# LinMot

# **Servo Drive Series**

# **LinRS Interface**

Supported version TOP Design Studio V1.4.2 or higher



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We want to thank our customers who use the Touch Operation Panel.

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# **3.** TOP communication setting Page 4

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Describes how to set up communication for external devices.

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Describes the cable specifications required for connection.

## **6.** Supported addresses

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Refer to this section to check the addresses which can communicate with an external device.



# 1. System configuration

The system configuration of Servo Drive Series LinRS Interface for the TOP and LinMot is as follows:

Series	CPU	Link I/F	Communication method	System setting	Cable
B1100 Servo E1100 Drive E1200 E1400	<b>D1100</b>	Port on CPU (X5)	RS-232C	3.1 Settings example 1 (Page 4)	5.1. Cable table 1 (Page 10)
	E1100 E1200 E1400	Port on CPU (X5, X7/X8)	RS-422	3.2 Settings example 2 (Page 5)	5.2. Cable table 2 (Page 11)
	E1400	E 1400 Port on CPU (X5, X7/X8)	RS-485	3.3 Settings example 3 (Page 6)	5.3. Cable table 3 (Page 12)

■ Connectable configuration

 $\boldsymbol{\cdot}$  1:1 connection (one MASTER and one TOP) connection





 $\boldsymbol{\cdot}$  1:N connection (one MASTER and multiple TOPs) connection





# 2. External device selection

■ Select a TOP model and a port, and then select an external device.

Select Device					
PLC select [(	COM2]				
Filter : [All]		$\sim$	9	Search :	
				Model	() Vendor
Vendor		Model			
IDEC Corporation	^	LinRS			
HAWE HYDRAULIK					
SEHAN Electools					
TOHO Electronics Inc.					
IAI Corporation					
MKP					
TEMCOLINE Co., Ltd.					
LINMOT					
CHINO Corporation					
KOLVER Srl					
SENGENUITY					
PELCO					
FASTECH Co., Ltd.					
HYOSUNG	~				
PLC Setting[ Linf	<b>\S</b> ]				
Allas Nam Interfac	e : Computer Link	< V			
Protoco	ol : LinRS	~		Co	mm Manual
String Save Mod	e : First LH HL	Change			
Use Redundar	ncy				
Operate Condition :	AND ~				
Operate Condition : Change Condition :	AND ~ TimeOut	5 🔷 (Sect	ond)		
Operate Condition : Change Condition :	AND ~ TimeOut Condition	5 🗘 (Sect	ond)		Edit
Operate Condition : Change Condition : Primary Option	AND ~ TimeOut Condition	5 🔶 (Sect	ond)		Edit
Operate Condition : Change Condition : Primary Option Timeout	AND V TimeOut Condition	5 \$ (Sect	ond)		Edit
Operate Condition : Change Condition : Primary Option Timeout Send Wait	AND V TimeOut Condition	5 \$ (Seco	ond)		dit
Operate Condition : Change Condition : Primary Option Timeout Send Wait Retry	AND TimeOut Condition 300 5 5 Condition	5 (Sect	ond)		Edit
Operate Condition : Change Condition : Primary Option Timeout Send Wait Retry NodeId	AND V TimeOut Condition 300 5 0 0 10 10 10 10 10 10	5 \$ (Sect ] msec ]	and)		Edit
Operate Condition : Operate Condition : Change Condition : Primary Option Timeout Send Wait Retry NodeId	AND	5 \$ (Seci ] msec ] ]	and)		Edit
Operate Condition : Operate Condition : Change Condition : Primary Option Timeout Send Wait Retry NodeId	AND TimeOut Condition 300 5 0 5 0 0 5 0 0 5 0 0	5 \$ (Seci ] msec ]	and)		Edit
Operate Condition : Operate Condition : Change Condition : Primary Option Timeout Send Wait Retry NodeId	AND TimeOut Condition 300 5 0 5 0 5 0 0 5 0 0	5 \$ (Sect ] msec ]	and)		Edit
Operate Condition : Change Condition : Primary Option Timeout Send Wait Retry NodeId	AND TimeOut Condition 300 5 0 5 0 7 0 5 0 7 0 7 0 7 0 7 7 7	5 \$ (Seci ] msec ]	and)		Edit
Operate Condition : Change Condition : Primary Option Timeout Send Wait Retry NodeId	AND	5 (Sect	and)		Edit

