l
- HA.s.tm.2 Temperature sensor, for 2 l
- HA.s.ph.2 Hamilton pH sensor, for 2 l
- HA.s.do.2 Hamilton DO analogue sensor, for 2 l
- HA.s.fo Foam sensor
- HA.s.lv.2 Fill level sensor, for 2 l
- HA.cab.dw Cable & tube set, for double-wall vessels
- HA.sf.250 Sample flask, 250 ml (4 pcs.)

Technical Data

- Reactor : Cell Growth
- Volume : 2 l
- Type : double wall
- Multi use : yes
- Autoclavable : yes
- Inner diameter : 130 mm
- Ratio = height / inner diameter : 2
- Useable volume min. : 0.6 l
- Useable volume max. : 3.0 l
- Reactor vessel material : borosilicate glass
- Reactor lid material : stainless steel 1.4404

- Net weight reactor vessel : 2.86 kg
- Net weight reactor assembled : 10.55 kg
- Number lid ports : 14
- Lid ports (Baffle) : 1
- Lid ports (pH) : 1
- Lid ports (Reserve) : 3
- Lid ports (Condenser) : 1
- Lid ports (Cooling Finger) : 1
- Lid ports (Inoculation) : 1
- Lid ports (Harvest Pipe) : 1
- Lid ports (Sparger) : 1
- Lid ports (Feed) : 0
- Lid ports (4in1) : 1
- Lid ports (Temperature) : 1
- Lid ports (DO) : 1
- Lid ports (Level) : 1
- Material in contact with medium : AISI 316L, borosilicate glass 3.3, silicone USP class VI
- Motor coupling : shaft feedthrough
- Harvest pipe outer diameter : 6 mm
- Harvest pipe inner diameter : 4
- Harvest pipe design : straight
- Harvest pipe, height adjustable : yes
- Feeding port, outer diameter : 4.5 mm
- Feeding port, inner diameter : 2 mm
- Feeding port, amount : 4
- Inoculation port, outer diameter : 6mm
- Inoculation port, inner diameter : 4mm
- Sparger : Micro sparger
- Sparger, outer diameter : 8 mm
- Sparger, inner diameter : 6 mm
- Sparger pore size : 5 μ m
- Cooling finger : Accessory
- Cooling finger connection threat : M27x3 mm
- Cooling finger water connection, outer diameter : 8mm
- Stirrer design : Centrifugal stirrer, 2-bladed
- Stirrer diameter 3 pitchblade : 49 mm
- Ratio = stirrer diameter 3 blade / inner diameter reactor : 0.38
- Stirrer quantity : 1
- Condenser : yes
- Condenser, connection threat : M16x2
- Type of cooling : Vertical condenser
- Condenser Temperature min. : 5 °C
- Temperature min. / Condenser with Peltier : 15 °C

- Temperature min. / Condenser with water cooling : 5 °C
- Filtertype : sterile filter
- Filtermaterial : PTFE reinforced with PP
- Filter housing material : PP
- Pore size : 0.22 µm
- Filter heater : yes
- Spin filter : 40 µm
- Baffle : Accessory
- Temperature measuring : yes
- Working temperature sensor : PT1000
- pH sensor : yes
- pH sensor connection threat : PG 13.5
- pO2 sensor : yes
- pO2 sensor connection threat : PG 13.5
- Level sensor : IKA HA.s.lv
- Foam sensor : IKA HA.s.fo
- Turbidity sensor : Accessory
- Conductivity sensor : Accessory
- CO2 sensor : Accessory
- Stirring motor : yes
- Speed range : 1 - 2200 rpm
- Flowrate Air min. : 10 cc/min
- Flowrate Air max. : 2000 cc/min
- Flowrate O2 min. : 10 cc/min
- Flowrate O2 max. : 2000 cc/min
- Flowrate N2 min. : 10 cc/min
- Flowrate N2 max. : 2000 cc/min
- Flowrate CO2 min. : 10 cc/min
- Flowrate CO2 max. : 2000 cc/min
- Dimensions (W x H x D) : 230 x 490 x 230 mm

g. HABITAT cell sw 5 single-wall, for 5 l Cat.No., 0010007650

The 5-liter vessel package for the bioreactor HABITAT research contains a 5-liter single-walled glass vessel.

Scope of delivery

- Stand 5
- HA.gv.sw.5 Glass vessel, single-wall, for 5 l
- HA.mt.s.10 Motor, big, for 5 l and 10 l
- HA.hp.s.5 Harvest pipe, straight, for 5 l
- HA.ino Port for inoculation
- HA.sp.m.5 Micro sparger, for 5 l
- HA.cn Condenser
- HA.ip.pi.5 3-pitched blade impeller, for 5 l (2 pcs.)
- HA.s.tm.5 Temperature sensor, for 5 l

- HA.s.ph.5 Hamilton pH sensor, for 5 l
- HA.s.do.5 Hamilton DO analogue sensor, for 5 l
- HA.s.fo Foam sensor
- HA.s.lv.5 Fill level sensor, for 5 l
- HA.hbl.5 Heating blanket, for 5 l
- HA.cab.sw Cable & tube set, for single-wall vessels
- HA.sf.250 Sample flask, 250 ml (4 pcs.)

Technical Data

- Reactor : Cell Growth
- Volume : 5 l
- Type : single wall
- Heating blanket : yes
- Heating sleeve voltage : 48 V
- Heating sleeve power : 250 W
- Multi use : yes
- Autoclavable : yes
- Inner diameter : 160 mm
- Ratio = height / inner diameter : 2.31
- Useable volume min. : 1.0 l
- Useable volume max. : 6.7 l
- Reactor vessel material : borosilicate glass
- Reactor lid material : stainless steel 1.4404
- Net weight reactor vessel : 2.36 kg
- Net weight reactor assembled : 13.29 kg
- Number lid ports : 15
- Lid ports (Baffle) : 1
- Lid ports (pH) : 1
- Lid ports (Reserve) : 4
- Lid ports (Condenser) : 1
- Lid ports (Cooling Finger) : 1
- Lid ports (Inoculation) : 1
- Lid ports (Harvest Pipe) : 1
- Lid ports (Sparger) : 1
- Lid ports (Feed) : 0
- Lid ports (4in1) : 1
- Lid ports (Temperature) : 1
- Lid ports (DO) : 1
- Lid ports (Level) : 1
- Material in contact with medium : AISI 316L, borosilicate glass 3.3, silicone USP class VI
- Motor coupling : shaft feedthrough
- Harvest pipe outer diameter : 6 mm
- Harvest pipe inner diameter : 4

