DOBOT

2432.HK

Industrial Robot Selection Guide



DOBOT

CRA Series – High-Performance & High-Precision Collaborative Robots

Excellent product performance, suitable for all general industrial scenarios



Product		CR3A	CR5A	CR7A	CR6AL	CR10A	CR12A	CR16A	CR16AL	CR20A	CR30A
Weight		17.5 kg	25 kg	24 kg	41.5 kg	40 kg	38.5 kg	38 kg	40 kg	73 kg	70 kg
Maximum Payload		3 kg	5 kg	7 kg	6 kg	10 kg	12 kg	16 kg	16 kg	20 kg *1	30 kg
Working Radius		620 mm	900 mm	800 mm	1800 mm	1300 mm	1200 mm	1000 mm	1300 mm	1700 mm	1305 mm
Maximum Working Speed		3 m/s	4 m/s	4 m/s	5 m/s	5 m/s	5 m/s	4 m/s	4 m/s	5.5 m/s	4 m/s
Joint Range of Motion		J3: ±155° other joints ±360°	J3: ±160° other joints ±360°	J3: ±160° other joints ±360°	J3: ±170° other joints ±360°	J3: ±160° other joints ±360°	J3: ±160° other joints ±360°	J3: ±160° other joints ±360°	J3: ±160° other joints ±360°	J3: ±165° other joints ±360°	J3: ±165° other joints ±360°
Maximum Joint Speed	J1/J2	180°/s	180°/s	180°/s	150°/s	150°/s	150°/s	150°/s	110°/s	120°/s	120°/s
	J3	223°/s	180°/s	180°/s	180°/s	180°/s	180°/s	180°/s	110°/s	150°/s	150°/s
	J4/J5/J6	223°/s	223°/s	223°/s	223°/s	223°/s	223°/s	223°/s	180°/s	180°/s	180°/s
End Effector I/O	DI	2 channels	2 channels	2 channels	2 channels	2 channels	2 channels	2 channels	2 channels	4 channels	4 channels
	DO	2 channels	2 channels	2 channels	2 channels	2 channels	2 channels	2 channels	2 channels	4 channels	4 channels
	AI	2 channels (Shared with RS485)	2 channels (Shared with RS485)	2 channels (Shared with RS485)	2 channels (Shared with RS485)	2 channels (Shared with RS485)	2 channels (Shared with RS485)	2 channels (Shared with RS485)	2 channels (Shared with RS485)	4 channels (Shared with RS485)	4 channels (Shared with RS485)
Repeat Positioning Accuracy		±0.02 mm	±0.02 mm	±0.02 mm	±0.05 mm	±0.03 mm	±0.03 mm	±0.03 mm	±0.04 mm	±0.05 mm	±0.05 mm
IP Rating		IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54
Temperature Range		0~50℃	0~50℃	0~50℃	0~50℃	0~50℃	0~50℃	0~50℃	0~50℃	0~50℃	0~50℃
Typical Power Consumption		120W	150W	150W	350W	350W	350W	350W	350W	500W	500W
Cable Length from Manipulator to Controller Cabinet		5 m	5 m	5 m	5 m	5 m	5 m	5 m	5 m	6 m	6 m
Optional Safety Skin Model		CR3AS*3	CR5AS*3	CR7AS*2	-	CR10AS*3	CR12AS*2	CR16AS*2	-	-	-

*1 : For palletizing applications, the CR20A can support a maximum payload of 25 kg. For details, please consult DOBOT technical personnel.
*2 : Equipped with 3 safety skins, located on axes J4, J5, and J6.
*3 : Equipped with 4 safety skins, located on the forearm, and axes J4, J5, and J6.

CRAF Series – Intelligent Force-Control Collaborative Robots

High-precision 6-axis force sensor built into the flange end, enabling quick deployment of force-control applications





