

Four-axis Collaboration



Six-axis Collaboration



Item			Z-Arm XX32	Z-Arm XX42	Z-Arm XX50	Z-Arm XX60	Z-Arm 1522	Item	Z-Arm S622	Z-Arm S922	Z-Arm S1400	
Basic Information	1 Axis	Arm Length	160mm	220mm	275mm	325mm	100mm	Weight	15kg	≈22kg	≈40kg	
		Rotation Angle	±90°	±90°	±90°	±90°	±90°	Payload	3kg	5kg	10kg	
	2 Axis	Arm length	160mm	200mm	225mm	275mm	120mm	Working Radius	622mm	922mm	1400mm	
		Rotation Angle	±143°	±164°	±164°	±164°	±150°	Joint Range of Motion Software Limit Limitation	Axis 1: ±175° Axis 2: +85°, -265° Axis 3: ±150° Axis 4: +85°, -265° Axis 5: ±175° Axis 6: ±175°	Axis 1: ±175° Axis 2: +85°, -265° Axis 3: ±160° Axis 4: +85°, -265°	Axis 1: ±175° Axis 2: +85°, -265° Axis 3: ±160° Axis 4: +85°, -265°	
	Z-axis	Stroke	180mm (Height customizable)	240mm (Height customizable)	410mm (Height customizable)	410mm (Height customizable)	150mm	Maximum Joint Speed	180°/s	180°/s	180°/s	
R axis	Rotation Range	±1080°	±1080°	±1080°without mechanical limit / ±170° with mechanical limit	±1080°without mechanical limit / ±170° with mechanical limit	/	Repeatability	±0.02mm	±0.02mm	±0.05mm		
Linear Speed			1017mm/s (Payload 0.5kg)	1255.45mm/s (Payload 1kg) 1600mm/s (Payload 2kg)	1400mm/s (Payload 4kg)	1500mm/s (Payload 3kg)	500mm/s	Installation Area	φ130mm	φ150mm	φ190mm	
Repeatability			±0.02mm	±0.03mm	±0.05mm	±0.05mm	±0.1mm	Control Box Size	342*260*90mm (Without protrusion)	342*260*90mm (Without protrusion)	342*260*90mm (Without protrusion)	
Standard Payload			0.5kg	2kg	4kg	3kg	0.3kg	Degree of Freedom	6	6	6	
Maximum Payload			1kg	3kg	5kg	3.5kg	0.5kg	Control Box I/O Port	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2	Digital input: 16 Digital output: 16 Analog input: 2 Analog output: 2	
Degree of Freedom			4	4	4	4	3	Noise	<65dB	<65dB	<65dB	
Power Supply			220V/110V50-60HZ Adapted to 24VDC peak power 320W	220V/110V50-60HZ Adapted to 24VDC peak power 500W	220V/110V50-60HZ Adapted to 48VDC peak power 960W	220V/110V50-60HZ Adapted to 48VDC peak power 960W	220V/110V50-60HZ to 24V	End I/O Port	Analog input: 1 Analog output: 1 Digital input: 2 Digital output: 2	Analog input: 1 Analog output: 1 Digital input: 2 Digital output: 2	Analog input: 1 Analog output: 1 Digital input: 2 Digital output: 2	
Communication			Ethernet	Ethernet	Ethernet	Ethernet	Serial port	Communication	Ethernet, TCP/IP, 485 Communication	Ethernet, TCP/IP, 485 Communication	Ethernet, TCP/IP, 485 Communication	
Hard Stop			/	/	√	√	/	I/O Power Supply	24V/1.5A	24V/1.5A	24V/1.5A	
Z-axis can be customized in height			0.1m-0.5m	0.1m-1m	0.1m-1m	0.1m-1m	/	Protection Level	IP54	IP54	IP54	
Z-axis Drag Teaching			√	√	/	/	√	Coordinated Operation	With collision detection function, allowing custom collision levels	With collision detection function, allowing custom collision levels	With collision detection function, allowing custom collision levels	
