

Split Type Filling System

CF600



Features

- Split design, adding or deleting filling units freely.
- One controller can control 1-16 filling units.
- Each filling unit can receive stop filling signal when bottle absent.
- You can check the working status of the filling units from controller.

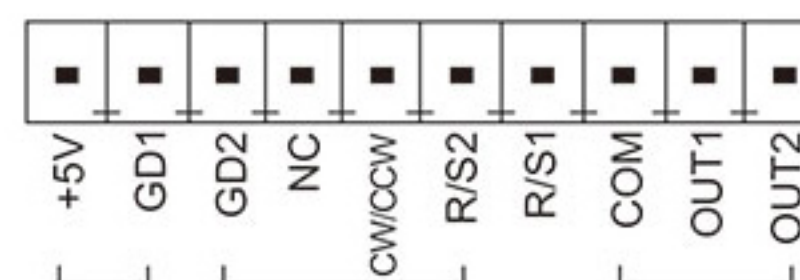
Model Number

- CF600, CF600 Plus, CF600II, CF600II Plus

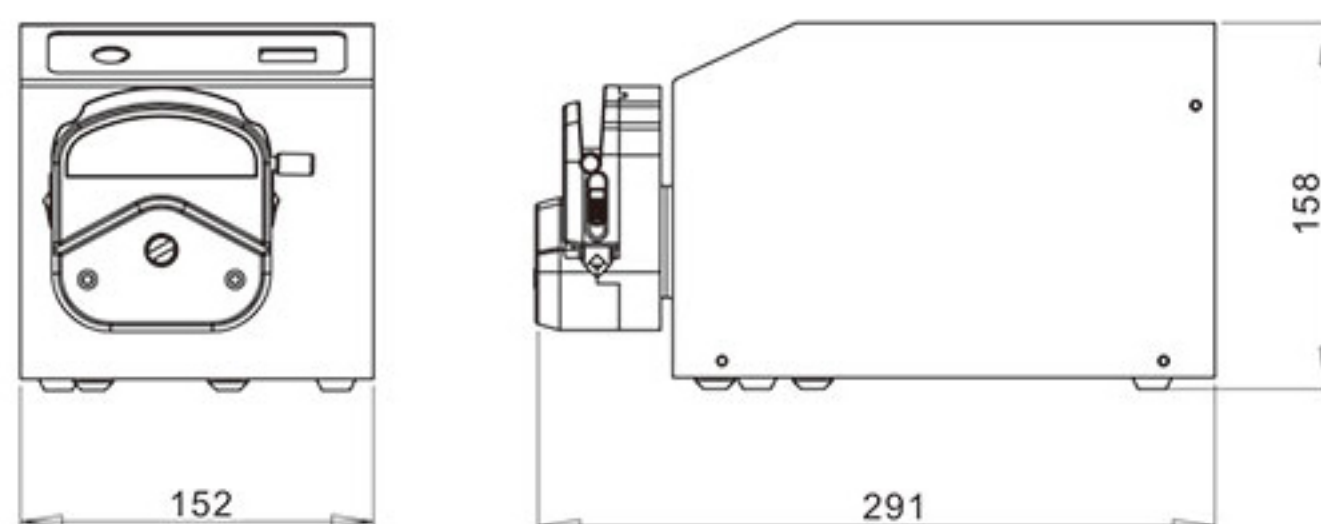
Typical Application

- Laboratory dispensing
- Industry filling

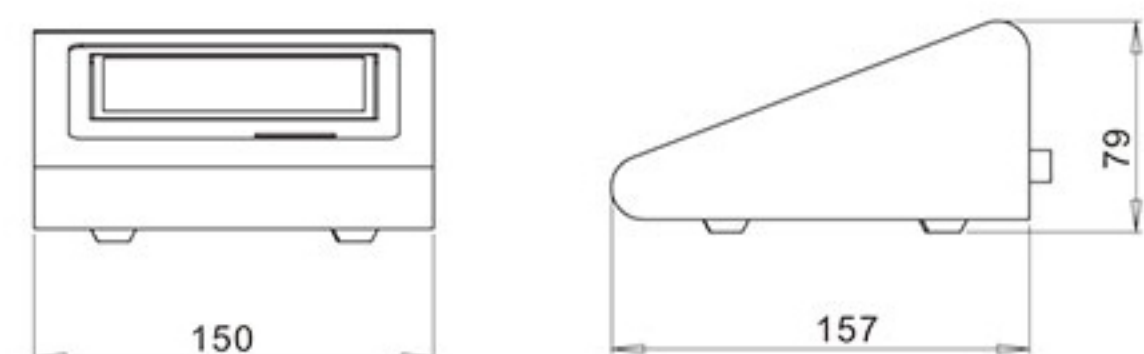
External Control Schematic Diagram



Installation Sizes Drawing (Unit: mm)



Drive Dimension Drawing



Controller Dimension Drawing



Split Type Filling system

CF350

304
SS Housing



Features

- | Servo motor drive, precision control
- | Split type design, space-saving, easy installation.
- | Use low pulsation pump head to reduce the pulsation of the fluid effectively.
- | Suitable for micro volume high precision filling.

Model Number

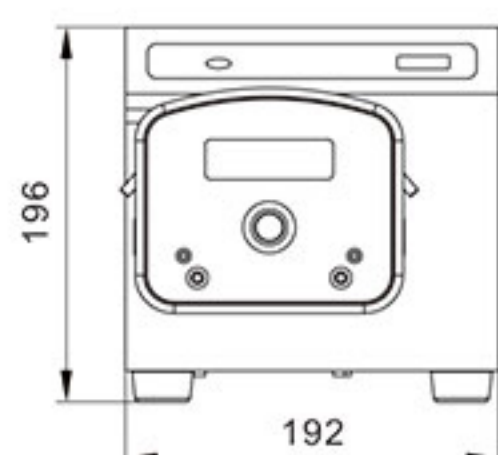
- | CF350, CF350 Plus, CF600III
- | CF600 PlusIII, CF600IV, CF600 PlusIV