- Harvest pipe design : straight
- Harvest pipe, height adjustable : yes
- Feeding port, outer diameter : 4.5 mm
- Feeding port, inner diameter : 2 mm
- Feeding port, amount : 4
- Inoculation port, outer diameter : 6mm
- Inoculation port, inner diameter : 4mm
- Sparger : Micro sparger
- Sparger, outer diameter : 8 mm
- Sparger, inner diameter : 6 mm
- Sparger pore size : 5 μ m
- Cooling finger : Accessory
- Cooling finger connection threat : M27x3 mm
- Cooling finger water connection, outer diameter : 8mm
- Stirrer design : Centrifugal stirrer, 2-bladed
- Stirrer diameter 3 pitchblade : 59 mm
- Ratio = stirrer diameter 3 blade / inner diameter reactor : 0.37
- Stirrer quantity : 2
- Condenser : yes
- Condenser, connection threat : M16x2
- Type of cooling : Vertical condenser
- Condenser Temperature min. : 5 °C
- Temperature min. / Condenser with Peltier : 15 °C
- Temperature min. / Condenser with water cooling : 5 °C
- Filter type : sterile filter
- Filter material : PTFE reinforced with PP
- Filter housing material : PP
- Pore size : 0.22 μ m
- Filter heater : yes
- Spin filter : 40 μ m
- Baffle : Accessory
- Temperature measuring : yes
- Working temperature sensor : PT1000
- pH sensor : yes
- pH sensor connection threat : PG 13.5
- pO2 sensor : yes
- pO2 sensor connection threat : PG 13.5
- Level sensor : IKA HA.s.lv
- Foam sensor : IKA HA.s.fo
- Turbidity sensor : Accessory
- Conductivity sensor : Accessory
- CO2 sensor : Accessory
- Stirring motor : yes

- Speed range : 1 - 1500 rpm
- Heating Blanket : yes
- Heat output : 250 W
- Flowrate Air min. : 10 cc/min
- Flowrate Air max. : 2000 cc/min
- Flowrate O2 min. : 10 cc/min
- Flowrate O2 max. : 2000 cc/min
- Flowrate N2 min. : 10 cc/min
- Flowrate N2 max. : 2000 cc/min
- Flowrate CO2 min. : 10 cc/min
- Flowrate CO2 max. : 2000 cc/min
- Dimensions (W x H x D) : 260 x 605 x 260 mm

h. HABITAT cell dw 5 double-wall, for 5 l Cat. No., 0010007651

The 5-liter vessel package for the bioreactor HABITAT research contains a 5-liter double-walled glass vessel. For temperature control via the double jacket we recommend one of our circulators such as the HRC 2 basic or control.

Scope of delivery

- Stand 5
- HA.gv.dw.5 Glass vessel, double-wall, for 5 l
- HA.mt.s.10 Motor, big, for 5 l and 10 l
- HA.hp.s.5 Harvest pipe, straight, for 5 l
- HA.ino Port for inoculation
- HA.sp.m.5 Micro sparger, for 5 l
- HA.cn Condenser
- HA.ip.pi.5 3-pitched blade impeller, for 5 l (2 pcs.)
- HA.s.tm.5 Temperature sensor, for 5 l
- HA.s.ph.5 Hamilton pH sensor, for 5 l
- HA.s.do.5 Hamilton DO analogue sensor, for 5 l
- HA.s.fo Foam sensor
- HA.s.lv.5 Fill level sensor, for 5 l
- HA.cab.dw Cable & tube set, for double-wall vessels
- HA.sf.250 Sample flask, 250 ml (4 pcs.)

Technical Data

- Reactor : Cell Growth
- Volume : 5 l
- Type : double wall
- Multi use : yes
- Autoclavable : yes
- Inner diameter : 160 mm
- Ratio = height / inner diameter : 2.31
- Useable volume min. : 1.0 l

- Useable volume max. : 6.7 l
- Reactor vessel material : borosilicate glass
- Reactor lid material : stainless steel 1.4404
- Net weight reactor vessel : 4.73 kg
- Net weight reactor assembled : 15.66 kg
- Number lid ports : 15
- Lid ports (Baffle) : 1
- Lid ports (pH) : 1
- Lid ports (Reserve) : 4
- Lid ports (Condenser) : 1
- Lid ports (Cooling Finger) : 1
- Lid ports (Inoculation) : 1
- Lid ports (Harvest Pipe) : 1
- Lid ports (Sparger) : 1
- Lid ports (Feed) : 0
- Lid ports (4in1) : 1
- Lid ports (Temperature) : 1
- Lid ports (DO) : 1
- Lid ports (Level) : 1
- Material in contact with medium : AISI 316L, borosilicate glass 3.3, silicone USP class VI
- Motor coupling : shaft feedthrough
- Harvest pipe outer diameter : 6 mm
- Harvest pipe inner diameter : 4
- Harvest pipe design : straight
- Harvest pipe, height adjustable : yes
- Feeding port, outer diameter : 4.5 mm
- Feeding port, inner diameter : 2 mm
- Feeding port, amount : 4
- Inoculation port, outer diameter : 6mm
- Inoculation port, inner diameter : 4mm
- Sparger : Micro sparger
- Sparger, outer diameter : 8 mm
- Sparger, inner diameter : 6 mm
- Sparger pore size : 5 μ m
- Cooling finger : Accessory
- Cooling finger connection threat : M27x3 mm
- Cooling finger water connection, outer diameter : 8mm
- Stirrer design : Centrifugal stirrer, 2-bladed
- Stirrer diameter 3 pitchblade : 59 mm
- Ratio = stirrer diameter 3 blade / inner diameter reactor : 0.37
- Stirrer quantity : 2
- Condenser : yes
- Condenser, connection threat : M16x2

- Type of cooling : Vertical condenser
- Condenser Temperature min. : 5 °C
- Temperature min. / Condenser with Peltier : 15 °C
- Temperature min. / Condenser with water cooling : 5 °C
- Filtertype : sterile filter
- Filtermaterial : PTFE reinforced with PP
- Filter housing material : PP
- Pore size : 0.22 µm
- Filter heater : yes
- Spin filter : 40 µm
- Baffle : Accessory
- Temperature measuring : yes
- Working temperature sensor : PT1000
- pH sensor : yes
- pH sensor connection threat : PG 13.5
- pO2 sensor : yes
- pO2 sensor connection threat : PG 13.5
- Level sensor : IKA HA.s.lv
- Foam sensor : IKA HA.s.fo
- Turbidity sensor : Accessory
- Conductivity sensor : Accessory
- CO2 sensor : Accessory
- Stirring motor : yes
- Speed range : 1 - 1500 rpm
- Flowrate Air min. : 10 cc/min
- Flowrate Air max. : 2000 cc/min
- Flowrate O2 min. : 10 cc/min
- Flowrate O2 max. : 2000 cc/min
- Flowrate N2 min. : 10 cc/min
- Flowrate N2 max. : 2000 cc/min
- Flowrate CO2 min. : 10 cc/min
- Flowrate CO2 max. : 2000 cc/min
- Dimensions (W x H x D) : 260 x 605 x 260 mm

i. HABITAT cell dw 10 double-wall, for 10 l Cat.No., 0010007652

The 10-liter vessel package for the bioreactor HABITAT research contains a 10-liter double-walled glass vessel. For temperature control via the double jacket we recommend one of our circulators such as the HRC 2 basic or control.

