

High-Speed and High-Precision SCARA Robot

# TH1200A



Model	TH1200A	
Type	Horizontal multi-joint	
Number of axis	4	
Arm length	1200mm(700mm+550mm)	
Working envelope	Axis 1	±160°
	Axis 2	±145°
	Axis 3(Z-axis)	0~200mm [400mm(option)]
	Axis 4(Z-axis rotation)	±360°
Maximum speed	Axis 1	240°/s
	Axis 2	330°/s
	Axis 3(Z-axis)	1800mm/s
	Axis 4(Z-axis rotation)	1200°/s
	Composite	7.9m/s
Standard cycle time(with 2kg load)	0.57sec.	
Maximum payload mass	20kg	
Allowable moment of inertia	0.2kg·m <sup>2</sup>	
Positioning repeatability	X-Y	±0.03mm
	Axis 3(Z-axis)	±0.02mm
	Axis 4(Z-axis rotation)	±0.005°
Hand wiring	5 inputs/4 outputs	
Hand piping	φ6×4pcs	
Position Detection	Absolute Encoders	
Robot controller cable	5m (optional:Max. 25m)	
Mass	83kg	
Noise level	<72dB(A)	
Options(under development)	Wash-down Design(IP65), Cleanroom Design, Z-axis long stroke,Z-axis Cap, Protective Bellows for Z-Axis	