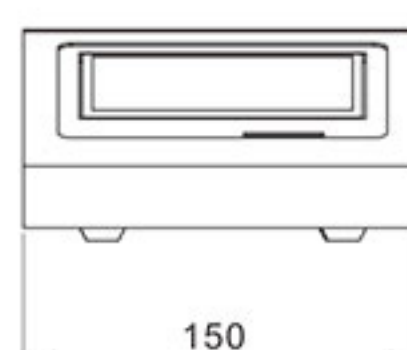
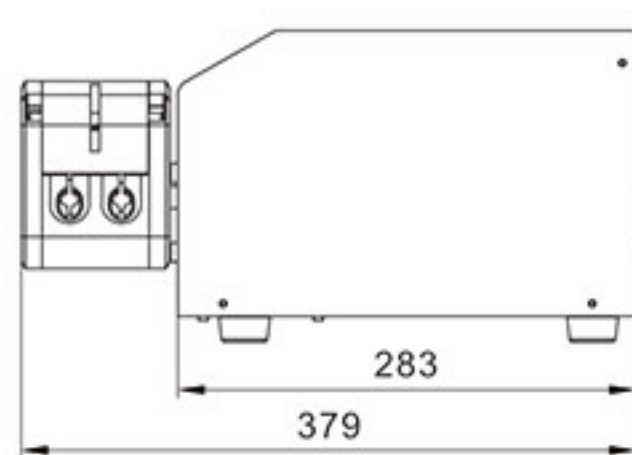
Control Unit

Filling Unit

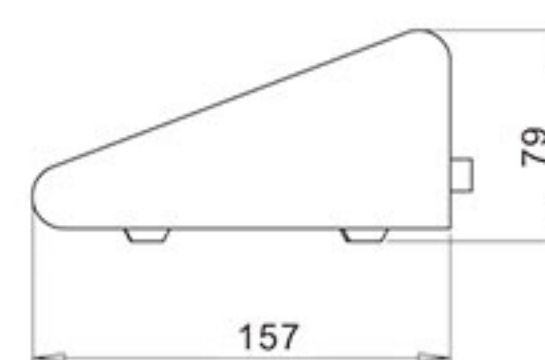
Installation Sizes Drawing (Unit: mm)



Drive Dimension Drawing



Controller Dimension Drawing



The pump type suffixed with "Plus" support MODBUS communication protocol.

Drive	Pump Head	Flow Rate (mL/min)	Motor Type	Drive Dimension (L×W×H)	Power Consumption	Drive Weight
CF600 CF600Plus	YZ1515x	0.07~2280	Stepper motor	237.4×152×158mm	Each unit < 50W	4.2kg
	YZ2515x	1.7~1740				
CF600 II CF600Plus II	DZ25-3L	2.11~3600	Stepper motor	237.4×152×158mm	Each unit < 80W	4.95kg
CF600 III CF600Plus III	DZ25-6L	3.0~6000	Servo motor	283×192×196mm	Each unit < 180W	7.8kg
CF350 CF350Plus	DY15	0.1~3337	Servo motor	283×192×196mm	Each unit < 180W	7.8kg
	DY25	4.2~4340				
CF600 IV CF600PlusIV	YZ35 YZ35-PPS	6.9~12000	Servo motor	310×228×248mm	Each unit < 300W	11.9kg



Integrated Filling System

DF600



Features

- Integrated design, one controller can control 4 groups (total 16) filling units.
- It can support the production filling line, store 60 commonly used filling modes.
- Each filling unit can independently receive stop filling signal when bottle absent.

Model Number

- DF600, Df600II, DF600 Plus, DF600 PlusII

Typical Application

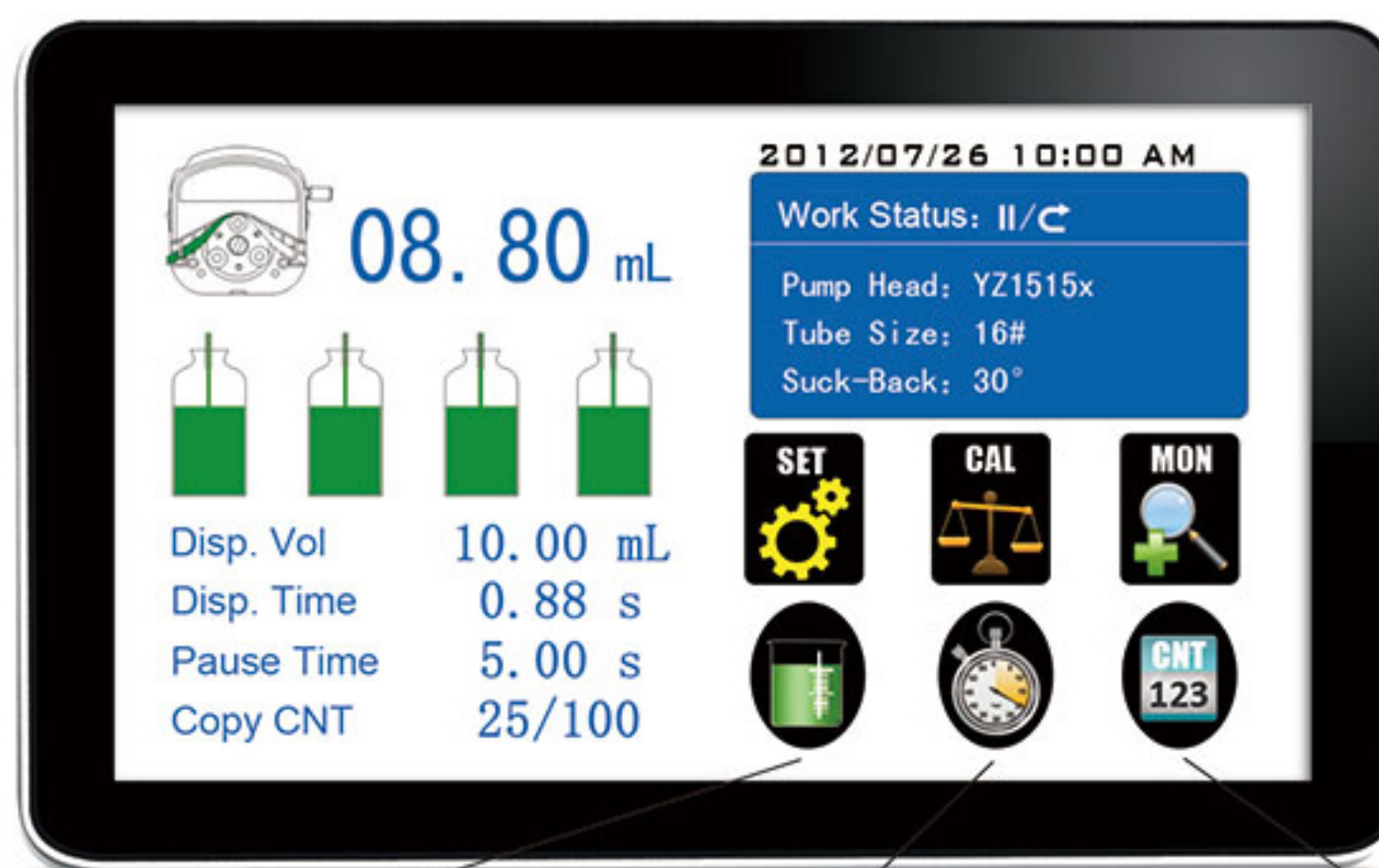
- Pharmaceutical, health product filling, diagnostic reagent dispensing.
- Food, beverage filling.
- Cosmetic filling.

