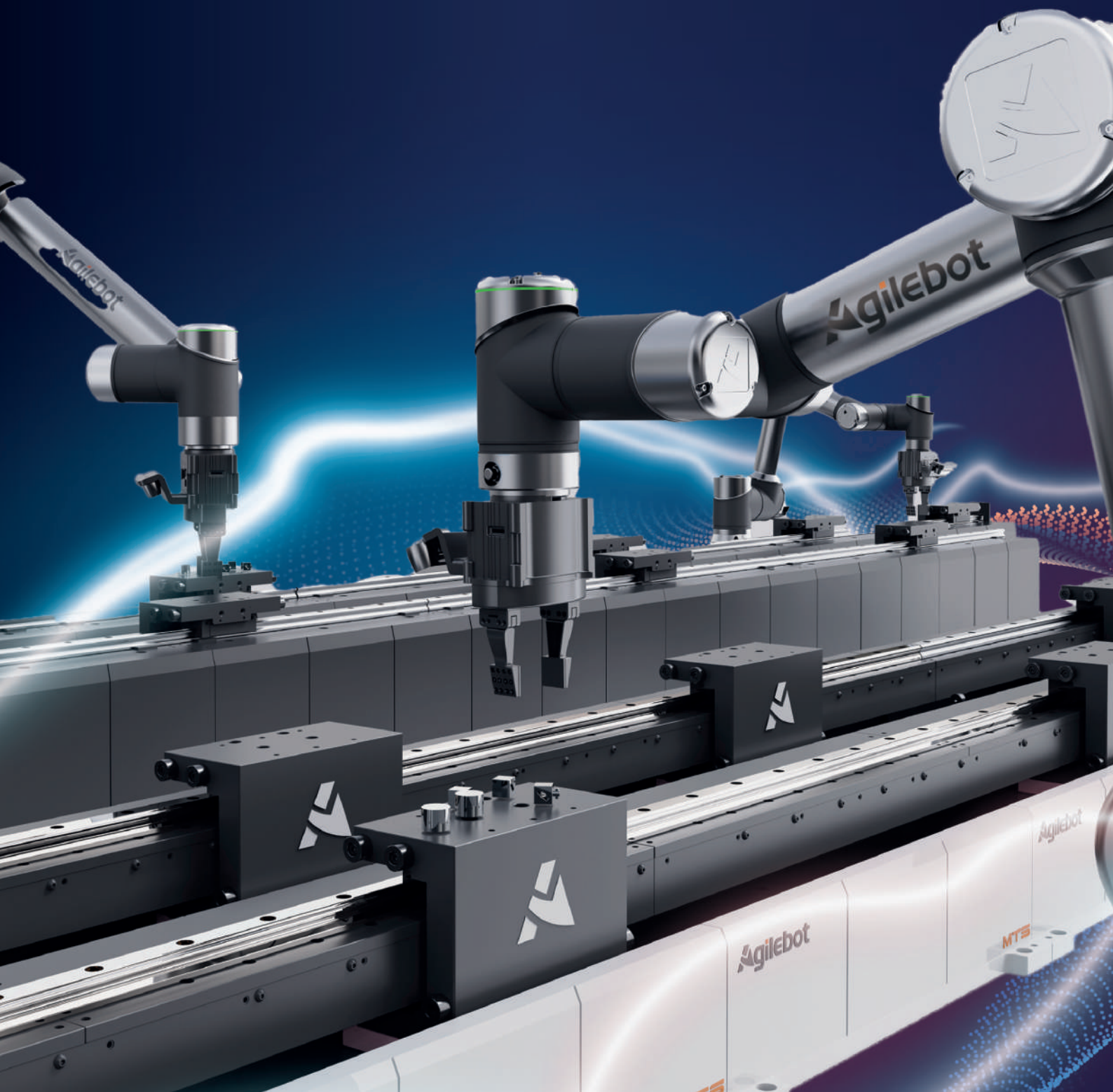


Agilebot | garnet

DRIVE THE FACTORIES OF THE FUTURE





Garnet è presente dal 1997 sul mercato italiano e internazionale rappresentando in esclusiva importanti aziende costruttrici di componenti per l'automazione, la robotica e l'automotive.