Set	tings		Contents		
ТОР	Model	Check the TOP display a	Check the TOP display and process to select the touch model.		
External device	Vendor	Select the vendor of the Select "LINMOT".	ct the vendor of the external device to be connected to TOP.		
	PLC	Select an external device	Select an external device to connect to TOP.		
		Model	Interface	Protocol	
		LINRS	Computer Link	LinRS	
		Please check the system configuration in Chapter 1 to see if the external device you want to connect is a model whose system can be configured.			



# 3. TOP communication setting

The communication can be set in TOP Design Studio or TOP main menu. The communication should be set in the same way as that of the external device.

# 3.1 Communication setting in TOP Design Studio

### (1) Communication interface setting

■ [Project > Project Property > TOP Setting] → [Project Option > "Use HMI Setup" Check > Edit > Serial]

Project Option Change HMI[ <u>H]</u> Change HMI[ <u>H]</u> Add F	PLC (A) TIL Change PLC(C) Z Delete PLC(D)
TOP Setting     TOP Setting     TOP Setting     Top Setting     FieldBus (0)     RFID (0)     COM1 (0)     COM2 (1)     P(C1: LINRS [0]     P(C1: LINRS [0]     F(C1: LINRS [0]     Wireless (0)     USBDevice (0)	Date / Time Sync.       Screen Option       Unit Convert         Project Option       Screen Change       HmiSetup       Global Lock & Touch       Project Style       Splash       PLC Buffer Style         V Use HHI Setup       Initialization       Initialization       Initialization       Initialization         HmiSetup Opton       Initialization       Initialization       Initialization       Initialization         Project Seting       HMIDeade=0       Project Name=New project       Stat Mode=Menu       Stat Streen No.=1         Latch Set=0~0       Latch Set=0~0       Communication Error Message=0       USBErrorMessage=1         Statage=1       DatabaseMessage=1       Initialization       Initialization
Control Panel	Devices Service Photion
PLC So Ethernet	Dr iver PLC1(LINRS)   Interface: Computer Link   Protocol: PC Link   TimeOut (ms) 300   SendWait (ms) 0   Retry 5   Nodeld 2
Diagnostic	Diagnost ic Cancel Apply

Items	ТОР	External device	Remarks
Signal Level (port)	RS-422C	RS-422C	
Baud Rate	57600		
Data Bit	8		
Stop Bit	1		
Parity Bit	NONE		

\* The above settings are examples recommended by the company.

Items	Description
Signal Level	Select the serial communication method between the TOP and an external device.
Baud Rate	Select the serial communication speed between the TOP and an external device.
Data Bit	Select the serial communication data bit between the TOP and an external device.
Stop Bit	Select the serial communication stop bit between the TOP and an external device.
Parity Bit	Select the serial communication parity bit check method between the TOP and an external device.



#### (2) Communication option setting

- [Project > Project Property > Device Setting > COM > "PLC1 : LINRS"]
  - Set the options of the MICREX-SX Series communication driver in TOP Design Studio.