Scope of delivery

- Stand 10
- HA.gv.dw.10 Glass vessel, double-wall, for 10 l
- HA.mt.s.10 Motor, big, for 5 l and 10 l
- HA.hp.s.10 Harvest pipe, straight, for 10 l

- HA.ino Port for inoculation
- HA.sp.m.10 Micro sparger, for 10 l
- HA.cn Condenser
- HA.ip.pi.10 3-pitched blade impeller, for 10 l (2 pcs.)
- HA.s.tm.10 Temperature sensor, for 10 l
- HA.s.ph.10 Hamilton pH sensor, for 10 l
- HA.s.do.10 Hamilton DO analogue sensor, for 10 l
- HA.s.fo Foam sensor
- HA.s.lv.10 Fill level sensor, for 10 l
- HA.cab.dw Cable & tube set, for double-wall vessels
- HA.sf.250 Sample flask, 250 ml (4 pcs.)

Technical Data

- Reactor : Cell Growth
- Volume : 10 l
- Type : double wall
- Multi use : yes
- Autoclavable : yes
- Inner diameter : 190 mm
- Ratio = height / inner diameter : 2.47
- Useable volume min. : 2.0 l
- Useable volume max. : 12.9 l
- Reactor vessel material : borosilicate glass
- Reactor lid material : stainless steel 1.4404
- Net weight reactor vessel : 7.65 kg
- Net weight reactor assembled : 21.9 kg
- Number lid ports : 18
- Lid ports (Baffle) : 1
- Lid ports (pH) : 1
- Lid ports (Reserve) : 7
- Lid ports (Condenser) : 1
- Lid ports (Cooling Finger) : 1
- Lid ports (Inoculation) : 1
- Lid ports (Harvest Pipe) : 1
- Lid ports (Sparger) : 1
- Lid ports (Feed) : 0
- Lid ports (4in1) : 1
- Lid ports (Temperature) : 1
- Lid ports (DO) : 1
- Lid ports (Level) : 1
- Material in contact with medium : AISI 316L, borosilicate glass 3.3, silicone USP class VI
- Motor coupling : shaft feedthrough
- Harvest pipe outer diameter : 6 mm

- Harvest pipe inner diameter : 4
- Harvest pipe design : straight
- Harvest pipe, height adjustable : yes
- Feeding port, outer diameter : 4.5 mm
- Feeding port, inner diameter : 2 mm
- Feeding port, amount : 4
- Inoculation port, outer diameter : 6mm
- Inoculation port, inner diameter : 4mm
- Sparger : Micro sparger
- Sparger, outer diameter : 8 mm
- Sparger, inner diameter : 6 mm
- Sparger pore size : 5 μm
- Cooling finger : Accessory
- Cooling finger connection threat : M27x3 mm
- Cooling finger water connection, outer diameter : 8mm
- Stirrer design : Centrifugal stirrer, 2-bladed
- Stirrer diameter 3 pitchblade : 69 mm
- Ratio = stirrer diameter 3 blade / inner diameter reactor : 0.36
- Stirrer quantity : 2
- Condenser : yes
- Condenser, connection threat : M16x2
- Type of cooling : Vertical condenser
- Condenser Temperature min. : 5 °C
- Temperature min. / Condenser with Peltier : 15 °C
- Temperature min. / Condenser with water cooling : 5 °C
- Filter type : sterile filter
- Filter material : PTFE reinforced with PP
- Filter housing material : PP
- Pore size : 0.22 μm
- Filter heater : yes
- Spin filter : 40 μm
- Baffle : Accessory
- Temperature measuring : yes
- Working temperature sensor : PT1000
- pH sensor : yes
- pH sensor connection threat : PG 13.5
- pO2 sensor : yes
- pO2 sensor connection threat : PG 13.5
- Level sensor : IKA HA.s.lv
- Foam sensor : IKA HA.s.fo
- Turbidity sensor : Accessory
- Conductivity sensor : Accessory
- CO2 sensor : Accessory

- Stirring motor : yes
- Speed range : 1 - 800 rpm
- Flowrate Air min. : 10 cc/min
- Flowrate Air max. : 2000 cc/min
- Flowrate O2 min. : 10 cc/min
- Flowrate O2 max. : 2000 cc/min
- Flowrate N2 min. : 10 cc/min
- Flowrate N2 max. : 2000 cc/min
- Flowrate CO2 min. : 10 cc/min
- Flowrate CO2 max. : 2000 cc/min
- Dimensions (W x H x D) : 300 x 710 x 300 mm

j. HABITAT ferment dw 0.5 double-wall, for 0.5 l, Cat. No., 0010007655

The 0.5-liter vessel package for the bioreactor HABITAT research contains a 0.5-liter double-walled glass vessel. For temperature control via the double jacket we recommend one of our circulators such as the IKA HRC 2.

Scope of delivery

- Stand 0.5
- HA.gv.dw.0.5 Glass vessel, double-wall, for 0.5 l
- HA.mt.s.2 Motor, small, for 0.5, 1 and 2 l
- HA.hp.s.0.5 Harvest pipe, straight, for 0.5 l
- HA.fd Feeding port (2 pcs.)
- HA.ba.0.5 Baffle, for 0.5 l
- HA.sp.r.0.5 Ring sparger, for 0.5 l
- HA.cn Condenser
- HA.ip.b.0.5 Rushton 6-blade impeller, for 0.5 l
- HA.s.tm.1 Temperature sensor, for 1 l
- HA.s.ph.0.5 Hamilton pH sensor, for 0.5 l
- HA.s.do.0.5 Hamilton DO analogue sensor, for 0.5 l
- HA.s.fo Foam sensor
- HA.s.lv.1 Fill level sensor, for 0.5 to 1 l
- HA.cab.dw Cable & tube set, for double-wall vessels
- HA.sf.250 Sample flask, 250 ml (4 pcs.)