DF600 Plus

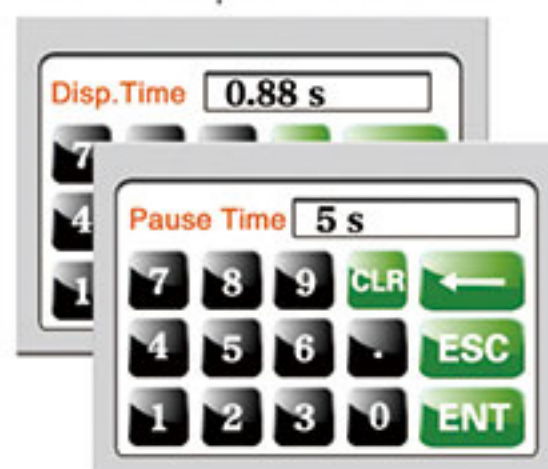


Features

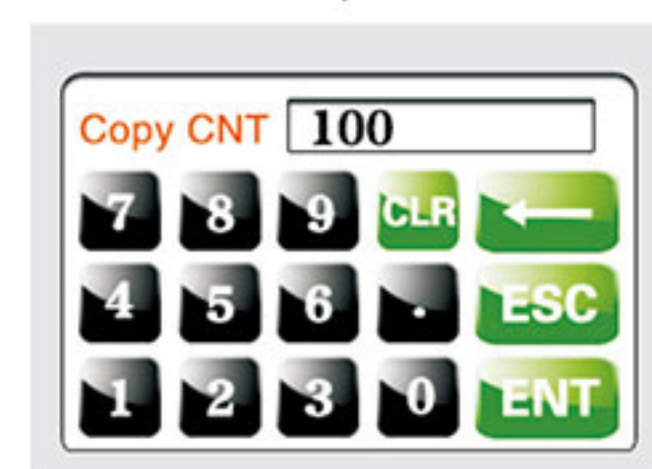
Connected with HMI, PLC etc, industrial control system, one controller can control 4 groups (total 16) filling units. It can display the details of 16 filling units in the HMI, widely used in industrial control application.



Dispensing volume interface



Dispensing time and pause time interface



Copy numbers interface



Integrated Filling System

DF600IV(servo motor control)



DF350(servo motor control)



Product Introduction

DF servo control series is integrated type intelligent filling system with high precision and low pulsation driven by servo motor. It is composed by control unit and integrated type filling units, each group have 4 filling units, total 16 filling units. This system use imported 4.3" industrial grade true color display with touch screen control, can preset filling volume, filling time, pause time, copy numbers and back-suction angle, animation display working status, filling data, setting parameter, system configuration display at the same screen; with intelligent calibration and online micro adjust function. Can connect foot pedal and receive switch signal, realize long-distance control. With motor working status output signal, can let other equipment realtime monitor the current filling status of peristaltic pump. This filling system use servo motor, and high precision, low pulsation pump head to make the filling precision higher, up to 0.1%-0.6%, make the micro volume and big volume high precision filling come true.

Model Number

- | | |
|----------|---------------|
| DF350 | DF350 Plus |
| DF600III | DF600 PlusIII |
| DF600IV | DF600 PlusIV |

