



UFACTORY



# XARM

TECHNICAL SPECIFICATION

SHENZHEN UFACTORY CO. LTD.,

# xArm series Specifications



PERFORMANCE				
*1.Ambient Temperature Range		0-50°C		
Power Consumption		Min 8.4 W, Typical 120 W, Max 240 W		
Input Power Supply		24V DC, 15A		
PHYSICAL				
Footprint		Ø 126 mm		
Materials		Aluminum, Carbon Fiber		
Tool Connector Type		M5*6		
FEATURES				
IP Classification		IP54		
ISO Class Cleanroom		5		
Robot Mounting		Any		
I/O PORTS				
Controller	8*CI (Digital In)	8*CO (Digital Out)	2*AI (Analog In)	2*AO (Analog Out)
Tool	2*CI (Digital In)	2*CO (Digital Out)	2*AI (Analog In)	1*RS485
COMMUNICATION (ROBOTIC ARM)				
Communication Protocol		self-defined		
COMMUNICATION (CONTROL BOX)				
Communication Protocol		TCP-IP/Modbus RTU		
Communication Mode		Ethernet/RS-485		
END-EFFECTOR COMMUNICATION PROTOCOL				
End tool communication Protocol		RS-485/Modbus RTU		

\*1.The operating temperature of the robot is 0-50 °C. When the joint is continuously operated at high speed, please lower the ambient temperature.

# xArm series Specifications

SPECIFICATION			
	xArm 5 Lite	xArm 6	xArm 7
Payload	3kg	5kg	3.5kg
Reach	700mm	700mm	700mm
Degrees of Freedom	5	6	7
Repeatability	±0.1mm	±0.1mm	±0.1mm
Maximum Speed	1m/s	1m/s	1m/s
Weight (robot arm only)	9.5kg	10.5kg	11.5kg
Weight(Controller box only)	3.5kg	3.5kg	3.5kg
Dimension of Controller Box	260mm*180mm*100mm	260mm*180mm*100mm	260mm*180mm*100mm



MOVEMENT				
	Robot Arm	xArm 5 Lite	xArm 6	xArm 7
Maximum Speed		180°/s	180°/s	180°/s
Working Range	Joint 1	±360°	±360°	±360°
	Joint 2	-118°~120°	-118°~120°	-118°~120°
	Joint 3	-225°~11°	-225°~11°	±360°
	Joint 4	±360°	±360°	-11°~225°
	Joint 5	-97°~180°	-97°~180°	±360°
	Joint 6	—	±360°	-97°~180°
	Joint 7	—	—	±360°

\*See manual for further information

# End Effector: Gripper



## CONTROL

Communication Mode	RS-485
Communication protocol	Modbus RTU
Programmable gripping parameters	Position, speed and force control
Status LED	Fault status, power
Feedback	Motor Current, position

## ELECTRICAL SPECIFICATIONS

Nominal supply voltage	24V DC
Absolute maximum supply voltage	28V DC
Quiescent power (minimum power consumption)	1.5W
Peak current	1.5A
Working Range	86mm
Max payload	3Kg

\*See manual for further information

## End Effector: Camera Module



### ELECTRICAL SPECIFICATIONS

Sensor	Intel® RealSense™ D435
Mounting Mechanism	Aluminum stand compatible with xArm head tool
Operating Temperature	0~50°C
Mass	<200g
Connector	USB Type-C

## End Effector: Suction Cup



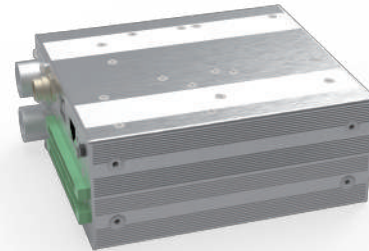
### ELECTRICAL SPECIFICATIONS

Vacuum level	78%
Vacuum flow (L/min)	> 5.6L/min
Gripper mass (g)	610g
Gripper size(L*W*H)	122.5*91.6*75mm
Weight can catch (kg)	≤5kg
Noise Level(30cm away)	<60dB

## End Effector: Control Box



AC Control Box



DC Control Box

### ELECTRICAL SPECIFICATIONS

	AC Control Box	DC Control Box
Input	100-240VAC 50/60Hz	24VDC
Output	24VDC 16.5A	24VDC 16.5A
Weight	3.5kg	1.8kg
Dimension(L*W*H)	280*200*116mm	180*145*68mm
Control Box IO	8*CI (Digital In) 8*CO (Digital Out)	2*AI (Analog In) 2*AO (Analog Out)
Communication	Ethernet/RS-485	Ethernet/RS-485



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