Agilebot

DRIVE THE FACTORIES OF THE FUTURE



GBT202609D-8EN

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ABOUT MICRO-INTELLIGENCE



Leading Enterprise In Embodied Intelligent Industrial Robotics, Achieving Stable And Scalable Revenue In Industrial Applications.

Changzhou Micro intelligence Co., Ltd is a leading embodied intelligent industrial robotics company dedicated to reshaping the future of manufacturing through cutting-edge technology. We provide global customers with out-of-the-box, highly flexible, and exceptionally intelligent embodied intelligent industrial robot (EIIR) products and solutions. Through our self-developed full-stack software and hardware system and comprehensive system engineering capabilities, we have successfully developed EIIR products that can autonomously perceive, learn, decide, and execute complex tasks. As a pioneer in multi-scenario and multi-industry application of embodied intelligent industrial robotics, we have achieved commercialization at scale and rapid growth in our financial performance.

500+
Total employees

> 800
Proprietary intellectual property rights

≈ 60%
Percentage of R&D staff

World-leading
R&D Projects

The above data include subsidiaries.

ABOUT AGILEBOT

Shanghai Agilebot Robotics Co., Ltd., a subsidiary of Changzhou Micro Intelligence Co., Ltd., is a professional provider of Industrial Robotics (IR) and intelligent Magnetic Transport Systems (MTS). With a vision of driving the factories of the future, and a mission to build an infrastructure ecosystem for intelligent manufacturing, we are dedicated to pushing the boundaries through the seamless integration of cutting-edge technologies. Our expertise spans motion control, motor control, communication systems, sensor technology, and intelligent algorithms, all meticulously fused into our line of IR and MTS products. We focus on the deep-rooted industry application of these technologies, progressively diversifying, specializing, and nurturing an ecosystem of technological platforms and end products that deliver multifaceted values to our clients.

At Agilebot, we have built a comprehensive infrastructure for manufacturing, testing, and traceability. This commitment to excellence, driven by continuous process innovation and elevated management standards, ensures the prime quality of our products. Beyond developing a wide range of robot categories, MTS and functional software, we extend our commitment to clients through services like training, maintenance, technical support, and solution consulting.

Backed by our advanced Integrated Motion Control technology, Agilebot places independent R&D and control of key technology at the core of our growth approach, with a dedication to fundamentally satisfying market demands as our guiding principle. Our unwavering goal is to consistently provide clients with high performance, top-quality, cost-effective, and user-friendly products that empower their industrial operations.

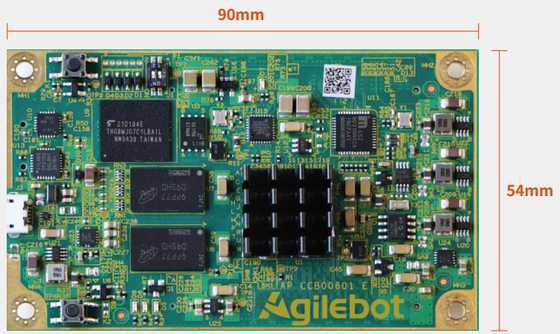








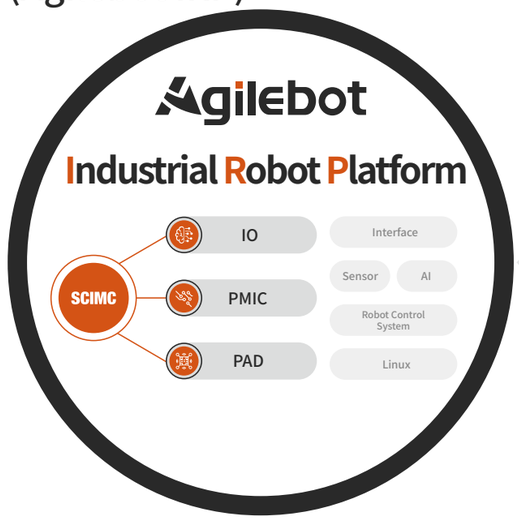
CORE COMPETENCE



Single Chip Multiaxis Integrated Motion Controller(SCIMC)

Leveraging the world's first single-chip Integrated multi-axis motion controller, SCIMC, with full intellectual property rights and advanced motion control technology, Agilebot has developed a precision motion control platform specifically tailored for Industrial Robotics (IR) and intelligent Magnetic Transport System (MTS).

Agilebot Industrial Robot Platform (Agilebot IRP)



An Open, General-Purpose, and Efficient Platform

- Our in-house developed heterogeneous control system architecture based on ARM cores ensures high real-time and synchronization capabilities.
- Open-source Linux system guarantees platform openness.
- FPGA supports freely defining external interfaces.

Support for Multiple Robot Configurations

- Based on parametric modeling, our platform supports multiple all-purpose industrial robot configurations and their product lines.

Substantial Capabilities for Application

- Our independent system architecture and underlying algorithms support the development of various application software
- Easy to integrate vision and force sensors for functions such as welding, cutting, gluing, polishing, and visual tracking.

Efficient Motion Planning Algorithms

- Efficient motion trajectory planning algorithms enable rapid and smooth robot movements with exceptionally high trajectory precision.

Advanced Dynamics Algorithms

- Dynamics algorithms ensure that robots operate at high speeds, achieve precise positioning, and exhibit excellent control performance.

Optimized Servo Motor Control Algorithms

- We have optimized servo motor control algorithms, improving three-loop control performance and enabling precise positioning, speed, and torque control.

User-Friendly Human-Machine Interface

- Our web-based cross-platform UI design offers a user-friendly human-machine interaction experience.

PATENTS & CERTIFICATES

Currently, Agilebot has accumulated 67 domestic and international patent applications, including 35 invention patents, 23 utility model patents, 4 design patents, and 5 software copyrights. Additionally, Agilebot has successfully obtained various product certifications, such as Robot CR Certification, CE Certification, IP67 Protection Certification, and ISO Class 4 Cleanroom Certification, through rigorous standards and testing processes.

SCIMC Core Patents



Single Chip Multiaxis Integrated Motion Controller Patent Certification (China)



Single Chip Multiaxis Integrated Motion Controller Patent Certification (United States)



Single Chip Multiaxis Integrated Motion Controller Patent Certification (Japan)



Single Chip Multiaxis Integrated Motion Controller Patent Certification (Europe)

Invention patents



Control Unit for a Robot System, Robot System, and Control Method for a Robot System



Method and Apparatus for Identifying the Dynamic Parameters of a Multi-Link Robot



Visual Classification Method, System, Apparatus, and Computer-Readable Medium



Method for Electronic Device and Operating an Electronic Device

Product Certification



IP67 Protection Certification



CE Certification



MTBF 50,000 Hours Certification



ISO Class 4 Cleanroom Certification

PRODUCT APPLICATIONS

Industry Applications

- Electric Vehicle
- Automotive Components
- Consumer Electronics
- Pharmaceuticals
- General Components
- Semiconductors & Photovoltaics
- FMCG
- Cosmetics

Application Scenarios



- Visual Inspection
- Logistics Packaging
- Loading and Unloading
- Cutting
- Visual Sorting
- Polishing and Buffing
- Assembly
- Cleaning



SERVICE



We offer a comprehensive service support system.

1 Service Hotline

- Technical Support Hotline
- Exclusive Service Window for VIP Clients*1

2 Solution Consultation and Design

- Application Consultation
- Solution Consultation and Design

3 Installation and Commissioning

- Robot Delivery and Installation
- On-Site Robot Commissioning

4 Training Services

- Basic Operation Training
- Electrical and Programming Training
- Process Technology Training

5 Robot Maintenance and Service

- Standard Maintenance
- Electrical and Mechanical Repairs
- Response within 12 hours*
- On-site arrival within 24 hours after response
- Inspection and Service available

6 Robot Spare Parts or Retrofits

- Robot Spare Parts
- Robot Peripheral Product Spare Parts
- Retrofit or Upgrade Services for Sold Robots

*1 We provide VIP clients with dedicated FAE (Field Application Engineer) services, offering faster response times and personalized value-added services.
*2 "Response" refers to service personnel confirming service requirements with clients and providing solutions.
*3 The 24-hour on-site arrival is applicable during working hours and is limited to the Yangtze River Delta region, except in cases affected by force majeure factors.

COMPLETE PORTFOLIO



Model Naming Rules of Agilebot Industrial Robots & Controllers Series

SCARA Series

Product Categories		Product Series		Payload		Version		Reach		Z-Axis Stroke		Branch Version	
GBT	Agilebot Industrial Robots	S	SCARA Robot	3	3KG	A	1st Generation	400	400mm	Blank	Standard stroke	Blank	Standard Version
				6	6KG			500	500mm	.3	300mm		
				10	10KG			600	600mm				
				20	20KG			700	700mm				
								800	800mm				
								1000	1000mm				

PUMA Series

Product Categories		Product Series		Payload		Version		Reach		Branch Version	
GBT	Agilebot Industrial Robots	P	PUMA Robot	7	7KG	A	1st Generation	700	721mm	Blank	Standard Version
						B	2nd Generation	900	901mm		

Cobot Series

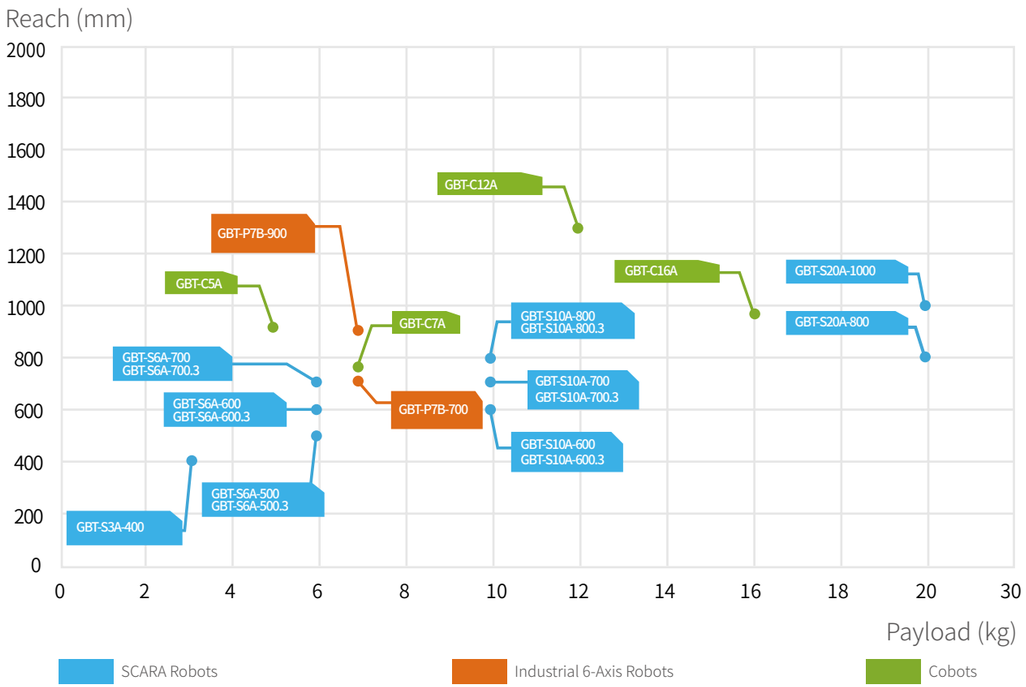
Product Categories		Product Series		Payload		Version	
GBT	Agilebot Industrial Robots	C	Cobots	5	5KG	A	1st Generation
				7	7KG		
				12	12KG		
				16	16KG		