Technical Data

- Reactor : Fermenter
- Volume : 0.5 l
- Type : double wall
- Multi use : yes
- Autoclavable : yes
- Inner diameter : 90 mm
- Ratio = height / inner diameter : 1.67

- Useable volume min. : 0.25 l
- Useable volume max. : 0.8 l
- Reactor vessel material : borosilicate glass
- Reactor lid material : stainless steel 1.4404
- Net weight reactor vessel : 0.71 kg
- Net weight reactor assembled : 6.77 kg
- Number lid ports : 10
- Lid ports (Baffle) : 1
- Lid ports (pH) : 1
- Lid ports (Reserve) : 0
- Lid ports (Condenser) : 1
- Lid ports (Cooling Finger) : 0
- Lid ports (Inoculation) : 0
- Lid ports (Harvest Pipe) : 1
- Lid ports (Sparger) : 1
- Lid ports (Feed) : 2
- Lid ports (4in1) : 0
- Lid ports (Temperature) : 1
- Lid ports (DO) : 1
- Lid ports (Level) : 1
- Material in contact with medium : AISI 316L, borosilicate glass 3.3, silicone USP class VI
- Motor coupling : shaft feedthrough
- Harvest pipe outer diameter : 6 mm
- Harvest pipe inner diameter : 4
- Harvest pipe design : straight
- Harvest pipe, height adjustable : yes
- Feeding port, outer diameter : 4.5 mm
- Feeding port, inner diameter : 2 mm
- Feeding port, amount : 4
- Sparger : Ring sparger
- Sparger, outer diameter : 8 mm
- Sparger, inner diameter : 6 mm
- Sparger pore size : 500 μ m
- Stirrer design : Propeller stirrer, 6-bladed
- Stirrer diameter 6 blade impeller : 33 mm
- Ratio = Stirrer diameter 6 blade / inner diameter reactor : 0.37
- Stirrer quantity : 1
- Condenser : yes
- Condenser, connection threat : M16x2
- Type of cooling : Vertical condenser
- Condenser Temperature min. : 5 °C
- Temperature min. / Condenser with Peltier : 15 °C
- Temperature min. / Condenser with water cooling : 5 °C

- Filtrertype : sterile filter
- Filtermaterial : PTFE reinforced with PP
- Filter housing material : PP
- Pore size : 0.22 µm
- Filter heater : yes
- Spin filter : 40 µm
- Baffle : Accessory
- Temperature measuring : yes
- Working temperature sensor : PT1000
- pH sensor : yes
- pH sensor connection threat : PG 13.5
- pO2 sensor : yes
- pO2 sensor connection threat : PG 13.5
- Level sensor : IKA HA.s.lv
- Foam sensor : IKA HA.s.fo
- Turbidity sensor : Accessory
- Conductivity sensor : Accessory
- CO2 sensor : Accessory
- Stirring motor : yes
- Speed range : 1 - 1400 rpm
- Flowrate Air min. : 100 cc/min
- Flowrate Air max. : 20000 cc/min
- Flowrate O2 min. : 100 cc/min
- Flowrate O2 max. : 20000 cc/min
- Flowrate N2 min. : 100 cc/min
- Flowrate N2 max. : 20000 cc/min
- Flowrate CO2 min. : 100 cc/min
- Flowrate CO2 max. : 20000 cc/min
- Dimensions (W x H x D) : 185 x 365 x 185 mm

k. HABITAT ferment dw 1 double-wall, for 1 l Cat.No., 0010007657

The 1-liter vessel package for the bioreactor HABITAT research contains a 1-liter double-walled glass vessel. For temperature control via the double jacket we recommend one of our circulators such as the IKA HRC 2.

Scope of delivery

- Stand 1
- HA.gv.dw.1 Glass vessel, double-wall, for 1 l
- HA.mt.s.2 Motor, small, for 0.5, 1 and 2 l
- HA.hp.s.1 Harvest pipe, straight, for 1 l
- HA.ino Port for inoculation
- HA.ba.1 Baffle, for 1 l

- HA.sp.r.1 Ring sparger, for 1 l
- HA.cn Condenser
- HA.ip.b.1 Rushton 6-blade impeller, for 1 l
- HA.s.tm.1 Temperature sensor, for 1 l
- HA.s.ph.1 Hamilton pH sensor, for 1 l
- HA.s.do.1 Hamilton DO analogue sensor, for 1 l
- HA.s.fo Foam sensor
- HA.s.lv.1 Fill level sensor, for 0.5 to 1 l
- HA.cab.dw Cable & tube set, for double-wall vessels
- HA.sf.250 Sample flask, 250 ml (4 pcs.)

Technical Data

- Reactor : Fermenter
- Volume : 1 l
- Type : double wall
- Multi use : yes
- Autoclavable : yes
- Inner diameter : 110 mm
- Ratio = height / inner diameter : 1.73
- Useable volume min. : 0.3 l
- Useable volume max. : 1.6 l
- Reactor vessel material : borosilicate glass
- Reactor lid material : stainless steel 1.4404
- Net weight reactor vessel : 1.14 kg
- Net weight reactor assembled : 8.09 kg
- Number lid ports : 12
- Lid ports (Baffle) : 1
- Lid ports (pH) : 1
- Lid ports (Reserve) : 2
- Lid ports (Condenser) : 1
- Lid ports (Cooling Finger) : 0
- Lid ports (Inoculation) : 1
- Lid ports (Harvest Pipe) : 1
- Lid ports (Sparger) : 1
- Lid ports (Feed) : 0
- Lid ports (4in1) : 1
- Lid ports (Temperature) : 1
- Lid ports (DO) : 1
- Lid ports (Level) : 1
- Material in contact with medium : AISI 316L, borosilicate glass 3.3, silicone USP class VI
- Motor coupling : shaft feedthrough
- Harvest pipe outer diameter : 6 mm
- Harvest pipe inner diameter : 4

