TM5

TM AI COBOT

Native AI engine **+** Robotic arm **+** Vision system

Perfectly in one

Model		TM5-700	TM5-900	TM5M-700	TM5M-900
Weight		22.1kg	22.6kg	22.1kg	22.6kg
Maximum Payload		6kg	4kg	6kg	4kg
Reach		700mm	900mm	700mm	900mm
Joint ranges	J1,J6	+/- 270°	+/- 270°	+/- 270°	+/- 270°
	J2,J4,J5	+/- 180°	+/- 180°	+/- 180°	+/- 180°
	J3	+/- 155°			
Speed	J1,J2,J3	180°/s			
	J4,J5,J6	225°/s			
Typical Speed		1.1m/s	1.4m/s	1.1m/s	1.4m/s
Max. Speed		4 m/s			
Repeatability		+/- 0.05 mm			
Degree Of Freedom		6 rotating joints			
I/O	Control box	Digital In: 16 Digital Out: 16 Analog In: 2 Analog Out: 1			
	Tool Conn.	Digital In: 4 Digital Out: 4 Analog In: 1 Analog Out: 0			
I/O Power Supply		24V 2.0A for control box 24V 1.5A for tool			
IP Classification		IP54 (Robot Arm); IP32 (Control Box)			
Power Consumption		Typical 220 watts			
Temperature		The robot can work in a temperature range of 0-50°C			
Cleanliness		ISO Class 3			
Power Supply		100-240 VAC, 50-60 Hz		22-60 VDC	
I/O Interface		3×COM, 1×HDMI, 3×LAN, 4×USB2.0, 2×USB3.0			
Communication		RS232, Ethernet, Modbus TCP/RTU (master & slave), PROFINET (optional) ,EtherNet/IP (optional)			
Programming Environment		TMflow, flowchart based			
Certification		CE, SEMI S2 (optional)			
AI & Vision* [1]					
AI Function		Classification, Object Detection, Segmentation			
Application		Positioning, 1D/2D Barcode Reading, OCR, Defect Detection, Measurement, Assembly Check			
Positioning Accuracy		2D Positioning: 0.1 mm* [2] TM Landmark 3D Positioning (Working Point away from Landmark 100/200/300mm): 0.24/0.53/1.00 mm* [2]			
Eye in Hand (Built in)		Auto-focused color camera with 5M resolution, Working distance 100 mm ~ ∞			
Eye to Hand (Optional)		Support Maximum 2× GigE 2D cameras or 1× GigE 2D Camera + 1× 3D Camera* [3]			

* [1] No built-in vision robot arms TM5X-700, TM5X-900 are also available.
* [2] The data in this table are measured by TM laboratory and the working distance is 100mm. It should be noted that in practical applications, the relevant values may be different due to factors such as the on-site ambient light source, object characteristics, and vision programming methods that will affect the change in accuracy.
* [3] Refer to the official website of TM Plug&Play for camera models compatible to TM Robot.

SEMI S2   ISO 10218-1:2011   ISO/TS 15066:2016   CE