Robot Controller Naming Rules

Product Categories		Technical Features		Standard Axis		Version		Controller Type	
IRC	Industrial Robot Controller	I	Integrated All-in-One Solution	4	4 Axes	A	1st Generation	Blank	Standard
		D	Drive Distributed	6	6 Axes	B	2nd Generation	S	Small Type
				8	8 Axes			C	Compact Type

Product Selection

Robot Models Chart



Controller Selection

	IRC-I4A-C	IRC-I6A-C	IRC-D6B	IRC-D6B-S*1
				
Applicable Robot Models	GBT-S3A Series GBT-S6A Series GBT-S10A Series GBT-S20A Series	GBT-P7B Series	GBT-C5A GBT-C7A GBT-C12A GBT-C16A	GBT-C5A GBT-C7A GBT-C12A GBT-C16A
Size*2(W × D × H)	353mmx418mmx192mm	400mmx422mmx204mm	528mmx215mmx373mm	456mmx207mmx184mm
Weight	8kg	12 kg	12kg	4kg
Supported Devices	TP, PC	TP, PC	Mobile, Tablet, PC	Mobile, Tablet, PC
Communication	Supports I/O (24 input, 16 output) as well as communication protocols such as TCP/IP, ModBus TCP.	Supports I/O (48 input, 48 output) as well as communication protocols like TCP/IP and ModBus TCP.	Supports I/O (16 digital input, 16 digital output, 2 analog input, 2 analog output) as well as communication protocols including TCP/IP, ModBus TCP, RS485.	Supports I/O (16 digital input, 16 digital output, 2 analog input, 2 analog output) as well as communication protocols including TCP/IP, ModBus TCP, RS485.

*1: IRC-D6B-S offers two optional configurations:
1. SDC DC cabinet (Voltage input: 33–56 V)
2. SAC AC cabinet (Voltage input: 220 V)

*2: Overall Maximum Dimensions

Robot Selection

												
Model	GBT-S3A-400	GBT-S6A-500 GBT-S6A-600 GBT-S6A-700	GBT-S6A-500.3 GBT-S6A-600.3 GBT-S6A-700.3	GBT-S10A-600 GBT-S10A-700 GBT-S10A-800	GBT-S10A-600.3 GBT-S10A-700.3 GBT-S10A-800.3	GBT-S20A-800 GBT-S20A-1000		GBT-P7B-700 GBT-P7B-900	GBT-C5A	GBT-C7A	GBT-C12A	GBT-C16A
Payload	3kg	6kg	6kg	10kg	10kg	20kg		7kg	5kg	7kg	12kg	16kg
Reach (max)	400mm	500mm 600mm 700mm	500mm 600mm 700mm	600mm 700mm 800mm	600mm 700mm 800mm	800mm 1000mm		721mm 901mm	933mm	785mm	1303mm	980mm
Z-Axis Stroke	150mm	200mm	300mm	200mm	300mm	390mm		-	-	-	-	-



GBT-S3A

Efficient The shortest cycle time for the standard Pick & Place operation is approximately 0.41 seconds.

User-friendly The Compass platform supports PC-based teaching and programming for SCARA robots.

Technical Specifications:

Model		GBT-S3A-400
Basic Specifications		
Axes		4
Reach (max)		400mm
Payload	Rated	1kg
	Maximum	3kg
Axis 4 Moment of Inertia	Rated	0.005kg·m²
	Maximum	0.05kg·m²
Axis 3 Down Force		100N
Mounting		Floor
Motion Parameters		
Axis Motion Range	J1	±132°
	J2	±141°
	J3	150mm
	J4	±360°
Axis Maximum Speed	J1+J2	6650mm/s
	J3	1100mm/s
	J4	2350° /s
Position Repeatability*1	J1+J2	0.01mm
	J3	0.01mm
	J4	0.01°
Standard Cycle Time*2		0.41s

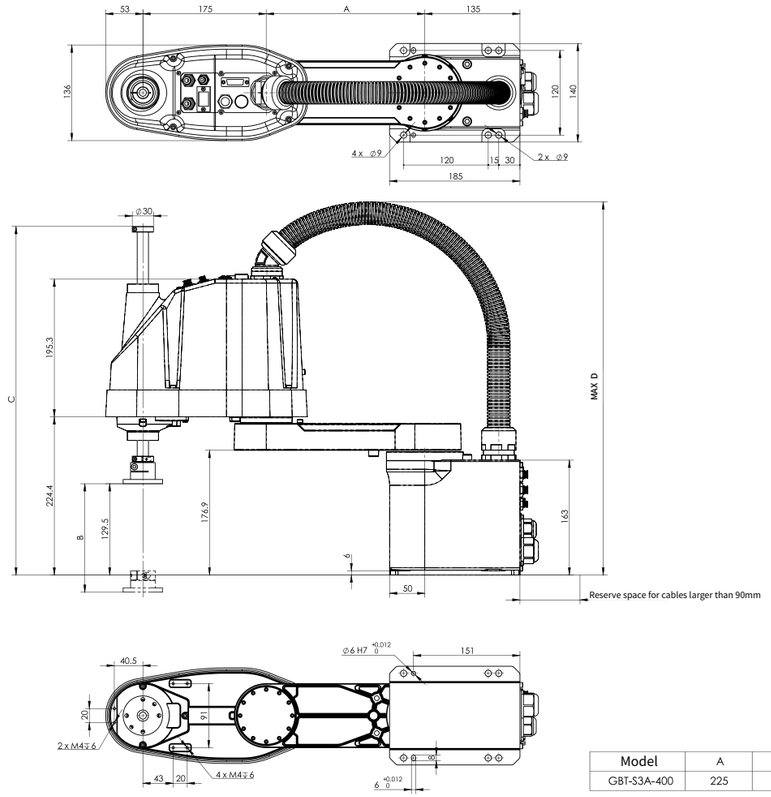
Customer Interface		
Air		ϕ4x1，ϕ6x2
Communication		D-sub 15 pin RJ45(CAT 5e)8pin
Physical Characteristics		
Weight		13kg
Base Mounting Area		185mmx140mm
Other Information		
Applicable Controller		IRC-I4A-C
Power Requirements	Voltage	220V~ / 50Hz
Operating Environment	Temperature	5° C~40° C
	Humidity	Up to 80%RH (non-condensing)
	Vibration	0.5G （⩾ 50Hz）

*1. Numerical values obtained under constant environmental temperature of 20° C.

*2. The cycle time of the robot, performing an oscillatory arched motion with a horizontal displacement of 300mm and a vertical displacement of 25mm under 2kg load conditions (maximum speed, optimal trajectory, coarse positioning).

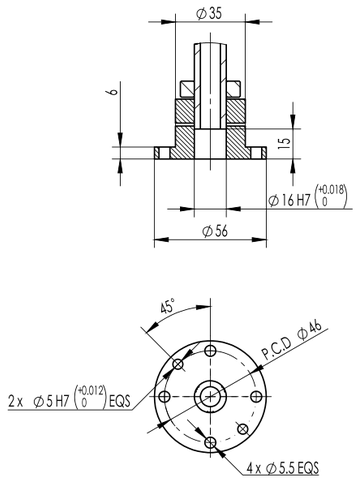
Main Dimensions

(Unit: mm)

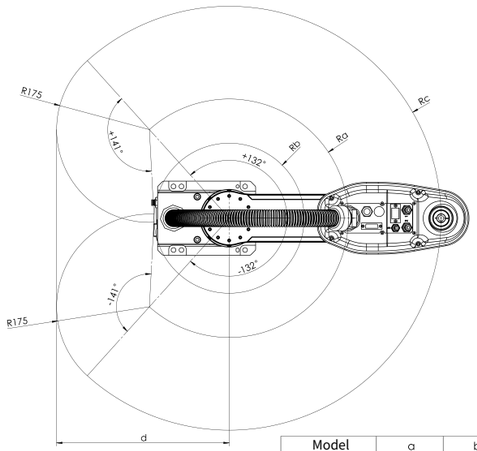


Model	A	B	C	D
GBT-S3A-400	225	150	494.5	540

Tool Flange



Working Range



Model	a	b	c	d
GBT-S3A-400	225	141.6	400	326

The specifications are subject to change without prior notice.



GBT-S6A

Efficient The shortest cycle time for the standard Pick & Place operation is approximately 0.41 seconds.

User-friendly The Compass platform supports PC-based teaching and programming for SCARA robots.

Technical Specifications:

Model		GBT-S6A-500	GBT-S6A-500.3	GBT-S6A-600	GBT-S6A-600.3	GBT-S6A-700	GBT-S6A-700.3
Basic Specifications							
Axes		4					
Reach (max)		500mm	500mm	600mm	600mm	700mm	700mm
Payload	Rated	2kg	2kg	2kg	2kg	2kg	2kg
	Maximum	6kg	6kg	6kg	6kg	6kg	6kg
Axis 4 Moment of Inertia	Rated	0.01kg·m²	0.01kg·m²	0.01kg·m²	0.01kg·m²	0.01kg·m²	0.01kg·m²
	Maximum	0.12kg·m²	0.12kg·m²	0.12kg·m²	0.12kg·m²	0.12kg·m²	0.12kg·m²
Axis 3 Down Force		100N					
Mounting		Floor					
Motion Parameters							
Axis Motion Range	J1	±132°	±132°	±132°	±132°	±132°	±132°
	J2	±150°	±150°	±150°	±150°	±150°	±150°
	J3	200mm	300mm	200mm	300mm	200mm	300mm
	J4	±360°	±360°	±360°	±360°	±360°	±360°
Axis Maximum Speed	J1+J2	6180mm/s	6180mm/s	6800mm/s	6800mm/s	7100mm/s	7100mm/s
	J3	1100mm/s	1100mm/s	1100mm/s	1100mm/s	1100mm/s	1100mm/s
	J4	2000° /s	2000° /s	2000° /s	2000° /s	2000° /s	2000° /s
Position Repeatability*1	J1+J2	0.015mm	0.015mm	0.015mm	0.015mm	0.015mm	0.015mm
	J3	0.01mm	0.01mm	0.015mm	0.015mm	0.015mm	0.015mm
	J4	0.01°	0.01°	0.01°	0.01°	0.01°	0.01°
Standard Cycle Time*2		0.41s	0.41s	0.41s	0.41s	0.41s	0.41s
Physical Characteristics							
Weight		16.5kg	16.5kg	17.3kg	17.3kg	18kg	18kg
Base Mounting Area		200mmx170mm					

Customer Interface		
Air		ϕ4x1，ϕ6x2
Communication		D-sub15pin RJ45(CAT 5e)8 pin
Other Information		
Applicable Controller		IRC-I4A-C
Power Requirements	Voltage	220V~ / 50Hz
Operating Environment	Temperature	5° C~40° C
	Humidity	Up to 80%RH (non-condensing)
	Vibration	0.5G（⩾ 50Hz）

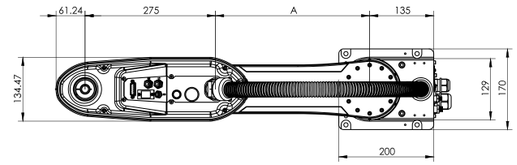
*1. Numerical values obtained under constant environmental temperature of 20° C.