Product		CR5AF	CR10AF	CR20AF
Weight		25.5 kg	40.5 kg	74 kg
Maximum Payload		5 kg	10 kg	20 kg
Working Radius		900 mm	1300 mm	1700 mm
Joint Range of Motion		J3: ±160° other joints ±360°	J3: ±160° other joints ±360°	J3: ±165° other joints ±360°
Maximum Working Speed		4 m/s	5 m/s	5.5 m/s
Maximum Joint Speed	J1/J2	180°/s	150°/s	120°/s
	J3	180°/s	180°/s	150°/s
	J4/J5/J6	223°/s	223°/s	180°/s
Force Sensor	Measuring Range	Force(Fx/Fy/Fz): 150N Torque(Mx/My/Mz): 15Nm	Force(Fx/Fy/Fz): 300N Torque(Mx/My/Mz): 30Nm	Force(Fx/Fy/Fz): 500N Torque(Mx/My/Mz): 50Nm
	Overload	500% F.S.	500% F.S.	500% F.S.
	Accuracy	1% F.S.	1% F.S.	1% F.S.
	Precision	0.5% F.S.	0.5% F.S.	0.5% F.S.
End Effector I/O	DI	2 channels	2 channels	4 channels
	DO	2 channels	2 channels	4 channels
	AI	2 channels (Shared with RS485)	2 channels (Shared with RS485)	4 channels (Shared with RS485)
Repeat Positioning Accuracy		±0.02 mm	±0.03 mm	±0.05 mm
IP Rating		IP54	IP54	IP54
Temperature Range		0~50℃	0~50℃	0~50℃
Typical Power Consumption		150W	350W	500W
Mounting		Front Mounting		
Cable Length from Manipulator to Controller Cabinet		5 m	5 m	6 m
Material		Aluminum Alloy, ABS Plastic		

CRA-IP68 Series – High-Protection Collaborative Robots

IP68 protection rating, suitable for harsh environments with high dust and moisture





Product		CR5AP	CR10AP	CR20AP
Weight		25 kg	40 kg	73 kg
Maximum Payload		5 kg	10 kg	20 kg
Working Radius		900 mm	1300 mm	1700 mm
Joint Range of Motion		J3: ±160° other joints ±360°	J3: ±160° other joints ±360°	J3: ±165° other joints ±360°
Maximum Working Speed		4 m/s	5 m/s	5.5 m/s
Maximum Joint Speed	J1/J2	180°/s	150°/s	120°/s
	J3	180°/s	180°/s	150°/s
	J4/J5	223°/s	223°/s	180°/s
	J6	223°/s	223°/s	180°/s
End Effector I/O	DI	2 channels	2 channels	4 channels
	DO	2 channels	2 channels	4 channels
	AI	2 channels ((Shared with RS485)	2 channels (Shared with RS485)	4 channels (Shared with RS485)
Repeat Positioning Accuracy		±0.02 mm	±0.03 mm	±0.05 mm
IP Rating		IP68	IP68	IP68
Temperature Range		0~50℃	0~50℃	0~50℃
Typical Power Consumption		150W	350W	500W
Cable Length from Manipulator to Controller Cabinet		5 m	5 m	6 m
Material		Aluminum Alloy, ABS Plastic		

CRH Series

300°/s Industry's Fastest High-Payload Collaborative Robots

Industry-leading quality, empowering high-end manufacturing



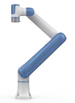


Product		CR 30H	CR 30HT	CR 30H-Food
Weight		100 kg	102 kg	100 kg
Maximum Payload		30 kg	30 kg	30 kg
Working Radius		1800 mm	1800 mm	1800 mm
Repeat Positioning Accuracy		± 0.05 mm	± 0.05 mm	± 0.05 mm
Torque Sensor Accuracy		/	0.1% F.S.	/
Joint Range of Motion	J1/J2/J4/J5/J6	± 360°	± 360°	± 360°
	J3	± 163°	± 163°	± 163°
Maximum Joint Speed	J1/J2	150°/s	150°/s	150°/s
	J3	200°/s	200°/s	200°/s
	J4/J5/J6	300°/s	300°/s	300°/s
End Effector I/O	Power Supply	0/12/24V, Avg. 2A, Max. 3A	0/12/24V, Avg. 2A, Max. 3A	0/12/24V, Avg. 2A, Max. 3A
	DI	4 channels	4 channels	4 channels
	DO	4 channels	4 channels	4 channels
	RS485	1 channels	1 channels	1 channels
IP Rating		IP65	IP65	IP67
Noise		70dB(A)	70dB(A)	70dB(A)
Temperature Range		0 ~ 50℃	0 ~ 50℃	0 ~ 50℃
Power Consumption	Typical Value	500W	500W	500W
	Maximum Value	2500W	2500W	2500W
Mounting		Any orientation	Any orientation	Any orientation
Cable Length from Manipulator to Controller Cabinet		6 m	6 m	6 m
Material		Aluminum Alloy, ABS Plastic, Rubber	Aluminum Alloy, ABS Plastic, Rubber	Aluminum Alloy, Stainless Steel, ABS Plastic, Food-Grade Grease

