

# dPOFLEX<sup>®</sup> High Precision Filling System

## PFU, PFS

- Precise filling of micro-volume as low as 30uL, accuracy better than  $\pm 1\%$
- Can be used independently as a small benchtop filling system, or integrated into semi-automatic systems or fully automated systems
- The master controller can control up to 32 channels, which can be set with individual parameters
- Three levels of user accesses, operation log, batch report with electronic signature, for FDA 21CFR Part 11



DISPENSING&FILLING SYSTEM

	PFU (Single Channel)	PFS (Four Channels)
Pump head	PFH01(microliter pump head) , PFH02 (milliliter pump head)	
Tubing	Silicone tubing and tubing kits	
Filling volume	1uL - 99.99L	
Filling accuracy	better than $\pm 1\%$	
Filling precision	CV < 0.5%	
Filling time	0.1seconds-999.9hours	
Filling cycle	0-999999 (0 means unlimited)	
Interval time	0.1s - 999.9s	
Back suction parameter	0-30	
Working direction	Clockwise	
Calibration	Manual input calibration, balance reading calibration or online ratio calibration, with volume or mass data	
Display	7 inch touch screen, Chinese or English can be set	
Work mode	Single channel filling, multi-channel filling with the same parameters or individual parameters	
Access management and password protection	Three levels of user accesses (administrator, developer, operator), each user can have an exclusive password	
Parameter recipe	Up to 500 recipes can be stored and recalled easily on the PFC controller	
Batch report	Up to 800 batch reports can be stored on the PFC controller, which can be saved to USB flash drive or printed directly	
Communication control	Rs485 interface, Modbus RTU protocol	Rs485 interface, Modbus RTU protocol; or Ethernet interface, TCP/IP protocol as optional
External control input	Start the pump, emergency stop, disable channel	
Output	1 output for malfunction status	
IP rating	IP31	IP32
Power supply	AC 100V-240V , 50/60Hz, 60W	AC 100V-240V , 50/60Hz, 250W
Dimension (L*W*H)	119mm×203mm×176mm (without pump head)	548mm×245mm×198mm (without pump head)
Weight of system	3.5kg (without pump head)	16.1kg (without pump head)
Dimension of controller (L*W*H)	187mm×123mm×39mm	
Weight of controller	0.6kg	
Working condition	Temperature: 5 - 40°C , RH: $\leq 85\%$ , no condensation	
Storage and transportation condition	Temperature: -40 - 70°C, RH: $\leq 85\%$ , no condensation	

# dPOFLEX® High Precision Filling Pump Head

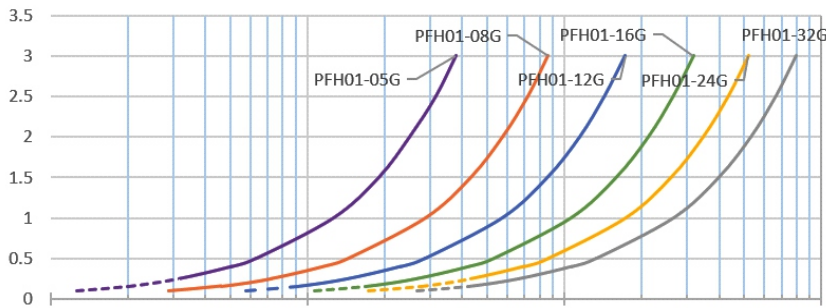
## PFH01, PFH02

PUMP HEADS

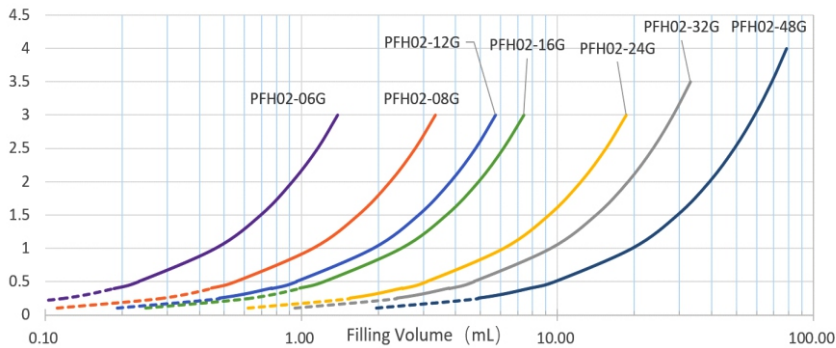


- Small footprint, compact structure
- Anodised aluminum housing for good corrosion
- Precise filling of micro-volumes as low as 30uL with accuracy better than  $\pm 1\%$
- Phase compensation structure for low pulse performance

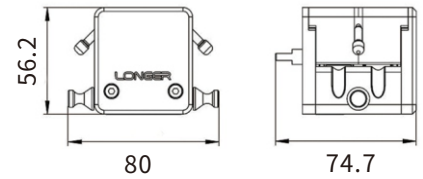
Microliter Pump Head PFH01 Capacity



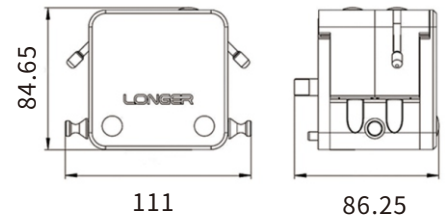
Milliliter Pump Head PFH02 Capacity



PFH01(0.51kg)



PFH02(1.26kg)



Pump Head Model	Roller Material	Roller Number	Speed (rpm)	Tubing ID (mm)	Max Flow Rate (mL/min)	Recommended Filling Volume (Accuracy $\leq \pm 1\%$ )	Max Filling Volume per Second	Recommended Filling Nozzle ID (mm)
PFH01	Stainless Steel	12	$\leq 350$	0.5	7	30uL	118uL	0.3 or 0.6
				0.8	17	42uL	269uL	0.6
				1.2	34	90uL	534uL	1
				1.6	63	132uL	987uL	1 or 0.6
				2.4	104	400uL	1.61mL	1.6
				3.2	159	760uL	2.47mL	1.6 or 3.2
PFH02	Stainless Steel	8	$\leq 450$	0.6	27	0.2mL	0.42mL	0.6
				0.8	66	0.4mL	1.03mL	0.6
				1.2	114	0.5mL	1.78mL	1
				1.6	147	0.8mL	2.29mL	1 or 1.6
				2.4	371	1.16mL	5.77mL	1.6
				3.2	566	2.15mL	8.80mL	1.6 or 3.2
4.8	1178	3mL	18.28mL	3.2 or 4.5				