Grazie ad una solida esperienza maturata sul campo, Garnet offre soluzioni tecnologicamente avanzate per migliorare la produttività di macchine e impianti ottimizzando l'efficienza energetica.

L'attenzione alla rapida evoluzione del mercato e la costante interazione con i propri partner e clienti consentono a Garnet di lavorare sul continuo sviluppo di prodotti quali motori ed azionamenti, sistemi robotici scara, collaborativi e antropomorfi, sensori di velocità e posizione, semiconduttori di potenza, attuatori lineari, magneti permanenti e cablaggi custom.

La presenza di un qualificato supporto tecnico permette di identificare le soluzioni più adeguate a soddisfare le molteplici esigenze applicative.

Garnet opera in conformità al Sistema di Gestione Qualità certificato da TÜV Italia secondo la norma UNI EN ISO 9001:2015.

Garnet has been active since 1997 in the Italian and international markets, exclusively representing leading manufacturers of components for automation, robotics, and the automotive industry. Thanks to solid, hands-on experience, Garnet offers technologically advanced solutions to enhance the productivity of machines and systems while optimizing energy efficiency.

By closely monitoring the rapid evolution of the market and maintaining constant interaction with partners and customers, Garnet continues to develop and supply products such as motors and drives, scara, collaborative and anthropomorphic robotic systems, speed and position sensors, power semiconductors, linear actuators, permanent magnets, and custom wiring systems.

A highly qualified technical support team enables the company to identify the most suitable solutions to meet a wide range of application needs.

Garnet operates in accordance with a Quality Management System certified by TÜV Italia, compliant with the UNI EN ISO 9001:2015 standard.

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 6 6KG 10 10KG 20 20KG	A 1st Generation	400 400mm 500 500mm 600 600mm 700 700mm 800 800mm 1000 1000mm	Blank Standard stroke .3 300mm	Blank Standard Version C Cleanroom Version

PUMA Series

Product Categories	Product Series	Payload	Version	Reach	Branch Version
GBT Agilebot Industrial Robots	P PUMA Robot	7 7KG 20 20KG	A 1st Generation B 2nd Generation	700 721mm 900 901mm 1800 1805mm	Blank Standard Version C Cleanroom Version

