MG400

Ultra-small desktop robot arm

SAFE, FLEXIBLE, AND SELF-LEARNING

DOBOT

DOBOT MG400 is an ultra-small desktop robot arm that occupies space smaller than A4 paper. The MG400 is designed for diverse mini-batches of automation with a maximum load of 750 grams and a 440 mm arm that meets the needs for lightweight desktop applications, conversion teaching, collision detection, and other human-machine collaboration features. They allow the MG400 to apply rapid deployment of production line applications, providing a highly competitive choice for automated intelligent production.

Small Space Occupation

To fully utilize production space and easily integrate existing production environments, the MG400 has adopted a controller, the body integrated structure design, and the base frame area of only 190mm X 190mm that can fit A4 paper space.

Professional Performance

The M400 is equipped with a high-precision absolute encoder integrated into servo motors. Coupled with a self-developed servo drive and controller, the robot's repeatability can be measured up to ±0.05mm.

With the vibration suppression algorithm in the controller and ensured trajectory accuracy of multi-axis motion, the repeatability bandwidth stabilization time is accelerated by 60% and residual vibration by 70%.

Simplicity Means Productivity

Simplicity is integrated into every dimension of the robot, fully reducing the difficulty of deploying automation in small and medium-sized enterprises.

Shorter deployment time: integrated & compact design, flexible & easy to deploy, plug and play;

More programming options: trajectory reproduction, graphical programming, and Lua script programming, which are ideal for applications of different complexities and developers with different programming skills;

Higher programming efficiency: an intuitive programming interface and guided-interactive design can greatly improve efficiency and lower the barriers for robot applications;

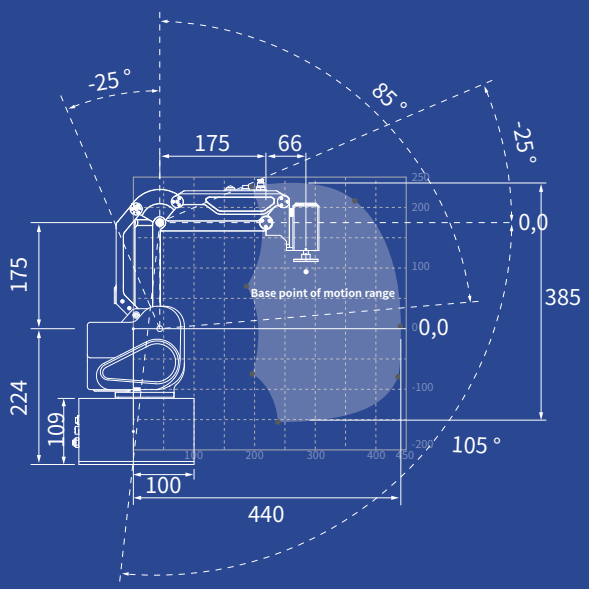
Higher debugging efficiency: when resetting the robot for debugging, lighter and smoother pre-teaching combined with robot power compensation algorithms reduces point teaching time by more than 80%.

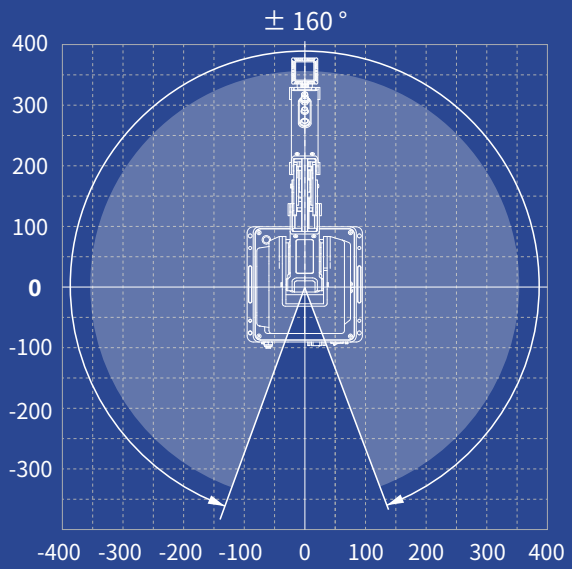
Integrated Collaboration Helps Automation

The collision detection function ensures safety. MG400's replacement of highly repetitive, standard procedures enables high-efficiency configurations of human-machine collaboration. MG400 can make desktop collaboration possible that will reduce costs and improve the quality of manufacturing for enterprises.

MG400

Scope of Work

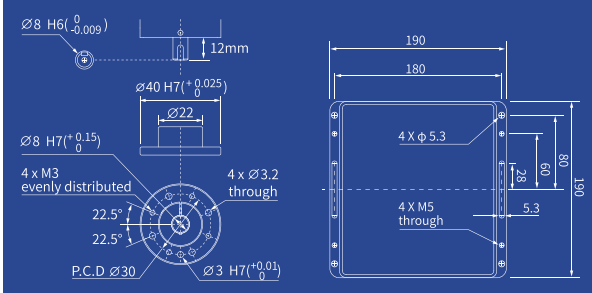


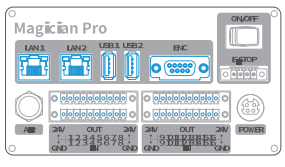


Specifications

Product Name	MG400	
Product Model	DT-MG400-4R075-01	
Number of robot axes	4	
Payload	500g (Max 750g)	
Reach	440mm	
Repeatability	±0.05mm	
Range of joint motion	J1	±160°
	J2	-25° - 85°
	J3	-25° - 105°
	J4	-360° - 360°
Max. Speed of Joints	J1	300° /s
	J2	300° /s
	J3	300° /s
	J4	300° /s
Power Supply	100-240 V AC, 50/60 Hz	
Rated Voltage	48V	
Rated Power	150W	
Communication	TCP/IP, Modbus TCP	
Installment	Table Installation	
Weight	8kg	
Base Size	190mm × 190mm	
Working Environment	0 °C -40 °C	
Application Software	DobotStudio 2020, SCStudio	

Base Mounting Holes





Interface	Digital Input	16
	Digital Output	16
	Ethernet	2
	USB 2.0	2
	Encoder Input	1

Terminal Interface	Digital Input	2
	Digital Output	2