

并联机器人

选型手册

Parallel Robot Selection Manual

D4



● 型号和符号

机型	型号	负载	控制器类型	控制柜类型	视觉
D4	450	P1.5: 1.5kg	A1: ATOMCONTROL	E1: ATOM-01 E2: ATOM-02 E3: 定制	F0G0: 无视觉 FXGX: 有视觉
	650	P3: 3kg			
	850	P5: 5kg	A2: KEBA CONTROL		

● Model and Symbol

Robot type	Type	Load Type	Control Type	Control Cabinet	Vision Type
D4	450	P1.5: 1.5kg	A1: ATOMCONTROL	E1: ATOM-01 E2: ATOM-02 E3: Custom	F0G0: Without vision FXGX: With vision
	650	P3: 3kg			
	850	P5: 5kg	A2: KEBA CONTROL		

D4-450-P1.5



高速度
高精度
高稳定性
高自由度
小巧、敏捷

High speed
High precision
High stability
More degrees
Small and Agile

型号 Type	D4-450-P1.5	
轴数 Axes	2+2	
最大负载 Payload	1.5kg	
机器人本体 Manipulator	重量 Weight	41.2 kg
	工作空间特征尺寸 Dimension of workspace	450mm
重复定位精度 repeatability	位置 Position	0.05mm
	旋转 Rotation	0.1°
旋转范围 Rotation range	±360°	
允许负载最大旋转惯量 (水平旋转) Allowable maximum moment of inertia	0.025 kg·m ²	
主动臂角度范围 Angle range of actuated arm	±135°	
输入电源 Power supply	三相 Three-phase 380VAC -10%~+10%, 49~61HZ	
电源容量 Power capacity	2.9 KVA	
额定功率 Rated Power	1.25kw	
保存温度 Storage temperature	-10°C~70°C	
工作环境 Work environment	-10°C~50°C, RH≤80%	
防护等级 Protection	IP55	

- ◆ 具备2+2自由度，轻松满足复杂摆放场景。

With 2+2-DOF movement in three-dimensional space, robot can be used for more complicated handling operations

- ◆ 标准循环时间小于0.5s,满足追求最高速度和最小体积需求。

The standard cycle time is less than 0.5s, meeting your pursuit for the maximum speed and the minimum volume.

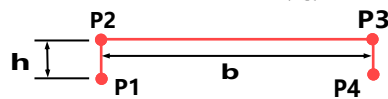
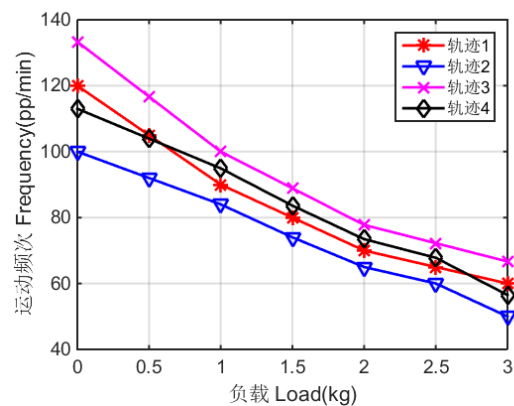
- ◆ 特殊传动结构设计，结合串、并联机器人优势，轻松应对高强度高频次重复运动需求。

Advanced design of transmission structure which combined with the advantages of series and parallel robots, enables the robot to easily cope with the high-intensity repetitive operation.

- ◆ 非常适于狭小空间内作业、3C制造等行业的高速高精度生产作业，主要用于小型工件的装配、搬运、检测等。

The robot is ideal for narrow space operations, as well as high-speed and high-precision in 3C field. Widely used in assembly, handling and testing of small work pieces.

