Product Specifications

Arm Length	**Full length**	1,200 mm
	First arm	750 mm
	Second arm	450 mm
Working Envelope	**Axis 1**	±125 °
	Axis 2	±155 °
	Axis 3 (Z-axis)	0 ~ 300 mm
	Axis 4 (Z-axial rotation)	±360°
Maximum Speed *1	**Axis 1**	187.5 °/sec
	Axis 2	217.5 °/sec
	Axis 3 (Z-axis)	2,000 mm/sec
	Axis 4 (Z-axial rotation)	1,700 °/ssec
	Composite (Axis 1 and 2 composite)	5.7 m/sec
Load	**Maximum payload mass *1**	10 kg
	Allowable moment of inertia *1	0.2 kg·m2
Standard Cycle Time *2	**(With 2 Kg load)**	0.58 sec
Positioning repeatability *3	**X–Y**	±0.05 mm
	Z (axis 3)	±0.03 mm
	C (axis 4, rotation)	±0.014 deg
Hand wiring		8 inputs and 8 outputs
Hand pneumatic joint *4		φ6×3 pcs
Position detection		Absolute
Robot controller cable		3.5 m
Power supply		1.4 kVA
Mass		40 kg
Controllers		TSL3000 TSL3000E

*1: Speed and acceleration/deceleration rates may be limited depending on the motion pattern, load mass and amount of offset.

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

*3: Positioning repeatable accuracy in one-direction movement, when the environmental temperature is constant 20°C., not absolute positioning accuracy. Positioning repeatability for X-Y and C are for when Z-axis is at the upper-most position. Trajectory accuracy is not ensured.

*4: Pneumatic joints are provided on the base. Pipes are to be provided by the customers..

Controller Specifications

	TSL3000 Controller
Series	THL, THE, BAIII
Teach Pendant	TP1000, TP3000
Power Supply	Single phase 190-240VAC @ 50/60Hz
Max Power Capacity	0.7 ~ 1.4 kVA
Dimensions	150W x 266H x 304D
Mass	7kg
Storage	256 programs 6400 points 12800 steps
CE Version	TSL3000E Dimensions change: 320W x 266H x 304D 13kg
USER I/O Count	8/8
SYSTEM I/O Count	13/9
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, 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 (2), 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
Optional SCOL Functions	Pulse output control, conveyor tracking, vision+conveyor tracking
External Control Standard Functions	HOST Protocol, .dll library, LabView integration support