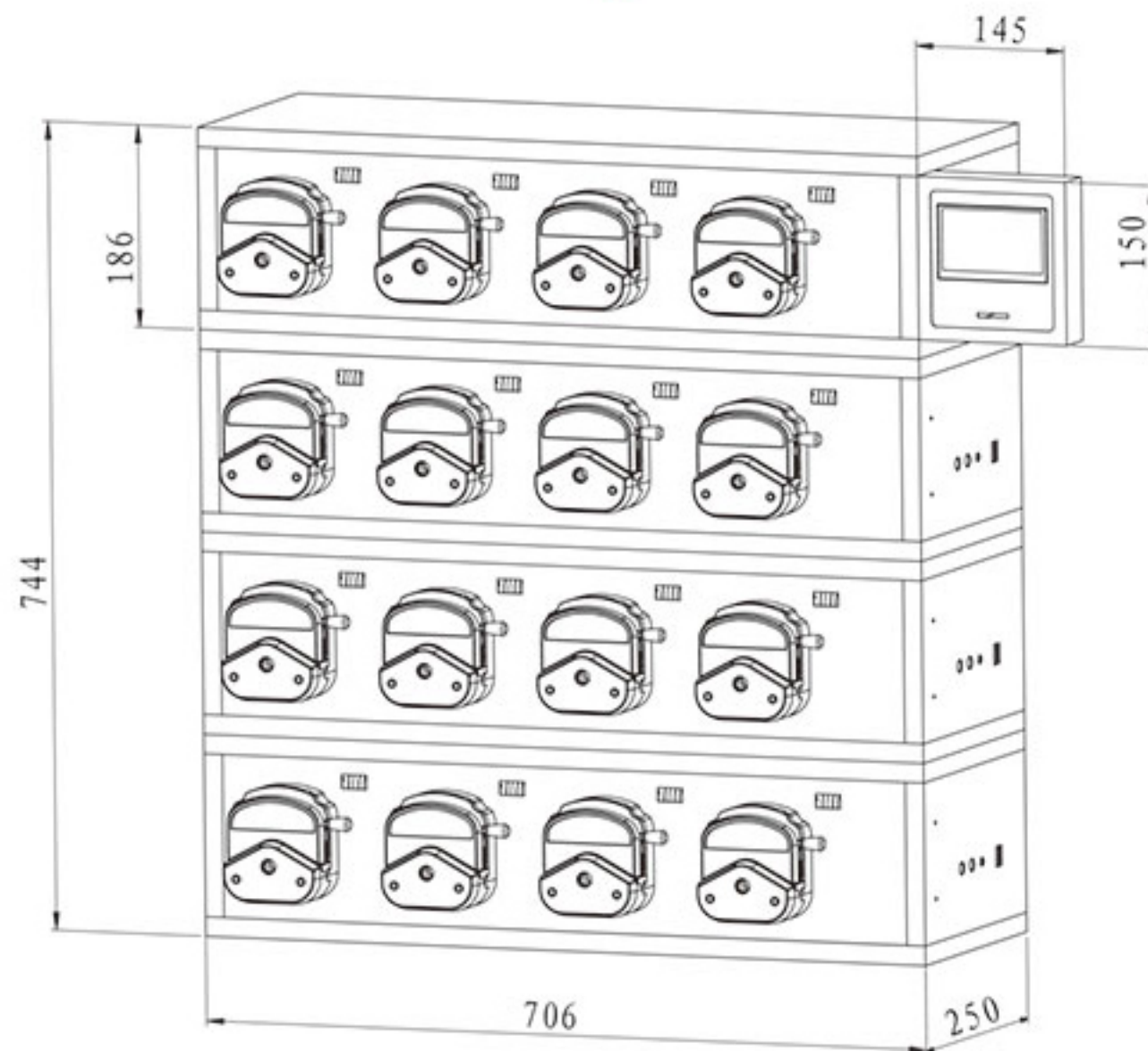
Typical Application

- | Pharmaceutical, health product filling, diagnostic reagent dispensing.
- | Food, beverage filling.
- | Cosmetic filling.

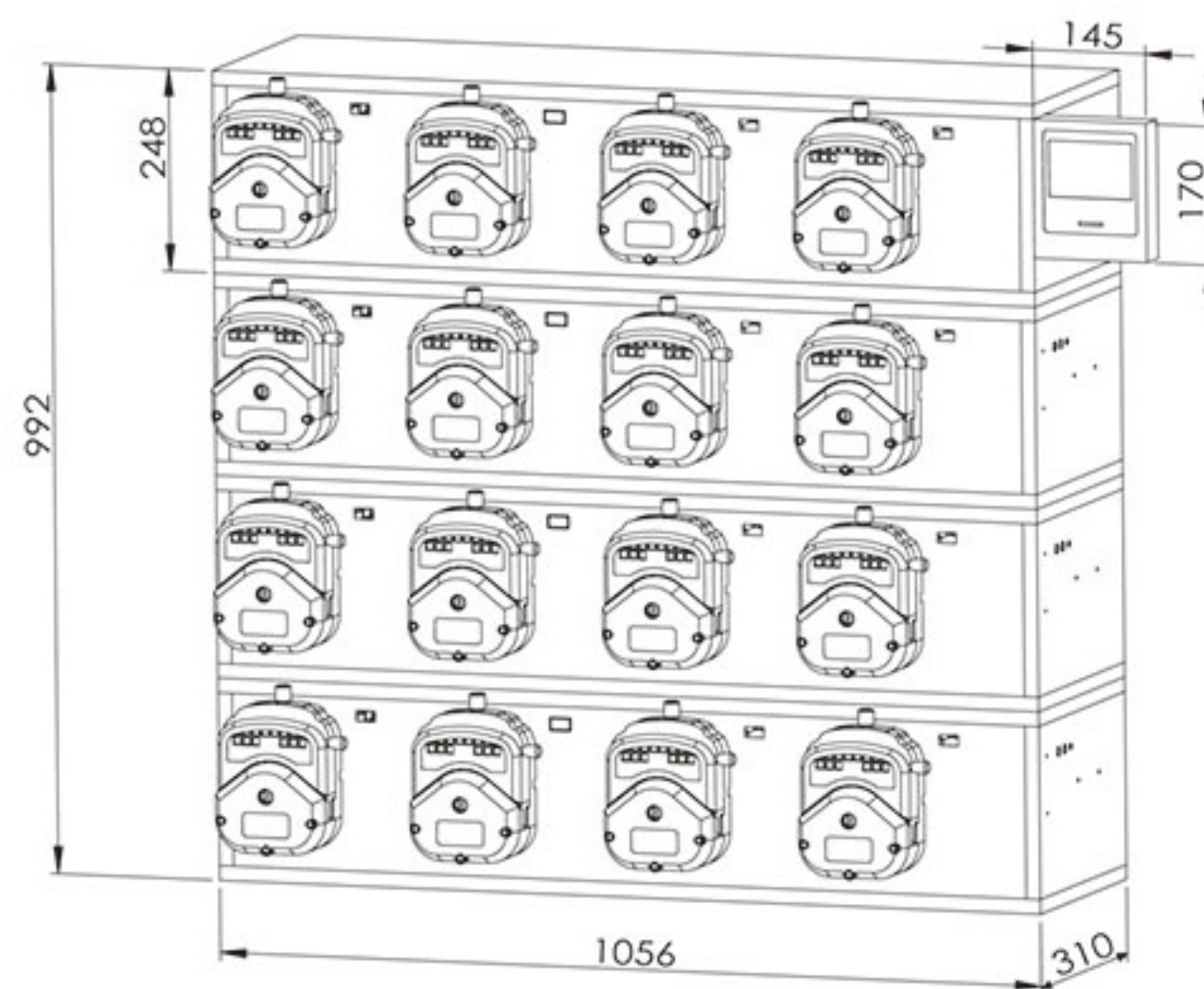


Integrated Filling System

Installation Sizes Drawing(Unit: mm)