Cobot Series

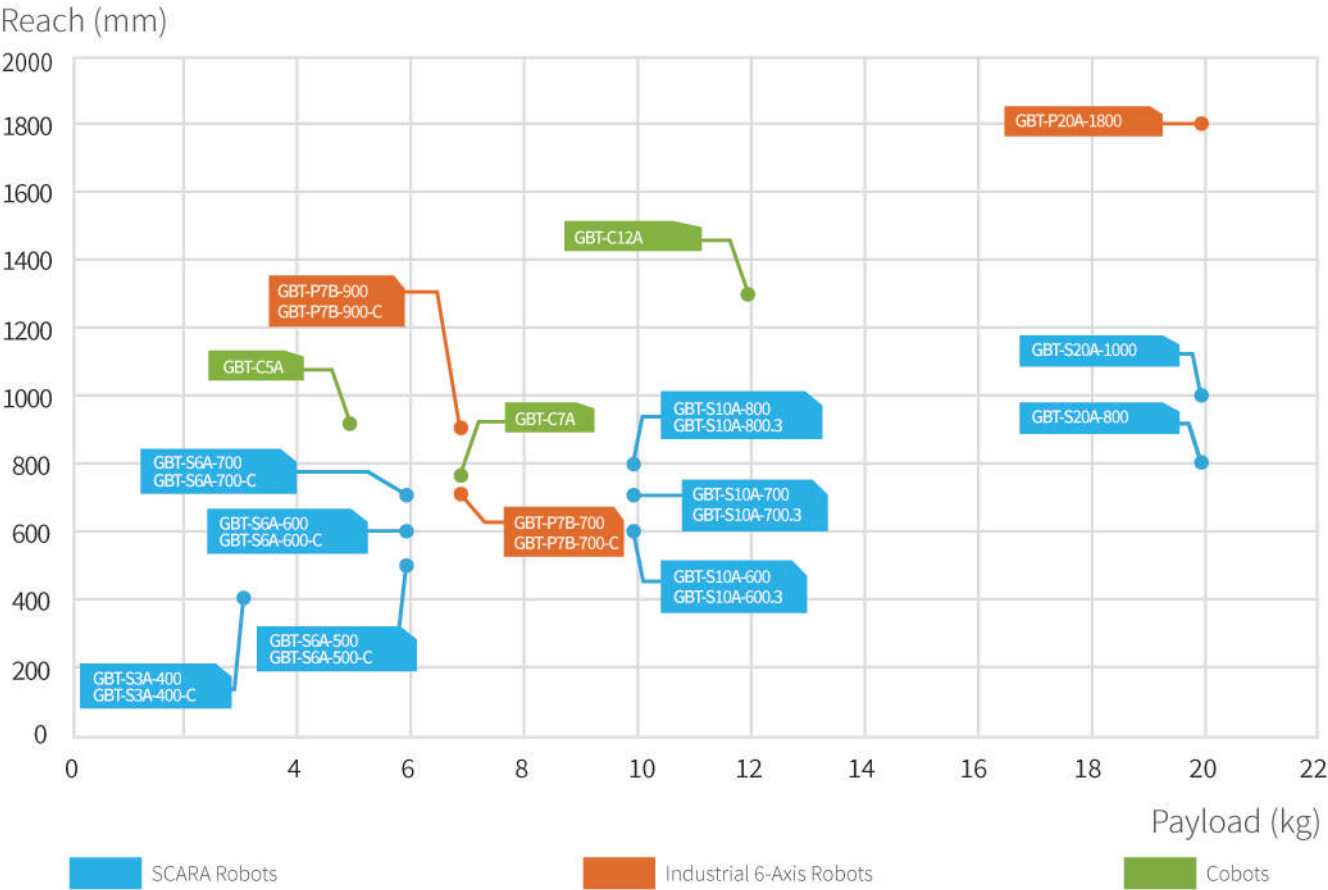
Product Categories	Product Series	Payload	Version
GBT Agilebot Industrial Robots	C Cobots	5 5KG 7 7KG 12 12KG	A 1st Generation

Robot Controller Naming Rules

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

IProduct Selection

IRobot Models Chart



IController Selection

	IRC-I4A-C	IRC-I6A-C	IRC-I6A	IRC-D6A	IRC-D6B	IRC-D6B-S
						
Applicable Robot Models	GBT-S3A Series GBT-S6A Series GBT-S10A Series GBT-S20A Series	GBT-P7B Series	GBT-P20A Series	GBT-C5A GBT-C7A	GBT-C12A	GBT-C12A
Size	380mmx350mmx182mm	400x380x182mm	650mmx483mmx810mm	410mmx260mmx235mm	500mmx330mmx210mm	410mmx161mmx150mm
Weight	8kg	12 kg	85.5kg	14.5kg	12kg	7kg
Supported Devices	TP, PC	TP, PC	TP, PC	Mobile, Tablet, 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 (25 input, 25 output) as well as communication protocols like TCP/IP and ModBus TCP.	Supports I/O (16 digital input, 16 digital 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.	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.

IRobot Selection

															
Model	GBT-S3A-400	GBT-S3A-400-C	GBT-S6A-500 GBT-S6A-600 GBT-S6A-700	GBT-S6A-500-C GBT-S6A-600-C GBT-S6A-700-C	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-P7B-700-C GBT-P7B-900-C	GBT-P20A-1800	GBT-C5A	GBT-C7A	GBT-C12A
Payload	3kg	3kg	6kg	6kg	10kg	10kg	20kg			7kg	7kg	20kg	5kg	7kg	12kg
Reach (max)	400mm	400mm	500mm 600mm 700mm	500mm 600mm 700mm	600mm 700mm 800mm	600mm 700mm 800mm	800mm 1000mm			721mm 901mm	721mm 901mm	1805mm	933mm	785mm	1303mm
Z-Axis Stroke	150mm	120mm	200mm	170mm	200mm	300mm	390mm			-	-	-	-	-	-