Nova Series

Compact and streamlined, ideal for commercial and lightweight industrial applications





Product		Nova 2s	Nova 2	Nova 5
Weight		11 kg	11 kg	14 kg
Maximum Payload		2 kg	2 kg	5 kg
Working Radius		500 mm	625 mm	850 mm
Maximum Working Speed		1.3 m/s	1.6 m/s	2 m/s
Joint Range of Motion	J1/J4/J5/J6	± 360°	± 360°	± 360°
	J2	± 150°	± 180°	± 180°
	J3	±150°	±156°	±160°
Maximum Joint Speed	J1/J2/J3/ J4/J5/J6	135° /s	135° /s	100° /s
End Effector I/O	DI	2 channels		
	DO	2 channels		
	RS485	supported		
Repeat Positioning Accuracy		± 0.05 mm		
IP Rating		IP54		
Noise		65dB (A)	65dB (A)	70dB (A)
Operating Environment		0 ~ 50℃		
Power Consumption	Typical Value	100W	100W	230W
	Maximum Value	250W	250W	770W
Mounting		Any orientation		
Cable Length from Manipulator to Controller Cabinet		3 m		
Material		Aluminum Alloy, ABS Plastic		

4-Axis Series – Industrial Desktop 4-Axis Robots

Compact 4-axis robots for light industry, ideal for diverse, small-batch light industrial automation



Product		MG400
Number of Robot Axes		4
Payload		500 g (Max 750 g)
Working Radius		440 mm
Repeat Positioning Accuracy		± 0.05 mm
Joint Motion Range	J1	± 160°
	J2	-25° ~ 85°
	J3	-25° ~ 105°
	J4	-360° ~ 360°
Maximum Joint Speed	J1	300° /s
	J2	300° /s
	J3	300° /s
	J4	300° /s
Power Supply		100 ~ 240V AC，50/60Hz
Rated Voltage		48V
Rated Power		150W
Communication Method		TCP/IP、Modbus TCP
Mounting		Desktop
Weight		8 kg
Base Dimensions		190 mm × 190 mm
Operating Temperature		0° ~ 40° C



Product		M1 Pro
Working Radius		400 mm
Rated Payload		1.5 kg
Joint Motion Range	Upper Arm	-85° ~ 85°
	Forearm	-130° ~ 130°
	Z-axis Lead Screw	5 mm ~ 245 mm
	End Rotation	-360° ~ 360°
Maximum Joint Speed	Upper & Forearm Joint	180° /s
	Combined Speed of Upper & Forearm	2 m/s
	Z-axis	1 m/s
Repeat Positioning Accuracy		± 0.02 mm
Power Supply		100 ~ 240V AC，50/60Hz
Weight		15.7 kg
Communication Method		TCP/IP、Modbus、WiFi
I/O Interface		16-channel Digital Output (PNP Type) 16-channel Digital Input (PNP Type)

Robot Controller Cabinet





Product		CC262	CC263
Dimensions		345 mm*345 mm*145 mm	400 mm*400 mm*175 mm
Weight		9.5 kg (AC Input), 8.5 kg (DC Input)	15.5 kg（AC Input）
Input Power Supply		AC Input: 100~240V, 47~63Hz; DC Input: 30~60V	AC Input: 100~240V, 47~63Hz; DC Input: 40~60V
I/O Power Supply		24V, Max 3A, Max 0.5A per channel	
I/O Interface	DI	24 channels (NPN or PNP)	
	DO	24 channels (NPN or PNP)	
	AI	2 channels, Voltage/Current mode, 0~10V, 4~20mA	
	AO	2 channels, Voltage/Current mode, 0~10V, 4~20mA	
Communication Interface	Ethernet Port	22 ports, for TCP/IP, Modbus TCP, EtherNet/IP, PROFINET communication	
	USB	2 ports, for file import/export	
	RS485 Interface	1 port, for RS485, Modbus RTU communication	
	Encoder	1 port, ABZ Incremental Encoder Interface	
IP Rating		IP20 (Optional IP54)	
Teaching Method		PC, APP (Android), Teach Pendant	
Compatible Robot Models		CRA Series (3~16 kg models)	CRA Series (20~30 kg models)





