



**Almega Friendly series II**

**NEW High-Payload Robot**  
**FD-V80/V100/V130**

**100 kg PAYLOAD CLASS  
HANDLING ROBOT  
THREE NEW MODELS**



**FD-V80**

80 kg payload  
Reach 2501 mm



**FD-V100**

100 kg payload  
Reach 2236 mm



**FD-V130**

130 kg payload  
Reach 2139 mm

## FD-V80/V100/V130

## Easy communication with external devices

- ### MANIPULATOR WORKING RANGE

P-point Working Range

180°

400

300

8-ø22

R605

P-point

106.5

128

R109.2

R171.34

180°

□=500mm

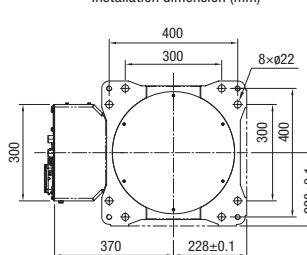
## MANIPULATOR SPECIFICATIONS

			FD-V80	FD-V100	FD-V130
Structure			Vertical articulated type		
Number of Axes			6		
Max. Payload Capacity			80 kg	100 kg	130 kg
Positional Repeatability			±0.08 mm (Note 1)		
Drive System			AC servomotor		
Drive Capacity			15kw		
Position Feedback			Absolute encoder		
Working Range	Arm	J1 (Rotation)	±180°		
		J2 (Lower arm)	-155° ~ +90°		
		J3 (Upper arm))	-185° ~ +220°		
	Wrist	J4 (Swing)	±360°		
		J5 (Bending)	-35° ~ +215°		
		J6 (Twist)	±360°		
Maximum Speed	Arm	J1(Rotation)	2.44 rad/s [140°/s]		
		J2 (Lower arm)	1.92 rad/s [110°/s]		
		J3 (Upper arm))	2.44 rad/s [140°/s]		
	Wrist	J4 (Swing)	3.05 rad/s [175°/s]		
		J5 (Bending)	3.05 rad/s [175°/s]		
		J6 (Twist)	4.45 rad/s [255°/s]		
Wrist Allowable Load	Allowable Moment	J4 (Swing)	433 N · m	721.0 N · m	
		J5 (Bending)	430 N · m	721.0 N · m	
		J6 (Twist)	294 N · m	294.0 N · m	
	Allowable Moment of Inertia	J4 (Swing)	31.4 kg · m <sup>2</sup>	60.0 kg · m <sup>2</sup>	
		J5 (Bending)	31.4 kg · m <sup>2</sup>	60.0 kg · m <sup>2</sup>	
		J6 (Twist)	11.9 kg · m <sup>2</sup>	33.7 kg · m <sup>2</sup>	
Arm Cross-sectional Area		9.53 m <sup>2</sup> × 360°	7.56 m <sup>2</sup> × 360°	6.83 m <sup>2</sup> × 360°	
Ambient Conditions		Temp: 0 to 45°C, Hmd: 20 to 80%RH (No Condensation)			
Mass (weight)		780 kg	770 kg	765 kg	
Upper Arm Payload Capacity		25 kg			
IP Code		Base axes (J1, J2, J3 Axis)IP54 Wrist axes (J4, J5, J6 Axis)IP67/69 (Note 2)			
Installation Type		Floor or wall			
Paint Color		White (Munsell notation 10GY 9/1)			

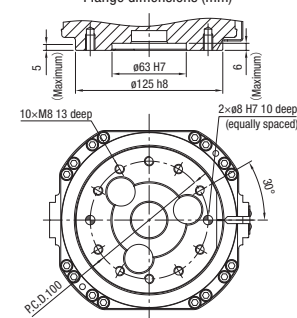
## Notes

1. Positional repeatability of the tool center point (TCP) value complies with the JIS-B-8432 Standard.  
2. IP code is based on IEC60529.

## Installation dimension (mm)



## Flange dimensions (mm)



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潤隆企業有限公司：桃園市桃園區水庫七街66號  
TEL: 886-3-3218411 FAX: 886-3-3218422 E-mail: [tec-tw@tec-robot.com.tw](mailto:tec-tw@tec-robot.com.tw)  
潤隆台中服務處：台中市烏日區太明路成豐巷98-1號  
TEL: 886-4-23355629 E-mail: [tec-tw@tec-robot.com.tw](mailto:tec-tw@tec-robot.com.tw)  
上海潤隆機械設備貿易有限公司：上海市嘉定區寶安公路2999弄236號  
TEL: 86-21-69510673 FAX: 86-21-69521842 E-mail: [tec-sh@tec-robot.com.tw](mailto:tec-sh@tec-robot.com.tw)

 潤 蓬 企 業 有 限 公 司  
上海潤漢機械設備貿易有限公司  
( 日本 DAIHEN Corporation 代理商 )

潤蓬企業有限公司：桃園市桃園區水岸七街66號

TEL: 886-3-3218411 FAX: 886-3-3218422 E-mail: [tec-tw@tec-robot.com.tw](mailto:tec-tw@tec-robot.com.tw)

潤蓬台中服務處：台中市烏日區大明路成豐巷98-1號

TEL: 886-4-23355629 E-mail: [tec-tw@tec-robot.com.tw](mailto:tec-tw@tec-robot.com.tw)

上海潤漢機械設備貿易有限公司：上海市嘉定區寶安公路2999弄236號

TEL: 86-21-59106733 FAX: 86-21-69521842 E-mail: [tec-sh@tec-robot.com.tw](mailto:tec-sh@tec-robot.com.tw)

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