NEW — Controllers for Automatic Stages/Controller Software/Cables

NEW Printed in Red — Handset Terminal/Cables

■Controllers to easily control motorized stages are newly available.

■Controller for Automatic Stages RoHS

MSCTL102

•Front Panel

DS102
Stepping Motor Controller

(3) TERMINAL
(2)
(1)

SURUGA SEIKI

•Rear Panel

(8) (7) (6) (5)
(10)
(9)
(4)

I/O
CNT-I/O   EMS   SW1   LINK   USB   RS232C
X   Y

(11)   (12)   (13)
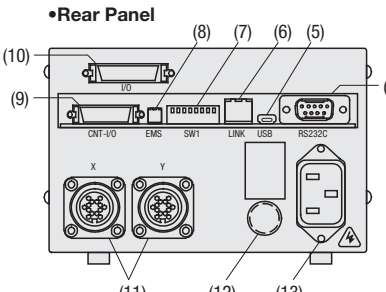
(1) Power Switch
(2) POWER LED
(3) TERMINAL (Connector for Handset Terminal HDT100)

(4) RS232C (Specification: Dsub 9P Male)
(5) USB connector (Mini B type)
(6) LINK connector
(7) DIP Switch
(8) EMS connector

(9) I/O connector for controller
(10) General I/O connector
(11) Stage connector
(12) Fuse Holders
(13) AC Inlet

■Basic Specifications

External Dimension	140(W)x300(D)x90(H) mm
Operating Environment	0~40°C, 20~80% RH (No dew)
Storage Environment	−20~60°C, 20~80% RH (No dew)
Input Power Supply	AC100~240V±10%, 50/60Hz

■Driver Performance Specification

Driving Method	Standard (Full/Half Duplex)
Rated Current	0.75A/Phase

■Functions

Return to Origin	1 point/axis (configurable freely within effective range)
Link	External control up to 3 units, 6 axis with MSLINK (link cable) is possible
Programming	8 programs (100 steps/program; Starts and stops by I/O controller)
Learning	64 points (positioning is possible by I/O controller)
Interpolation	2-axis linear interpolation (linear interpolation between linked equipments is not possible)

■Controller Performance Specification

Number of Control Axes	2
Coordinate Setting Range	±99,999,999pls
Driving Speed Setting Range	1~999,999pps
Rate of Rise Setting Range	1~9,999pps
Acceleration/Deceleration Time Range	1~9,999ms
Mechanical Limit	2 of each axis CW · CCW direction (Logic conversion convention is possible)
Proximity Origin Detection	1 of each axis (Logic conversion convention is possible)
Origin Detection	1 of each axis, 12 method (Logic conversion possible)
External Interface	RS232C: 4800~38400bps USB2.0: Applicable to FULL/Low Speed only DIO: 9 x 24V opto-isolated inputs & 12 x open collector outputs
Max. Power Consumption	60W (When AC100V)
Tare	2.3kg

Part Number	Unit Price Qty. 1~9
MSCTL102	

Order Example: Part Number **MSCTL102**   Days to Ship

For larger quantity orders "Days to Ship" may differ from published catalog term. ☞P.91

Alterations   Part Number – (MS)   **MSCTL102 – MS**

Alteration	Driving Method Alteration
Code	MS
Details	Switches driving method for controller to Microstep (no changes to appearance and dimensions).
Price Adder	

■Controller Software RoHS

MSSOFT

•Software to configure and control the controllers connected to PCs via USB or MSRS232C on Microsoft® Windows.
 Applicable OS: Microsoft® Windows 2000/XP

[Main Functions]
· Manual driving (continuous driving, stepwise driving, axis driving, return to origin)
· Learning function
· Edit of incorporated program, upload and download

■Cable for Controllers RoHS

MSLINK

•For applications where multiple controllers (MSCTL102) are linked and controlled on 4 or 6 axes.
 MSLINK2−0.5: For 2 connectors (Cable length: 0.5m)
 MSLINK3−0.5: For 3 connectors (Cable length: 0.5m)

Part Number		Unit Price
Type	No.	Qty. 1~9
MSSOFT	–	
MSLINK	2−0.5	
	3−0.5	

Order Example: Part Number **MSSOFT MSLINK2−0.5**   Days to Ship

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■Feature: Enables "plug & play" of motorized stages by connecting to controllers.
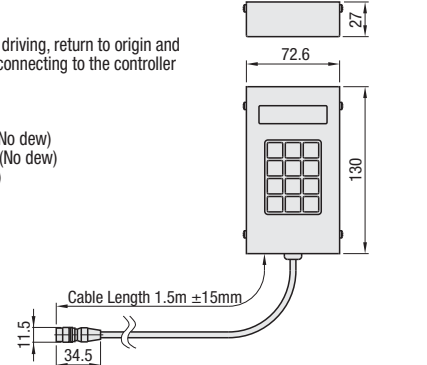
■Handset Terminal RoHS

HDT100

Operations such as continuous driving, stepwise driving, return to origin and program execution can be remote controlled by connecting to the controller (MSCTL102).

