

PHOENIX FLOW REACTOR™ MODULE

Contains: Phoenix Flow Reactor™ Use the Phoenix Flow Reactor™ as a module of the H-Cube Pro™ for cylinder-free hydrogenations and other heterogeneous catalytic reactors at temperatures up to 450 °C and much more: when the Phoenix Flow Reactor™ is connected to the H-Cube Pro™, it is possible to set up a system to perform single or double-step reactions in series and to monitor and control the whole process using the interface of the H-Cube Pro™.

110 V with 100 bar heat exchanger	THS-09049-1
110 V with 200 bar heat exchanger	THS-09049-2
110 V with 300 bar heat exchanger	THS-09049-3
220 V with 100 bar heat exchanger	THS-09048-1
220 V with 200 bar heat exchanger	THS-09048-2
220 V with 300 bar heat exchanger	THS-09048-3

PHOENIX FLOW REACTOR™ BASIC SYSTEM

Contains: HPLC pump, Phoenix Flow Reactor™, Back Pressure Module™

For liquid-liquid or solid-liquid reactions: The HPLC pump delivers the starting material solution into the system, which is set to the desired temperature and pressure. The starting material solution enters the selected reaction zone, which can be a loop, a CatCart®, a MidiCart™ or a metal-metal sealed column filled with catalyst, where the reaction takes place. The product is collected in a collection vial.

110 V with 100 bar heat exchanger	THS-09054-1
110 V with 200 bar heat exchanger	THS-09054-2
110 V with 300 bar heat exchanger	THS-09054-3
220 V with 100 bar heat exchanger	THS-09053-1
220 V with 200 bar heat exchanger	THS-09053-2
220 V with 300 bar heat exchanger	THS-09053-3

PHOENIX FLOW REACTOR™ PROFESSIONAL SYSTEM

Contains: HPLC pump, Phoenix Flow Reactor™, Gas Module™, Back Pressure Module™, Control Module™ For reactions in gas-liquid phase, with or without catalyst: The gas coming from a high pressure gas source (usually a gas tank) is introduced in the Gas Module™, which ensures the accurate dosage of the gas. The HPLC pump introduces the liquid into the system. The gas and the liquid are mixed in the gas-liquid mixer. The gas-liquid mix enters the heated and pressurized reaction zone, which can be a loop, a CatCart®, a MidiCart™ or a metal-metal sealed column filled with catalyst, where the reaction takes place. Product is collected in the collection vial.

110 V with 100 bar heat exchanger	THS-09069-1
110 V with 200 bar heat exchanger	THS-09069-2
110 V with 300 bar heat exchanger	THS-09069-3
220 V with 100 bar heat exchanger	THS-09068-1
220 V with 200 bar heat exchanger	THS-09068-2
220 V with 300 bar heat exchanger	THS-09068-3

PHOENIX FLOW REACTOR™ - SS LOOP PACKAGE

The Phoenix Flow Reactor™ SS Loop Package contains 3 different sizes of stainless steel (SS) loop reactors for high temperature homogeneous chemical reactions with the appropriate holders for each:

- 4 mL SS coil
- 8 mL SS coil
- 16 mL SS coil

Phoenix Flow Reactor™ - SS Loop Package

THS-PC1055

PHOENIX FLOW REACTOR™ - HASTELLOY LOOP PACKAGE

The Phoenix Flow Reactor™ Hastelloy Package contains 3 different sizes of Hastelloy loop reactors for high temperature homogeneous chemical reactions with the appropriate holders for each:

- 4 mL Hastelloy coil
- 8 mL Hastelloy coil
- 16 mL Hastelloy coil

Phoenix Flow Reactor™ - Hastelloy Loop Package

THS-PC1056

PHOENIX FLOW REACTOR™ - PTFE LOOP PACKAGE

The Phoenix Flow Reactor™ PTFE Package contains 3 different sizes of PTFE loop reactors for high temperature homogeneous chemical reactions with the appropriate holders for each:

- 4 mL PTFE coil
- 8 mL PTFE coil
- 16 mL PTFE coil

Phoenix Flow Reactor™ - PTFE Loop Package

THS-PC1057

PHOENIX FLOW REACTOR™ - SCALE-UP LOOP PACKAGE

The Phoenix Flow Reactor™ Scale-Up Loop Package contains a 40 mL 1/8" OD stainless steel loop reactor for high temperature homogeneous chemical reactions with the appropriate holder.

Phoenix Flow Reactor™ - Scale-up Loop Package

THS-PC1058

PHOENIX FLOW REACTOR™ - HETEROGENEOUS PACKAGE 30

The Phoenix Flow Reactor™ Heterogeneous Package 30 contains 12 different CatCarts for heterogeneous chemical reactions with the appropriate holders:

- 10% Pd/C 30x4 mm CatCart (2 pieces)
- Raney Nickel 30x4 mm CatCart (2 pieces)
- 10% Pt/C 30x4 mm CatCart (2 pieces)
- 1% Au/TiO₂ 30x4 mm CatCart (2 pieces)
- 5% Ru/C 30x4 mm CatCart (2 pieces)
- SiliaCat DPP-Pd 30x4 mm CatCart (2 pieces)
- 30 mm CatCart Holder
- Holder sets for CatCarts

Phoenix Flow Reactor™ - Heterogeneous Package 30

THS-PC1059

PHOENIX FLOW REACTOR™ - HETEROGENEOUS PACKAGE 70

The Phoenix Flow Reactor™ Heterogeneous Package 70 contains 12 different CatCarts for heterogeneous chemical reactions with the appropriate holders:

- 10% Pd/C 70x4 mm CatCart (2 pieces)
- Raney Nickel 70x4 mm CatCart (2 pieces)
- 10% Pt/C 70x4 mm CatCart (2 pieces)
- 1% Au/TiO₂ 70x4 mm CatCart (2 pieces)
- 5% Ru/C 70x4 mm CatCart (2 pieces)
- SiliaCat DPP-Pd 70x4 mm CatCart (2 pieces)
- 70 mm CatCart Holder
- Holder sets for CatCarts

Phoenix Flow Reactor™ - Heterogeneous Package 70

THS-PC1060

PHOENIX FLOW REACTOR™ - HIGH TEMPERATURE HETEROGENEOUS PACKAGE

The Phoenix Flow Reactor™ High Temperature Heterogeneous Package contains 3 different sizes of metal-metal sealed stainless steel cartridges for high temperature heterogeneous chemical reactions with the appropriate holder sets for each:

- 125 mm length with 1/2" OD
- 125 mm length with 1/4" OD
- 125 mm length with 1/8" OD

Phoenix Flow Reactor™ - High Temperature Heterogeneous Package

THS-PC1061

PHOENIX FLOW REACTOR™ - SCALE-UP HETEROGENEOUS PACKAGE

The Phoenix Flow Reactor™ Scale-Up Heterogeneous Package contains 2 different sizes of metal-metal sealed stainless steel cartridges and 4 different MidiCarts for high temperature heterogeneous chemical reactions with the appropriate holder sets for each:

- 250 mm length with 1/2" OD metal-metal sealed cartridge
- 250 mm length with 1/4" OD metal-metal sealed cartridge
- 10% Pd/C MidiCart
- 10% Pt/C MidiCart
- 5% Ru/C MidiCart
- Raney Nickel MidiCart

Phoenix Flow Reactor™ - Heterogeneous Package 70

THS-PC1063