I Product Specifications Overview

Models		GBT-S3A-400	GBT-S3A-400-C	GBT-S6A-500	GBT-S6A-500-C	GBT-S6A-600	GBT-S6A-600-C	GBT-S6A-700	GBT-S6A-700-C	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	4	4
Reach (max)		400mm	400mm	500mm	500 mm	600mm	600 mm	700mm	700 mm	600mm	600	700mm	700mm	800mm	800mm	800mm	800mm	1000mm
Payload	Rated	1kg	1kg	2kg	2 kg	2kg	2 kg	2kg	2 kg	5kg	5 kg	5kg	5 kg	5kg	5kg	5kg	10 kg	10kg
	Maximum	3kg	3kg	6kg	6 kg	6kg	6 kg	6kg	6 kg	10kg	10 kg	10kg	10 kg	10kg	10kg	10kg	20 kg	20kg
Axis 4 Moment of Inertia	Rated	0.005kg • m ²	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	0.02kg • m ²	0.05kg*m ²	0.05kg • m ²
	Maximum	0.05kg • m ²	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	0.3kg • m ²	1kg*m ²	1kg • m ²
Axis 3 Down Force		100N	100N	100N	100 N	100N	100 N	100N	100 N	200N	200 N	200N	200 N	200N	200N	200N	250 N	250N
Mounting		Floor	Floor	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°	±132°	±132°
	J2	±141°	±141°	±150°	±150°	±150°	±150°	±150°	±150°	±150°	±150°	±150°	±150°	±150°	±150°	±150°	±152°	±152°
	J3	150mm	120mm	200mm	170mm	200mm	170mm	200mm	170mm	200mm	300mm	200mm	300mm	200mm	300mm	200mm	390mm	390mm
	J4	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°	±360°
Axis Maximum Speed	J1+J2	6650mm/s	6650 mm/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	10600 mm/s	10250 mm/s	11750mm/s
	J3	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	1100 mm/s	1100mm/s	1100mm/s	1100mm/s	1800 mm/s	1800mm/s
	J4	2350° /s	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	2700° /s	1400 ° /s	1400° /s
Position Repeatability ^{*1}	J1+J2	0.01mm	0.01 mm	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	0.015mm
	J3	0.01mm	0.01 mm	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	0.015mm	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°	0.01 °	0.01°
Standard Cycle Time ^{*2}		0.41s	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	0.42s	0.41s	0.44s
Customer Interface																		
Air		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	φ4×1, φ6×2	φ4x1, φ6x2	φ4x1, φ6x2	φ8×2, φ6×2	φ8x2, φ6x2
Communication		D-sub15pin RJ45 (CAT5e) 8pin	D-sub15pin RJ45 (CAT5e) 8pin	D-sub15 pin RJ45(CAT 5e) 8pin	D-sub15pin RJ45(CAT 5e) 8pin	D-sub15 pin RJ45(CAT 5e) 8pin	D-sub15pin RJ45(CAT 5e) 8pin	D-sub15 pin RJ45(CAT 5e) 8pin	D-sub15pin RJ45(CAT 5e) 8pin	D-sub15 pin RJ45 (CAT 5e) 8pin	D-sub15 pin RJ45 (CAT 5e) 8pin	D-sub15 pin RJ45 (CAT 5e) 8pin	D-sub15 pin RJ45 (CAT 5e) 8pin	D-sub15 pin RJ45 (CAT 5e) 8pin	D-sub15 pin RJ45 (CAT 5e) 8pin	D-sub15 pin RJ45 (CAT 5e) 8pin	D-sub 15pin、D-sub9pin RJ45 (CAT 5e) 8pin	D-sub15pin、 D-sub9pin RJ45 (CAT 5e) 8pin
Physical Characteristics																		
Weight		13kg	13kg	16.5kg	16.5kg	17.3kg	17.3kg	18kg	18kg	22.5kg	22.5kg	23kg	23kg	23.5kg	23.5kg	23.5kg	47kg	50kg
Base Mounting Area		185mmx140mm	185mmx140mm	200mmx170mm	200mmx170mm	200mmx170mm	200mmx170mm	200mmx170mm	200mmx170mm	195mmx169mm	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	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	220V~ / 50Hz	220V~ / 50Hz
	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	5°C ~40°C	5° C~40° C
Operating Environment	Humidity	Up to 80%RH (non-condensing)									Up to 80%RH (non-condensing)							
	Vibration	0.5G (≥ 50Hz)									0.5G (≥ 50Hz)							
Adapter Options																		
Cleanroom version (ISO 14644)		-	ISO Class 4	-	ISO Class 4	-	ISO Class 4	-	ISO Class 4	-	-	-	-	-	-	-	-	-