- Harvest pipe design : straight
- Harvest pipe, height adjustable : yes
- Feeding port, outer diameter : 4.5 mm
- Feeding port, inner diameter : 2 mm
- Feeding port, amount : 4
- Inoculation port, outer diameter : 6mm
- Inoculation port, inner diameter : 4mm
- Sparger : Ring sparger
- Sparger, outer diameter : 8 mm
- Sparger, inner diameter : 6 mm
- Sparger pore size : 500 μm
- Stirrer design : Propeller stirrer, 6-bladed
- Stirrer diameter 6 blade impeller : 40 mm
- Ratio = Stirrer diameter 6 blade / inner diameter reactor : 0.36
- Stirrer quantity : 1
- Condenser : yes
- Condenser, connection threat : M16x2
- Type of cooling : Vertical condenser
- Condenser Temperature min. : 5 °C
- Temperature min. / Condenser with Peltier : 15 °C
- Temperature min. / Condenser with water cooling : 5 °C
- Filtertype : sterile filter
- Filtermaterial : PTFE reinforced with PP
- Filter housing material : PP
- Pore size : 0.22 μm
- Filter heater : yes
- Spin filter : 40 μm
- Baffle : Accessory
- Temperature measuring : yes
- Working temperature sensor : PT1000
- pH sensor : yes
- pH sensor connection threat : PG 13.5
- pO2 sensor : yes
- pO2 sensor connection threat : PG 13.5
- Level sensor : IKA HA.s.lv
- Foam sensor : IKA HA.s.fo
- Turbidity sensor : Accessory
- Conductivity sensor : Accessory
- CO2 sensor : Accessory
- Stirring motor : yes
- Speed range : 1 - 2000 rpm
- Flowrate Air min. : 100 cc/min
- Flowrate Air max. : 20000 cc/min

- Flowrate O2 min. : 100 cc/min
- Flowrate O2 max. : 20000 cc/min
- Flowrate N2 min. : 100 cc/min
- Flowrate N2 max. : 20000 cc/min
- Flowrate CO2 min. : 100 cc/min
- Flowrate CO2 max. : 20000 cc/min
- Dimensions (W x H x D) : 210 x 415 x 210 mm

I. HABITAT ferment sw 2 single-wall, for 2 l Cat.No., 0010007658

The 2-liter vessel package for the bioreactor HABITAT research contains a 2-liter single-walled glass vessel. The scope of delivery of the HABITAT ferment 2- and 5-liter vessels includes a cooling finger for temperature control / cooling in the medium. We recommend its use in conjunction with one of our chillers, such as the IKA RC 2.

Scope of delivery

- Stand 2
- HA.gv.sw.2 Glass vessel, single-wall, for 2 l
- HA.mt.s.2 Motor, small, for 0.5, 1 and 2 l
- HA.hp.s.2 Harvest pipe, straight, for 2 l
- HA.ino Port for inoculation
- HA.ba.2 Baffle, for 2 l
- HA.sp.r.2 Ring sparger, for 2 l
- HA.cn Condenser
- HA.ip.b.2 Rushton 6-blade impeller, for 2 l
- HA.s.tm.2 Temperature sensor, for 2 l
- HA.s.ph.2 Hamilton pH sensor, for 2 l
- HA.s.do.2 Hamilton DO analogue sensor, for 2 l
- HA.s.fo Foam sensor
- HA.s.lv.2 Fill level sensor, for 2 l
- HA.cab.sw Cable & tube set, for single-wall vessels
- HA.sf.250 Sample flask, 250 ml (4 pcs.)
- HA.cf.2 Cooling finger, for 2 l
- HA.hbl.2 Heating blanket, for 2 l

Technical Data

- Reactor : Fermenter
- Volume : 2 l
- Type : single wall
- Multi use : yes
- Autoclavable : yes
- Inner diameter : 130 mm
- Ratio = height / inner diameter : 2
- Useable volume min. : 0.6 l
- Useable volume max. : 3.0 l

- Reactor vessel material : borosilicate glass
- Reactor lid material : stainless steel 1.4404
- Net weight reactor vessel : 1.42 kg
- Net weight reactor assembled : 9.11 kg
- Number lid ports : 14
- Lid ports (Baffle) : 1
- Lid ports (pH) : 1
- Lid ports (Reserve) : 3
- Lid ports (Condenser) : 1
- Lid ports (Cooling Finger) : 1
- Lid ports (Inoculation) : 1
- Lid ports (Harvest Pipe) : 1
- Lid ports (Sparger) : 1
- Lid ports (Feed) : 0
- Lid ports (4in1) : 1
- Lid ports (Temperature) : 1
- Lid ports (DO) : 1
- Lid ports (Level) : 1
- Material in contact with medium : AISI 316L, borosilicate glass 3.3, silicone USP class VI
- Motor coupling : shaft feedthrough
- Harvest pipe outer diameter : 6 mm
- Harvest pipe inner diameter : 4
- Harvest pipe design : straight
- Harvest pipe, height adjustable : yes
- Feeding port, outer diameter : 4.5 mm
- Feeding port, inner diameter : 2 mm
- Feeding port, amount : 4
- Inoculation port, outer diameter : 6mm
- Inoculation port, inner diameter : 4mm
- Sparger : Ring sparger
- Sparger, outer diameter : 8 mm
- Sparger, inner diameter : 6 mm
- Sparger pore size : 500 μ m
- Cooling finger : yes
- Cooling finger connection threat : M27x3 mm
- Cooling finger water connection, outer diameter : 8 mm
- Stirrer design : Propeller stirrer, 6-bladed
- Stirrer diameter 6 blade impeller : 48 mm
- Ratio = Stirrer diameter 6 blade / inner diameter reactor : 0.37
- Stirrer quantity : 1
- Condenser : yes
- Condenser, connection threat : M16x2
- Type of cooling : Vertical condenser

- Condenser Temperature min. : 5 °C
- Temperature min. / Condenser with Peltier : 15 °C
- Temperature min. / Condenser with water cooling : 5 °C
- Filtertype : sterile filter
- Filtermaterial : PTFE reinforced with PP
- Filter housing material : PP
- Pore size : 0.22 µm
- Filter heater : yes
- Spin filter : 40 µm
- Baffle : Accessory
- Temperature measuring : yes
- Working temperature sensor : PT1000
- pH sensor : yes
- pH sensor connection threat : PG 13.5
- pO2 sensor : yes
- pO2 sensor connection threat : PG 13.5
- Level sensor : IKA HA.s.lv
- Foam sensor : IKA HA.s.fo
- Turbidity sensor : Accessory
- Conductivity sensor : Accessory
- CO2 sensor : Accessory
- Stirring motor : yes
- Speed range : 1 - 2200 rpm
- Flowrate Air min. : 100 cc/min
- Flowrate Air max. : 20000 cc/min
- Flowrate O2 min. : 100 cc/min
- Flowrate O2 max. : 20000 cc/min
- Flowrate N2 min. : 100 cc/min
- Flowrate N2 max. : 20000 cc/min
- Flowrate CO2 min. : 100 cc/min
- Flowrate CO2 max. : 20000 cc/min
- Dimensions (W x H x D) : 230 x 490 x 230 mm

m. HABITAT ferment dw 2 double-wall, for 2 l, Cat.No., 0010007659

The 2-liter vessel package for the bioreactor HABITAT research contains a 2-liter double-walled glass vessel. For temperature control via the double jacket we recommend one of our circulators such as the IKA HRC 2.