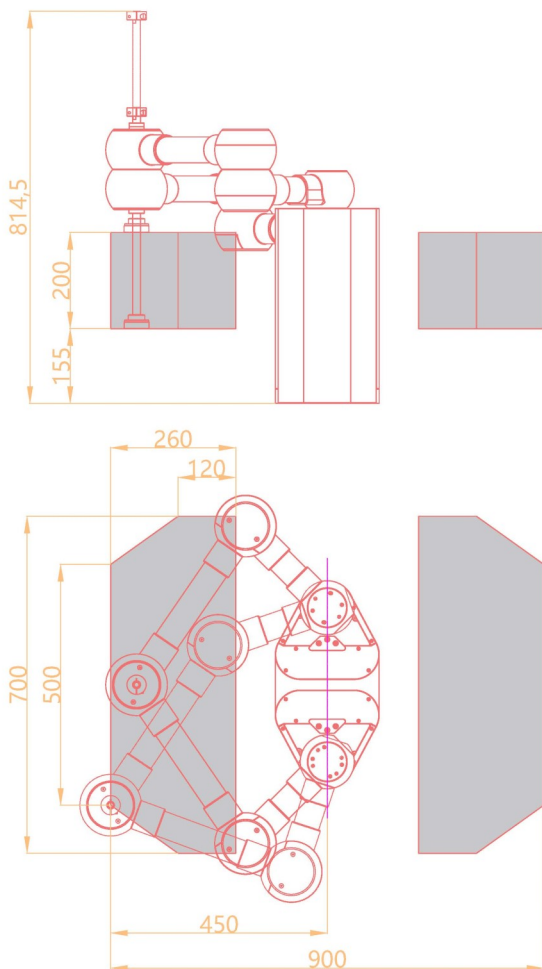
● 负载-频次 Load-Frequency



名称 Name	循环模式 Model	运动距离 Distance
轨迹1 Trajectory1	P1 → P2 → P3 → P4 → P3 → P2 → P1	h=25, b=305
轨迹2 Trajectory2	P1 → P2 → P3 → P4 → P3 → P2 → P1	h=25, b=500
轨迹3 Trajectory3	P1 → P2 → P3 → P2 → P1	h=25, b=305
轨迹4 Trajectory4	P1 → P2 → P3 → P2 → P1	h=25, b=500

特别注意：图中节拍时间在实际条件下测得，并且未包含俯仰运动，根据实际运用情况的不同（工具数据、路径半径、夹具启动等），节拍时间也会发生变化。

外形尺寸及运动范围
Outline dimensions and Working range (mm)

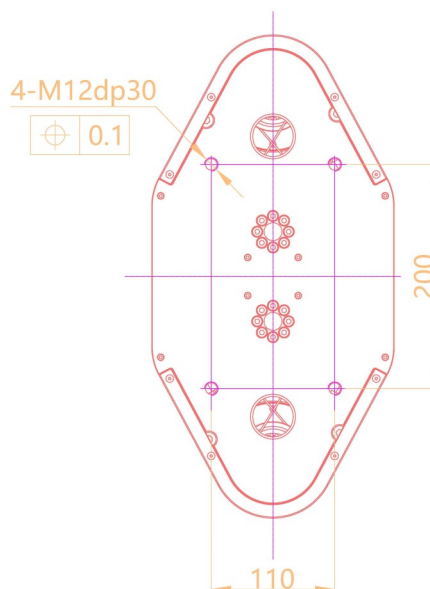
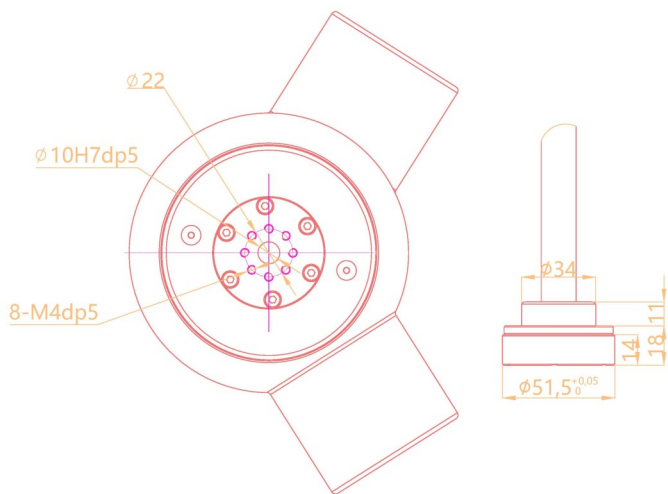


