Controllers for Automatic Stages/Controller Software/Cables

Handset Terminal/Cables

NEW

NEW Printed in Red

■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)
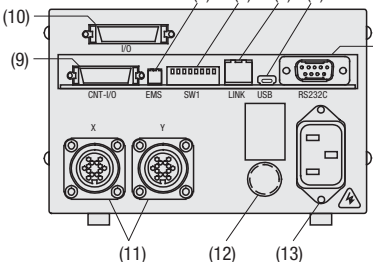
(1) Power Switch
(2) POWER LED
(3) TERMINAL (Connector for Handset Terminal HDT100)

(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 convention 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	1300.00

Order Example **Part Number** MSCTL102

8 Days Days to Ship   Non-Returnable P.92

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	250.00

■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	–	50.00
MSLINK	2−0.5	21.00
	3−0.5	24.00

Order Example **Part Number** MSSOFT MSLINK2−0.5

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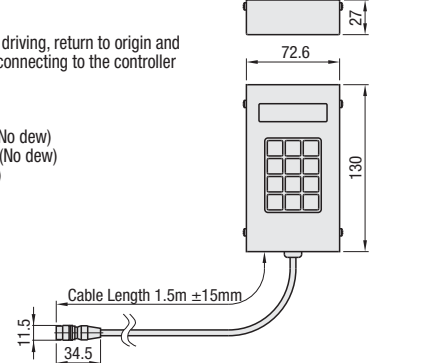
■Handset Terminal [RoHS]

HDT100

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

■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

27
72.6
130
11.5
34.5

Cable Length 1.5m ±15mm

Part Number		Unit Price
Type	No.	Qty. 1~9
HDT	100	300.00

Order Example **Part Number** HDT100

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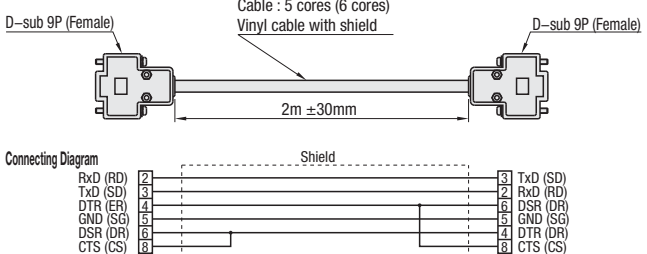■Feature: Can be used as cable to make connection with external control devices.

■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	66.00

Order Example **Part Number** MSRS232C

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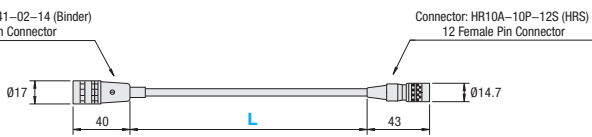For larger quantity orders "Days to Ship" may differ from published catalog term. ☞P.91

■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			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	L	Brown	6	CWLS Output
CCWLS Input	M	Yellow	7	CCWLS Outout
NORG Input	N		8	Sensor Power Supply (DC5V(−))
ORG Input	R	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	100.00
	4	120.00
	6	200.00

Order Example **Part Number** MSCB4

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