Scope of delivery

- Stand 2
- HA.gv.dw.2 Glass vessel, double-wall, for 2 l
- HA.mt.s.2 Motor, small, for 0.5, 1 and 2 l
- HA.hp.s.2 Harvest pipe, straight, for 2 l
- HA.ino Port for inoculation

- HA.ba.2 Baffle, for 2 l
- HA.sp.r.2 Ring sparger, for 2 l
- HA.cn Condenser
- HA.ip.b.2 Rushton 6-blade impeller, for 2 l
- HA.s.tm.2 Temperature sensor, for 2 l
- HA.s.ph.2 Hamilton pH sensor, for 2 l
- HA.s.do.2 Hamilton DO analogue sensor, for 2 l
- HA.s.fo Foam sensor
- HA.s.lv.2 Fill level sensor, for 2 l
- HA.cab.dw Cable & tube set, for double-wall vessels
- HA.sf.250 Sample flask, 250 ml (4 pcs.)

Technical Data

- Reactor : Fermenter
- Volume : 2 l
- Type : double wall
- Multi use : yes
- Autoclavable : yes
- Inner diameter : 130 mm
- Ratio = height / inner diameter : 2
- Useable volume min. : 0.6 l
- Useable volume max. : 3.0 l
- Reactor vessel material : borosilicate glass
- Reactor lid material : stainless steel 1.4404
- Net weight reactor vessel : 2.86 kg
- Net weight reactor assembled : 10.55 kg
- Number lid ports : 14
- Lid ports (Baffle) : 1
- Lid ports (pH) : 1
- Lid ports (Reserve) : 3
- Lid ports (Condenser) : 1
- Lid ports (Cooling Finger) : 1
- Lid ports (Inoculation) : 1
- Lid ports (Harvest Pipe) : 1
- Lid ports (Sparger) : 1
- Lid ports (Feed) : 0
- Lid ports (4in1) : 1
- Lid ports (Temperature) : 1
- Lid ports (DO) : 1
- Lid ports (Level) : 1
- Material in contact with medium : AISI 316L, borosilicate glass 3.3, silicone USP class VI
- Motor coupling : shaft feedthrough
- Harvest pipe outer diameter : 6 mm

- Harvest pipe inner diameter : 4
- Harvest pipe design : straight
- Harvest pipe, height adjustable : yes
- Feeding port, outer diameter : 4.5 mm
- Feeding port, inner diameter : 2 mm
- Feeding port, amount : 4
- Inoculation port, outer diameter : 6mm
- Inoculation port, inner diameter : 4mm
- Sparger : Ring sparger
- Sparger, outer diameter : 8 mm
- Sparger, inner diameter : 6 mm
- Sparger pore size : 500 μm
- Cooling finger : Accessory
- Cooling finger connection threat : M27x3 mm
- Cooling finger water connection, outer diameter : 8 mm
- Stirrer design : Propeller stirrer, 6-bladed
- Stirrer diameter 6 blade impeller : 48 mm
- Ratio = Stirrer diameter 6 blade / inner diameter reactor : 0.37
- Stirrer quantity : 1
- Condenser : yes
- Condenser, connection threat : M16x2
- Type of cooling : Vertical condenser
- Condenser Temperature min. : 5 °C
- Temperature min. / Condenser with Peltier : 15 °C
- Temperature min. / Condenser with water cooling : 5 °C
- Filtertype : sterile filter
- Filtermaterial : PTFE reinforced with PP
- Filter housing material : PP
- Pore size : 0.22 μm
- Filter heater : yes
- Spin filter : 40 μm
- Baffle : Accessory
- Temperature measuring : yes
- Working temperature sensor : PT1000
- pH sensor : yes
- pH sensor connection threat : PG 13.5
- pO2 sensor : yes
- pO2 sensor connection threat : PG 13.5
- Level sensor : IKA HA.s.lv
- Foam sensor : IKA HA.s.fo
- Turbidity sensor : Accessory
- Conductivity sensor : Accessory
- CO2 sensor : Accessory

- Stirring motor : yes
- Speed range : 1 - 2200 rpm
- Flowrate Air min. : 100 cc/min
- Flowrate Air max. : 20000 cc/min
- Flowrate O2 min. : 100 cc/min
- Flowrate O2 max. : 20000 cc/min
- Flowrate N2 min. : 100 cc/min
- Flowrate N2 max. : 20000 cc/min
- Flowrate CO2 min. : 100 cc/min
- Flowrate CO2 max. : 20000 cc/min
- Dimensions (W x H x D) : 230 x 490 x 230 mm

n. HABITAT ferment sw 5 single-wall, for 5 l, Cat.No., 0010007660

The 5-liter vessel package for the bioreactor HABITAT research contains a 5-liter single-walled glass vessel
The scope of delivery of the HABITAT ferment 2- and 5-liter vessels includes a cooling finger for temperature control / cooling in the medium. We recommend its use in conjunction with one of our chillers, such as the IKA RC 2.

Scope of delivery

- Stand 5
- HA.gv.sw.5 Glass vessel, single-wall, for 5 l
- HA.mt.s.10 Motor, big, for 5 l and 10 l
- HA.hp.s.5 Harvest pipe, straight, for 5 l
- HA.ino Port for inoculation
- HA.ba.5 Baffle, for 5 l
- HA.sp.r.5 Ring sparger, for 5 l
- HA.cn Condenser
- HA.ip.b.5 Rushton 6-blade impeller, for 5 l (2 pcs.)
- HA.s.tm.5 Temperature sensor, for 5 l
- HA.s.ph.5 Hamilton pH sensor, for 5 l
- HA.s.do.5 Hamilton DO analogue sensor, for 5 l
- HA.s.fo Foam sensor
- HA.s.lv.5 Fill level sensor, for 5 l
- HA.cab.sw Cable & tube set, for single-wall vessels
- HA.sf.250 Sample flask, 250 ml (4 pcs.)
- HA.cf.5 Cooling finger, for 5 l
- HA.hbl.5 Heating blanket, for 5 l

Technical Data

- Reactor : Fermenter
- Volume : 5 l
- Type : single wall
- Multi use : yes
- Autoclavable : yes
- Inner diameter : 160 mm