DF600 Dimension

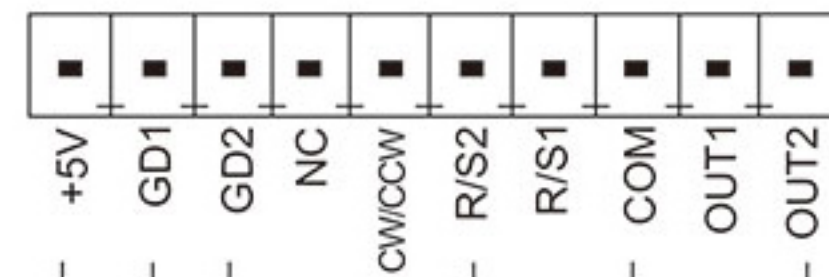


DF600IV Dimension

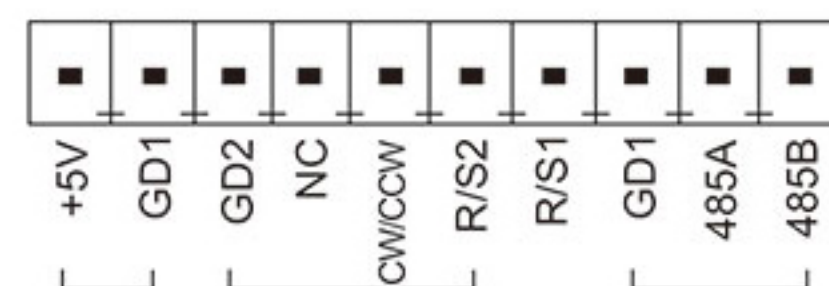
External Control Schematic Diagram

DF600 has filling status output signal, can be monitored by other equipments.

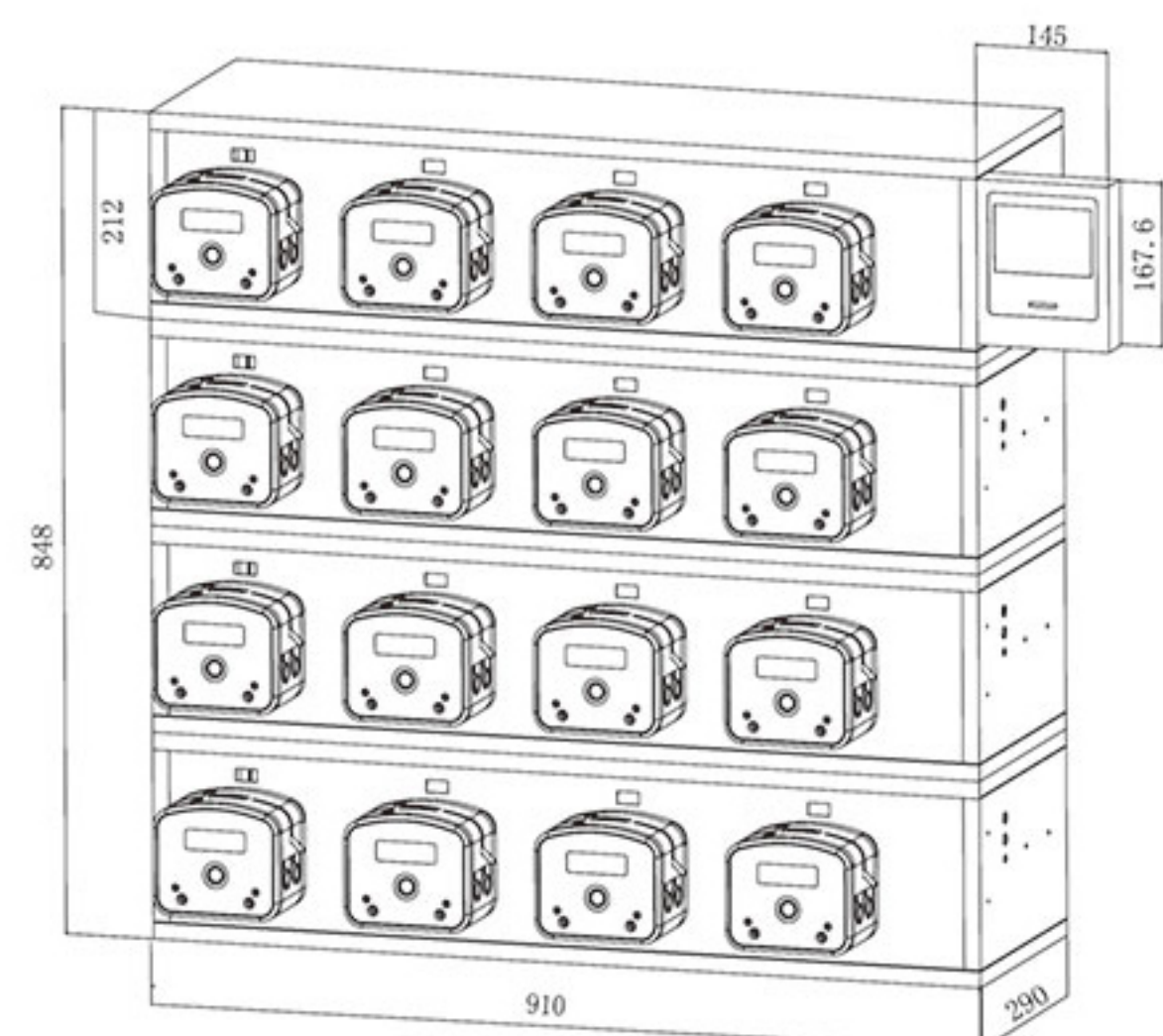
DF600 plus adopt standard MODBUS communication protocol, can be well connected with HMI to achieve logic control.



