Oriental motor

NEW PRODUCTS

RoHS RoHS-Compliant

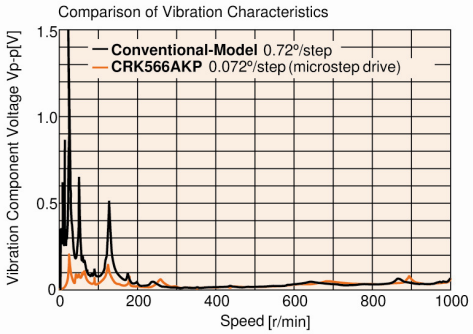
5 Phase Stepping Motor and Driver with built in Controller

CRK Series

The **CRK** Series with a built in controller is a compact, space saving 5-phase stepping motor and driver package with a powerful, feature-rich controller built in.
The driver supports stand alone or RS-485 communications with multi-drop capability for network operation and I/O control.

5 phase motor features

- Lower vibration
- Increased positional accuracy
- Higher resolution

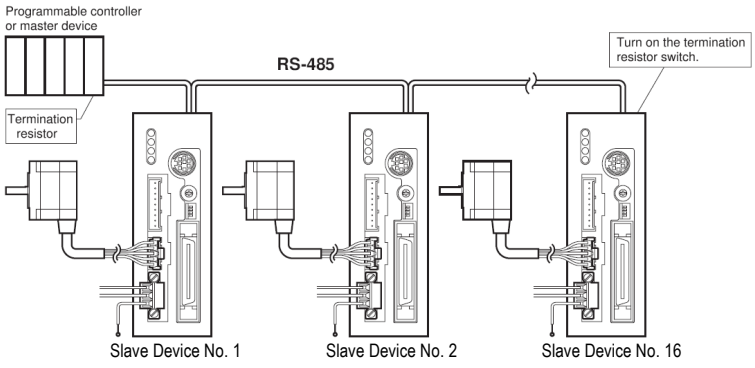


3 Operating Modes

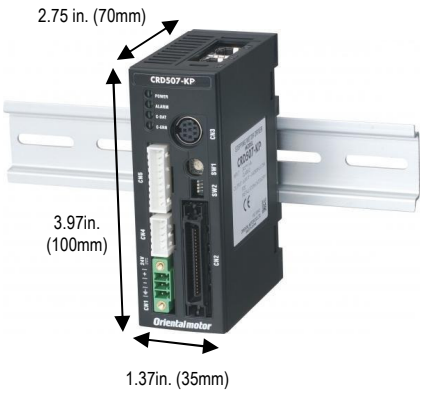
- **Direct command entry** - from terminal, PLC or master controller.
- **Stand alone operation** - running stored programs selected via I/O.
- **Variable data** - any settable parameter or variable values entered/changed via direct entry from a host will be used by the stored sequence.

RS-485 Communications

- Multi-Drop up to 16 units
- PLC or PC based programming
- Warning, Alarm and Error messaging



Space Savings



Din Rail Mounting Possible

Motion Profile Example

- Repetitive Positioning
- Stopping via Sensor Input
- Continuous Operation at Variable Speeds
- Linked Motion
- Mechanical / Electrical Return to Home
- PLS-OUT Function - Drive a second driver with the same pulse count as the first motor.

Visit www.orientalmotor.com

For further information (specifications, dimensions, speed-torque characteristics)

General Specifications

Connection methods	ASCII Commands via RS-485, no need for dedicated software
Transmission Rate	Selectable up to 115,200 bps
Input signals	11 Dedicated and 6 General purpose
Output signals	2 Dedicated and 4 General purpose
Number of sequences	64 maximum
Power Source	24VDC

Accessories

- RS 485 Jumper cable (Multi-drop)
- Encoder driver cable
- Motor Extension cable

Operator's manual available

Visit www.orientalmotor.com
Or contact Technical Support for further information.