Project Option			×
Change HMI[H] Add PL	LC [A] TTT Change PL	IC Delete PLC[D]	
<ul> <li>TOP Setting</li> <li>SYS : RD 1520X</li> <li>Option Module Setting</li> <li>FieldBus (0)</li> <li>RFID (0)</li> <li>Device Setting</li> <li>COM1 (0)</li> <li>COM2 (1)</li> <li>Ethernet (0)</li> <li>Wireless (0)</li> <li>USBDevice (0)</li> </ul>	PLC Setting[ LinRS Alias Name : Interface : Protocol : String Save Mode : Use RedundanCC Operate Condition : AN Change Condition : Primary Option Timeout Send Wait Retry NodeId	LC1 Computer Link inRS irst LH HL Change imeOut 5 (Second) ondition Edit 300 immsec 5	Comm Manual
			Apply Close

Items	Settings	Remarks
Interface	Select "Computer Link".	
Protocol	Select the serial communication protocol between the TOP and an external device.	
TimeOut (ms)	Set the time for the TOP to wait for a response from an external device.	
SendWait (ms)	Set the waiting time between TOP's receiving a response from an external device and	
	sending the next command request.	
NODEID	Prefix	



## 3.2. Communication setting in TOP

\* This is a setting method when "Use HMI Setup" in the setting items in "3.1 TOP Design Studio" is not checked.

■ Touch the top of the TOP screen and drag it down. Touch "EXIT" in the pop-up window to go to the main screen.



#### (1) Communication interface setting

■ [Main Screen > Control Panel > Serial]



Items	ТОР	External device	Remarks
Signal Level (port)	RS-422	RS-422	
Baud Rate	57600		
Data Bit	8		
Stop Bit	1		
Parity Bit	none		

\* The above settings are setting examples recommended by the company.

Items	Description
Signal Level	Select the serial communication method between the TOP and an external device.
Baud Rate	Select the serial communication speed between the TOP and an external device.
Data Bit	Select the serial communication data bit between the TOP and an external device.
Stop Bit	Select the serial communication stop bit between the TOP and an external device.
Parity Bit	Select the serial communication parity bit check method between the TOP and an external device.



# (2) Communication option setting

■ [Main Screen > Control Panel > PLC]

	õ	<b>101</b>	PLC	×
	🔯 Syster	Driver(COM2)	PLC1(LinRS) 🔻	
Run		Interface	Computer Link 💌	
		Protocol	LinRS	
<b>WNC</b>	PLC	Timeout	300 🖨 msec	
VNC		Send Wait	0 🖨 msec	
Yiewer	6	Retry	5	
	Ethernet	Nodeld	2	
Screen	tert a			
	Diagnostic			
		<b></b>		
	[System]	Diagnostic		Apply Cancel

Items	Settings	Remarks
Interface	Select "Computer Link".	
Protocol	Select the serial communication protocol between the TOP and an external device.	
TimeOut (ms)	Set the time for the TOP to wait for a response from an external device.	
SendWait (ms)	Set the waiting time between TOP's receiving a response from an external device and	
	sending the next command request.	
NODEID	Prefix	



## **3.3 Communication diagnostics**

■ Check the interface setting status between the TOP and an external device.

- Touch the top of the TOP screen and drag it down. Touch "EXIT" in the pop-up window to go to the main screen.
- Check if the COM port settings you want to use in [Control Panel > Serial] are the same as those of the external device.
- Diagnosis of whether the port communication is normal or not
- Touch "Communication diagnostics" in [Control Panel > PLC].
- The Diagnostics dialog box pops up on the screen and determines the diagnostic status.

ОК	Communication setting normal
Time Out Error	Communication setting abnormal
	- Check the cable, TOP, and external device setting status. (Reference: Communication diagnostics sheet)

#### Communication diagnostics sheet

- If there is a problem with the communication connection with an external terminal, please check the settings in the sheet below.