说明：
图中灰色区域为末端下表面中心点的活动区域，两区域相对于主动臂转轴连线对称，一般情况下不建议同时使用。
机器人安装方式可选择正装或者吊装。

Instruction:
The gray workspace in the figure represents the area that can be reached by the center point of the end pitch axis. The two areas are symmetrical with respect to the connecting line of the rotating axis of the driving arm. It is not recommended to use them at the same time.
The installation mode of the robot can be formal installation or hoisting.

法兰 Flange (mm)

基座安装 Base installation (mm)



D4-650-P3



高速度
高精度
高稳定性
高自由度
小巧、敏捷

High speed
High precision
High stability
More degrees
Small and Agile

型号 Type	D4-650-P3	
轴数 Axes	2+2	
最大负载 Payload	3kg	
机器人本体 Manipulator	重量 Weight	50.5kg
	工作空间特征尺寸 Dimension of workspace	650mm
重复定位精度 repeatability	位置 Position	0.05mm
	旋转 Rotation	0.1°
旋转范围 Rotation range	±360°	
允许负载最大旋转惯量 (水平旋转) Allowable maximum moment of inertia	0.035 kg·m ²	
主动臂角度范围 Angle range of actuated arm	±138°	
输入电源 Power supply	三相 Three-phase 380VAC -10%~+10%, 49~61HZ	
电源容量 Power capacity	4.25KVA	
额定功率 Rated Power	1.8kw	
保存温度 Storage temperature	-10°C~70°C	
工作环境 Work environment	-10°C~50°C, RH≤80%	
防护等级 Protection	IP55	

- ◆ 具备2+2自由度，轻松满足复杂摆放场景。

With 2+2-DOF movement in three-dimensional space, robot can be used for more complicated handling operations

- ◆ 标准循环时间小于0.5s,满足追求最高速度和最小体积需求。

The standard cycle time is less than 0.5s, meeting your pursuit for the maximum speed and the minimum volume.

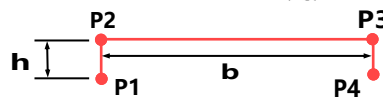
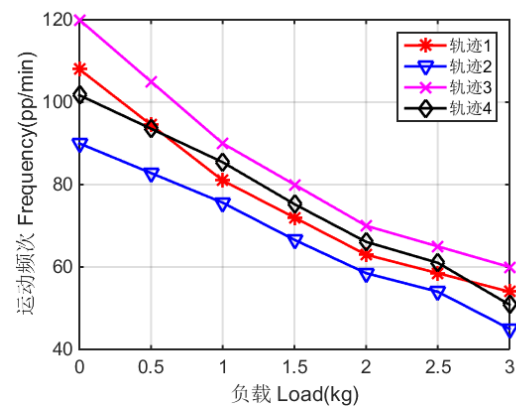
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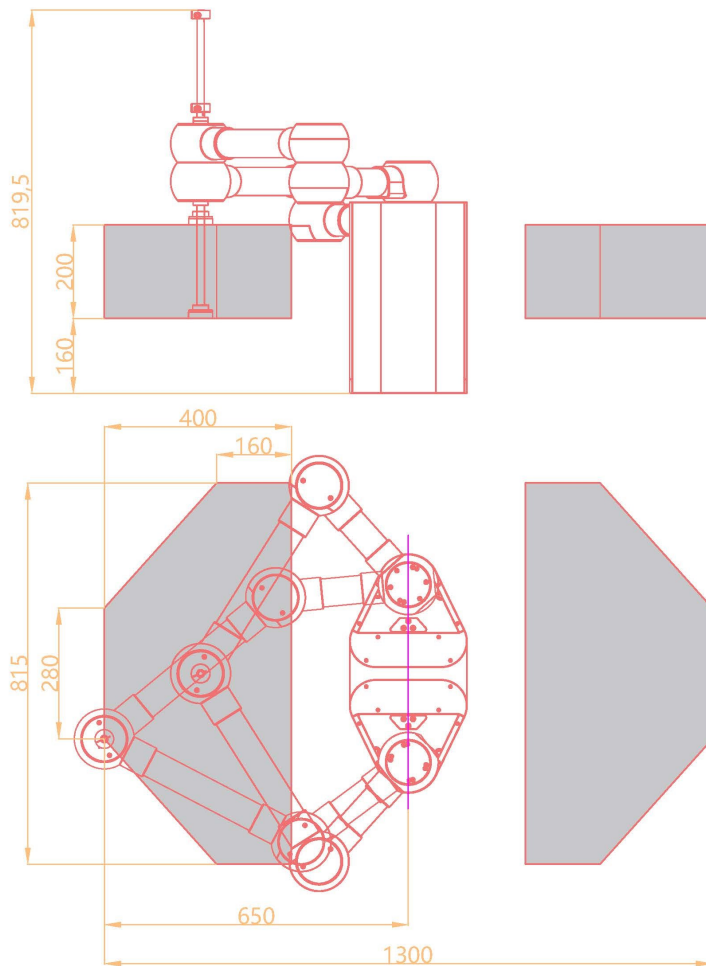
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外形尺寸及运动范围
Outline dimensions and Working range (mm)