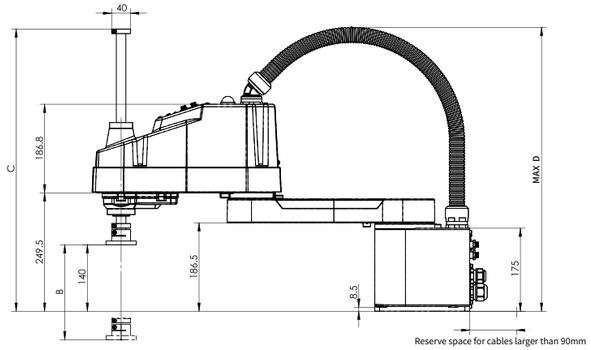
*2. The cycle time of the robot, performing an oscillatory arched motion with a horizontal displacement of 300mm and a vertical displacement of 25mm under 2kg load conditions (maximum speed, optimal trajectory, coarse positioning).

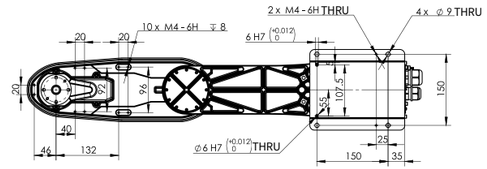
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(Unit: mm)

Main Dimensions

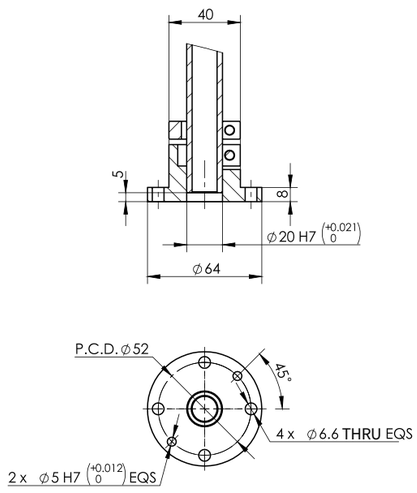




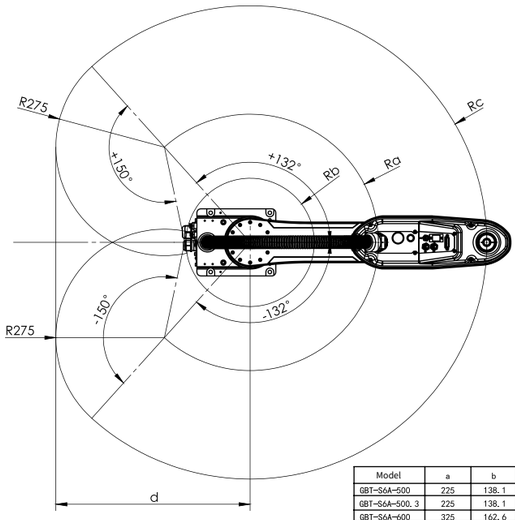


Model	A	B	C	D
GBT-S6A-500	225	200	595	580
GBT-S6A-500.3	225	300	695	580
GBT-S6A-600	325	200	595	590
GBT-S6A-600.3	325	300	695	590
GBT-S6A-700	425	200	595	600
GBT-S6A-700.3	425	300	695	600

Tool Flange



Working Range



Model	a	b	c	d
GBT-S6A-500	225	138.1	500	425.5
GBT-S6A-500.3	225	138.1	500	425.5
GBT-S6A-600	325	162.6	600	492.5
GBT-S6A-600.3	325	162.6	600	492.5
GBT-S6A-700	425	232.0	700	559.4
GBT-S6A-700.3	425	232.0	700	559.4

The specifications are subject to change without prior notice.



GBT-S10A

Efficient The shortest cycle time for the standard Pick & Place operation is approximately 0.40 seconds.

User-friendly The Compass platform supports PC-based teaching and programming for SCARA robots.

Technical Specifications:

Model		GBT-S10A-600	GBT-S10A-600.3	GBT-S10A-700	GBT-S10A-700.3	GBT-S10A-800	GBT-S10A-800.3
Basic Specifications							
Axes		4					
Reach (max)		600mm	600mm	700mm	700mm	800mm	800mm
Payload	Rated	5kg	5kg	5kg	5kg	5kg	5kg
	Maximum	10kg	10kg	10kg	10kg	10kg	10kg
Axis 4 Moment of Inertia	Rated	0.02kg·m²	0.02kg·m²	0.02kg·m²	0.02kg·m²	0.02kg·m²	0.02kg·m²
	Maximum	0.3kg·m²	0.3kg·m²	0.3kg·m²	0.3kg·m²	0.3kg·m²	0.3kg·m²
Axis 3 Down Force		200N					
Mounting		Floor					
Motion Parameters							
Axis Motion Range	J1	±132°	±132°	±132°	±132°	±132°	±132°
	J2	±150°	±150°	±150°	±150°	±150°	±150°
	J3	200mm	300mm	200mm	300mm	200mm	300mm
	J4	±360°	±360°	±360°	±360°	±360°	±360°
Axis Maximum Speed	J1+J2	9100mm/s	9100mm/s	9800mm/s	9800mm/s	10600mm/s	10600mm/s
	J3	1100mm/s	1100mm/s	1100mm/s	1100mm/s	1100mm/s	1100mm/s
	J4	2700° /s	2700° /s	2700° /s	2700° /s	2700° /s	2700° /s
Position Repeatability *1	J1+J2	0.015mm	0.015mm	0.015mm	0.015mm	0.015mm	0.015mm
	J3	0.015mm	0.015mm	0.015mm	0.015mm	0.015mm	0.015mm
	J4	0.01°	0.01°	0.01°	0.01°	0.01°	0.01°
Standard Cycle Time *2		0.40s	0.40s	0.42s	0.42s	0.42s	0.42s
Physical Characteristics							
Weight		22.5kg	22.5kg	23kg	23kg	23.5kg	23.5kg
Base Mounting Area		195mmx169mm					

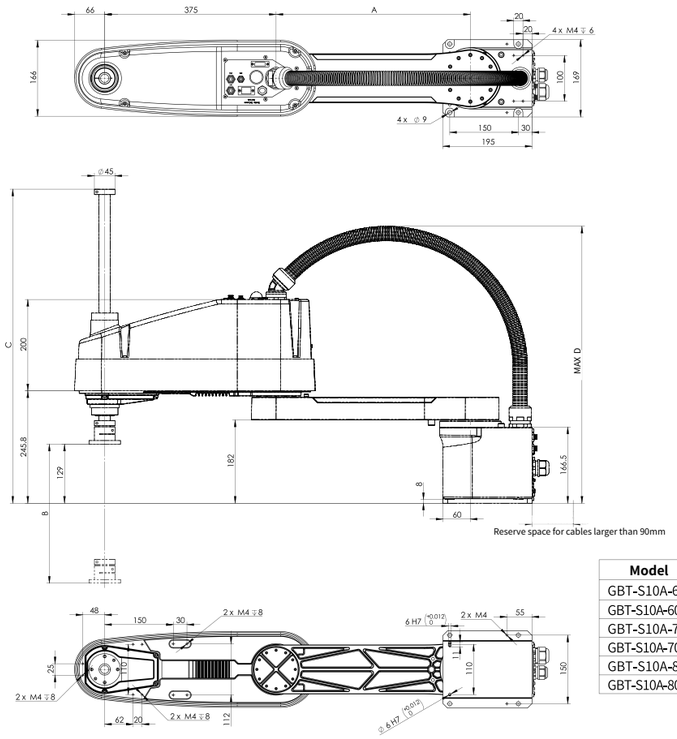
Customer Interface		
Air		ϕ4x1，ϕ6x2
Communication		D-sub15 pin RJ45(CAT 5e)8 pin
Other Information		
Applicable Controller		IRC-I4A-C
Power Requirements	Voltage	220V~ / 50Hz
Operating Environment	Temperature	5° C~40° C
	Humidity	Up to 80%RH (non-condensing)
	Vibration	0.5G （⩾ 50Hz）

*1. Numerical values obtained under constant environmental temperature of 20° C.
*2. The cycle time of the robot, performing an oscillatory arched motion with a horizontal displacement of 300mm and a vertical displacement of 25mm under 2kg load conditions (maximum speed, optimal trajectory, coarse positioning).

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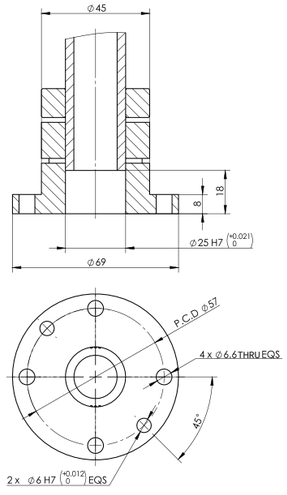
Main Dimensions

(Unit: mm)

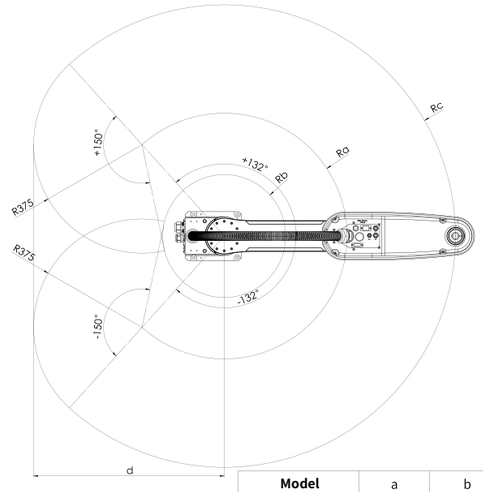


Model	A	B	C	D
GBT-S10A-600	225	200	587	565
GBT-S10A-600.3	225	300	687	565
GBT-S10A-700	325	200	587	575
GBT-S10A-700.3	325	300	687	575
GBT-S10A-800	425	200	587	580
GBT-S10A-800.3	425	300	687	580

Tool Flange



Working Range



Model	a	b	c	d
GBT-S10A-600	225	212.4	600	525.5
GBT-S10A-600.3	225	212.4	600	525.5
GBT-S10A-700	325	187.5	700	592.5
GBT-S10A-700.3	325	187.5	700	592.5
GBT-S10A-800	425	212.6	800	659.4
GBT-S10A-800.3	425	212.6	800	659.4

The specifications are subject to change without prior notice.