Items	Conte	ents	Check		Remarks
System	How to connect the sy	stem	OK	NG	1 Cretem configuration
configuration	Connection cable name	5	OK	NG	1. System configuration
TOP	Version information		OK	NG	
	Port in use		OK	NG	
	Driver name		OK	NG	
	Other detailed settings		OK	NG	
	Relative prefix	Project setting	OK	NG	
		Communication		NC	2. External device selection
		diagnostics	ŬK	NG	3. Communication setting
	Serial Parameter	Transmission	OK	NC	
		Speed	ŬK	NG	
		Data Bit	OK	NG	
		Stop Bit	OK	NG	
		Parity Bit	OK	NG	
External device	CPU name		OK	NG	
	Communication port n	OK	NG		
	Protocol (mode)	OK	NG		
	Setup Prefix		OK	NG	
	Other detailed settings		OK	NG	4 Estemplishes estimat
	Serial Parameter	Transmission	OK	NC	4. External device setting
		Speed	ŬK	NG	
		Data Bit	OK	NG	
		Stop Bit	OK	NG	
		Parity Bit	OK	NG	
	Check address range				6. Supported addresses
			OK	NG	(For details, please refer to the PLC
					vendor's manual.)



Refer to the vendor's user manual to identically configure the communication settings of the external device to that of the TOP.



# 5. Cable table

This chapter introduces a cable diagram for normal communication between the TOP and the corresponding device. (The cable diagram described in this section may differ from the recommendations of "LINRS")

## 5.1. Cable table 1

- 1:1 connection
- RS-232C wiring

TOP	СОМ			PLO		LC
Pin	Signal	Pin	Cable connection	Pin	Signal	Pin
arrangement*Note 1)	name	number		number	name	arrangement*Note 1)
1 5	CD	1		1	485 Tx+	1 5
(° °)	RD	2		2	232 Tx	0 0
	SD	3		3	232 Rx	
Based on	DTR	4		4	485 Rx+	Based on
communication	SG	5		5	GND	communication
cable connector	DSR	6		6	485 Rx–	cable connector
front	RTS	7		7	485 Tx–	front
D-SUB 9 Pin male	CTS	8		8		D-SUB 9 Pin male
(male, convex)		9		9		(male, convex)
RS-485 wiring		•	•	•	•	•

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TOP COM					Externa	l device
Pin	Signal	Pin	Cable connection	Pin	Signal	Pin
arrangement*Note 1)	name	number		number	name	arrangement*Note 1)
1 5	RDA	1 ·	•	1	485 Tx+	1 5
(° °)	RDB	4 ·	<b>├</b>	7	485 Tx–	0 0
	SDA	6		4	485 Rx+	
Based on	SDB	9 .	• •	6	485 Rx–	Based on
communication						communication
cable connector						cable connector
front,						front,
D-SUB 9 Pin male						D-SUB 9 Pin female
(male, convex)						(female, convex)



#### 2. RS-422 wiring

TOP COM					E1100/E12	200/B1100	
Pin	Signal	Pin	Cable connection	Pin	Signal	Pin	
arrangement*Note 1)	name	number		number	name	arrangement*Note 1)	
1 5	RDA	1 ·		3	485 Tx+		
(° °)	RDB	4 ·		6	485 Tx–		
	SDA	6		1	485 Rx+	2 <b></b>	
Based on	SDB	9.		2	485 Rx-		
communication							
cable connector							
front,							
D-SUB 9 Pin male						X7/X8 Port	
(male, convex)							
RS-485 wiring							
TOP	СОМ				E1100/E1200/B1100		
Pin	Signal	Pin	Cable connection	Pin	Signal	Pin	
arrangement*Note 1)	name	number		number	name	arrangement*Note 1)	
1 5	RDA	1 .	•	3	485 Tx+		
(° °)	RDB	4 ·		6	485 Tx-		
	SDA	6	▲	1	485 Rx+	đ	
Based on	SDB	9 .		2	485 Rx-		
communication						a	
cable connector							
front,						X7/X8 Port	
D-SUB 9 Pin male						A//A0 PULL	
(male, convex)							



# 6. Supported addresses

The devices available in TOP are as follows:

The device range (address) may differ depending on the CPU module series/type. The TOP series supports the maximum address range used by the external device series. Please refer to each CPU module user manual and be take caution to not deviate from the address range supported by the device you want to use.