DF600 External Control Schematic Diagram



DF600plus External Control Schematic Diagram



DF350 Dimension

The pump type suffixed with "Plus" support MODBUS communication protocol

Drive	Pump Head	Flow Rate (mL/min)	Motor Type	Drive Dimension (L×W×H)	Power Consumption	Drive Weight
DF600 DF600Plus	YZ1515x YZ2515x	0.07~2280 1.7~1740	Stepper motor	706×250×186mm	Each Unit<50W	21.8kg
DF600 II DF600Plus II	DZ25-3L	2.11-3600	Stepper motor	706×250×186mm	Each Unit<80W	21.8kg
DF600 III DF600Plus III	DZ25-6L	3.0-6000	Servo motor	910×290×212mm	Each Unit<180W	41.45kg
DF350 DF350Plus	DY15 DY25	0.1-3337 4.2-4340	Servo motor	910×290×212mm	Each Unit<180W	41.45kg
DF600IV DF600Plus IV	YZ35 YZ35-PPS	6.9-12000	Servo motor	1056×310×248m	Each Unit<300W	58.6kg



Technical Specifications

Speed range	CF350/DF350	1-350 rpm	Display	4.3" industrial grade true color LCD screen
	CF350 Plus/DF350 Plus	1-350 rpm	Control method	Touch screen and mechanical keypad
	CF600Ⅲ/DF600Ⅲ/DF600Ⅳ	1-600 rpm	Keypad lifetime	300,000 times
	CF600 PlusⅢ/DF600 PlusⅢ/DF600 PlusⅣ	1-600 rpm	Start/stop, direction signal	Passive switch signal, such as foot pedal switch Active switch signal: 5V, 12V, 24V for option
Filling volume range	0.1-9999.99 mL		Output interface	Output motor working status (Open-Collector output)
Filling time range	0.5-9999.99 s		Power supply	AC 220V±10% 50Hz/60Hz (standard)
Pause time range	0.5-9999.99 s			AC 110V±10% 50Hz/60Hz (optional)
Filling volume resolution	0.01 mL		Condition temperature	0-40℃
Time resolution	0.01 s		Relative humidity	< 80%
Copy numbers	1-9999,'0' means unlimited		IP rate	IP31
Back suction angle	0-360°			
Filling accuracy	<±0.5%			

Product Composition and Flow Rate Range

Drive	Pump Head	Pump Head Material	Tube Clamp Material	Tubing		(Motor Speed 1~600rpm) Flow Rate mL/min
				Tubing size	ID×Wall Thickness	
DF600 CF600 DF600 Plus CF600 Plus	YZ1515x	PSF PPS	————	13"	0.8×1.6(mm)	0.07~42
				14"	1.6×1.6(mm)	0.27~162
				19"	2.4×1.6(mm)	0.55~330
				16"	3.1×1.6(mm)	0.82~492
				25"	4.8×1.6(mm)	1.7~1020
				17"	6.4×1.6(mm)	2.9~1740
				18"	7.9×1.6(mm)	3.8~2280
	YZ2515x	PSF PPS	————	15"	4.8×2.4(mm)	1.7~1020
				24"	6.4×2.4(mm)	2.9~1740
DF600II CF600II DF600 PlusII CF600 PlusII	DZ25-3L	Aluminum alloy/PPS	PP	15"	4.8×2.4(mm)	2.11~1264
				24"	6.4×2.4(mm)	3.85~2310
				35"	7.9×2.4(mm)	5.08~3050
				36"	9.6×2.4(mm)	6~3600
DF600III CF600III DF600 PlusIII CF600 PlusIII	DZ25-6L	Aluminum alloy	PP	15"	4.8×2.4(mm)	3~1800
				24"	6.4×2.4(mm)	5.5~3300
				35"	7.9×2.4(mm)	8~4800
				36"	9.6×2.4(mm)	10~6000
DF600IV CF600IV DF600 PlusIV CF600 PlusIV	YZ35-PPS	PPS	PP	26"	6.4×3.3(mm)	6.9~4200
				73"	9.6×3.3(mm)	12.3~7400
				82"	12.7×3.3(mm)	20~12000
Drive	Pump Head	Pump Head Material	Tube Clamp Material	Tubing		(Motor Speed 1~350rpm) Flow Rate mL/min
				Tubing	ID×Wall Thickness	
DF350 CF350 DF350 Plus CF350 Plus	DY15	Aluminum alloy	PP	13"	0.8×1.6(mm)	0.1~48
				14"	1.6×1.6(mm)	0.6~223
				19"	2.4×1.6(mm)	1.3~448
				16"	3.1×1.6(mm)	2~723
				25"	4.8×1.6(mm)	4.7~1626
				17"	6.4×1.6(mm)	6.4~2230
				18"	7.9×1.6(mm)	9.5~3337
	DY25	Aluminum alloy	PP	15"	4.8×2.4(mm)	4.2~1480
				24"	6.4×2.4(mm)	7.6~2670
				35"	7.9×2.4(mm)	10~3600
				36"	9.6×2.4(mm)	12.4~4340

Filling Volume Reference (Media is water)							
Drive	Pump Head	Tubing	Filling Volume (mL)	Filling Time (s)	Accuracy (±%)	Output (pcs/min)	Motor Speed (rpm)
DF600 CF600 DF600 Plus CF600 Plus	YZ1515x YZ2515x	13#	0.1	0.5	±5ul	40	204.083
		13#	0.3	0.7	1.5	35	426.251
		13#	0.5	1	0.8	30	516.081
		13#	1	2	0.5	20	517.152
		14#	2	1	1	30	446.724
		14#	3	1.5	0.8	24	446.479
		19#	5	1.2	1	27	454.919
		16#	7	1	0.5	30	457.705
		25#/15#	10	1	1	30	303.426
		25#/15#	15	1	0.8	30	461.273
		25#/15#	20	1.2	0.5	27	518.945
		17#/24#	30	1.2	0.8	27	462.725
		17#/24#	50	2	0.5	20	461.595
		18#	80	2.5	0.5	17	427.274
		18#	100	3	0.5	15	446.583
DF600II CF600II DF600 PlusII CF600PlusII	DZ25-3L	15#	16	1	0.5	30	454.976
		24#	30	1.2	0.5	27	389.610
		35#	150	4	0.5	12	442.913
		36#	200	4	0.5	12	500.000
DF350 CF350 DF350 Plus CF350 Plus	DY15	14#	0.5	0.5	0.3	60	94.1915
		14#	1	1	0.4	30	94.1915
		14#	2	1	0.6	30	188.383
		19#	3	1	0.3	30	140.625
		16#	5	1	0.5	30	145.278
		25#	10	1	0.3	30	129.143
		25#	15	1	0.4	30	193.715
		17#	30	1	0.4	30	282.530
		18#	100	2.5	0.3	17	251.730
	DY25	15#	10	1	0.3	30	141.911
		26#	30	1	0.5	30	235.972
		35#	70	1.2	0.4	27	340.466
		36#	100	2	0.2	20	241.935
DF600III CF600III DF600 PlusIII CF600 PlusIII	DZ25-6L	15#	80	4	0.4	12	400.000
		24#	150	4	0.4	12	409.090
		35#	200	3.2	0.5	14	468.750
		36#	300	3.5	0.5	13	514.285
DF600IV CF600IV DF600 PlusIV CF600 PlusIV	YZ35-PPS	26#	150	3	0.5	15	428.570
		73#	300	3	0.5	15	486.499
		82#	500	3	0.5	15	500.000