Application Example

PLC or Controller		Driver 1	Driver 2	Action
START ON	→	Return to Home	Return to Home	Home both axes
		↓	↓	
Load part into machine	←	READY ON	READY ON	Ready for next action
↓				
INPUT #1 ON	→	Move CW 55°		Go to inspection position
		↓		
Inspect Part	←	Ready ON OUTPUT #1 ON		Ready for next action, activate camera
↓				
Part OK INPUT #2 ON	→	Move CW 35°		Next process position
		↓		
INPUT #2 OFF	←	READY ON		Ready for next action
↓	Part not OK INPUT #3 ON →		Move CW 450°	Reject part
			↓	
	INPUT #3 OFF ←		READY ON	Ready for next action
	↓			
Wait 0.5 sec.				Delay 0.5 sec.
↓				
Go to loading position	→	Return to Home	Return to Home	Home both axes
		↓	↓	
Process finished	←	READY ON	READY ON	Ready for next action

Product Line

Type	Feature	Motor Frame Size	Basic Step Angle [deg/step]	Maximum Holding Torque
 High-Resolution Type	A high-resolution type offers higher positioning accuracy with the basic step angle of 0.36°/step.	□28 mm (□1.10 in.)	0.36	0.042 ~ 0.09 N·m (5.9 ~ 12.7 oz-in)
		□42 mm (□1.65 in.)		0.24 ~ 0.42 N·m (34 ~ 59 oz-in)
		□60 mm (□2.36 in.)		0.78 ~ 2.3 N·m (110 ~ 320 oz-in)
 High-Torque Type	A high-torque motor has approx. 1.3 ~ 1.5 times more torque when compared to a standard 5 phase stepping motor.	□20 mm (□0.79 in.)	0.72	0.0231 N·m (3.2 oz-in)
		□28 mm (□1.10 in.)		0.048 ~ 0.078 N·m (6.8 ~ 11 oz-in)
		□42 mm (□1.65 in.)		0.24 ~ 0.42 N·m (34 ~ 59 oz-in)
 Standard Type	The basic model offering a good balance of torque and low vibration/noise characteristics.	□42 mm (□1.65 in.)	0.72	0.13 ~ 0.24 N·m (18.4 ~ 34 oz-in)
		□60 mm (□2.36 in.)		0.42 ~ 1.66 N·m (59 ~ 230 oz-in)
 TH Geared Type	Geared stepping motors are effective for inertia reduction, increasing torque, higher resolution and suppressing vibration. Five gear ratios are available. Backlash 10~60 arc minute (0.167~1°)	□28 mm (□1.10 in.)	0.024 ~ 0.1	0.2 ~ 0.5 N·m (28 ~ 71 oz-in)
		□42 mm (□1.65 in.)	0.024 ~ 0.2	0.35 ~ 1.5 N·m (3 ~ 13.2 lb-in)
		□60 mm (□2.36 in.)		1.25 ~ 4 N·m (11 ~ 35 lb-in)

ORIENTAL MOTOR U.S.A. CORP.
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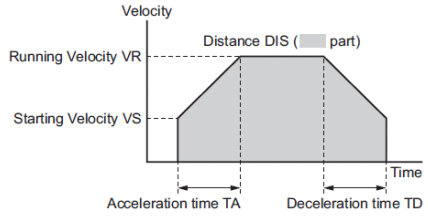
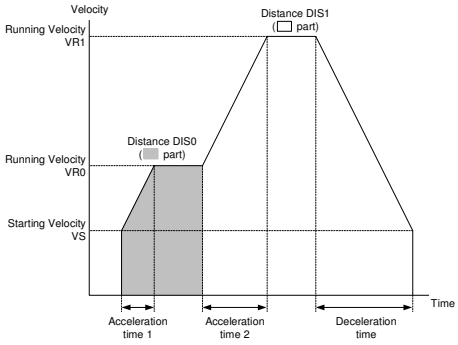
Sample Programs