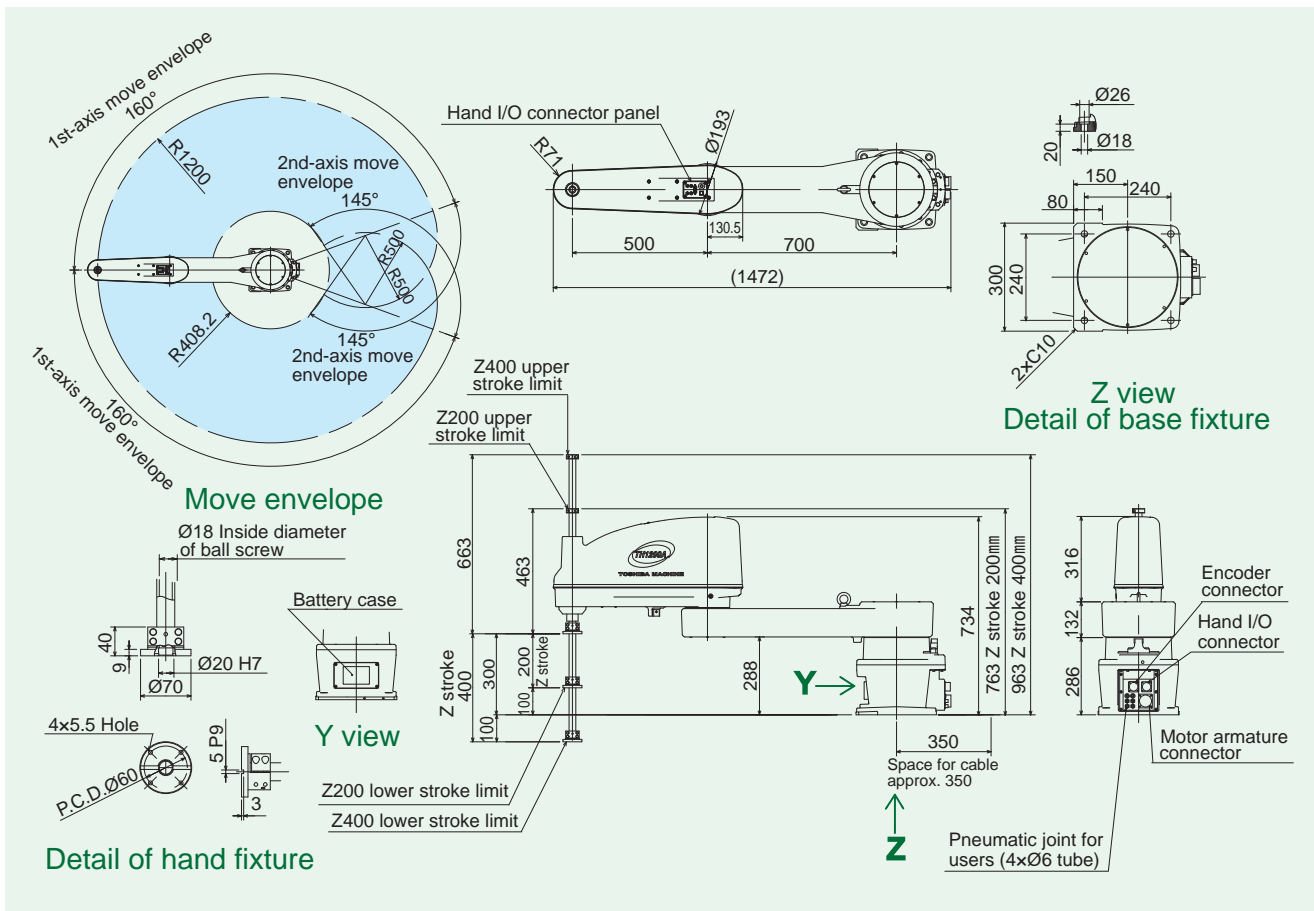


Model	TS3100	
No. of axis	Maximum five-axis simultaneous control	
Operation mode	PTP,CP(linear·Circular),Short-cut,Arch motion	
Storage capacity	Total: 12800 points + 25600 steps	
	1 program: 2000 points + 3000 steps	
No. of programs	Max.256(247 user files + 9 system files)	
Programming language	SCOL(proprietary,similar to BASIC)	
Teaching unit(option)	Teach pendant TP1000, with 5-meter cable (Program can be written on PC)	
External I/O	32 inputs/32 outputs	
Hand control signals	8 inputs/8 outputs	
External operation signal(exclusive)	Inputs:Cycle operation start,stop,reset,etc Outputs:Servo-On status, emergency stop, ready for operation, malfunction alarm, etc	
Serial communication port	RS-232C: 2 ports, Ethernet: 1 port*	
Other functions	Torque control,Interruptive functions, self-diagnosis, I/O control and communications during motion, Coordinate calculations, Built-in PLC, etc	
Power supply	Single phase AC200V~240V 50/60Hz 4.4kVA	
Outer dimensions and mass	420W×230H×298D(mm),17kg	
PC software(option)	TSPC...Program editor,Teaching,Remote operation,etc	
Options	I/O extension, I/O cables, Field-Network(CC-Link,DeviceNet,Profibus)*	

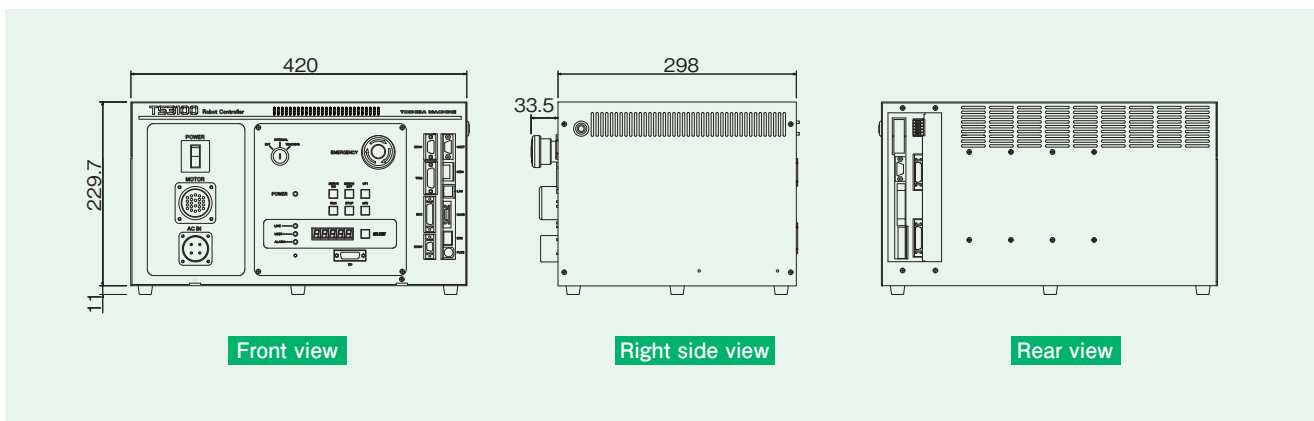
\*:Ethernet is a registered trademark of XEROX Corp. in the U.S.A.  
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DeviceNet is a registered trademark of ODVA.  
Profibus is a registered trademark of Profibus User Organization.

TEACH PENDANT(OPTION)

## TH1200A [External View]



## TS3100 [External View]



**TOSHIBA MACHINE CO.,LTD.** HEAD OFFICE  
 Control Systems Sales Department, Control Systems Division  
 2068-3, Ooka, Numazu-shi, Shizuoka-ken 410-8510, Japan  
 TEL:[81]-(0)55-926-5032 FAX:[81]-(0)55-925-6527

**TOSHIBA MACHINE CO.,AMERICA.**  
 755 Greenleaf Avenue, EIK Grove Village, IL 60007, U.S.A.  
 TEL:[1]-847-593-1616 FAX:[1]-847-593-0897

**TM ROBOTICS(EUROPE) LTD.**  
 Unit 2, Bridge Gate Center, Martinfield,  
 Welwyn Garden City, Herts, AL7 1JG,UK  
 TEL [44]-(0)1707-290370 FAX [44]-(0)1707-376662

URL:<http://www.toshiba-machine.co.jp/seiji/prod/sr>  
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Caution

Before operating the industrial robot, read through and completely understand the instruction manuals.

■ The contents included in this catalog are subject to change without prior notice to reflect improvements.