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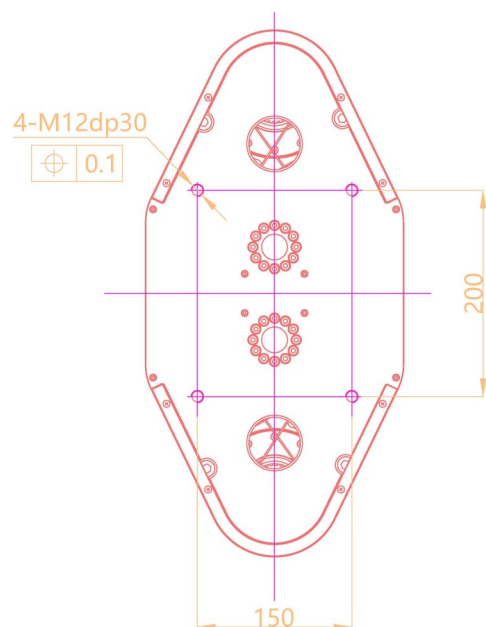
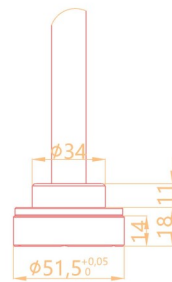
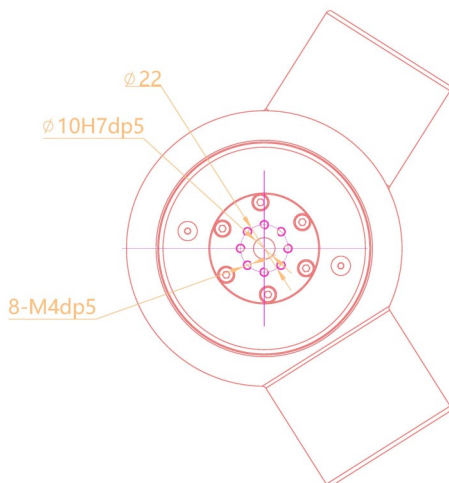
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基座安装 Base installation (mm)



