Product Specifications

Model		THL800	THL900	THL1000
Type		Horizontal multi-joint		
No. of controlled axes		4		
Arm Length		800mm （350mm + 450mm）	900mm （450mm + 450mm）	1000mm （550mm + 450mm）
Range of Motion	First axis	±125°		
	Second axis	±145°		
	Third axis（Z-axis）	0～300mm		
	Fourth axis（Z-axial rotation）	±360°		
Maximum Speed*1	First axis	187.5°/s		
	Second axis	217.5°/s		
	Third axis（Z-axis）	2000mm/s		
	Fourth axis（Z-axial rotation）	1700°/s		
	Composite speed	4.3m/s	4.6m/s	5.0m/s
Standard Cycle Time （with 2kg load）*2		0.47s	0.48s	0.48s
Maximum payload		10kg （Ratings： 2kg）		
Allowable end moment		0.2kg·m2		
Position Repeatability*3	X, Y（plane surface）	±0.02mm		
	Z-axis（vertical）	±0.015mm		
	Fourth axis（Z-axial rotation）	±0.007°		
Input Signal for Hand		8 inputs, 8 outputs		
Hand pneumatic joints*4		φ6×3		
Position Detection Method		Absolute encoder mode		
Robot controller cable		3.5m		
Power capacity		1.4kVA		
Total Weight		33kg	35kg	37kg

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

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

*2: When the environment temperature is constant 20℃. Positioning repeatable accuracy in one-direction movement.Not absolute positioning accuracy.

*4： Pneumatic joints are provided on the base. Please refer to the drawings for the details of the pneumatic joints. Pipes 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