Status	data									
Device	Name			Bit Add	lress		Word Address			Remarks
Control	word				_		CTRL			*1) *3)
Status v	vord		S	TATO – S	STAT15					*2) *4)
Warn w	ord		WA	RN0 – \	WARN15					*2) *5)
Error inf	fo messag	e					ALM			*2) *6)
*1)	Write on	ly	*2)	Read c	only					
*3)	Use wor	d data.	Control details a	accordin	g to bit are as follows:					
	BIT 0	Switch	on/off	BIT 4	Abort	BIT 8	Jog move +	BIT 12	Cleara	ince check
	BIT 1	Voltage	e enable	BIT 5	Freeze	BIT 9	Jog move –	BIT 13	Go to initial position	
	BIT 2	Quick s	stop	BIT 6	Go to position	BIT 10	Special mode	BIT 14	Reserved	
	BIT 3	Enable	operation	BIT 7	Error acknowledge	BIT 11	Home	BIT 15	IT 15 Phase search	
*4)	Details c	lepend	ing on bit are as	follows						
	BIT 0	Operat	ion Enabled	BIT 4	Voltage enable	BIT 8	Event handler active	BIT 12	Fatal	error
	BIT 1	Switch	on active	BIT 5	Quick stop	BIT 9	Special motion active	BIT 13	Motio	n active
	BIT 2	Enable	operation	BIT 6	Switch on locked	BIT 10	In target position	BIT 14	Range	e indicator 1
	BIT 3	Error		BIT 7	Warning	BIT 11	Homed	BIT 15	Range	e indicator 2
*5)	Details c	lepend	ing on bit are as	follows						
	BIT 0	Motor	hot sensor	BIT 4	Position lag always	BIT 8	PTC sensor 1 hot	BIT 12	Reser	ved
	BIT 1	Motor	short time overload	BIT 5	Position lag standing	BIT 9	Reserved PTC 2	BIT 13	Reser	ved
		I^2t								
	BIT 2	Motor	supply voltage low	BIT 6	Controller hot	BIT 10	RR hot calculated	BIT 14	Interf	ace warn flag
	BIT 3	Motor	supply voltage high	BIT 7	Motor not homed	BIT 11	Reserved	BIT 15	Applic	ation warn flag

\*6) Displays string. (Max 32 characters)

#### Memory data

Device Name	Bit Address	Word Address	Remarks
RAM value		RAM0 – RAMFFFF	
ROM value		ROM0 – ROMFFFF	

#### ■ Program Handling Message Group

Device Name	Bit Address	Word Address	Remarks
R00A		R00A	Reset Drive with Response after completion , 1
R00B		ROOB	Reset Drive with immediate Response , 1

\*1) Write only

Continued on next page.



#### Motion Control

- \* The devices in this area execute variables using bound reference variables.
- (Example) "SOOB" (Write Interface Control Word) refers to "\_SOOB1" as the Interface Control Word data for exection.
- \* However, if the reference variables are not entered into the table, they are not used.

#### \* Motion Control - 00 Group

Davise Name	Bit	Word	Domorka	
Device Name		Address	Address	Remarks
Write Interface Control Word	Run	SOOB		*1)
	Interface Control Word		_S00B1	
Write Live Parameter	Run	S00C		*1)
	UPID (Unique Parameter ID)		_S00C1	
	Parameter Value, the Unit		_S00C2	
	depends on Parameter			
Master Homing	Run	SOOJ		*1)
	Home Position		_S00J1	
	Run	S00D		*1)
	Bit Mask; Bit 0 = X4.3 Bit 1		_\$00D1	
Write X4 Intf Outputs with Mask	= X4.4		_	
	Bit Value; Bit 0 = X4.3, Bit 1 X4.4		_S00D2	
	Run	SOOE		*1)
	Bit Mask; Bit 0 = X6.9 Bit 1		_S00E1	
Write X6 Intf Outputs with Mask	= X6.22			
	Bit Values; Bit 0 = X6.9, Bit 1 X6.22,		_S00E2	
Write X6 Intf Outputs with Mask	Bit Value; Bit 0 = X4.3, Bit 1 X4.4 Run Bit Mask; Bit 0 = X6.9 Bit 1 = X6.22 Bit Values; Bit 0 = X6.9, Bit 1 X6.22,	S00E	_S00D2  _S00E1 _S00E2	*1)