Filling Volume Reference (Media is water)

	Tubing	Filling Volume	Filling Time	Actual Filling Volume(mL)										Filling Accuracy	
YZ1515x YZ2515x	13#	0.1mL	0.5s	0.1000	0.1017	0.1004	0.1000	0.1006	0.0986	0.1015	0.0988	0.1006	0.0991	-2.500%	1.700%
				0.0996	0.0975	0.0976	0.1006	0.0995	0.1015	0.0988	0.0991	0.0996	0.0993		
	13#	0.3mL	0.7s	0.3000	0.2979	0.3013	0.2985	0.3020	0.3030	0.3023	0.2993	0.2993	0.2974	-0.867%	1.033%
				0.3010	0.3030	0.2992	0.2979	0.3004	0.3019	0.3012	0.2978	0.3031	0.3022		
	13#	0.5mL	1s	0.5008	0.5034	0.4998	0.5020	0.5007	0.5038	0.5021	0.5023	0.5010	0.4995	-0.100%	0.760%
				0.5003	0.5008	0.5003	0.5011	0.5002	0.5037	0.5025	0.5005	0.5010	0.5000		
	13#	1mL	2s	1.0004	1.0000	0.9990	1.0011	1.0035	1.0014	1.0014	1.0014	0.9999	1.0015	-0.370%	0.490%
				1.0013	1.0013	1.0029	1.0049	1.0016	1.0019	1.0048	0.9963	1.0038	1.0040		
	14#	2mL	1s	2.0030	2.0030	2.0125	1.9861	2.0116	1.9987	1.9984	2.0143	1.9973	2.0110	-0.695%	0.765%
				2.0033	2.0153	1.9875	2.0100	2.0092	2.0024	2.0103	1.9915	2.0045	2.0133		
	14#	3mL	1.5s	3.0147	2.9861	3.0125	2.9897	3.0037	2.9905	3.0063	2.9850	3.0038	2.9917	-0.500%	0.493%
				3.0088	3.0000	3.0019	3.0138	2.9896	3.0148	2.9921	3.0128	2.9905	3.0059		
	19#	5mL	1.2s	4.9933	5.0069	4.9914	4.9540	5.0068	4.9957	4.9950	5.0029	4.9963	4.9571	-0.920%	0.500%
				4.9838	5.0208	5.0031	4.9687	5.0237	4.9841	5.0239	5.0032	4.9584	5.0250		
	16#	7mL	1s	7.0184	7.0197	7.0178	7.0120	7.0242	7.0132	7.0149	7.0213	7.0093	7.0215	-0.293%	0.346%
				6.9795	6.9834	6.9946	6.9975	6.9868	7.0133	7.0195	7.0121	7.0190	7.0125		
	25# 15#	10mL	1s	9.9400	10.0300	10.0700	10.0200	10.0000	9.9800	9.9200	10.0400	10.0600	10.0400	-0.800%	0.700%
				10.0400	10.0500	10.0200	9.9700	9.9500	10.0200	10.0600	10.0400	10.0500	9.9600		
	25# 15#	15mL	1s	15.0000	15.0000	15.0300	14.9900	15.0400	15.0400	15.0300	15.0700	14.9000	15.0100	-0.667%	0.467%
				14.9500	15.0300	15.0300	15.0600	15.0300	14.9900	15.0300	14.9400	15.0100	15.0000		
	25# 15#	20mL	1.2s	19.9600	19.9400	20.0600	19.9900	19.9600	19.9200	19.9700	20.0400	20.0000	20.0000	-0.450%	0.500%
				19.9300	20.1000	20.0000	19.9100	20.0200	20.1000	20.0100	19.9700	19.9900	20.0900		
	17# 24#	30mL	1.2s	29.9100	29.9900	30.1800	30.1000	29.9700	29.9700	30.1800	29.8100	30.1800	29.9500	-0.633%	0.600%
				29.9400	29.9200	29.9300	30.0100	30.1800	30.0500	29.9600	29.8800	30.0100	30.1800		
	17# 24#	50mL	2s	50.0600	50.0400	49.9900	49.8500	50.0800	50.1100	49.9800	49.8700	49.9200	50.1200	-0.440%	0.240%
				49.9200	50.0000	49.9900	49.7800	49.8200	49.9100	50.0500	49.9300	49.8400	49.8400		
	18#	80mL	2.5s	79.9700	80.2200	80.2800	80.1100	80.0000	79.9000	79.9200	80.2900	80.1300	80.0300	-0.325%	0.363%
				79.7400	79.7800	79.8000	80.0100	80.1700	79.8500	79.7600	79.8500	80.0300	80.2200		
	18#	100mL	3s	99.8300	100.3500	99.9700	100.3700	100.0900	100.2600	100.0800	100.1500	100.1600	99.8900	-0.430%	0.370%
				100.0400	99.6600	100.0800	99.5700	100.0100	99.9900	99.7900	100.1400	99.7200	100.1700		
DZ25-3L	35#	150mL	4s	149.4100	150.4300	149.7600	150.0400	150.4200	149.5500	150.3200	149.7500	149.6500	150.2900	-0.480%	0.287%
				149.4200	149.9400	150.2700	149.3400	149.8600	150.2500	149.2800	150.0300	149.9200	149.4700		
	36#	200mL	4s	199.4800	199.9000	199.6600	199.7200	199.8600	200.0200	199.2000	199.8800	199.8600	199.4800	-0.400%	0.300%
				199.9000	200.5400	200.6000	199.9600	199.9400	200.0200	199.9800	200.0600	199.9200	200.1800		