Incremental Motion



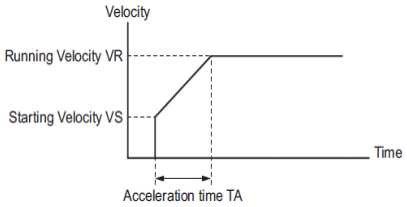

```
(1) TA=0.1; TD=0.1          #Acceleration and deceleration times to 0.1
(2) VS=100; VR=1000;        #Program start and running speeds
(3) DIS=10000               #Set distance to 10000
(4) OUT3=0; OUT4=0          #Set general purpose outputs 3 and 4 inactive
(5) LOOP Q                  #Loop, loop count given by variable Q
(6) MI                      #Start moving incrementally, distance DIS
(7) MEND; PC                #Wait for motion to end, then send the value of PC
(8) OUT4=1                  #Set Output 4 active
(9) WAIT 1                  #Wait 1 second
(10) OUT4=0                 #Set Output 4 inactive
(11) ENDL                   #Endo of loop
(12) MA 0                   #Start moving to absolute position 0
(13) MEND; PC               #Wait for motion to end, then send value of PC
(14) OUT3=1                 #Set Output 3 active
```

Linked Motion




```
(1) VR1 500                 #Set the velocity for linked move #1 to 500 pps
(2) VR1=500                 #Device response
(3) DIS1 2000               #Set the distance for linked move #1 to 2000
(4) DIS1=2000               #Device response
(5) INCABS1 1               #Set the move type for linked motion #1 to incremental
(6) INCABS1=1 [INC]         #Device response
(7) LINK1 1                 #Enable the linked operation for motion #1
(8) LINK1=1                 #Device response
(9)  VR2 1000               #Linked move #2 velocity equals 1000 pps
(10) VR2=1000               #Device response
(11) INCABS2 1              #Set the move type for linked motion #2 to incremental
(12) INCABS2=1 [INC]        #Device response
(13) DIS2 4000              #Linked move #2: destination is position 4000
(14) DIS2=4000              #Device response
(15) LINK2 0                #"Unlink" link2 from link3
(16) LINK2=0                #Device response
(17) MI1                    #Start the linked operation motion
```

Continuous Motion




```
(1) TA 0.5; TD 0.5; VR 1000     #Move continuously (positive)
(2) MCP                         #Increase speed
(3) LOOP                        #Send message 1
(4) IF (IN1=1)
(5) VR=VR+10; MCP
(6) SAS Increase speed by 10 pps
(7) WAIT TA
(8) WHILE (IN1=1); WEND
(9) ENDIF
```

Partial List of Built in Commands

Reference only. For a complete list, see operator's manual

Motion Commands

Command	Description
CONT	Continue motion
CV	Change velocity
HSTOP	Hard stop
MA	Move to absolute position
MCN, MCP	Move continuously, negative or positive
MGHN, MGHP	Seek mechanical home position, negative or positive
MI	Move incremental distance
PAUSE	Pause motion
PAUSECLR	Clear state of paused motion
SSTOP	Soft stop

Monitor Commands

Command	Description
ALM	Alarm status and history
HELP	Display help information
REPORT	Display system status
TEACH	Teach Positions
WNG	Warning status and history

System Status

Command	Description
DTMP	Drive temperature
EC	Encoder Counter
PC	Position Counter
PE	Position error

System Control

Command	Description
ABORT	Abort sequences and motions
ABORTACT	Abort action
ALMCLR	Clear alarm
CRRUN	Run current
CRSTOP	Stop current
CURRENT	Current On/Off
HOMESEL	Homing type select
MRES	Motor resolution
OTACT	Overtravel action
STARTACT	START input action
STOACT	Step Out Action
STOB	Step Out Alarm/Warning
STOEN	Step Out Detection enable
WNGCLR	Clear Warning

Sequence Management

Command	Description
CLEARSEQ	Clear sequences
COPY	Copy sequence
DEL	Delete sequence
DIR	Sequence Directory
EDIT	Edit sequence
LIST	List sequence contents
LOCK	Lock Sequence
M	Display memory status
REN	Rename sequence
RUN	Run sequence
UNLOCK	Unlock sequence

User Variables

Command	Description
A to Z	User variables

Motion Variables

Command	Description
AREAx	AREA1 position and AREA2 position for AREA output signal
DIS	Incremental motion distance
INCABSx	Linked move type
LINKx	Link control
POS[x]	Position array data
SCHGPOS	Distance after SENSOR input
SCHGVR	Velocity after SENSOR input
TA	Acceleration time
TD	Deceleration time
VR	Running velocity
VRx	Linked motion running velocity
VS	Starting velocity