\*1)

```
Write only
```

#### \* Motion Control - 01 Group

Paula Nama	Bit	Word	Barrada	
Device Name		Address	Address	кетаткя
VAI Go To Pos	Run	S01A		*1)
	Target Position		_S01A1	
	Maximal Velocity		_S01A2	
	Acceleration		_S01A3	
	Deceleration		_S01A4	
VAI Go To Pos After Actual Command	Run	S01I		*1)
	Target Position		_S01I1	
	Maximal Velocity		_S01l2	
	Acceleration		_S01I3	
	Deceleration		_S01l4	
VAI Go To Analog Pos	Run	S01J		*1)
	Maximal Velocity		_S01J1	
	Acceleration		_S01J2	
	Deceleration		_S01J3	
	Run	S01K		*1)
	Target Position		_S01K1	
VAI Go To Pos On Rising Trigger Event	Maximal Velocity		_S01K2	
	Acceleration		_S01K3	
	Deceleration		_S01K4	
	Run	S01L		*1)
	Target Position		_S01L1	
val increament larget Pos On Rising Trigger Event	Maximal Velocity		_S01L2	
	Acceleration		S01L3	





	Deceleration		_S01L4	
VAI Go To Pos On Falling Trigger Event	Run	S01M		*1)
	Target Position		_S01M1	
	Maximal Velocity		_S01M2	
	Acceleration		_S01M3	
	Deceleration		_S01M4	
	Run	S01N		*1)
	Target Position		_S01N1	
VAI Increament Target Pos On Falling Trigger Event	Maximal Velocity		_S01N2	
5 5 55	Acceleration		_S01N3	
	Deceleration		_S01N4	

\*1) Write only

\* Motion Control – 02 Group

Device Name			Word Address	Remarks
Predef VAI go to pos	Run	S02A		*1)
	Position Increment		_S02A1	
Predef VAI Increment Dem pos	Run	S02B		*1)
	Position Increment		_S02B1	
Predef VAI Increment Target pos	Run	S02C		*1)
	Target Position		_S02C1	

\*1) Write only

#### \* Motion Control - 04 Group

Device Name		Bit Address	Word Address	Remarks
Time Curve With Default Parameters	Run	S04A		*1)
	Curve ID		_S04A1	
Time Curve To Pos With Adjustable Time	Run	S04D		*1)
	Curve ID		_S04D1	
	Target Position		_S04D2	
	Curve Time		_S04D3	
	Run	S04K		*1)
Time Curve To Pos With Adjustable Time On Rising	Target Position		_S04K1	
Trigger Event	Maximal Velocity		_S04K 2	
	Acceleration		_S04K 3	
	Run	S04L		*1)
Time Curve To Pos With Adjustable Time On falling	Target Position		_S04L1	
Trigger Event	Maximal Velocity		_S04L2	
	Acceleration		_S04L3	

\*1) Write only

See Continued on next page.



