







## FRA-1530S/D/DS, FRA-3060S/D/DS

### ■ Features

-  **150–600 tf**
-  **3/5-axis**
-  **Single support type**
-  **Reduced overall height type**
-  **On robot body**
-  **E-touch V**

### Active Vibration Control

The FRA senses its own vibrations and eliminates them automatically. It equips the world's most advanced vibration control technology that enables a variety of operations with speed and accuracy such as insert molding, which demand repeatability.

### IoT system "INTU LINE"

INTU LINE displays production counts, uptime ratio, operation status, cycle times, error counts, stoppage log, and production floor photos. When trouble occurs, the FRA's IoT system shares your robot's error data with Yushin to help service personnel diagnose the problem.

### New controller "E-touch V"

The E-touch V adopts ergonomic design and is presented in a vertical, dual screen format with main and sub screens, enabling smartphone-like touch controls.



CE  
PAT.  
PAT.P

### ■ Standard Specifications

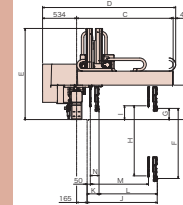
Power source	Driving method	Air pressure	Wrist flip angle
AC200V/220V/230V (50/60Hz) 3 phase	Digital servo motor 3/5-axis	0.49MPa	90°

Model	Power consumption	Traverse stroke (mm)	Kick stroke (mm)		Vertical stroke (mm)		Air consumption (NL/cycle)	Payload (kg)	Clamping force (tf)
			Main arm	Sub arm	Main arm	Sub arm			
FRA-1530S	S type/D type 2.3kVA AC200V 6.5A	<(1100) 1500 <(1700) <(1900) <(2200) <(2500)	728	—	850 [1100] [1300] [1550]	—	5.9 (ECO vacuum OFF) 1.9 (ECO vacuum ON)	5 <(11)	150 ~ 300
FRA-1530D		668	668	850 [1100] [1300] [1550]	850 [1100] [1300] [1550]				
FRA-3060S		<(1700) <(1900) <(2200) <(2500)	973	—	1100 [1300] [1550] [1800]	—	7.9 (ECO vacuum OFF) 3.0 (ECO vacuum ON)	10 <(13)	
FRA-3060D		913	913	1100 [1300] [1550] [1800]	1100 [1300] [1550] [1800]				

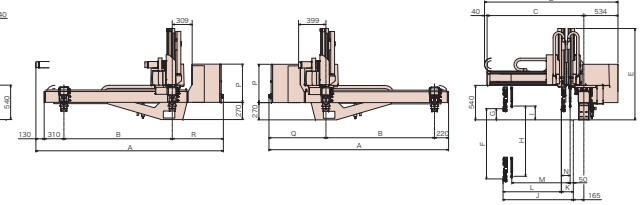
S type: Robot is equipped with product take-out arm only. D type: Robot is equipped with product take-out arm and runner take-out arm.  
< >: Modified traverse stroke [ ]: Modified vertical stroke  
{ } : Increased payload  
Payload includes the end-of-arm tool.

### ■ Dimensions (mm)

#### ■ Rear (Non-operator) Side Orientation



#### ■ Operator Side Orientation



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
FRA-1530S	(2342) (2742) (2942)	(1100) 1500 (1700)			1254 (1430) (1534)	850 (1100) (1300)	293	—	—	850	122	728	—	—
FRA-1530D	(3142) (3442) (3742)	(1900) (2200) (2500)	1265	1839	(1534) (1662)	(1300) (1550)		850 (1100) (1300) (1550)	335		182	668	668	132

A	G	K	L	M	N
(2212) 2612 (2812) (3012) (3312) (3612)	(175) 175	(122) (185) (122)	(728) {668} (728)	—	(132) {195} (165)

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
FRA-3060S	2942 (3142) (3442)	1700 (1900) (2200)			1430 (1534) (1662)	1100 (1300) (1550)	175	—	—	1100	127	973	—	—
FRA-3060D	(3742)	(2500)	1515	2089	(1534) (1782)	(1800) (2050) (2300)		1100 (1300) (1550) (1800) (2050) (2300)	216		187	913	913	137

A	G	K	L	M	N
2812 (3012) (3312) (3612)	(168.5) (148.5)	(127) (185) (127)	(973) {913} (973)	—	(137) {195} (165)

- ( ) Non-standard strokes
- < > With high-torque wrist flip
- { } With horizontal wrist rotation unit
- ( ) With centralized manual lubrication system

	P	Q	R
C2 type	600	882	802
C1 type	500	860	770