Sequence Commands

Command	Description
#	Sequence Comment
BREAKL	Break LOOP block
BREAKW	Break WHILE block
CALL	Call sequence as subroutine
ELSE	Begin ELSE block: execute if IF is false
END	End sequence
ENDIF	End of IF block
ENDL	End of LOOP block
IF	Begin IF block: execute if true
LOOP	Begin counted LOOP block
MEND	Wait for motion end
RET	Sequence Return
SACS	Send ASCII control string
SAS	Send ASCII string
VIEW	View parameter
WAIT	Wait for specified time
WEND	End of WHILE block
WHILE	Begin WHILE block: execute while true

I/O

Command	Description
EVx	Configure event output
INPAUSE	PAUSE signal input assignment
OUTHOMEP	HOMEP signal output assignment
OUTREADY	READY signal output assignment
OUTRUN	RUN signal output assignment
OUTSG	System output signal status
OUTSTO	STEPOUT signal output assignment
OUTTEMP	TEMP signal output assignment
OUTWNG	WNG signal output assignment
OUTx	Individual general output control

Math logical Operators (In sequences only)

Command	Description
&, |, ^, <<, >>	AND, OR, XOR, left logic shift, right logic shift
+, –, *, /, %	Addition, subtraction, multiplication, division, modulo
a < b	a is smaller than b
a <= b	a is equal to or smaller than b
a = b	a is equal to b
a! = b	a is not equal to b
a >= b	a is equal to or larger than b
a > b	a is larger than b

■Product Number Code

●High-Torque Type, High-Resolution Type, Standard Type

CRK 5 4 4 P M A K P

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

□	Series	**CRK**: **CRK** Series
②	**5**: 5-Phase	
③	Motor Frame Size	**1**: 20 mm (0.79 in.) **2**: 28 mm (1.10 in.) **4**: 42 mm (1.65 in.) **6**: 60 mm (2.36 in.)
④	Motor Case Length	
⑤	Motor Type	
⑥	Resolution	Blank: Standard (0.72°/step) **M**: High-Resolution Type (0.36°/step)
⑦	Shaft Type	**A**: Single Shaft **B**: Double Shaft
⑧	Power Supply Voltage	**K**: DC 24V
⑨	Driver Type	**P**: Built-in Controller Package

●**TH** Geared Type

CRK 5 2 3 P A K P - T 7.2

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

□	Series	**CRK**: **CRK** Series
②	**5**: 5-Phase	
③	Motor Frame Size	**2**: 28 mm (1.10 in.) **4**: 42 mm (1.65 in.) **6**: 60 mm (2.36 in.)
④	Motor Case Length	
⑤	Motor Type	
⑥	Shaft Type	**A**: Single Shaft **B**: Double Shaft
⑦	Power Supply Voltage	**K**: DC 24V
⑧	Driver Type	**P**: Built-in Controller Package
⑨	Gearhead Type	**T**: TH Geared Type
⑩	Gear Ratio	

Product Line

Notes:

- This documentation is to support additional products not found in the 2009/2010 General Catalog.
- For motors with built-in controller listed below, Specifications and Speed-Torque Characteristic, Permissible Overhung Load and Permissible Thrust Load are same as basic model motors, please refer to Specifications for Basic Motor Mode Ⅰ.
- Refer to page C-152 in the 2009/2010 General Catalog for Permissible Overhung Load and Permissible Thrust Load.
- Refer to page of the 2009/2010 General Catalog for the Driver Specifications (Page C-151), General Specifications (Page C-151).
- Refer to page 9 in this document Connection and Operation.