GBT-S20A

Efficient The shortest cycle time for the standard Pick & Place operation is approximately 0.41 seconds.

User-friendly The Compass platform supports PC-based teaching and programming for SCARA robots.

Technical Specifications:

Model		GBT-S20A-800	GBT-S20A-1000
Basic Specifications			
Axes		4	4
Reach (max)		800mm	1000mm
Payload	Rated	10kg	10kg
	Maximum	20kg	20kg
Axis 4 Moment of Inertia	Rated	0.05kg·m²	0.05kg·m²
	Maximum	1kg·m²	1kg·m²
Axis 3 Down Force		250N	250N
Mounting		Floor	Floor
Motion Parameters			
Axis Motion Range	J1	±132°	±132°
	J2	±152°	±152°
	J3	390mm	390mm
	J4	±360°	±360°
Axis Maximum Speed	J1+J2	10250mm/s	11750mm/s
	J3	1800mm/s	1800mm/s
	J4	1400° /s	1400° /s
Position Repeatability*1	J1+J2	0.015mm	0.015mm
	J3	0.015mm	0.015mm
	J4	0.01°	0.01°
Standard Cycle Time*2		0.41s	0.44s

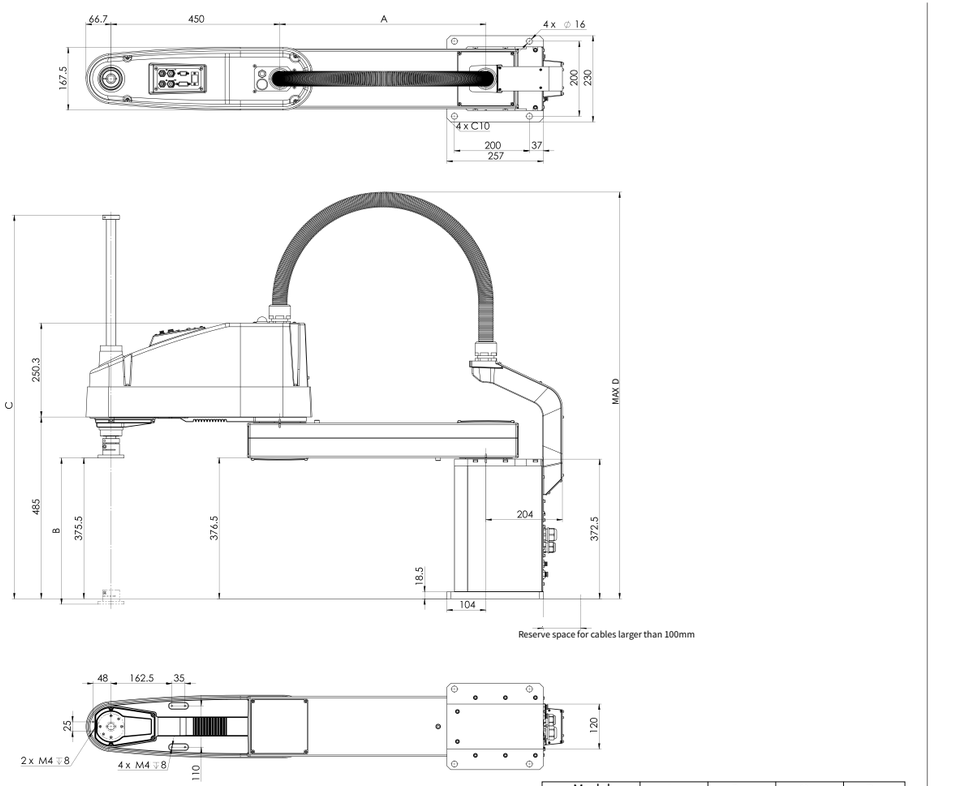
Model		GBT-S20A-800	GBT-S20A-1000
Customer Interface			
Air		ϕ8x2，ϕ6x2	
Communication		D-sub15pin、D-sub 9pin RJ45 (CAT 5e) 8pin	
Physical Characteristics			
Weight		47kg	50kg
Base Mounting Area		257mmx230mm	
Other Information			
Applicable Controller		IRC-I4A-C	
Power Requirements	Voltage	220V~ / 50Hz	
Operating Environment	Temperature	5° C~40° C	
	Humidity	Up to 80%RH (non-condensing)	
	Vibration	0.5G （⩾ 50Hz）	

*1. Numerical values obtained under constant environmental temperature of 20° C.

*2. The cycle time of the robot, performing an oscillatory arched motion with a horizontal displacement of 300mm and a vertical displacement of 25mm under 2kg load conditions (maximum speed, optimal trajectory, coarse positioning).

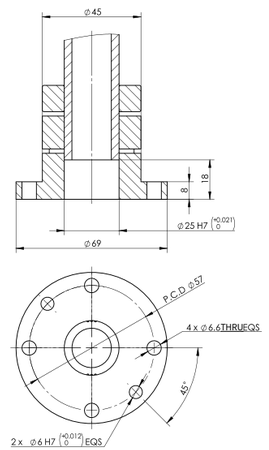
Main Dimensions

(Unit: mm)

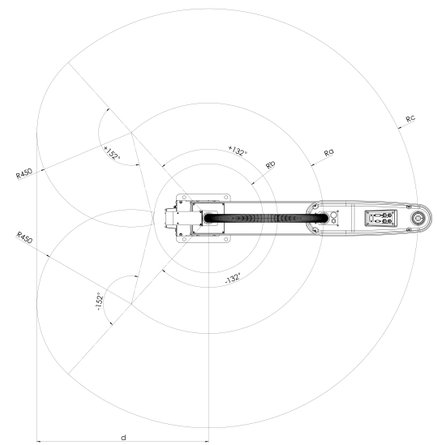


Model	A	B	C	D
GBT-S20A-800	350	390	1023.5	1100
GBT-S20A-1000	550	390	1023.5	1100

Tool Flange



Working Range



Model	a	b	c	d
GBT-S20A-800	350	216.5	800	684.2
GBT-S20A-1000	550	260.7	1000	818

The specifications are subject to change without prior notice.



GBT-P7B

Efficient Position repeatability is 0.02mm.

User-friendly The robot body is equipped with various electrical interfaces, making cable deployment hassle-free.

Versatile It offers a maximum IP67 protection level, meeting the application requirements in various challenging production environments.

Technical Specifications:

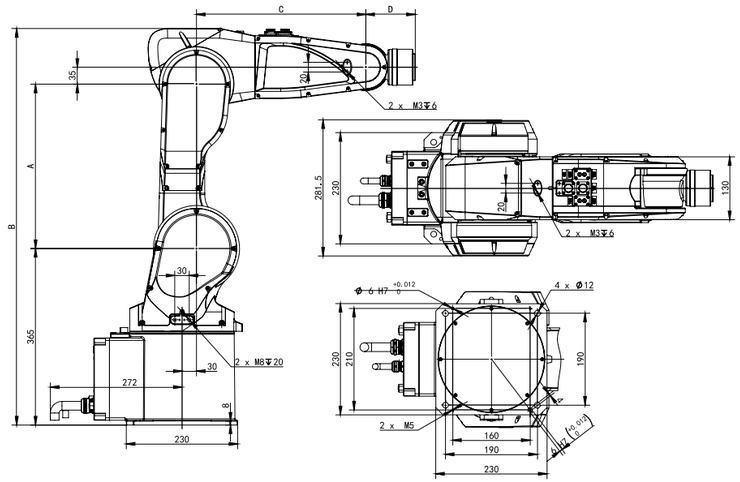
		GBT-P7B-700	GBT-P7B-900
Basic Specifications			
Axes		6	6
Reach (max)		721mm	901mm
Payload	Rated	3.5kg	3.5kg
	Maximum	7kg	7kg
Degree of Protection		IP67	IP67
Mounting		Ground Ceiling mounted Wall mounted	Ground Ceiling mounted Wall mounted
Motion Parameters			
Axis Motion Range	J1	340° (- 170° /+170°)	340° (- 170° /+170°)
	J2	235° (- 135° /+100°)	235° (- 135° /+100°)
	J3	270° (- 70° /+200°)	270° (- 70° /+200°)
	J4	380° (- 190° /+190°)	380° (- 190° /+190°)
	J5	230° (- 115° /+115°)	230° (- 115° /+115°)
	J6	720° (- 360° /+360°)	720° (- 360° /+360°)
Axis Maximum Speed	J1	333° /s	333° /s
	J2	267° /s	267° /s
	J3	333° /s	333° /s
	J4	450° /s	450° /s
	J5	405° /s	405° /s
	J6	605° /s	605° /s
Position Repeatability		0.02mm	0.02 mm

Model		GBT-P7B-700	GBT-P7B-900
Customer Interface			
Standard configuration		ϕ4×2，6RI/6RO， 24V×2，0V×2	
Physical Characteristics			
Weight		51kg	54.5kg
Base Mounting Area		230mmx230mm	230mmx230mm
Other Information			
Applicable Controller		IRC-I6A-C	
Power Requirements	Voltage	220V~ / 50Hz	
Operating Environment	Temperature	0° C~45° C	
	Humidity	Up to 90%RH (non-condensing)	
	Vibration	0.5G(⩾ 100Hz)	

Agilebot

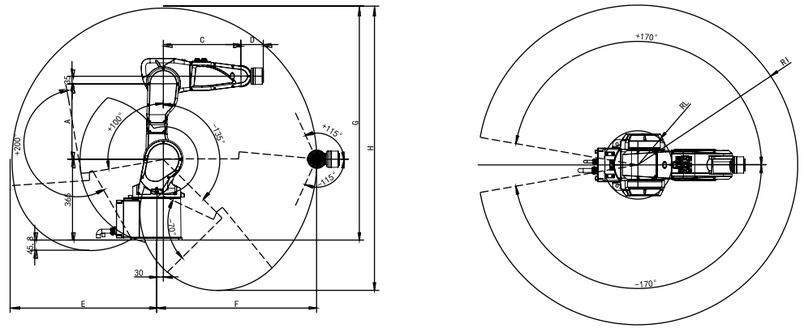
Main Dimensions

(Unit: mm)



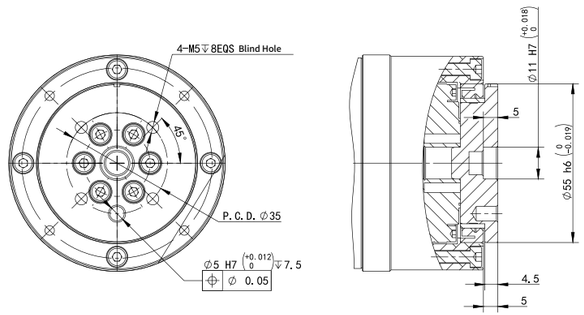
Model	B	A	C	D
GBT-P7B-700	820	340	350	102
GBT-P7B-900	930	450	420	102

Working Range



Model	E	F	G	H	RL	RI
GBT-P7B-700	662	721	1056	1284	184	721
GBT-P7B-900	842	901	1236	1611	219	901

Tool Flange



The specifications are subject to change without prior notice.