- Ratio = height / inner diameter : 2.31
- Useable volume min. : 1.0 l
- Useable volume max. : 6.7 l
- Reactor vessel material : borosilicate glass
- Reactor lid material : stainless steel 1.4404
- Net weight reactor vessel : 2.36 kg
- Net weight reactor assembled : 13.29 kg
- Number lid ports : 15
- Lid ports (Baffle) : 1
- Lid ports (pH) : 1
- Lid ports (Reserve) : 4
- Lid ports (Condenser) : 1
- Lid ports (Cooling Finger) : 1
- Lid ports (Inoculation) : 1
- Lid ports (Harvest Pipe) : 1
- Lid ports (Sparger) : 1
- Lid ports (Feed) : 0
- Lid ports (4in1) : 1
- Lid ports (Temperature) : 1
- Lid ports (DO) : 1
- Lid ports (Level) : 1
- Material in contact with medium : AISI 316L, borosilicate glass 3.3, silicone USP class VI
- Motor coupling : shaft feedthrough
- Harvest pipe outer diameter : 6 mm
- Harvest pipe inner diameter : 4
- Harvest pipe design : straight
- Harvest pipe, height adjustable : yes
- Feeding port, outer diameter : 4.5 mm
- Feeding port, inner diameter : 2 mm
- Feeding port, amount : 4
- Inoculation port, outer diameter : 6mm
- Inoculation port, inner diameter : 4mm
- Sparger : Ring sparger
- Sparger, outer diameter : 8 mm
- Sparger, inner diameter : 6 mm
- Sparger pore size : 500 μ m
- Cooling finger : yes
- Cooling finger connection threat : M27x3 mm
- Cooling finger water connection, outer diameter : 8 mm
- Stirrer design : Propeller stirrer, 6-bladed
- Stirrer diameter 6 blade impeller : 57 mm
- Ratio = stirrer diameter 3 blade / inner diameter reactor : 0.36
- Stirrer quantity : 2

- Condenser : yes
- Condenser, connection threat : M16x2
- Type of cooling : Vertical condenser
- Condenser Temperature min. : 5 °C
- Temperature min. / Condenser with Peltier : 15 °C
- Temperature min. / Condenser with water cooling : 5 °C
- Filtertype : sterile filter
- Filtermaterial : PTFE reinforced with PP
- Filter housing material : PP
- Pore size : 0.22 µm
- Filter heater : yes
- Spin filter : 40 µm
- Baffle : Accessory
- Temperature measuring : yes
- Working temperature sensor : PT1000
- pH sensor : yes
- pH sensor connection threat : PG 13.5
- pO2 sensor : yes
- pO2 sensor connection threat : PG 13.5
- Level sensor : IKA HA.s.lv
- Foam sensor : IKA HA.s.fo
- Turbidity sensor : Accessory
- Conductivity sensor : Accessory
- CO2 sensor : Accessory
- Stirring motor : yes
- Speed range : 1 - 1500 rpm
- Flowrate Air min. : 100 cc/min
- Flowrate Air max. : 20000 cc/min
- Flowrate O2 min. : 100 cc/min
- Flowrate O2 max. : 20000 cc/min
- Flowrate N2 min. : 100 cc/min
- Flowrate N2 max. : 20000 cc/min
- Flowrate CO2 min. : 100 cc/min
- Flowrate CO2 max. : 20000 cc/min
- Dimensions (W x H x D) : 260 x 605 x 260 mm

o. HABITAT ferment dw 5 double-wall, for 5 l, Cat.No., 0010007661

The 5-liter vessel package for the bioreactor HABITAT research contains a 5-liter double-walled glass vessel. The 5-liter vessel package for the bioreactor HABITAT research contains a 5-liter double-walled glass vessel.

Scope of delivery

- Stand 5

- HA.gv.dw.5 Glass vessel, double-wall, for 5 l
- HA.mt.s.10 Motor, big, for 5 l and 10 l
- HA.hp.s.5 Harvest pipe, straight, for 5 l
- HA.ino Port for inoculation
- HA.ba.5 Baffle, for 5 l
- HA.sp.r.5 Ring sparger, for 5 l
- HA.cn Condenser
- HA.ip.b.5 Rushton 6-blade impeller, for 5 l (2 pcs.)
- HA.s.tm.5 Temperature sensor, for 5 l
- HA.s.ph.5 Hamilton pH sensor, for 5 l
- HA.s.do.5 Hamilton DO analogue sensor, for 5 l
- HA.s.fo Foam sensor
- HA.s.lv.5 Fill level sensor, for 5 l
- HA.cab.dw Cable & tube set, for double-wall vessels
- HA.sf.250 Sample flask, 250 ml (4 pcs.)

Technical Data

- Reactor : Fermenter
- Volume : 5 l
- Type : double wall
- Multi use : yes
- Autoclavable : yes
- Inner diameter : 160 mm
- Ratio = height / inner diameter : 2.31
- Useable volume min. : 1.0 l
- Useable volume max. : 6.7 l
- Reactor vessel material : borosilicate glass
- Reactor lid material : stainless steel 1.4404
- Net weight reactor vessel : 4.76 kg
- Net weight reactor assembled : 16.66 kg
- Number lid ports : 15
- Lid ports (Baffle) : 1
- Lid ports (pH) : 1
- Lid ports (Reserve) : 4
- Lid ports (Condenser) : 1
- Lid ports (Cooling Finger) : 1
- Lid ports (Inoculation) : 1
- Lid ports (Harvest Pipe) : 1
- Lid ports (Sparger) : 1
- Lid ports (Feed) : 0
- Lid ports (4in1) : 1
- Lid ports (Temperature) : 1
- Lid ports (DO) : 1