Product		CC365
Dimensions		400 mm × 190 mm × 400 mm
Weight		19 kg
Input Power Supply		Single-Phase 200~240V AC, 50/60Hz
I/O Power Supply		24V, Max 3A, Max 0.5A per channel
General I/O Interface	DI	24 channels (NPN or PNP)
	DO	24 channels (NPN or PNP)
	AI	2 channels, Voltage/Current mode, 0~10V, 4~20mA
	AO	2 channels, Voltage/Current mode, 0~10V, 4~20mA
Safety I/O Interface	SI	10 channels
	SO	10 channels
Communication Interface	Ethernet Port	2 ports, for TCP/IP, Modbus TCP, EtherNet/IP, PROFINET communication
	RS485 Interface	1 port, for RS485, Modbus RTU communication
	Encoder	1 port, ABZ Incremental Encoder Interface
Environment	Temperature, Humidity	≤95%, Non-Condensing
IP Rating		IP20 (Optional IP54)
Teaching Method		Teach Pendant, PC, APP (Android)
Compatible Robot Models		CR30H

Product		DSC
Dimensions		220mm*150mm*45mm
Weight		1.2kg
Input Power Supply		30~60V DC
I/O Power Supply		24V, Max 2A, Max 0.5A per channel
General I/O Interface	DI	16 channels (NPN or PNP)
	DO	16 channels (NPN or PNP)
	AI	2 channels, Voltage/Current mode, 0~10V, 4~20mA
	AO	2 channels, Voltage/Current mode, 0~10V, 4~20mA
Safety I/O Interface	SI	16 channels (Shared with DI Interface)
	SO	16 channels (Shared with DI Interface)
Remote Power On/Off		supported
Communication Interface	Ethernet Port	2
	USB	1
	RS485 Interface	1 port, available for Modbus RTU communication
Environment	Temperature	0~50℃
	Humidity	≤95%, Non-Condensing
IP Rating		IP20
Cooling Method		Fan Cooling
Teaching Method		Teach Pendant, PC, APP
Compatible Robot Models		CRA Series, CRV Series, Nova Series



Product	SimBOX	
Dimensions		193 mm*122 mm*35 mm
Weight		0.8kg
Input Power Supply		30~60V DC
I/O Power Supply		24V, Max 2A, Max 0.5A per channel
I/O Interface	DI	8 channels (NPN or PNP)
	DO	8 channels (NPN or PNP)
Communication Interface	Ethernet Port	1 port, for TCP/IP, Modbus TCP communication
	USB	1 port, for connecting USB wireless modules
Environment	Temperature	0~50℃
	Humidity	≤95%, Non-Condensing
IP Rating		IP20
Cooling Method		Passive Cooling
Teaching Method		PC、APP（Android、iOS）
Compatible Robot Models		Nova 2s



Product	CCBOX
Dimensions	200 mm*120 mm*55 mm
Weight	1.3kg
IP Rating	IP20
Digital I/O Interface	PNP or NPN, DI×8, DO×8
Analog I/O Interface	Voltage Only, AI×2, AO×2
Safety I/O Interface	None
LAN Port	2 ports
Communication Method	TCP/IP, Modbus TCP/RTU
Remote I/O Power On/Off	supported
Process Package	none
Compatible Robot Models	Nova 2、Nova 5

TP10 Teach Pendant

High-Performance Collaborative Robot Teach Pendant



Product	DT-TP10-3PE-N
Dimensions (LWH)	290*180*41（mm）
Resolution	1920*1200@60Hz
Screen Size	10.1 inches
IP Rating	IP54
Weight	1.02 kg
Standard Cable Length	4.5 m
Material	PC + ABS

VX500 Smart Camera

2.5D High-Performance Industrial Camera

Precise and Efficient, Plug & Play



Product	VX500 Smart Camera
Sensor Type	CMOS, Global Shutter
Pixel Size	3.2 µm × 3.2 µm
Sensor Format	1/1.7”
Resolution	5 Megapixels
Pixel Format	Mono 8
Color	Monochrome
Lens Mount	M12 - mount
Focal Length	12.4 mm
Light Source	14 LEDs: White
Net Weight	520 g

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