GBT-C5A

Precision Position repeatability is 0.02mm.

Range Reach is 933mm.

Technical Specifications:

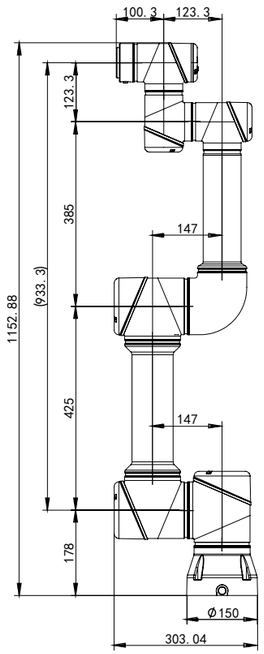
Model	GBT-C5A	
Basic Specifications		
Axes		6
Reach		933mm
Payload		5kg
Degree of Protection		IP54 (IP67 optional)
Cleanroom version（ISO 14644）		Class 5
Mounting		Mounting at Any Angle
Teaching method		Mobile, Tablet, PC
Motion Parameters		
Axis Motion Range	J1	720° (- 360° / +360°)
	J2	720° (- 360° / +360°)
	J3	720° (- 360° / +360°)
	J4	720° (- 360° / +360°)
	J5	720° (- 360° / +360°)
	J6	720° (- 360° / +360°)
Axis Maximum Speed	J1	180° /s
	J2	180° /s
	J3	180° /s
	J4	180° /s
	J5	180° /s
	J6	180° /s
TCP Maximum Speed		3m/s
Position Repeatability		0.02mm

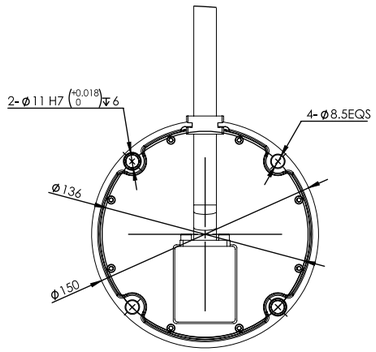
Customer Interface		
Tool I/O		Digital I/O：4RIO(NPN/PNP) Analog input：2AI
Tool I/O power supply		0/12/24VDC，2A
Tool Communication		RS485
Physical Characteristics		
Weight		23kg
Base Mounting Area		ϕ150mm
Other Information		
Applicable Controller		IRC-D6B、IRC-D6B-S（AC/DC）
Operating Environment	Temperature	0° C~50° C
	Humidity	Up to 90%RH (non-condensing)

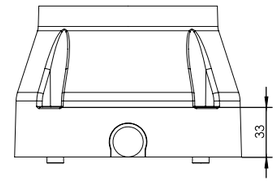
Agilebot

Main Dimension

(Unit: mm)

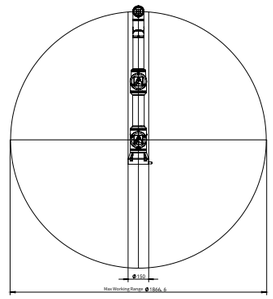




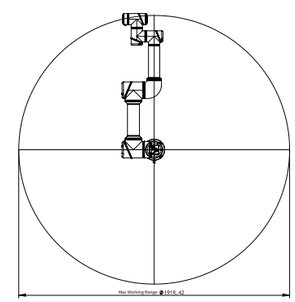


Working Range

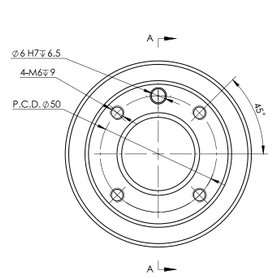
Side View

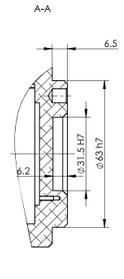


Top View



Tool Flange





The specifications are subject to change without prior notice.



GBT-C7A

Precision Position repeatability is 0.02mm.

Range Reach is 785mm.

Technical Specifications:

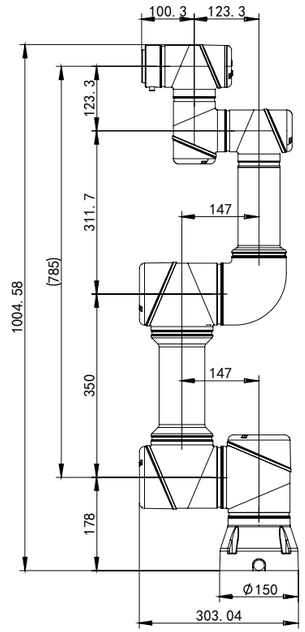
Model	GBT-C7A	
Basic Specifications		
Axes		6
Reach		785mm
Payload		7kg
Degree of Protection		IP54 (IP67 optional)
Cleanroom version (ISO 14644)		Class 5
Mounting		Mounting at Any Angle
Teaching method		Mobile, Tablet, PC
Motion Parameters		
Axis Motion Range	J1	720° (- 360° / +360°)
	J2	720° (- 360° / +360°)
	J3	720° (- 360° / +360°)
	J4	720° (- 360° / +360°)
	J5	720° (- 360° / +360°)
	J6	720° (- 360° / +360°)
Axis Maximum Speed	J1	180° /s
	J2	180° /s
	J3	180° /s
	J4	180° /s
	J5	180° /s
	J6	180° /s
TCP Maximum Speed		2.5m/s
Position Repeatability		0.02mm

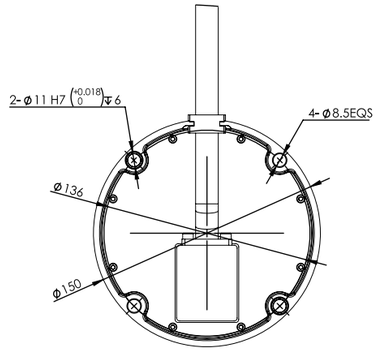
Customer Interface		
Tool I/O		Digital I/O：4RIO(NPN/PNP) Analog input：2AI
Tool I/O power supply		0/12/24VDC，2A
Tool Communication		RS485
Physical Characteristics		
Weight		22kg
Base Mounting Area		ϕ150mm
Other Information		
Applicable Controller		IRC-D6B、IRC-D6B-S（AC/DC）
Operating Environment	Temperature	0° C~50° C
	Humidity	Up to 90%RH (non-condensing)

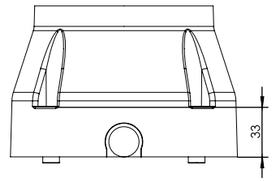
Agilebot

(Unit: mm)

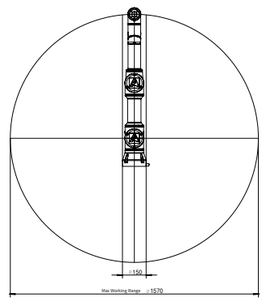
Main Dimension

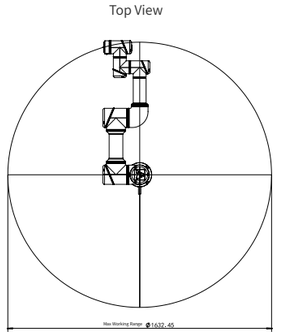




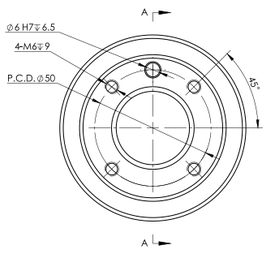


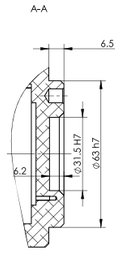
Working Range





Tool Flange





The specifications are subject to change without prior notice.



GBT-C12A

Precision Position repeatability is 0.03mm.

Range Reach is 1303mm.

Technical Specifications:

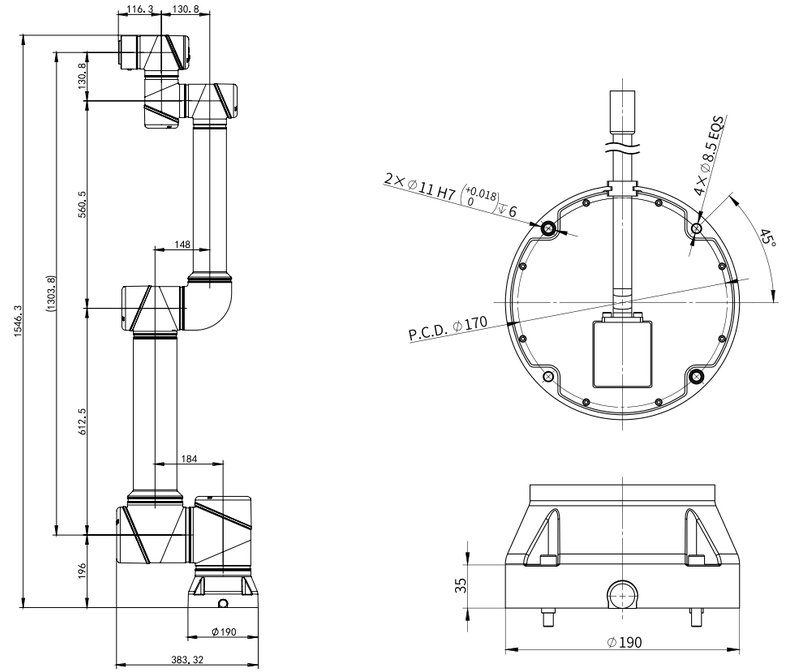
Model	GBT-C12A	
Basic Specifications		
Axes		6
Reach		1303mm
Payload		12kg
Degree of Protection		IP54 (IP67 optional)
Cleanroom version (ISO 14644)		Class 5
Mounting		Mounting at Any Angle
Teaching method		Mobile, Tablet, PC
Motion Parameters		
Axis Motion Range	J1	720° (- 360° / +360°)
	J2	720° (- 360° / +360°)
	J3	720° (- 360° / +360°)
	J4	720° (- 360° / +360°)
	J5	720° (- 360° / +360°)
	J6	720° (- 360° / +360°)
Axis Maximum Speed	J1	120° /s
	J2	120° /s
	J3	150° /s
	J4	180° /s
	J5	180° /s
	J6	180° /s
TCP Maximum Speed		3m/s
Position Repeatability		0.03mm

