

**EFORT**

# ESR20-800Z42

**ESR20-800Z42,**  
Maxium payload 20 kg with maxium reach 800 mm.

- **Highlights**
  1. High rhythm and high precision  
The fastest standard cycle time can reach 0.35 s, and the robot positioning accuracy can reach 0.025 mm.
  2. High rigidity and low vibration  
Robot body mode and rigidity enhancement, combined with vibration suppression and active vibration suppression functions, effectively reduce vibration.
  3. Easy to maintain and scalable  
The detachable structure of cables and batteries allows for the replacement of robots inside the device, and the built-in camera network cable enables various communication extensions.
- **Applications**  
It can be used in handling, sorting, assembly, etc.
- **Industries**  
Suitable for industries such as electronic manufacturing, lithium batteries, automotive electronics, and photovoltaics.



## SPECIFICATIONS

<b>Model</b>		ESR20-800Z42
<b>Reach</b>		800 mm
<b>Max. payload on wrist</b>	Rated	10 kg
	Maximum	20 kg
<b>Robot weight</b>		67 kg
<b>Maximum speed</b>	J1+J2	9590 mm/sec
	J3	1800 mm/sec
	J4	705°/sec
<b>Motion range</b>	J1	±145°
	J2	±145°
	J3	420 mm
	J4	±360°
<b>Repeatability</b>	J1+J2	±0.025 mm
	J3	±0.01 mm
	J4	±0.01°
<b>Standard cycle time</b>		0.35 s
<b>J4 allowable moment of inertia</b>	Rated	0.05 kg·m <sup>2</sup>
	Maximum	1 kg·m <sup>2</sup>
<b>Electric lines</b>		D-Sub 9-Pin+15-Pin
<b>Pneumatic lines</b>		φ4 mmx2, φ6 mmx2
<b>J3 downward force</b>		200 N
<b>Installation</b>		Floor
<b>Installation enviroment</b>	Ambient temperature	5~40°C
	Ambient humidity	RH≤80% (No dew nor frost allowed)

\*The final interpretation right belongs to EFORT Intelligent Robot Co., Ltd. Any updates will be made without prior notice.

## OPERATING SPACE

ESR20系列不同臂长机型运动范围参数 ESR20 series range of motion parameters for different arm lengths				
机型名称 The name of the model	ESR20-800Z30	ESR20-800Z42	ESR20-1000Z30	ESR20-1000Z42
a. 第1轴臂长+第2轴臂长 (mm) a. 1st axis arm length+2st axis arm length (mm)	800	800	1000	1000
b. 第1轴臂长 (mm) b. 1st axis arm length (mm)	350	350	550	550
c. 第2轴臂长 (mm) c. 2st axis arm length (mm)	450	450	450	450
d. 最大运动范围 (°) d. Max range of motion (°)	872	872	1072	1072
e. 第1轴运动范围 (°) e. Range of motion of the 1st joint (°)	145			
f. 第2轴运动范围 (°) f. Range of motion of the 2st joint (°)	145			
g. 第3轴运动范围 (°) g. Range of motion of the 3st joint (°)	201	201	315.5	315.5
h. 第4轴运动范围 (°) h. Range of motion of the 4st joint (°)	737	737	901	901
i. 机械停止位置的角度 (°) i. The angle of the mechanical stop position of the 1st joint (°)	2			
j. 机械停止位置的角度 (°) j. The angle of the mechanical stop position of the 2st joint (°)	3			
k. 机械停止位置的角度 (°) k. The range of mechanical stop bits	185.5	185.5	292	292
l. 机械停止位置的角度 (°) l. The range of the 2st mechanical stop bits	744	744	911	911
m. 机械停止位置的角度 (°) m. Range of motion	230.5	230.5	362	362
n. 机械停止位置的角度 (°) n. Range of motion	307			
o. 机械停止位置的角度 (°) o. Range of motion of the 3st joint (mm)	300	420	300	420
p. 机械停止位置的角度 (°) p. Distance to the mounting surface of the 1st joint (mm)	52	172	52	172
q. 机械停止位置的角度 (°) q. Stroke width of the 2st joint (mm)	2			

## BASE MOUNTING SIZE

ESR20系列不同臂长机型参数 ESR20 series with different arm lengths				
机型名称 The name of the model	ESR20-800Z30	ESR20-800Z42	ESR20-1000Z30	ESR20-1000Z42
a	350	350	550	550
b	300	420	300	420
c	52	172	52	172
d	120	120	220	220

## END FLANGE MOUNTING SIZE

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