



www.tm-robot.com

TM12

TM14

High payload with extended reach



SMART

Built-in vision system, Masters in robot vision

SIMPLE

Revolutionary user interface, Easy to deploy

SAFE

Complies with ISO10218-1 & ISO/TS 15066

TM12/TM14

Class leading payload and reach

The TM12 & TM14 offer class leading payload and reach capabilities. The **TM12 offers 12Kg payload and a 1300mm reach** and the **TM14 offers a 14Kg payload and 1100mm reach**.

Like the TM5 the new increased specification robots are easy to deploy, are highly flexible, are maintenance free and provide a high performance automation solution for manufacturing.

Built in vision system

The TM range of collaborative robots comes with an integrated hardware and software vision package. Functions such as shape matching, barcode & QR code reading, colour recognition, OCR etc are all easily configured from the integral robot design toolbox.

Applications

- Logistics
- handling
- de-burring
- polishing
- semiconductor transportation
- palletising

TM12M/TM14M Mobile robot product series

The TM-M Series offers solutions for AGV and mobile vehicle integration

The TM-M series are powered by a DC 20-60V supply, making them compatible with most brands of AGV's and mobile vehicles. By utilising the "TM-Landmark", the mobile robot can orientate itself within a 3D space, like an auto datum sequence, to multiple machine surfaces. This allows the TM-M robots to operate between two or more locations seamlessly.

Specification

SEMI S2



Model	TM12	TM14	TM12M	TM14M	
Weight	33.3Kg	32.6Kg	33.3Kg	32.6Kg	
Payload	12kg	14kg	12kg	14kg	
Reach	1300mm	1100mm	1300mm	1100mm	
Max 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		Tool conn.		
	Digital in	16	4		
	Digital out	16	4		
	Analog in	2	1		
Analog out	1	0			
I/O power supply	24V 1.5A for control box and 24V 1.5A for tool				
IP classification	IP54				
Power Consumption	Typical 300 watts		Typical 300 watts		
Maximum Power Capacity ^①	Max. 2200 watts		Max. 1500 Watts ^②		
Temperature	The robot can work in a temperature range of 0-50°C				
Power supply	100-240 VAC, 50-60 Hz		DC 20V-60V		
I/O Interface	3×COM, 1×HDMI, 3×LAN, 4×USB2.0, 2×USB3.0				
Certification	CE, SEMI S2(Optional)				
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				

① Maximum power capacity is the maximum output capacity of the power supply system designed in the control box.
 ② Maximum power capacity can be expanded to 2500 Watts with an external 1000 watts power supply