Filling Volume Reference (Media is water)

	Tubing	Filling Volume	Filling Time	Actual Filling Volume(mL)										Filling Accuracy	
DY15	14"	0.5mL	0.5s	0.5003	0.5010	0.4982	0.5015	0.5015	0.5010	0.5014	0.5005	0.4981	0.4998	-0.37%	0.32%
				0.5025	0.4983	0.5024	0.5021	0.5020	0.5004	0.5005	0.4997	0.4977	0.5008		
	14"	1mL	1s	1.0037	1.0000	1.0026	1.0003	1.0031	1.0015	1.0000	1.0007	1.0023	1.0035	-0.44%	0.42%
				1.0002	1.0020	0.9968	1.0010	0.9986	1.0026	1.0030	1.0029	1.0023	1.0017		
	14"	2mL	1s	2.0020	2.0060	2.0039	2.0037	2.0047	1.9944	2.0062	2.0040	1.9951	2.0060	-0.58%	0.60%
				2.0036	1.9940	2.0024	2.0086	1.9946	2.0005	1.9951	2.0068	1.9971	1.9965		
	19"	3mL	1s	3.0058	2.9935	3.0092	3.0008	2.9927	3.0072	3.0046	2.9914	3.0040	3.0000	-0.33%	0.31%
				2.9902	3.0048	3.0008	2.9919	2.9984	3.0012	3.0084	2.9915	2.9990	3.0051		
	16"	5mL	1s	5.0215	4.9982	5.0145	5.0038	4.9864	5.0183	4.9962	5.0227	5.0158	4.9806	-0.39%	0.50%
				5.0248	5.0070	4.9861	5.0108	4.9995	5.0080	5.0044	4.9868	5.0231	4.9977		
DY25	25"	10mL	1s	10.02	10.04	10.00	9.98	10.02	10.03	10.04	10.04	10.01	9.99	-0.20%	0.40%
				10.00	10.02	10.02	10.04	9.99	9.98	10.00	10.04	10.02	10.03		
	25"	15mL	1s	15.02	14.97	14.97	14.94	15.00	15.00	14.94	14.95	14.96	14.99	-0.47%	0.13%
				14.96	14.95	14.96	14.99	14.98	14.94	14.93	14.93	14.98	14.96		
	17"	30mL	1s	29.92	30.01	29.99	29.91	29.83	29.86	29.91	29.91	29.91	29.89	-0.57%	0.20%
				29.88	29.96	30.03	30.06	30.02	30.02	30.06	29.96	29.96	29.83		
	18"	100mL	2.5s	99.80	99.90	99.80	99.90	100.00	100.10	100.10	100.00	100.10	100.00	-0.20%	0.30%
				99.80	100.00	100.10	100.20	99.90	100.10	100.00	100.30	100.10	100.10		
	15"	10mL	1s	9.97	10.01	9.96	9.98	10.01	9.96	9.97	9.99	9.96	9.96	-0.60%	0.10%
				10.00	9.94	9.97	10.00	9.96	9.97	10.00	10.00	10.01	9.97		
DZ25-6L	24"	30mL	1s	29.90	29.80	30.10	29.90	29.90	30.00	29.90	29.90	30.00	29.90	-0.67%	0.33%
				29.90	29.90	29.90	29.90	29.90	29.80	30.00	29.90	29.90	30.00		
	35"	70mL	1.2s	69.80	69.90	69.90	69.90	69.70	70.10	70.00	69.70	69.90	69.90	-0.43%	0.43%
				69.90	70.10	70.00	69.90	70.30	69.70	70.10	69.70	69.70	69.90		
	36"	100mL	2s	99.80	99.90	99.80	99.80	100.00	99.90	99.90	99.90	99.90	99.90	-0.20%	0.10%
				99.80	99.90	99.90	99.90	100.00	100.10	99.80	100.10	99.90	99.90		
	15"	80mL	4s	80.2	80.0	80.3	80.2	80.1	80.1	80.2	80.1	80.2	80.1	-0.13%	0.38%
				80.1	79.9	80.1	79.9	80.0	80.1	19.9	80.1	80.1	80.0		
	24"	150mL	4s	149.9	150.2	150.0	150.1	150.0	150.3	150.0	150.1	150.3	150.0	-0.07%	0.20%
				149.9	150.1	150.0	150.0	150.1	150.0	150.1	149.9	150.2	150.2		
YZ35-PPS	35"	200mL	3.5s	199.7	199.9	200.2	200.2	200.2	199.6	199.8	199.8	200.1	199.9	-0.40%	0.10%
				199.5	199.2	199.5	199.9	199.5	199.3	199.8	199.3	199.6	199.9		
	36"	300mL	3.5s	300.4	300.1	300.3	300.3	300.4	300.1	300.3	300.4	300.6	300.2	-0.17%	0.20%
				300.2	300.0	300.1	300.2	300.2	299.9	299.5	300.5	300.5	300.6		
	26"	150mL	3s	149.3	150.3	149.6	150.2	150.5	150.1	150.5	150.1	150.5	150.0	-0.47%	0.33%
				150.4	149.9	150.4	150.0	150.3	149.8	150.3	149.9	150.4	150.0		
	73"	300mL	3s	299.9	299.8	300.0	300.1	300.4	300.2	300.4	300.4	300.6	300.5	-0.07%	0.27%
				300.8	300.6	300.5	300.5	300.5	300.6	300.7	300.5	300.6	300.6		
	82"	500mL	3s	500.0	497.8	499.7	498.3	498.4	499.5	498.2	499.7	499.2	498.4	-0.44%	0.38%
				499.5	498.3	501.5	501.9	500.0	501.8	501.1	500.5	501.6	499.6		



Pharmaceutical Filling Machine

Cosmetic Filling Line