Customer Interface		
Tool I/O		Digital I/O：4RIO(NPN/PNP) Analog input：2AI
Tool I/O power supply		0/12/24VDC，2A
Tool Communication		RS485
Physical Characteristics		
Weight		36kg
Base Mounting Area		ϕ190mm
Other Information		
Applicable Controller		IRC-D6B、IRC-D6B-S（AC/DC）
Operating Environment	Temperature	0° C~50° C
	Humidity	Up to 90%RH (non-condensing)

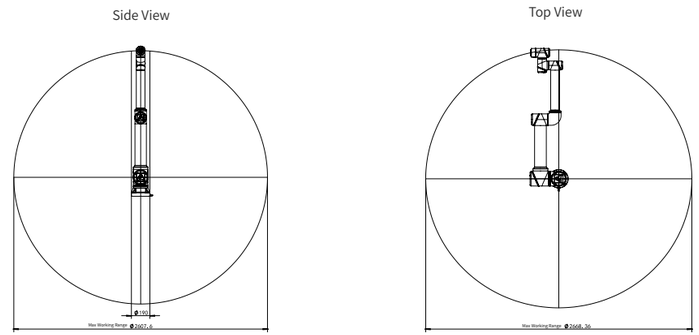
Agilebot

(Unit: mm)

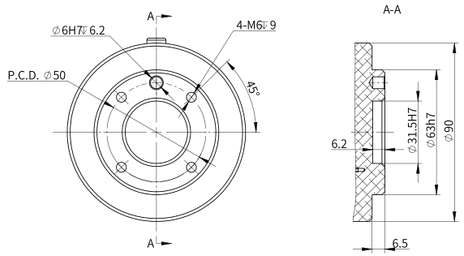
Main Dimension



Working Range



Tool Flange



The specifications are subject to change without prior notice.



GBT-C16A

Precision Position repeatability is 0.03mm.

Range Reach is 980mm.

Technical Specifications:

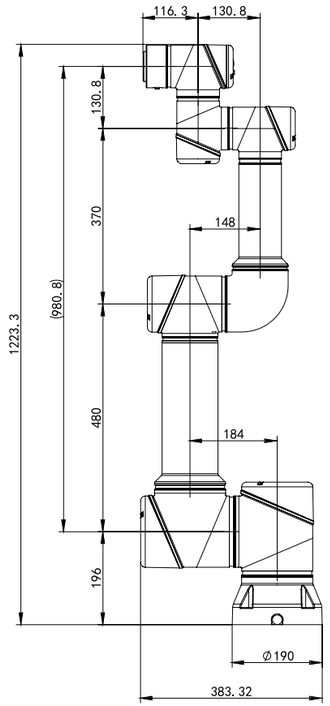
Model		GBT-C16A
Basic Specifications		
Axes		6
Reach		980mm
Payload		16kg
Degree of Protection		IP54 (IP67 optional)
Cleanroom version（ISO 14644）		Class 5
Mounting		Mounting at Any Angle
Teaching method		Mobile, Tablet, PC
Motion Parameters		
Axis Motion Range	J1	720° (- 360° / +360°)
	J2	720° (- 360° / +360°)
	J3	720° (- 360° / +360°)
	J4	720° (- 360° / +360°)
	J5	720° (- 360° / +360°)
	J6	720° (- 360° / +360°)
Axis Maximum Speed	J1	120° /s
	J2	120° /s
	J3	150° /s
	J4	180° /s
	J5	180° /s
	J6	180° /s
TCP Maximum Speed		2.5m/s
Position Repeatability		0.03mm

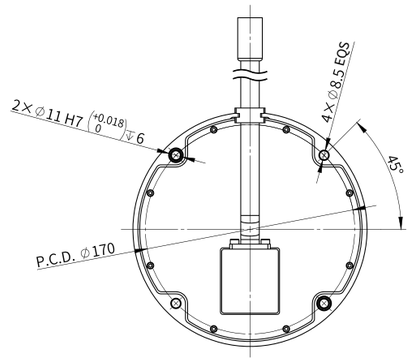
Customer Interface		
Tool I/O		Digital I/O：4RIO(NPN/PNP) Analog input：2AI
Tool I/O power supply		0/12/24VDC，2A
Tool Communication		RS485
Physical Characteristics		
Weight		35.5kg
Base Mounting Area		ϕ190mm
Other Information		
Applicable Controller		IRC-D6B、IRC-D6B-S（AC/DC）
Operating Environment	Temperature	0° C~50° C
	Humidity	Up to 90%RH (non-condensing)

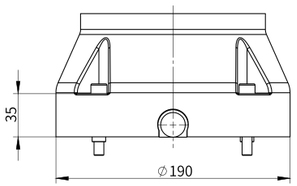
Agilebot

(Unit: mm)

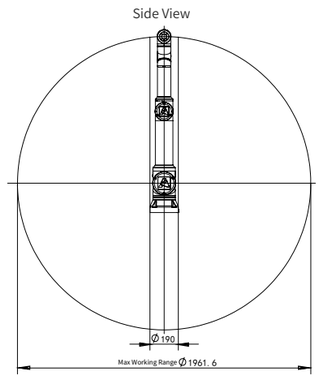
Main Dimension

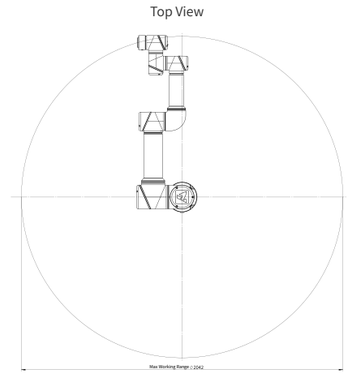




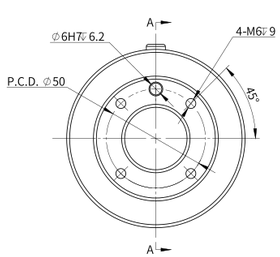


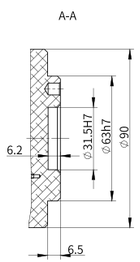
Working Range





Tool Flange





The specifications are subject to change without prior notice.

Controller

Efficient The SCIMC Universal Platform ensures high real-time performance and synchronization.

User-friendly Standard IO, TCP/IP, and ModBus TCP meet the integration requirements of routine applications

Compact Small in size, suitable for deployment in various dense environments.



Product Specifications:

Models		IRC-I4A-C	IRC-I6A-C	IRC-D6B	IRC-D6B-S*1
Size*2(W × D × H)		353mmx418mmx192mm	400mmx422mmx204mm	528mmx215mmx373mm	456mmx207mmx184mm
Weight		8kg	12kg	12kg	4kg
Degree of Protection		IP20	IP20	IP54	IP20
Power Requirements	Voltage	220V~ / 50Hz	220V~ / 50Hz	100-240VAC / 50Hz	100-240VAC / 50Hz or 30-56VDC
Communication	Standard Configuration I/O	Input：24 Output：16 (NPN or PNP)	Input：48 Output：48 (NPN or PNP)	Digital input (NPN or PNP):16 Digital output (NPN or PNP):16 Analog input (Voltage or Current):2 Analog output (Voltage or Current):2 ABZ encoder	Digital input (NPN or PNP):16 Digital output (NPN or PNP):16 Analog input (Voltage or Current):2 Analog output (Voltage or Current):2 ABZ encoder
	Standard Communication	TCP/IP、Modbus TCP	TCP/IP、Modbus TCP	TCP/IP、ModbusTCP、RS485	TCP/IP、ModbusTCP、RS485
Operating Environment	Temperature	5° C~40° C	0° C~45° C	0° C~50° C	0° C~50° C
	Humidity	Up To 80%RH (non-condensing)	Up To 90%RH (non-condensing)	Up To 90%RH (non-condensing)	Up To 90%RH (non-condensing)
Applicable Robot Models		GBT-S3A Series GBT-S6A Series GBT-S10A Series GBT-S20A Series	GBT-P7B Series	GBT-C5A GBT-C7A GBT-C12A GBT-C16A	GBT-C5A GBT-C7A GBT-C12A GBT-C16A

*1: IRC-D6B-S offers two optional configurations:
1. SDC DC cabinet (Voltage input: 33–56 V)
2. SAC AC cabinet (Voltage input: 220 V)

*2: Overall Maximum Dimensions

General Software and Instruction Set



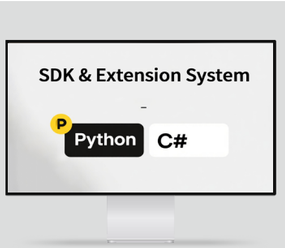
Universal TP Software and Instruction Set

- User-friendly human-machine interface, menu-based programming for quick adaptation by new users
- Universal TP software and instruction set for industrial six-axis, SCARA, and cobots



Compass Universal Platform

- TP Simulator: Replaces the physical teach pendant
- Offline Programming & Debugging: Robot path planning and process design in a virtual environment
- Multi-Robot Simulation: Simulates multi-robot collaboration and workspace motion



SDK: Flexible and Efficient Secondary Development

- Full Function Coverage：End-to-end APIs from connection and status monitoring to motion control, for algorithm validation and rapid prototyping
- Real-Time Interaction：Millisecond-level data access for joints, Cartesian pose, and I/O, supporting live tuning of trajectory and force control
- Extension System：Web-based customization of robot interfaces and applications, with component libraries (e.g., joint monitoring, trajectory plotting)



Features of Agilebot TP：

- 8-inch screen
- User-friendly human-machine interface
- Quick physical buttons
- Menu-based programming
- Multiple cable length options：5m /10m/20m
- Compact, sturdy,durable

SUCCESS CASES

Application of Agilebot Robots in the Semiconductor Industry

Device Purpose:

This equipment utilizes multiple Agilebot robots, advanced laser sensors, CCD camera auto-detection system, and industry-innovative disk edge finders, all operated by an intelligent control system. It efficiently and precisely handles tasks such as automatic wafer loading and unloading, wafer edge detection, and automatic reading and verification of wafer IDs.