D4-850-P5



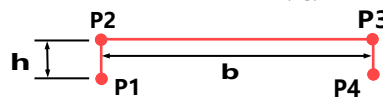
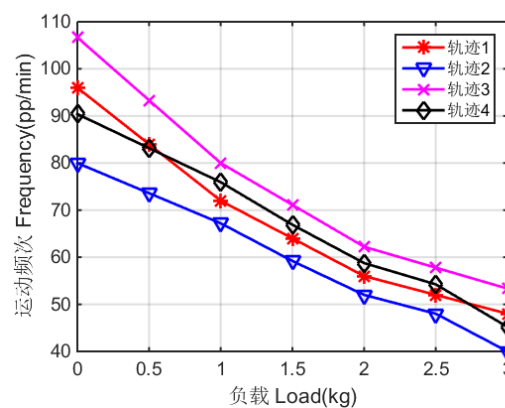
高速度
高精度
高稳定性
高自由度
小巧、敏捷

High speed
High precision
High stability
More degrees
Small and Agile

型号 Type	D4-850-P5	
轴数 Axes	2+2	
最大负载 Payload	5kg	
机器人本体 Manipulator	重量 Weight	58.6kg
	工作空间特征尺寸 Dimension of workspace	850mm
重复定位精度 repeatability	位置 Position	0.05mm
	旋转 Rotation	0.1°
旋转范围 Rotation range	±360°	
允许负载最大旋转惯量 (水平旋转) Allowable maximum moment of inertia	0.035 kg·m ²	
主动臂角度范围 Angle range of actuated arm	±147°	
输入电源 Power supply	三相 Three-phase 380VAC -10%~+10%, 49~61HZ	
电源容量 Power capacity	4.25KVA	
额定功率 Rated Power	1.8kw	
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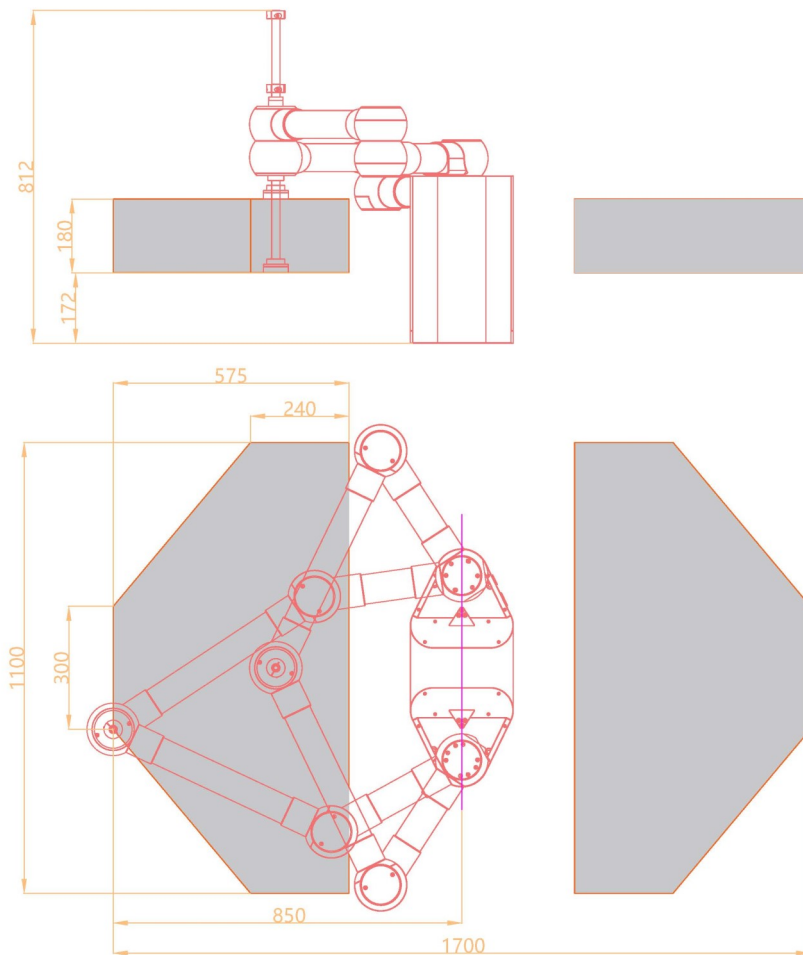
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