- Lid ports (Level) : 1
- Material in contact with medium : AISI 316L, borosilicate glass 3.3, silicone USP class VI
- Motor coupling : shaft feedthrough
- Harvest pipe outer diameter : 6 mm
- Harvest pipe inner diameter : 4
- Harvest pipe design : straight
- Harvest pipe, height adjustable : yes
- Feeding port, outer diameter : 4.5 mm
- Feeding port, inner diameter : 2 mm
- Feeding port, amount : 4
- Inoculation port, outer diameter : 6mm
- Inoculation port, inner diameter : 4mm
- Sparger : Ring sparger
- Sparger, outer diameter : 8 mm
- Sparger, inner diameter : 6 mm
- Sparger pore size : 500 μm
- Cooling finger : yes
- Cooling finger connection threat : M27x3 mm
- Cooling finger water connection, outer diameter : 8 mm
- Stirrer design : Propeller stirrer, 6-bladed
- Stirrer diameter 6 blade impeller : 57 mm
- Ratio = Stirrer diameter 6 blade / inner diameter reactor : 0.36
- Stirrer quantity : 2
- Condenser : yes
- Condenser, connection threat : M16x2
- Type of cooling : Vertical condenser
- Condenser Temperature min. : 5 °C
- Temperature min. / Condenser with Peltier : 15 °C
- Temperature min. / Condenser with water cooling : 5 °C
- Filtertype : sterile filter
- Filtermaterial : PTFE reinforced with PP
- Filter housing material : PP
- Pore size : 0.22 μm
- Filter heater : yes
- Spin filter : 40 μm
- Baffle : Accessory
- Temperature measuring : yes
- Working temperature sensor : PT1000
- pH sensor : yes
- pH sensor connection threat : PG 13.5
- pO2 sensor : yes
- pO2 sensor connection threat : PG 13.5
- Level sensor : IKA HA.s.lv

- Foam sensor : IKA HA.s.fo
- Turbidity sensor : Accessory
- Conductivity sensor : Accessory
- CO2 sensor : Accessory
- Stirring motor : yes
- Speed range : 1 - 1500 rpm
- Flowrate Air min. : 100 cc/min
- Flowrate Air max. : 20000 cc/min
- Flowrate O2 min. : 100 cc/min
- Flowrate O2 max. : 20000 cc/min
- Flowrate N2 min. : 100 cc/min
- Flowrate N2 max. : 20000 cc/min
- Flowrate CO2 min. : 100 cc/min
- Flowrate CO2 max. : 20000 cc/min
- Dimensions (W x H x D) : 260 x 605 x 260 mm

p. HABITAT ferment dw 10 double-wall, for 10 l, Cat.No., 0010007662

The 10-liter vessel package for the bioreactor HABITAT research contains a 10-liter double-walled glass vessel. For temperature control via the double jacket we recommend one of our circulators such as the IKA HRC 2.

Scope of delivery

- Stand 10
- HA.gv.dw.10 Glass vessel, double-wall, for 10 l
- HA.mt.s.10 Motor, big, for 5 l and 10 l
- HA.hp.s.10 Harvest pipe, straight, for 10 l
- HA.ino Port for inoculation
- HA.ba.10 Baffle, for 10 l
- HA.sp.r.10 Ring sparger, for 10 l
- HA.cn Condenser
- HA.ip.b.10 Rushton 6-blade impeller, for 10 l (2 pcs.)
- HA.s.tm.10 Temperature sensor, for 10 l
- HA.s.ph.10 Hamilton pH sensor, for 10 l
- HA.s.do.10 Hamilton DO analogue sensor, for 10 l
- HA.s.fo Foam sensor
- HA.s.lv.10 Fill level sensor, for 10 l
- HA.cab.dw Cable & tube set, for double-wall vessels
- HA.sf.250 Sample flask, 250 ml (4 pcs.)

Technical Data

- Reactor : Fermenter
- Volume : 10 l
- Type : double wall
- Multi use : yes

- Autoclavable : yes
- Inner diameter : 190 mm
- Ratio = height / inner diameter : 2.47
- Useable volume min. : 2.0 l
- Useable volume max. : 12.9 l
- Reactor vessel material : borosilicate glass
- Reactor lid material : stainless steel 1.4404
- Net weight reactor vessel : 7.65 kg
- Net weight reactor assembled : 21.9 kg
- Number lid ports : 18
- Lid ports (Baffle) : 1
- Lid ports (pH) : 1
- Lid ports (Reserve) : 7
- Lid ports (Condenser) : 1
- Lid ports (Cooling Finger) : 1
- Lid ports (Inoculation) : 1
- Lid ports (Harvest Pipe) : 1
- Lid ports (Sparger) : 1
- Lid ports (Feed) : 0
- Lid ports (4in1) : 1
- Lid ports (Temperature) : 1
- Lid ports (DO) : 1
- Lid ports (Level) : 1
- Material in contact with medium : AISI 316L, borosilicate glass 3.3, silicone USP class VI
- Motor coupling : shaft feedthrough
- Harvest pipe outer diameter : 6 mm
- Harvest pipe inner diameter : 4
- Harvest pipe design : straight
- Harvest pipe, height adjustable : yes
- Feeding port, outer diameter : 4.5 mm
- Feeding port, inner diameter : 2 mm
- Feeding port, amount : 4
- Inoculation port, outer diameter : 6mm
- Inoculation port, inner diameter : 4mm
- Sparger : Ring sparger
- Sparger, outer diameter : 8 mm
- Sparger, inner diameter : 6 mm
- Sparger pore size : 500 μ m
- Cooling finger : Accessory
- Cooling finger connection thread : M27x3 mm
- Cooling finger water connection, outer diameter : 8 mm
- Stirrer design : Propeller stirrer, 6-bladed
- Stirrer diameter 6 blade impeller : 68 mm

- Ratio = Stirrer diameter 6 blade / inner diameter reactor : 0.36
- Stirrer quantity : 2
- Condenser : yes
- Condenser, connection threat : M16x2
- Type of cooling : Vertical condenser
- Condenser Temperature min. : 5 °C
- Temperature min. / Condenser with Peltier : 15 °C
- Temperature min. / Condenser with water cooling : 5 °C
- Filtrertype : sterile filter
- Filtermaterial : PTFE reinforced with PP
- Filter housing material : PP
- Pore size : 0.22 µm
- Filter heater : yes
- Spin filter : 40 µm
- Baffle : Accessory
- Temperature measuring : yes
- Working temperature sensor : PT1000
- pH sensor : yes
- pH sensor connection threat : PG 13.5
- pO2 sensor : yes
- pO2 sensor connection threat : PG 13.5
- Level sensor : IKA HA.s.lv
- Foam sensor : IKA HA.s.fo
- Turbidity sensor : Accessory
- Conductivity sensor : Accessory
- CO2 sensor : Accessory
- Stirring motor : yes
- Speed range : 1 - 800 rpm
- Flowrate Air min. : 100 cc/min
- Flowrate Air max. : 20000 cc/min
- Flowrate O2 min. : 100 cc/min
- Flowrate O2 max. : 20000 cc/min
- Flowrate N2 min. : 100 cc/min
- Flowrate N2 max. : 20000 cc/min
- Flowrate CO2 min. : 100 cc/min
- Flowrate CO2 max. : 20000 cc/min
- Dimensions (W x H x D) : 300 x 710 x 300 mm