



Minifermentor MINIFOR Start-up kit

Fermentation starting package allows to perform a normal fermentation under conditions of good quality and control:

1 instrument casing containing

- AC power supply (universal voltage 100 to 240V/50-60Hz,400W)
- parabolic, gilded heat radiator,
- mass flow air flow-rate measuring system
- proportional air valve with tubing
- security valve 0,05MPa
- magnetic agitator with cable and fittings
- combined cable for pH and temperature Pt 100 sensor
- input sockets for DO sensor and an additional free parameter X
- electronic unit with 40x4 sign display and internal software
- incorporated key board
- two adjustable lateral reactor holders
- four sockets for pumps,
- one socket for alarm output
- one socket for PC control RS 485
- one mains cable
- one support rod
- input and output air hoses

1 fermentation vessel total volume 1 l with

- 5 threaded sidearms (up to 8 sidearms as an option)
- 5 Pyrex open screw caps with silicone joints
- 4 blind caps for unused ports
- one large central screw cap
- one fermentor head
- one silicone sterility membrane
- one sparger pipe with stirring disc (or fish-tail stirrer for bioreactor)
- one quadruple sampling port with Luer-Lock or PEEK fittings
- one input and output filter for air
- one air outlet condenser
- one cooling loop

2 peristaltic pump PRECIFLOW with proportional speed control (or MASSFLOW for cell cultures)

2 adjustable support plate for the pump

2 pump cable

1 combined pH and temperature probe with cable

1 pO₂ probe with cable

2 reagent bottle 250 ml with pipes and Luer-Lock fittings

2 magnetic bottle holder

5 m of silicone tubing

1 operation manual



Minifor start-up control unit contains:

- one module for measurement and control of temperature
- one module for measurement and control of pH with automatic temperature correction
- one module for measurement and control of dissolved oxygen with autom. temp. correction
- one module for measurement and control of air-flow (precision mass flow system)
- one module for stirring control
- one module for measurement and control of another parameter (input 0 to 10V)
(high and low alarms can be set for all measured parameters)
(RS 485 line on all pump sockets)