#### \* Motion Control - 06 Group

Device Name		Bit Address	Word Address	Remarks
Setup Encoder CAM On Rise Trigger Event With Delay Counts	Run	S06J		*1)
	Curve ID		_S06J1	
	Curve Start Delay Count		_S06J2	

\*1) Write only

\* Motion Control – 0C Group

Device Name		Bit	Word	Pomarks
		Address	Address	Remarks
VAI Dec=Acc Go To Pos	Run	SOCA		*1)
	Target Position		_S0CA	
	Maximal Velocity		_S0CA	
	Acceleration = Deceleration		_S0CA	
VAI Dec=Acc Increment Dem Pos	Run	SOCB		*1)
	Target Position		_S0CB	
	Maximal Velocity		_S0CB	
	Acceleration = Deceleration		_S0CB	
VAI Dec=Acc Increment Target Pos	Run	SOCC		*1)
	Target Position		_S0CC	
	Maximal Velocity		_SOCC	
	Acceleration = Deceleration		_SOCC	

\*1)

Write only

#### \* Motion Control – 10 Group

Device Name		Bit	Word	Remarks
	1	Address	Address	
Encoder CAM Enable	Run	S10A		1)
Encoder CAM Disable	Run	S10B		1)
Encoder CAM Go To Sync Pos	Run	S10C		1)
Encoder CAM Set Value	Run	S10E		1)
	Counter Value		_S10E	

\*1) Write only

☞ Continued on next page.





*	Motion	Control	- 11	Group
---	--------	---------	------	-------

Device News		Bit	Word	Demender
		Address	Address	Remarks
Encoder CAM 1 Define Curve With Default Parameters	Run	S11A		1)
	Curve ID		_S11A	
	Curve Start Count		_S11A	
Encoder CAM 1 Define Curve From Act Pos	Run	S11B		1)
	Curve ID		_S11B	
	Curve Start Count		_S11B	
Encoder CAM 1 Define Curve To Pos	Run	S11C		1)
	Curve ID		_S11C	
	Curve Start Count		_S11C	
	Target Position		_S11C	
Encoder CAM 1 Define Curve From Pos To Pos In Counts	Run	S11D		1)
	Curve ID		_S11D	
	Curve Start Count		_S11D	
	Start Position		_S11D	
	Target Position		_S11D	
	CAM Length In Counts		_\$11D	
Encoder CAM 1 Define Curve To Pos In Counts	Run	S11E		1)
	Curve ID		_S11E	
	Curve Start Count		_S11E	
	Target Position		_S11E	
	CAM Length In Counts		_S11E	
Encoder CAM 1 Define Curve with Amplitude Scale In Counts	Run	S11F		1)
	Curve ID		_S11F	
	Curve Start Count		_S11F	
	Amplitude Scale		_S11F	
	CAM Length In Counts		_S11F	
Encoder CAM 1 Enable	Run	S11G		1)
Encoder CAM 1 Disable	Run	S11H		1)
Encoder CAM 1 Change Amplitude Scale and Length	Run	S11I		1)
	Amplitude Scale		_S11I	
	CAM Length In Counts		_S11I	

\*1) Write only

☞ Continued on next page.

### \* Motion Control – 12 Group



님널	l
nel	

During Name		Bit	Word	Demender
Device Name		Address	Address	Remarks
Encoder CAM 2 Define Curve With Default Parameters	Run	S12A		1)
	Curve ID		_S12A	
	Curve Start Count		_S12A	
Encoder CAM 2 Define Curve From Act Pos	Run	S12B		1)
	Curve ID		_S12B	
	Curve Start Count		_S12B	
Encoder CAM 2 Define Curve To Pos	Run	S12C		1)
	Curve ID		_\$12C	
	Curve Start Count		_\$12C	
	Target Position		_S12C	
Encoder CAM 2 Define Curve From Pos To Pos In Counts	Run	S12D		1)
	Curve ID		_S12D	
	Curve Start Count		_S12D	
	Start Position		_S12D	
	Target Position		_S12D	
	CAM Length In Counts		_S12D	
Encoder CAM 2 Define Curve To Pos In Counts	Run	S12E		1)
	Curve ID		_S12E	
	Curve Start Count		_S12E	
	Target Position		_S12E	
	CAM Length In Counts		_S12E	
Encoder CAM 2 Define Curve with Amplitude Scale In Counts	Run	S12F		1)
	Curve ID		_S12F	
	Curve Start Count		_S12F	
	Amplitude Scale		_S12F	
	CAM Length In Counts		_S12F	
Encoder CAM 2 Enable	Run	\$12G		1)
Encoder CAM 2 Disable	Run	S12H		1)
Encoder CAM 2 Change Amplitude Scale and Length	Run	S12I		1)
	Amplitude Scale		_S12I	
	CAM Length In Counts		_S12I	

