

SYRINGE PUMPS

NEW PHD ULTRA™ XF and PHD ULTRA™ HPSI



KEY FEATURES: PHD ULTRA™ XF

- Pump up to 800 ml with four 200 ml syringes
- Ultra high pressure – delivers over 400 lbs of pumping force (HPSI Model)
- Ultra high pressure – delivers 1000 lbs of pumping force (XF Model)
- Intuitive touch screen with icon interface
- Easily program simple to complex Methods without a PC

APPLICATIONS

- High Pressure Injections
- Drug Delivery
- Pumping Highly Corrosive Fluids
- Injecting into High Pressure Reaction Vessels
- Remote pumping of Hazardous Material

The PHD ULTRA™ HPSI and PHD ULTRA™ XF pumps are infusion/withdrawal programmable syringe pumps that hold four stainless steel syringes ranging from 20 ml to 200 ml. These high pressure pumps deliver over 400 lbs and 1000 lbs of pumping force respectively. The PHD ULTRA™ HPSI and PHD ULTRA™ XF syringe pumps are ideal for high pressure applications or for pumping large volumes.

The PHD ULTRA™ HPSI Syringe Pump consists of a control unit, a syringe pumping mechanism and a 5 foot (1.5 m) cable to connect the two units. Although stainless steel syringes are recommended, this pump includes mounting brackets for plastic syringes.

The PHD ULTRA™ XF Syringe Pump consists of a control unit, a syringe pumping mechanism and a 30 foot (9.1 m) cable to connect the two units.

PHD ULTRA™ XF and HPSI Remote Specifications

TYPE	Microprocessor multiple syringe, infusion/withdrawal or infusion/withdrawal programmable
ACCURACY	±0.50%
REPRODUCIBILITY	±0.05%
SYRINGES:	
PHD ULTRA™ XF	20 ml to 200 ml (stainless steel only)
PHD ULTRA™ HPSI	PC2 70-3111: 20 ml to 200 ml (stainless steel) PC2 70-3112: 60 ml or 140 ml (plastic syringes only)
FLOW RATE:	
Minimum	50.79 ml/min (using 20 ml syringe)
Maximum	144.3 ml/min (using 200 ml syringe)
DISPLAY	4.3" WQVGA TFT color display with touchscreen
CONNECTORS:	
RS-232	9-pin D-Sub Connector
RS-485	6-position IEEE-1394
USB	Type B
I/O & TTL	15-pin D-Sub connector
Footswitch	Phono jack
AVERAGE LINEAR FORCE:	
PHD ULTRA™ XF	454 kg (1000 lbs) @ 100% force selection
PHD ULTRA™ HPSI	196 kg (433 lbs) @ 100% force selection
STEP RESOLUTION	0.082 µm/step
VOLTAGE RANGE	Universal input 100/240 VAC, 50/60 Hz
DIMENSIONS, H x W x D	10.16 x 30.48 x 21.59 cm (4 x 12 x 8.5 in)
DIMENSIONS (CONTROL BOX)	30.48 x 21.59 x 10.8 cm (12 x 8.5 x 4.25 in)
DIMENSIONS (REMOTE BOX)	40.64 x 30.48 x 19.69 cm (16 x 12 x 7.75 in)
WEIGHT	13.7 kg (30.2 lbs)
REGULATORY CERTIFICATIONS	CE, ETL (UL, CSA), WEEE, EU RoHS & CB Scheme

Order #	Product
PC2 70-3111	PHD ULTRA™ HPSI Remote Infusion/Withdrawal Programmable Syringe Pump
PC2 70-3112	PHD ULTRA™ HPSI Remote Infusion/Withdrawal Programmable Syringe Pump with 10 x 140 Rack
PC2 70-3314*	PHD ULTRA™ XF Remote Infusion/Withdrawal Programmable Syringe Pump
PC2 70-3030	PHD ULTRA™ RS-232 and RJ-11 Connectors Option
PC2 70-3033	PHD ULTRA™ Analog Control Input Option (0-10 VDC)

* Note: XF Pump also available as a Syringe Pump Module (PC2 70-3514).
Standard mounting is for stainless steel syringes. Inquire for mounting brackets for plastic syringes