*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.

IProduct Specifications Overview

Models		GBT-P7B-700	GBT-P7B-700-C	GBT-P7B-900	GBT-P7B-900-C	GBT-P20A-1800	GBT-C5A	GBT-C7A	GBT-C12A
Basic Specifications									
Axes		6	6	6	6	6	6	6	6
Reach (max)		721mm	721mm	901mm	901mm	1805mm	933mm	785mm	1303mm
Payload	Rated	3.5kg	3.5kg	3.5kg	3.5kg	20kg	5kg	7kg	12kg
	Maximum	7kg	7.0kg	7kg	7.0kg	20kg	5kg	7kg	12kg
Degree of Protection		IP67	IP67	IP67	IP67	Overall IP65, Wrist IP67	IP67	IP67	IP67
Mounting		Ground Ceiling mounted Wall mounted	Ground Ceiling mounted Wall mounted	Ground Ceiling mounted Wall mounted	Ground Ceiling mounted Wall mounted	Ground	Mounting at Any Angle	Mounting at Any Angle	Mounting at Any Angle
Motion Parameters									
Axis Motion Range	J1	340° (-170° /+170°)	340° (-170° /+170°)	340° (-170° /+170°)	340° (-170° /+170°)	370° (-185° /+185°)	720° (-360° /+360°)	720° (-360° /+360°)	720° (-360° /+360°)
	J2	235° (-135° /+100°)	235° (-135° /+100°)	235° (-135° /+100°)	235° (-135° /+100°)	260° (-160° /+100°)	720° (-360° /+360°)	720° (-360° /+360°)	720° (-360° /+360°)
	J3	270° (-70° /+200°)	270° (-70° /+200°)	270° (-70° /+200°)	270° (-70° /+200°)	243.5° (-83.5° /+160°)	720° (-360° /+360°)	720° (-360° /+360°)	720° (-360° /+360°)
	J4	380° (-190° /+190°)	380° (-190° /+190°)	380° (-190° /+190°)	380° (-190° /+190°)	400° (-200° /+200°)	720° (-360° /+360°)	720° (-360° /+360°)	720° (-360° /+360°)
	J5	230° (-115° /+115°)	230° (-115° /+115°)	230° (-115° /+115°)	230° (-115° /+115°)	274° (-137° /+137°)	720° (-360° /+360°)	720° (-360° /+360°)	720° (-360° /+360°)
	J6	720° (-360° /+360°)	720° (-360° /+360°)	720° (-360° /+360°)	720° (-360° /+360°)	900° (-450° /+450°)	720° (-360° /+360°)	720° (-360° /+360°)	720° (-360° /+360°)
Axis Maximum Speed	J1	333° /s	333° /s	333° /s	333° /s	195° /s	180° /s	180° /s	120° /s
	J2	267° /s	267° /s	267° /s	267° /s	168° /s	180° /s	180° /s	120° /s
	J3	333° /s	333° /s	333° /s	333° /s	180° /s	180° /s	180° /s	150° /s
	J4	450° /s	450° /s	450° /s	450° /s	400° /s	180° /s	180° /s	180° /s
	J5	405° /s	405° /s	405° /s	405° /s	400° /s	180° /s	180° /s	180° /s
	J6	605° /s	605° /s	605° /s	605° /s	600° /s	180° /s	180° /s	180° /s
Position Repeatability		0.02mm	0.02mm	0.02mm	0.02mm	0.04mm	0.02mm	0.02mm	0.02mm
Customer Interface									
Standard configuration		φ4×2, 6RI/6RO, 24V×2, 0V×2				φ8x1, 8RI/8RO, 24V×4,0V×4	2RI/2RO/2AI, 0/24VDC, 1A, RS485	2RI/2RO2AI, 0/24VDC, 1A, RS485	4RIO(NPN/PNP)/2AI, 0/12/24VDC,2A, RS485
Optional configuration		6RI/6RO, 24V×1, 0V×1 4 Port Solenoid Valve × 2				-	-	-	-
Physical Characteristics									
Weight		51kg	51kg	54.5kg	54.5kg	245kg	23.5kg	22.5kg	37kg
Base Mounting Area		230mm×230mm	230mmX230mm	230mm×230mm	230mmX230mm	446mm×343mm	φ150mm	φ150mm	φ190mm
Other Information									
Applicable Controller		IRC-I6A-C	IRC-I6A-C	IRC-I6A-C	IRC-I6A-C	IRC-I6A	IRC-D6A	IRC-D6A	IRC-D6B、IRC-D6B-S
Power Requirements	Voltage	220V~ / 50Hz	220V~ / 50Hz	220V~ / 50Hz	220V~ / 50Hz	380V3~ / 50Hz	100-240 VAC / 50-60 Hz	100-240 VAC / 50-60 Hz	100-240V AC / 50-60 Hz or 30-56V DC
	Temperature	0° C~45° C	0° C ~45° C	0° C ~45° C	0° C ~45° C	0° C ~45° C	0° C ~50° C	0° C ~50° C	0° C ~50° C
Operating Environment	Humidity	Up to 90%RH (non-condensing)							
	Vibration	0.5G(≥ 100Hz)	0.5G(≥ 100Hz)	0.5G(≥ 100Hz)	0.5G(≥ 100Hz)	0.5G(≥ 100Hz)	-	-	-
Adapter Options									
Cleanroom version (ISO 14644)		-	ISO Class 4	-	ISO Class 4	-	ISO Class 4	ISO Class 4	ISO Class 4

