

TM5

The most intelligent collaborative robot with built-in vision



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Specification

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

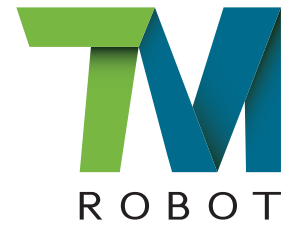


Model	TM5-700	TM5-900	TM5M-700	TM5M-900
Weight	22.1kg	22.6kg	22.1kg	22.6kg
Payload	6kg	4kg	6kg	4kg
Reach	700mm	900mm	700mm	900mm
Typical Speed	1.1m/s	1.4m/s	1.1m/s	1.4m/s
Joint ranges	J1	+/- 270°		
	J2,J4,J5	+/- 180°		
	J3	+/- 155°		
	J6	+/- 270°		
Speed	J1~J2	180°/s		
	J3	180°/s		
	J4~J5	225°/s		
	J6	225°/s		
Repeatability	+/- 0.05 mm			
Degrees of freedom	6 rotating joints			
I/O Ports	Control Box	Digital In: 16 Digital Out: 16 Analog In: 2 Analog Out: 1		
	Tool Conn.	Digital In: 3/4 (By Regional Model) Digital Out: 3/4 (By Regional Model) Analog In: 1 Analog Out: 0		
I/O power supply	24V 1.5A / 2.0A for control box (by Regional Model) 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			
Power supply	100-240 VAC, 50-60 Hz		24/48/22-60 VDC (by Regional Model)	
I/O Interface	3×COM, 1×HDMI, 3×LAN, 4×USB2.0, 2×USB3.0, 1×VGA (by Regional Model)			
Communication	RS232, Ethernet, Modbus TCP/RTU (master & slave)			
Programming Environment	TMflow, flowchart based			
Certification	CE (by Regional Model), SEMI S2 (Option)			
Variation Models	X: without hand eye camera, SEMI: SEMI S2 certified			
Robot Vision				
Eye in Hand (Built in)	1.2M/5M pixels, color camera			
Eye to Hand (Optional)	Support Maximum 2 GigE cameras			

TM12

TM14

High payload
with extended reach



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Specification

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

Model	TM12	TM14	TM12M	TM14M	
Weight	32.8kg	32.5kg	32.8kg	32.5kg	
Payload	12kg	14kg	12kg	14kg	
Reach	1300mm	1100mm	1300mm	1100mm	
Typical Speed	1.3m/s	1.1m/s	1.3m/s	1.1m/s	
Joint ranges	J1	+/- 270°			
	J2,J4,J5	+/- 180°			
	J3	+/- 166°	+/- 163°	+/- 166°	+/- 163°
	J6	+/- 270°			
Speed	J1~J2	120°/s			
	J3	180°/s			
	J4~J5	180°/s	150°/s	180°/s	150°/s
	J6	180°/s			
Repeatability	+/- 0.1 mm				
Degrees of freedom	6 rotating joints				
I/O Ports	Control Box	Digital In: 16 Digital Out: 16 Analog In: 2 Analog Out: 1			
	Tool Conn.	Digital In: 3/4 (By Regional Model) Digital Out: 3/4 (By Regional Model) Analog In: 1 Analog Out: 0			
I/O power supply	24V 2.0A for control box and 24V 1.5A for tool				
IP classification	IP54 (Robot Arm); IP32 (Control Box)				
Power Consumption	Typical 300 watts				
Temperature	The robot can work in a temperature range of 0-50°C				
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)				
Programming Environment	TMflow, flowchart based				
Certification	CE, SEMI S2 (Option)				
Variation Models	X: without hand eye camera, SEMI: SEMI S2 certified				
Robot Vision					
Eye in Hand (Built in)	1.2M/5M pixels, color camera				
Eye to Hand (Optional)	Support Maximum 2 GigE cameras				