27
72.6
130
11.5
34.5

■Basic Specifications
•Operating Environment: 0~40°C, 20~80% RH (No dew)
•Storage Environment: −20~60°C, 20~80% RH (No dew)
•Power Supply: DC24V (Supplied from controller)
•Weight 0.3kg

Cable Length 1.5m ±15mm

Part Number		Unit Price
Type	No.	Qty. 1~9
HDT	100	

Order Example: Part Number **HDT100**   Days to Ship

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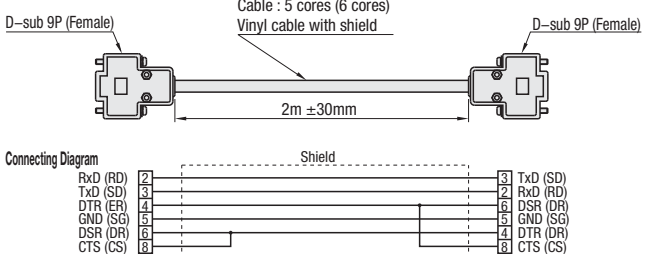
■Feature: Can be used as cable to make connection with external control devices.

■RS232 Cables RoHS

MSRS232C

D−sub 9P (Female)   Cable : 5 cores (6 cores) Vinyl cable with shield   D−sub 9P (Female)

2m ±30mm

Connecting Diagram   Shield

RxD (RD)	2	3	TxD (SD)
TxD (SD)	3	2	RxD (RD)
DTR (ER)	4	6	DSR (DR)
GND (SG)	5	5	GND (SG)
DSR (DR)	6	4	DTR (ER)
CTS (CS)	8	8	CTS (CS)

■Basic Specifications
•Interface: RS232C
•Connector to PC: D−sub 9P
•Cable Length: 2m

Part Number	Unit Price Qty. 1~9
MSRS232C	

Order Example: Part Number **MSRS232C**   Days to Ship

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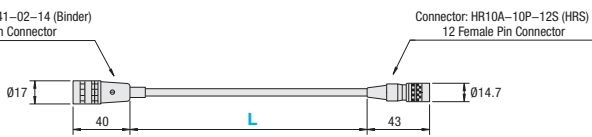
■Feature: Cable to adjust distances between motorized stages and controllers. Length can be selectable according to the condition.

■Cable for Automatic Stages RoHS

MSCB

Connector: 09−0341−02−14 (Binder)   14 Male Pin Connector
Connector: HR10A−10P−12S (HRS)   12 Female Pin Connector

Ø17   40   L   43   Ø14.7

Controller Side Terminal Function			Color	Stage Side Terminal Function	
Motor lead (Blue)	A		Blue	1	Motor lead (Blue)
Motor lead (Red)	C		Red	2	Motor lead (Red)
Motor lead (Orange)	E		Orange	3	Motor lead (Orange)
Motor lead (Green)	G		Green	4	Motor lead (Green)
Motor lead (Black)	J		Black	5	Motor lead (Black)
CWLS Input	K		Brown	6	CWLS Output
CCWLS Input	L		Yellow	7	CCWLS Output
NORG Input	N			8	Sensor Power Supply (DC5V(−))
ORG Input	Q		Purple	9	Sensor Power Supply (DC5V(+))
Sensor Power Supply (DC5V(+))	P		Gray	10	ORG Output
Sensor Power Supply (DC5V(−))	R		White	11	Sensor Power Supply (DC5V(−))
Electromagnetic Brake Power Supply (DC24V(+))	S			12	Frame Ground
Electromagnetic Brake Power Supply (DC24V(−))	T				
Frame Ground	U				

*When XMSG · XYMSG · ZMSG is connected, ORG2 sensor does not function.   Dotted line represents shields. Connect shields to U pins and 12 pins.   Ⓜ Insulator Sheath : PVC

Part Number		Unit Price
Type	L (m)	Qty. 1~9
MSCB	2	
	4	
	6	

Order Example: Part Number **MSCB4**   Days to Ship

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