Wafer loading capacity: 288 wafer per hour

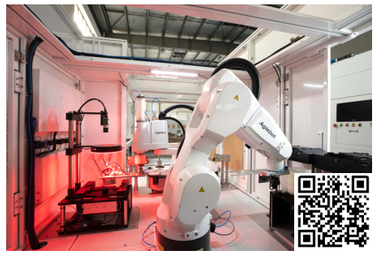
Yield rate: >=99.5%

Advantages and Features of Agilebot Robots:

- High position repeatability to avoid wafer damage during uploading and unloading
- Jitter-free in high-speed handling to ensure high-speed wafer uploading and unloading
- High flexibility, compatibility, stability and ease of operation

Applied Project: Shanghai ForeSight PVD Wafer Automatic Loading & Unloading Machine

Models used: GBT-P7A-700
GBT-S3A-400
GBT-S6A-600



Youtube Video

Application of Agilebot Robots in the Electric Vehicle Industry

Device Purpose:

This equipment employs an Agilebot 6-axis industrial robot, integrating deep visual perception with key robot motion control technology. During high-speed operation, the robot utilizes the optical module lens at its end effector for precise image capture, ensuring clear imaging. This meets the visual defect inspection requirements for different materials, specifications, and sizes of automotive components.

High Precision: Detection rate exceeds 95%, with no misses for critical defects

High Efficiency: terminal linear velocity of 1000mm/s, each point shooting: CT0.3s

Advantages and Features of Agilebot Robots:

- Independent and autonomous system architecture and underlying algorithms support various software development, particularly integration with visual systems.
- High precision and high-speed IO for precise image capture during high-speed motion (repeatability error less than 2 pixels).
- A self-developed heterogeneous control system based on ARM cores guarantees high real-time performance and high synchronization.

Applied Project: Micro-Intelligence Stator Inspection of Drive Motors in Electric Vehicle

Model used: GBT-P7A-900



Youtube Video

Application of Agilebot Robots in the Auto Parts Industry

Device Purpose:

This device employs one SCARA robot in conjunction with a servo glue gun to seal the car heater. Through precise trajectory movement speed control, the glue trajectory is uniformly and stably applied, ensuring even glue volume. The robot and adhesive system have achieved high-precision and uniform velocity trajectory planning in the coating process, greatly improving the efficiency and yield of glue coating.

Advantages and Features of Agilebot Robots:

- High precision, position repeatability: 0.015mm
- Smooth trajectory and uniform glue application

Applied Project:
Applied Project: Heater Gluing

Model used: GBT-S6A-600



Youtube Video

Application of Agilebot Robots in the Cosmetics Industry

Device Purpose:

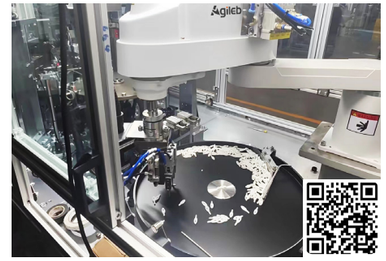
This device employs one Agilebot 4-axis industrial robot in combination with dual grippers for handling lipstick fuzzy heads. Using intelligent visual algorithms, it addresses issues such as near-distance or overlapping materials to enhance equipment stability. Additionally, it captures multiple material positions in a single photo, effectively reducing the production cycle. When combined with a robot and a circular material tray, it achieves a high-precision and high-speed flexible loading and unloading process.

Advantages and Features of Agilebot Robots:

- High position repeatability, minimizing downtime due to errors, and enhancing product yield.
- Efficiency at its peak with a production cycle of 2.3 seconds per 2 pieces, increasing output.

Applied Project: Lipbrush Flexible Loading & Unloading

Model used: GBT-S6A-600



Youtube Video

Application of Agilebot Robots in the Food Industry

Device Purpose:

The station employs six 6-axis robots and one 4-axis robot to complete the full process automation of plastic basket loading, fresh milk box inspection and packing through the collaboration of high-speed and high-precision packing systems, flexible loading systems, and visual AI detection systems. It also collaborates with palletizing systems, last-mile delivery of logistics systems, and other systems for overall intelligent logistics control, ensuring the continuity and safety of production.

High integration: 7 robots and other equipment are integrated in a narrow space

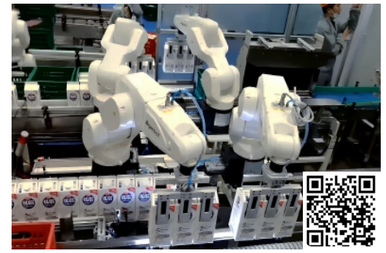
High efficiency: Production CT as low as 20 seconds per workbin

Advantage and Features of Agilebot Robots:

- High cost-effectiveness
- High protection: IP67，no worry about bottle damage and splashing
- P7A position repeatability：0.02mm, S6A position repeatability: 0.015mm

Applied Project: Pasteur Milk Visual Inspection & Packaging

Model used: GBT-P7A-700
GBT-S6A-600



Youtube Video

Application of Agilebot Robots in the Consumer Electronics Industry

Device Purpose:

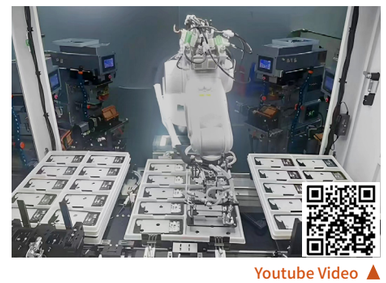
This device utilizes one Agilebot six-axis industrial robot in conjunction with four screen printers for the loading and unloading of mobile phone midframes. It employs a visual system to automatically identify the material status within the tray, followed by a secondary positioning using visual feedback to correct any material misalignment before the screen printing process.

Advantages and Features of Agilebot Robots:

- High speed and high stability, ensuring stable production even at high speeds.
- High position repeatability, enabled by the visual system for precise loading and unloading.
- High efficiency, with a production cycle of 10 seconds per rotation; one robot serves multiple workstations, enhancing productivity.

Applied Project: Mobile Frame Photocopying Machine Loading and Unloading

Model used: GBT-P7A-700



Youtube Video

Product Specifications Overview

Models		GBT-S3A-400	GBT-S6A-500	GBT-S6A-500.3	GBT-S6A-600	GBT-S6A-600.3	GBT-S6A-700	GBT-S6A-700.3	GBT-S10A-600	GBT-S10A-600.3	GBT-S10A-700	GBT-S10A-700.3	GBT-S10A-800	GBT-S10A-800.3	GBT-S20A-800	GBT-S20A-1000
Basic Specifications																
Axes		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Reach (max)		400mm	500mm	500 mm	600mm	600 mm	700mm	700 mm	600mm	600	700mm	700mm	800mm	800mm	800mm	1000mm
Payload	Rated	1kg	2kg	2 kg	2kg	2 kg	2kg	2 kg	5kg	5 kg	5kg	5 kg	5kg	5kg	10 kg	10kg
	Maximum	3kg	6kg	6 kg	6kg	6 kg	6kg	6 kg	10kg	10 kg	10kg	10 kg	10kg	10kg	20 kg	20kg
Axis 4 Moment of Inertia	Rated	0.005kg·m^2	0.01kg·m^2	0.01 kg·m^2	0.01kg·m^2	0.01 kg·m^2	0.01kg·m^2	0.01 kg·m^2	0.02kg·m^2	0.02kg*m^2	0.02kg·m^2	0.02kg*m^2	0.02kg·m^2	0.02kg·m^2	0.05kg*m^2	0.05kg·m^2
	Maximum	0.05kg·m^2	0.12kg·m^2	0.12 kg·m^2	0.12kg·m^2	0.12 kg·m^2	0.12kg·m^2	0.12 kg·m^2	0.3kg·m^2	0.3kg*m^2	0.3kg·m^2	0.3kg*m^2	0.3kg·m^2	0.3kg·m^2	1kg*m^2	1kg·m^2
Axis 3 Down Force		100N	100N	100 N	100N	100 N	100N	100 N	200N	200 N	200N	200 N	200N	200N	250 N	250N
Mounting		Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor
Motion Parameters																
Axis Motion Range	J1	±132°	±132°	±132°	±132°	±132°	±132°	±132°	±132°	±132°	±132°	±132°	±132°	±132°	±132°	±132°
	J2	±141°	±150°	±150°	±150°	±150°	±150°	±150°	±150°	±150°	±150°	±150°	±150°	±150°	±152°	±152°
	J3	150mm	200mm	300mm	200mm	300mm	200mm	300mm	200mm	300mm	200mm	300mm	200mm	300mm	390mm	390mm
	J4	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°
Axis Maximum Speed	J1+J2	6650mm/s	6180mm/s	6180 mm/s	6800mm/s	6800 mm/s	7100mm/s	7100mm/s	9100mm/s	9100 mm/s	9800mm/s	9800 mm/s	10600 mm/s	10600 mm/s	10250 mm/s	11750mm/s
	J3	1100mm/s	1100mm/s	1100 mm/s	1100mm/s	1100 mm/s	1100mm/s	1100 mm/s	1100mm/s	1100 mm/s	1100mm/s	1100 mm/s	1100mm/s	1100mm/s	1800 mm/s	1800mm/s
	J4	2350° /s	2000° /s	2000 ° /s	2000° /s	2000 ° /s	2000° /s	2000 ° /s	2700° /s	2700 ° /s	2700° /s	2700 ° /s	2700° /s	2700° /s	1400 ° /s	1400° /s
Position Repeatability*1	J1+J2	0.01mm	0.015mm	0.015mm	0.015mm	0.015 mm	0.015mm	0.015 mm	0.015mm	0.015mm	0.015mm	0.015mm	0.015mm	0.015mm	0.015mm	0.015mm
	J3	0.01mm	0.01mm	0.01mm	0.015mm	0.015mm	0.015mm	0.015mm	0.015mm	0.015 mm	0.015mm	0.015 mm	0.015mm	0.015mm	0.015 mm	0.015mm
	J4	0.01°	0.01°	0.01 °	0.01°	0.01 °	0.01°	0.01 °	0.01°	0.01 °	0.01°	0.01 °	0.01°	0.01°	0.01 °	0.01°
Standard Cycle Time *2		0.41s	0.41s	0.41s	0.41s	0.41s	0.41s	0.41s	0.40s	0.40s	0.42s	0.42s	0.42s	0.42s	0.41s	0.44s
Customer Interface																
Air		ϕ4x1，ϕ6x2	ϕ4x1，ϕ6x2	ϕ4×1，ϕ6×2	ϕ4x1，ϕ6x2	ϕ4×1，ϕ6×2	ϕ4x1，ϕ6x2	ϕ4×1，ϕ6×2	ϕ4x1，ϕ6x2	ϕ4×1，ϕ6×2	ϕ4x1，ϕ6x2	ϕ4×1，ϕ6×2	ϕ4x1，ϕ6x2	ϕ4x1，ϕ6x2	ϕ8×2，ϕ6×2	ϕ8×2，ϕ6×2
Communication		D-sub15pin RJ45（CAT5e) 8pin	D-sub15 pin RJ45 (CAT 5e) 8 pin	D-sub15pin RJ45 (CAT 5e) 8 pin	D-sub15 pin RJ45(CAT 5e)8 pin	D-sub15pin RJ45 (CAT 5e) 8 pin	D-sub15 pin RJ45(CAT 5e)8 pin	D-sub15pin RJ45 (CAT 5e) 8 pin	D-sub15 pin RJ45 (CAT 5e) 8 pin	D-sub 15 pin RJ45 (CAT 5e) 8 pin	D-sub15 pin RJ45 (CAT 5e) 8 pin	D-sub 15 pin RJ45(CAT 5e) 8 pin	D-sub15 pin RJ45 (CAT 5e) 8 pin	D-sub15 pin RJ45 (CAT 5e) 8 pin	D-sub 15 pin、D-sub 9 pin RJ45（CAT 5e） 8 pin	D-sub 15 pin、D-sub 9 pin RJ45（CAT 5e） 8 pin
Physical Characteristics																
Weight		13kg	16.5kg	16.5kg	17.3kg	17.3kg	18kg	18kg	22.5kg	22.5kg	23kg	23kg	23.5kg	23.5kg	47kg	50kg
Base Mounting Area		185mmx140mm	200mmx170mm	200mmx170mm	200mmx170mm	200mmx170mm	200mmx170mm	200mmx170mm	195mmx169mm	195mmx169mm	195mmx169mm	195mmx169mm	195mm*169mm	195mmx169mm	257mmx230mm	257mmx230mm
Other Information																
Applicable Controller		IRC-I4A- C	IRC-I4A-C	IRC-I4A-C	IRC-I4A-C	IRC-I4A-C	IRC-I4A-C	IRC-I4A-C	IRC-I4A-C	IRC-I4A-C	IRC-I4A-C	IRC-I4A-C	IRC-I4A-C	IRC-I4A-C	IRC-I4A-C	IRC-I4A-C
Power Requirements	Voltage	220V~ / 50Hz	220V~ / 50Hz	220V~ / 50Hz	220V~ / 50Hz	220V~ / 50Hz	220V~ / 50Hz	220V~ / 50Hz	220V~ / 50Hz	220V~ / 50Hz	220V~ / 50Hz	220V~ / 50Hz	220V~ / 50Hz	220V~ / 50Hz	220V~ / 50Hz	220V~ / 50Hz
Operating Environment	Temperature	5° C~40° C	5° C~40° C	5°C ~40°C	5° C~40° C	5°C ~40°C	5° C~40° C	5°C ~40°C	5° C~40° C	5°C ~40°C	5° C~40° C	5°C ~40°C	5° C~40° C	5° C~40° C	5°C ~40°C	5° C~40° C
	Humidity	Up to 80%RH (non-condensing)							Up to 80%RH (non-condensing)							
	Vibration	0.5G（⩾ 50Hz）							0.5G（⩾ 50Hz）							