Electrical Reserved Interface			/	Standard: socket panel straight through to the lower cover of the arm 2 x 4*23awg (no shielding layer) wire Optional: socket panel straight through flange 2 x φ4 air hose	Standard: socket panel straight through to the lower cover of the arm 2 x 4*23awg (no shielding layer) wire Optional: socket panel straight through flange 2 x φ4 air hose	Standard: socket panel straight through to the lower cover of the arm 2 x 4*23awg (no shielding layer) wire Optional: socket panel straight through flange 2 x φ4 air hose	/	Power Supply	220V/50HZ *Away from corrosive gases, liquids and explosive gases *Avoid equipment working under unstable current conditions *Away from vibrations and the vibration intensity is not higher than 0.5G *Avoid dust, smoke and water	220V/50HZ *Away from corrosive gases, liquids and explosive gases *Avoid equipment working under unstable current conditions *Away from vibrations and the vibration intensity is not higher than 0.5G *Avoid dust, smoke and water	220V/50HZ *Away from corrosive gases, liquids and explosive gases *Avoid equipment working under unstable current conditions *Away from vibrations and the vibration intensity is not higher than 0.5G *Avoid dust, smoke and water	
Suitable for HITBOT Electric Gripper			Z-EFG-8S/Z-EFG-12/Z-EFG-20/Z-EFG-20S	Z-EFG-8S/Z-EFG-12/Z-EFG-20/Z-EFG-20S/Z-EFG-30/Z-EFG-50, Fifth axis, 3D printing	Z-EFG-8S/Z-EFG-12/Z-EFG-20/Z-EFG-20S/Z-EFG-20F/Z-ERG-20C/Z-EFG-30/Z-EFG-50/Z-EFG-100, Fifth axis, 3D printing	Z-EFG-8S/Z-EFG-12/Z-EFG-20/Z-EFG-20S/Z-EFG-20F/Z-ERG-20C/Z-EFG-30/Z-EFG-50/Z-EFG-100, Fifth axis, 3D printing	/	Use Environment	24V/1.5A	24V/1.5A	24V/1.5A	
Range of Movement of the Second Arm			Standard: ±143° /	Standard: ±164° Optional: 15-345deg	Standard: ±164° Optional: 15deg-345deg	Standard: ±164° Optional: 15deg-345deg	/	Humidity	0-45°C	0-45°C	0-45°C	
Use Environment			Temperature: 0-55°C Relative humidity: 20-80RH (No frost)	Temperature: 0-55°C Relative humidity: 20-80RH (No frost)	Temperature: 0-55°C Relative humidity: 20-80RH (No frost)	Temperature: 0-55°C Relative humidity: 20-80RH (No frost)	Temperature: 0-55°C Relative humidity: 20-80RH (No frost)	Temperature	20-80RH No condensation	20-80RH No condensation	20-80RH No condensation	
I/O Port	Digital Input (Isolated)	9+3	9+3+ forearm extension(8 in & 8 out; Gripper dedicated port: pulse)	9+3+ forearm extension(8 in & 8 out; Gripper dedicated port: pulse or 485)	9+3+ forearm extension(8 in & 8 out; Gripper dedicated port: pulse or 485)	9+3+ forearm extension(8 in & 8 out; Gripper dedicated port: pulse or 485)	≤14	Machine Height	500mm	596mm	830mm	
	Digital Output (Isolated)	9+3	9+3+ forearm extension(8 in & 8 out; Gripper dedicated port: pulse)	9+3+ forearm extension(8 in & 8 out; Gripper dedicated port: pulse or 485)	9+3+ forearm extension(8 in & 8 out; Gripper dedicated port: pulse or 485)	9+3+ forearm extension(8 in & 8 out; Gripper dedicated port: pulse or 485)	≤22		Machine Weight	≈11kg	≈19kg	410mm stroke Net weight 28kg