\*1) Write only

☞ Continued on next page.





#### \* Motion Control – 20 Group

Device Name		Bit Address	Word Address	Remarks
Start Command Table Command	Run	S20A		1)
	Command Table ID		_S20A	
Start Command Table Command On Rising Trigger Event	Run	S20B		1)
	Command Table ID		_S20B	
Start Command Table Command On Falling Trigger Event	Run	S20C		1)
	Command Table ID		_S20C	
Modify Command Table 16 bit Parameter in RAM	Run	S20I		1)
	Command Table ID		_S20I	
	Parameter Offset		_S20I	
	Parameter Value		_S20I	
Modify Command Table 32 bit Parameter in RAM	Run	S20J		1)
	Command Table ID		_S20J	
	Parameter Offset		_S20J	
	Parameter Value		_S20J	

\*1) Write only

#### \* Motion Control – 24 Group

Device Name		Bit	Word	Domorika
		Address	Address	Remarks
Set Cmd Table Var 1 To	Run	S24A		1)
	Set value		_S24A	
Add To Cmd Table Var 1	Run	S24B		1)
	Add value		_S24B	
Set Cmd Table Var 2 To	Run	S24C		1)
	Set value		_S24C	
Add To Cmd Table Var 2	Run	S24D		1)
	Add value		_S24D	
Write Cmd Table Var 1 To UPID RAM value	Run	S24I		1)
	UPID		_S24I	
Write Cmd Table Var 2 To UPID RAM value	Run	S24J		1)
	UPID		_S24J	
Write UPID RAM value To Cmd Table Var 1	Run	S24M		1)
	UPID		_S24M	
Write UPID RAM value To Cmd Table Var 2	Run	S24N		1)
	UPID		_S24N	
*1) Write only				

# \* Motion Control – 38 Group

Device Name		Bit	Word	Domorka
		Address	Address	Remarks
VAI Go To Pos With Force Ctrl Limit	Run	S38A		1)
	Target Position		_S38A1	
	Maximal Velocity		_S38A2	
	Acceleration		_S38A3	
	Force Limit		_S38A4	
	Run	S38B		1)
VAI Go To Pos From Act Pos And Reset Force Control	Target Position		_S38B1	
	Maximal Velocity		_S38B2	
	Acceleration		_S38B3	
	Deceleration		S38B4	

			Touch Ope	ration Panel
	Run	S38C		1)
Force Ctrl Change Target Force	Target Force		_S38C1	
	Run	S38D		1)
	Target Position		_S38D1	
VAI Go To Pos With Force Ctrl Limit and Target	Maximal Velocity		_S38D2	
Force	Acceleration		_S38D3	
	Force Limit		_S38D4	
	Target Force		_S38D5	
	Run	S38E		1)
	Target Position		_S38E1	
VAI Go To Pos With Lower Force Ctrl Limit	Maximal Velocity		_S38E2	
	Acceleration		_S38E3	
	Force Limit		_S38E4	
	Run	S38F		1)
	Target Position		_S38F1	
VAI Go To Pos With Lower Force Ctrl Limit and	Maximal Velocity		_\$38F2	
Target Force	Acceleration		_S38F3	
	Force Limit		_S38F4	
	Target Force		_S38F5	

\*1) Write only