*1. Numerical values obtained under constant environmental temperature of 20° C.

*2. The cycle time of the robot, performing an oscillatory arched motion with a horizontal displacement of 300mm and a vertical displacement of 25mm under 2kg load conditions (maximum speed, optimal trajectory, coarse positioning).

The specifications are subject to change without prior notice.

Product Specifications Overview

Models		GBT-P7B-700	GBT-P7B-900
Basic Specifications			
Axes		6	6
Reach (max)		721mm	901mm
Payload	Rated	3.5kg	3.5kg
	Maximum	7kg	7kg
Degree of Protection		IP67	IP67
Mounting		Ground、Ceiling mounted、Wall mounted	
Motion Parameters			
Axis Motion Range	J1	340° (-170° /+170°)	340° (-170° /+170°)
	J2	235° (-135° /+100°)	235° (-135° /+100°)
	J3	270° (-70° /+200°)	270° (-70° /+200°)
	J4	380° (-190° /+190°)	380° (-190° /+190°)
	J5	230° (-115° /+115°)	230° (-115° /+115°)
	J6	720° (-360° /+360°)	720° (-360° /+360°)
Axis Maximum Speed	J1	333° /s	333° /s
	J2	267° /s	267° /s
	J3	333° /s	333° /s
	J4	450° /s	450° /s
	J5	405° /s	405° /s
	J6	605° /s	605° /s
Position Repeatability		0.02mm	0.02mm
Customer Interface			
Standard configuration		ϕ4×2，6RI/6RO，24V×2，0V×2	
Physical Characteristics			
Weight		51kg	54.5kg
Base Mounting Area		230mm×230mm	230mm×230mm
Other Information			
Applicable Controller		IRC-I6A-C	IRC-I6A-C
Power Requirements	Voltage	220V~ / 50Hz	220V~ / 50Hz
Operating Environment	Temperature	0° C~45° C	0°C ~45°C
	Humidity	Up to 90%RH (non-condensing)	
	Vibration	0.5G(⩾ 100Hz)	0.5G(⩾ 100Hz)

Models		GBT-C5A	GBT-C7A	GBT-C12A	GBT-C16A
Basic Specifications					
		6	6	6	6
Reach (max)		933mm	785mm	1303mm	980mm
Payload	Rated	5kg	7kg	12kg	16kg
	Maximum	5kg	7kg	12kg	16kg
Degree of Protection		IP54 (IP67 optional)	IP54 (IP67 optional)	IP54 (IP67 optional)	IP54 (IP67 optional)
Mounting		Mounting at Any Angle			
Motion Parameters					
Axis Motion Range	J1	720°(-360°/+360°)	720°(-360°/+360°)	720°(-360°/+360°)	720°(-360°/+360°)
	J2	720°(-360°/+360°)	720°(-360°/+360°)	720°(-360°/+360°)	720°(-360°/+360°)
	J3	720°(-360°/+360°)	720°(-360°/+360°)	720°(-360°/+360°)	720°(-360°/+360°)
	J4	720°(-360°/+360°)	720°(-360°/+360°)	720°(-360°/+360°)	720°(-360°/+360°)
	J5	720°(-360°/+360°)	720°(-360°/+360°)	720°(-360°/+360°)	720°(-360°/+360°)
	J6	720°(-360°/+360°)	720°(-360°/+360°)	720°(-360°/+360°)	720°(-360°/+360°)
Axis Maximum Speed	J1	180° /s	180° /s	120° /s	120° /s
	J2	180° /s	180° /s	120° /s	120° /s
	J3	180° /s	180° /s	150° /s	150° /s
	J4	180° /s	180° /s	180° /s	180° /s
	J5	180° /s	180° /s	180° /s	180° /s
	J6	180° /s	180° /s	180° /s	180° /s
Position Repeatability		0.02mm	0.02mm	0.03mm	0.03mm
Customer Interface					
Standard configuration		4RIO(NPN/PNP)/2AI，0/12/24VDC,2A，RS485	4RIO(NPN/PNP)/2AI，0/12/24VDC,2A，RS485	4RIO(NPN/PNP)/2AI，0/12/24VDC,2A，RS485	4RIO(NPN/PNP)/2AI，0/12/24VDC,2A，RS485
Physical Characteristics					
Weight		23kg	22kg	36kg	35.5kg
Base Mounting Area		ϕ150mm	ϕ150mm	ϕ190mm	ϕ190mm
Other Information					
Applicable Controller		IRC-D6B、IRC-D6B-S	IRC-D6B、IRC-D6B-S	IRC-D6B、IRC-D6B-S	IRC-D6B、IRC-D6B-S
Power Requirements	Voltage	100-240VAC / 50Hz 或30-56VDC	100-240VAC / 50Hz 或30-56VDC	100-240VAC / 50Hz 或 30-56VDC	100-240VAC / 50Hz 或 30-56VDC
Operating Environment	Temperature	0°C ~50°C	0°C ~50°C	0°C ~50°C	0°C ~50°C
	Humidity	Up to 90%RH (non-condensing)			
Adapter Options					
Cleanroom version (ISO 14644)		ISO Class 5	ISO Class 5	ISO Class 5	ISO Class 5

Models		IRC-I4A-C	IRC-I6A-C	IRC-D6B	IRC-D6B-S[*1]
Size[*2](W × D × H)		353mmx418mmx192mm	400mmx422mmx204mm	528mmx215mmx373mm	456mmx207mmx184mm
Weight		8kg	12 kg	12kg	4kg
Degree of Protection		IP20	IP20	IP54	IP20
Power Requirements	Voltage	220V~ / 50Hz	220V~ / 50Hz	100-240VAC / 50Hz	100-240VAC / 50Hz or 30-56VDC
Communication	Standard Configuration I/O	Input：24 Output：16 (NPN or PNP)	Input：48 Output：48 (NPN or PNP)	Digital input (NPN or PNP):16 Digital output (NPN or PNP):16 Analog input (Voltage or Current):2 Analog output (Voltage or Current):2 ABZ encoder	Digital input (NPN or PNP):16 Digital output (NPN or PNP):16 Analog input (Voltage or Current):2 Analog output (Voltage or Current):2 ABZ encoder
	Standard Communication	TCP/IP、Modbus TCP	TCP/IP、Modbus TCP	TCP/IP、ModbusTCP、RS485	TCP/IP、ModbusTCP、RS485
Operating Environment	Temperature	5° C~40° C	0° C~45° C	0° C~50° C	0° C~50° C
	Humidity	Up To 80%RH (non-condensing)	Up To 90%RH (non-condensing)	Up To 90%RH (non-condensing)	Up To 90%RH (non-condensing)
Applicable Robot Models		GBT-S3A Series GBT-S6A Series GBT-S10A Series GBT-S20A Series	GBT-P7B Series	GBT-C5A GBT-C7A GBT-C12A GBT-C16A	GBT-C5A GBT-C7A GBT-C12A GBT-C16A



[*1]: IRC-D6B-S offers two optional configurations:
1. SDC DC cabinet (Voltage input: 33–56 V)
2. SAC AC cabinet (Voltage input: 220 V)

[*2]: Overall Maximum Dimensions

The specifications are subject to change without prior notice.

BUILD AN INFRASTRUCTURE ECOSYSTEM FOR INTELLIGENT MANUFACTURING

GBT202609D-8EN

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