	Analog Input (4-20mA)	/	/	/	/	/	≤6		Base Mounting Size	200mm*200mm*10mm	200mm*200mm*10mm	250mm*250mm*15mm
	Analog Output (4-20mA)	/	/	/	/	/	/		Distance Between Base Fixing Holes	160mm*160mm with four M5*12 screws	160mm*160mm with four M8*20 screws	200mm*200mm with four M8*20 screws
Collision Detection			√	√	/	/	√	Machine Weight	≈11kg	≈19kg	410mm stroke Net weight 28.5kg	
Drag Teaching			√	√	/	/	√	Base Mounting Size	200mm*200mm*10mm	200mm*200mm*10mm	250mm*250mm*15mm	
Chassis Compatibility			Fully compatible with the Z-Arm 1632 chassis	/	Fully compatible with the Z-Arm XX60 chassis	/	/	Distance Between Base Fixing Holes	160mm*160mm with four M5*12 screws	160mm*160mm with four M8*20 screws	200mm*200mm with four M8*20 screws	
Flange Compatibility			Compatible with Z-Arm 1632 Flanges	Compatible with Z-Arm 2140 Flanges	Compatible with Z-Arm xx42 Flanges	Compatible with Z-Arm xx42 Flanges	/	Collision Detection	√	√	/	



Item	Parallel electric gripper														Y-Electric gripper	Three-finger electric gripper	Item	Rotary electric gripper		Item	Electric suction cup
	Z-EMG-4	Z-EFG-8S	Z-EFG-FS	Z-EFG-12	Z-EFG-L	Z-EFG-20	Z-EFG-R	Z-EFG-20S	Z-EFG-20F	Z-EFG-26	Z-EFG-26P	Z-EFG-30	Z-EFG-50	Z-EFG-100	Z-ECG-10	Z-ERG-20		Z-ERG-20C	Z-ECS-70		
Stroke	4mm	8mm	8mm	12mm	12mm	20mm	20mm	20mm	20mm	26mm	26mm	30mm	50mm	90mm	10mm	Stroke	20mm	20mm	maximum vacuum	50%	
Clamping force	3-5N	8-20N	8-20N	30N	30N	80N	80N	8-20N	1-8N	6-15N	15-50N	10-40N	15-50N	35-60N	3-10N	Clamping force	10-35N	10-35N	Suction force	10-50N	
Recommended gripping weight ≤	100g	300g	300g	500g	500g	800g	800g	300g	100g	300g	500g	400g	500g	500g	200g	Recommended gripping weight	400g	400g	Throughput	1.5L/min	
Adjustable stroke	Not adjustable	Not adjustable	Not adjustable	Not adjustable	Not adjustable	Adjustable	Adjustable	Not adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Rotational maximum torque	0.3NM	0.3NM	Recommended max. weight	1kg	
Adjustable clamping force	Not adjustable	Adjustable	Adjustable	Not adjustable	Not adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable	Maximum rotation speed	240RPM	180RPM	Absorption/release time	0.5s/0.3s	
Weight	0.23kg	0.25kg	0.3kg	0.342kg	0.4kg	0.458kg	0.5kg	0.35kg	0.5kg	0.45kg	0.5kg	0.55kg	0.7kg	0.925kg	0.5kg	Rotation range	Infinite spin	Infinite spin	Number of suction cup	1-4	
Dimensions	35*26*92mm	30*24*93.9mm	67*67*101.9mm	48*32*105.6mm	68*68*113.6mm	44*30*124.7mm	68*68*132.7mm	43*24*93.9mm	52*32*103mm	55*26*97mm	55*29*108mm	52*38*108mm	68*38*108mm	203*144*45mm (Opened) 222*64*45mm (Closed)	73*73*95.5mm	Weight	1kg	1kg	Weight	350kg	
One-way travel time	0.05s	0.1s	0.1s	0.2s	0.2s	0.45s	0.45s	0.15s	0.1s	0.25s	0.3s	0.2s	0.3s	1s	0.3s	Dimensions	54*54*141mm	54*54*141mm	Dimensions	70*52*74.5mm	
Rated voltage	24V	24V	24V	24V	24V	24V	24V	24V	24V	24V	24V	24V	24V	24V	24V	Rated voltage	24V	24V	Rated voltage	24V±10%	
Peak	3A	0.6A	0.6A	1A	1A	1A	1A	0.6A	1A	1A	1A	2A	2A	1.5A	0.6A	Rated current	24V	24V	Rated current	0.3A	
																Peak current	3A	3A	Peak current	0.6A	