

500HL_f

Hazardous Location Syringe Pump

The Teledyne ISCO HL_f-Series pumps give you the same accurate, predictable flow and pressure control as our standard D-Series, while conforming to safety standards for use in UL Class I, Division 2, Groups A B C & D, T4 environments. The hazardous location rating is achieved through internal design modifications including the use of brushless DC motors. This approach eliminates the need for purge boxes or other additional safety devices.

3,750 psi (259 bar) approved by UL for Class I, Division 2 Environments.

Wetted materials are compatible with most aqueous and organic liquids, corrosive solutions, heated fluids, liquefied gases, viscous fluids, or slurries and pastes.

The HL_f controller has a keypad and LCD, as well as built-in and optional interfaces for computer control and other devices. Programming is easy and flexible, with instant access to menu screens even when the pump is running. This allows you to change operating parameters on the fly.

Chemical Compatibility

Wetted materials have been tested for compatibility with the following fluids.

- ethane
- butane
- diesel fuel
- isopropanol
- benzene
- ethylene
- butadiene
- jet fuel
- acetone
- ethylbenzene
- propane
- hexane
- ammonia
- acetonitrile
- propylene
- gasoline
- methanol
- heptane
- isobutylene
- methane



Applications:

- Metering and dispensing in experiments and pilot plants where explosive conditions may occur
- Precision fluid addition in research and manufacturing processes
- Chemical/Reactant feed in chemical process development, catalyst evaluation, plastic formulation
- Accurate metering of liquefied gases

Standard Controller Features:

- Operating Modes
 - Constant flow or pressure with up to four pumps
 - Continuous flow or pressure with dual pump
 - Flow or pressure programming with a single pump
 - Dispense mode
- External Interface
 - RS232/485 serial interface
 - Analog voltage inputs
 - Digital inputs and output
 - Ethernet/USB

500HL_f Specifications

Pump Module:	500HL _f
Capacity:	507 mL
Flow Range (mL/min):	1.0 μL–204 mL/min*
Flow Accuracy:	+ 0.5% of setpoint, (Maximum 1.0 μL/min seal leakage)
Displacement Resolution:	12.684 nL/stop
Pressure Range:	10–3,750 psi (0.7–258.6 bar)
Standard Pressure Accuracy:	0.5% FS
Optional Pressure Accuracy:	0.1% FS
Wetted Materials (Standard):	Nitronic 50, Graphite filled PTFE, TFE, Hastelloy C-276, Inert Polymers, Gold, Titanium
Plumbing Ports:	1/8" NPT
Operating Temperature:	5–40 °C Ambient
Power Required:	100 Vac, 117 Vac, 234 Vac, 50/60 Hz (specify)
Dimensions (H x W x D):	40.3 x 10.7 x 18.4 in (102 x 27 x 47 cm)
Weight:	Pump unit—73.3 lb (33.3 kg) Controller—6.5 lb (3.0 kg)
Standards Conformity:	UL 61010-1, ANSI/ISA 12.12.01-2012, CSA C22.2 No. 1010 and No. 213-M1987

* Maximum flow rate is dependent upon operating pressure. (See manual for additional information.)

500HL_f Options & Accessories

- Temperature control jacket (i.e. cylinder cooling for filling with liquefied gas)
- Drivers for LabVIEW—National Instruments
- 4-20 mA inputs and outputs for flow rate and pressure control

Ordering Information

500HL _f Pump Module, Nitronic.....	68-1260-012
HL _f Series Controller, Basic.....	68-1260-013
HL _f Series Controller with 4-20mA (only).....	68-1260-011
Continuous Flow Air Valves, Hastelloy.....	68-1247-148
Manual Refill Kit.....	68-1247-083
500HL _f High Temperature Package.....	60-5364-419
500HL _f High Accuracy Transducer.....	60-5364-487
Temperature Control Jacket.....	68-1268-029



HL_f Continuous Flow System



Teledyne ISCO

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Teledyne ISCO is continually improving its products and reserves the right to change product specifications, replacement parts, schematics, and instructions without notice.



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