

Product Specifications

Arm Length	Full length	700mm
	First arm	350mm
	Second arm	350mm
Range of Motion	First axis	±120°
	Second axis	±145°
	Third axis (Z-axis)	150 mm (option: 300 mm)
	Fourth axis (Z-axial rotation)	±360°
Maximum Speed	First axis	340°/s
	Second axis	600°/s
	Third axis (Z-axis)	2050mm/s
	Fourth axis (Z-axial rotation)	1800°/s
	Composite speed	7.8m/s
Standard Cycle Time	Horizontal direction: 300 mm Vertical direction: 25 mm, reciprocating	0.345s *1 (with 2 kg weight)
Load	Maximum payload	10kg
	Allowable end moment	0.1kg·m ² *2
Position Repeatability *3	X, Y (plane surface)	±0.03mm
	Z-axis (vertical)	±0.02mm
	Fourth axis (Z-axial rotation)	±0.02°
Input Signal for Hand		8 inputs, 8 outputs
Air Piping for Hand		φ6×4
Position Detection Method		Absolute encoder mode
Total Weight		Approx. 57 kg
Robot controller cable		Standard: 5m (optional: maximum 25 m)
Controller		→ TS3100

*1: Horizontal 300 mm, vertical 25mm, round-trip. Continuous operation is not possible beyond the effective load ratio.

*2: Acceleration/deceleration rates may be limited according to the motion pattern, load mass and amount of offset.

*3: The table shows unidirectional positioning repeatability at constant ambient temperature, but NOT absolute positioning accuracy.

Controller Specifications

	TS3100 Controller
Series	TH, THP, TV
Teach Pendant	TP1000, TP3000, TV1000-6ax
Power Supply	Single phase 200-240VAC @ 50/60Hz
Max Power Capacity	3.5~4.8 kVA
Dimensions	420W x 230H x 298D
Mass	17kg
Storage	256 programs 12800 points 25600 steps
CE Version	TS3100E + SFB
USER I/O Count	32/32
SYSTEM I/O Count	13/10
SYSTEM INPUTS	Alarm reset, strobe, program reset, step reset, cycle reset, output reset, start, external servo on, stop, cycle mode, break, low speed, servo off
SYSTEM OUTPUTS	Servo ready, battery alarm, acknowledge, teach mode on, external mode on, system ready, autorun, alarm, cycle end, low speed on
Fieldbus SLAVE options	DeviceNet, Profibus, CC-Link, Ethernet I/P, EtherCat, ProfiNet
Extended I/O Options	TR48-DIOC Module Add 28In/20Out Up to 2 modules can be added to controller
Communications	RS232C (3), Ethernet (TCP/IP), USB
Standard SCOL Functions	Torque control (individual axis), gain control (individual axis), interrupt functions, SPURT function, coordinate calculations, payload command, multi-tasking, AREA output function, NCBOY additional axis control, self-diagnostics, pulse output control, conveyor tracking, vision+conveyor tracking
Optional SCOL Functions	All options included as standard.
External Control Standard Functions	HOST Protocol, .dll library, LabView integration support