The specifications are subject to change without prior notice.

Models		IRC-I4A-C	IRC-I6A-C	IRC-I6A	IRC-D6A	IRC-D6B	IRC-D6B-S
Size		380mmx350mmx182mm	400mmx380mmx182mm	650mmx483mmx810mm	410mmx260mmx235mm	500mmx330mmx210mm	410mmx161mmx150mm
Weight		8kg	12 kg	85.5kg	14.5kg	12kg	7kg
Degree of Protection		IP20	IP20	IP54	IP54	IP54	IP20
Power Requirements	Voltage	220V~ / 50Hz	220V~ / 50Hz	380V3~ / 50Hz	100-240 VAC / 50-60 Hz	100-240V AC / 50-60 Hz	100-240V AC / 50-60 Hz or 30-56V DC
	Standard Configuration I/O	Input: 24 Output: 16 (NPN or PNP)	Input: 48 Output: 48 (NPN or PNP)	Input: 25 Output: 25 (NPN)	Digital input (NPN or PNP):16 Digital output (NPN or PNP):16	Digital input (NPN or PNP):16 Digital output (NPN or PNP):16 Analog input (Voltage or Current):2 ABZ encoder	Digital input (NPN or PNP):16 Digital output (NPN or PNP):16 Analog input (Voltage or Current):2 ABZ encoder
Communication	Standard Communication	TCP/IP、Modbus TCP	TCP/IP、Modbus TCP	TCP/IP、Modbus TCP	TCP/IP、Modbus TCP、RS485	TCP/IP、ModbusTCP、RS485	TCP/IP、ModbusTCP、RS485
	Temperature	5° C~40° C	0° C~45° C	0° C~45° C	0° C~50° C	0° C~50° C	0° C~50° C
Operating Environment	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)	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-P20A Series	GBT-C5A GBT-C7A	GBT-C12A	GBT-C12A





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