

New

New soldering robots SOLDER MEISTER®

Offering epoch-making professional soldering robots, 9 types among 3 categories
Soldering-tip, laser, and ultrasonic soldering units are installable on any of the three kinds,
SCARA, Cartesian, and vertically articulated robots



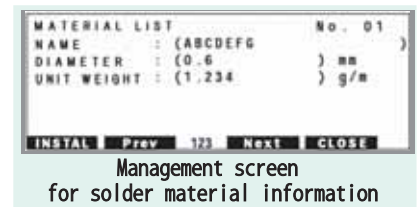
6-axis multi-articulated robot UNIX-700V
5-axis Cartesian robot UNIX-700S
5-axis SCARA robot UNIX-700H

A revolutionary detection system using "solder feed encoder" is built into the unit.

The "solder feed encoder" detects not only depletion, clogging, and feed amount of the solder which were detected separately in the past but also the slips of wire solders at a time which were not able to be detected

Controls robot axes and solder feed axes concurrently using AC servo motor.

- The solder feed operates in synchronization with the robot.
The robot automatically computes the solder feed speed in soldering.
- You can set soldering conditions freely, not considering patternized ones.
- Capable of monitoring the temperature of soldering iron tip (option)
- Entering solder material information in advance allows the robot to automatically compute the solder amount once supplied and warns the depletion of solder.



Any of SCARA, Cartesian, and vertically articulated robots can be taught by the common operation procedures.

Supports 3-axis position correction sensor for soldering iron tip (option)

Accessories



Teaching box



Soldering iron tip cleaner

Options



3-axis position correction sensor for soldering iron tip



Wire brush cleaner



Standard specifications of the robot's main body

● UNIX-700V

Installation posture	Installed on floor / suspended from ceiling	
Degree of freedom of motion	6 (Including solder feed axis. J6-axis without a brake.)	
Motion range	J1	340 degrees (-170 through +170)
	J2	225 degrees (-90 through +135)
	J3	237 degrees (-100 through +137)
	J5	240 degrees (-120 through +120)
	J6	720 degrees (-360 through +360)
Maximum speed	J1	250 degrees/sec.
	J2	187 degrees/sec.
	J3	250 degrees/sec.
	J5	412 degrees/sec.
	J6	660 degrees/sec.
Max. resultant speed (Point R)	5,300 mm/sec	
Position repeatability	±0.02 mm	
Ambient temperature	0-40°C	
Supply air pressure	0.5±10% MPa	
Main unit weight	Approx. 35Kg	

● UNIX-700S

Installation posture	Installed on floor	
Degree of freedom of motion	5 (Including solder feed axis.)	
Motion range	X	350 mm
	Y	400 mm
	Z	100 mm
	θ	360 (±180) degrees
Maximum speed	X	800 mm/sec
	Y	800 mm/sec
	Z	400 mm/sec
	θ	720 degrees/sec.
Max. resultant speed (*2)	1,130 mm/sec	
Position repeatability	X	±0.02 mm
	Y	±0.02 mm
	Z	±0.02 mm
	θ	±0.02 degrees
Ambient temperature	0-40 °C	
Supply air pressure	0.5±10% MPa	
Main unit weight	Approx. 50Kg	

(*2) stands for the resultant value of X and Y.

● UNIX-700H

Installation posture	Installed on floor	
Degree of freedom of motion	5 (Including solder feed axis.)	
Maximum reach radius	450 mm	
Motion range	J1	254 (±127) degrees
	J2	290 (±145) degrees
	J3 (Z)	200 mm (Stroke Z: 97 mm-297 mm)
	J4 (θ)	720 (±360) degrees
Maximum speed	J1	375 degrees/sec.
	J2	612 degrees/sec.
	J3 (Z)	1,177 mm/sec
	J4 (θ)	2,411 degrees/sec.
Max. resultant speed (*1)	7,128 (5,349) mm/sec	
Position repeatability	resultant value of X-Y	±0.02 mm
	J3 (Z)	±0.01 mm
	J4 (θ)	±0.02 degrees
Ambient temperature	0-40 °C	
Supply air pressure	0.5±10% MPa	
Main unit weight	Approx. 22Kg	

(*1) stands for the resultant value of J1, J2, and J4.

() stands for the resultant value of J1 and J2.

Standard specifications of controller

Path control method	PTP control / CP control	
Number of control axis	Max.6 axes concurrently	
Programming language	Macro step edit /MELFA-BASIC V	
Position teaching method	Teaching method / MDI method	
Number of program	Max. 200 programs (Max. 450 programs when an extra memory is added)	
Number of registrable macro step (*3)	Approximately max. 20,000 steps / 200 programs (Approximately max. 130,000 steps when an extra memory is added)	
Soldering path type	40 types	
External I/O	General-purpose I/O	Input : 32 Output : 32
	Dedicated I/O	Allocated from general-purpose I/O
	Emergency stop I/O	1 for each
	Door switch input	1
Interface	RS-422	1 (for teaching box only)
	Ethernet	1 (10BASE-T/100BASE-TX)
	USB	1 (for PC interface)
Ambient temperature	0-40 °C	
Ambient humidity	45-85 % RH	
Input voltage range	Single phase AC180-253 V	
Power source capacity	1.0 KVA	
External dimensions (including legs)	360(W)×325(D)×220(H)	
Main body weight	Approx. 13Kg	
Structure	Self-supported floor type / open structure	
Grounding	100Ω or less (D-class grounding)	

(*3) The number of the maximum registrable steps vary depending on the macro instruction.

 **JAPAN UNIX**
 JAPAN UNIX CO., LTD Web site <http://www.japanunix.co.jp/>
 Head office : 2-21-25 Akasaka, Minato-ku, Tokyo 107-0052, Japan
 TEL:+81-3-3588-0551 FAX:+81-3-3588-0554

Contact

Descriptions in this catalog are valid as of January 2010. Specifications and external product design are subject to change without any notice in the future.

Printed in Japan 10012000 (YD)