High-Resolution Type

Model	Basic Model	Reference Page # for Specifications and Speed-Torque Characteristics	Reference Page # for Motor Dimensions
CRK523PMAKP	CRK523PMAP	2009/2010 General Catalog C-140	2009/2010 General Catalog C-153
CRK523PMBKP	CRK523PMBP		
CRK524PMAKP	CRK524PMAP		
CRK524PMBKP	CRK524PMBP		
CRK525PMAKP	CRK525PMAP		
CRK525PMBKP	CRK525PMBP		
CRK544PMAKP	CRK544PMAP		
CRK544PMBKP	CRK544PMBP		
CRK546PMAKP	CRK546PMAP		
CRK546PMBKP	CRK546PMBP		
CRK564PMAKP	CRK564PMAP	2009/2010 General Catalog C-141	2009/2010 General Catalog C-154
CRK564PMBKP	CRK564PMBP		
CRK566PMAKP	CRK566PMAP		
CRK566PMBKP	CRK566PMBP		
CRK569PMAKP	CRK569PMAP		
CRK569PMBKP	CRK569PMBP		

High-Torque Type

Model	Basic Model	Reference Page # for Specifications and Speed-Torque Characteristics	Reference Page # for Motor Dimensions
CRK513PAKP	CRK513PAP	2009/2010 General Catalog C-142	2009/2010 General Catalog C-153
CRK513PBKP	CRK513PBP		
CRK523PAKP	CRK523PAP		
CRK523PBKP	CRK523PBP		
CRK525PAKP	CRK525PAP		
CRK525PBKP	CRK525PBP		
CRK544PAKP	CRK544PAP	2009/2010 General Catalog C-143	
CRK544PBKP	CRK544PBP		
CRK546PAKP	CRK546PAP		
CRK546PBKP	CRK546PBP		

Standard Type

Model	Basic Model	Reference Page # for Specifications and Speed-Torque Characteristics	Reference Page # for Motor Dimensions
CRK543AKP	CRK543AP	2009/2010 General Catalog C-143	2009/2010 General Catalog C-154
CRK543BKP	CRK543BP		
CRK544AKP	CRK544AP		
CRK544BKP	CRK544BP		
CRK545AKP	CRK545AP		
CRK545BKP	CRK545BP		
CRK564AKP	CRK564AP	2009/2010 General Catalog C-144	
CRK564BKP	CRK564BP		
CRK566AKP	CRK566AP		
CRK566BKP	CRK566BP		
CRK569AKP	CRK569AP		
CRK569BKP	CRK569BP		

TH Geared Type

Model	Basic Model	Reference Page # for Specifications and Speed-Torque Characteristics	Reference Page # for Motor Dimensions
CRK523PAKP-T7.2	CRK523PAP-T7.2	2009/2010 General Catalog C-145	2009/2010 General Catalog C-155
CRK523PBKP-T7.2	CRK523PBP-T7.2		
CRK523PAKP-T10	CRK523PAP-T10		
CRK523PBKP-T10	CRK523PBP-T10		
CRK523PAKP-T20	CRK523PAP-T20		
CRK523PBKP-T20	CRK523PBP-T20		
CRK523PAKP-T30	CRK523PAP-T30		
CRK523PBKP-T30	CRK523PBP-T30		
CRK543AKP-T3.6	CRK543AP-T3.6	2009/2010 General Catalog C-146	
CRK543BKP-T3.6	CRK543BP-T3.6		
CRK543AKP-T7.2	CRK543AP-T7.2		
CRK543BKP-T7.2	CRK543BP-T7.2		
CRK543AKP-T10	CRK543AP-T10		
CRK543BKP-T10	CRK543BP-T10		
CRK543AKP-T20	CRK543AP-T20		
CRK543BKP-T20	CRK543BP-T20		
CRK543AKP-T30	CRK543AP-T30		
CRK543BKP-T30	CRK543BP-T30		
CRK564AKP-T3.6	CRK564AP-T3.6	2009/2010 General Catalog C-147	
CRK564BKP-T3.6	CRK564BP-T3.6		
CRK564AKP-T7.2	CRK564AP-T7.2		
CRK564BKP-T7.2	CRK564BP-T7.2		
CRK564AKP-T10	CRK564AP-T10		
CRK564BKP-T10	CRK564BP-T10		
CRK564AKP-T20	CRK564AP-T20		
CRK564BKP-T20	CRK564BP-T20		
CRK564AKP-T30	CRK564AP-T30		
CRK564BKP-T30	CRK564BP-T30		

Specifications

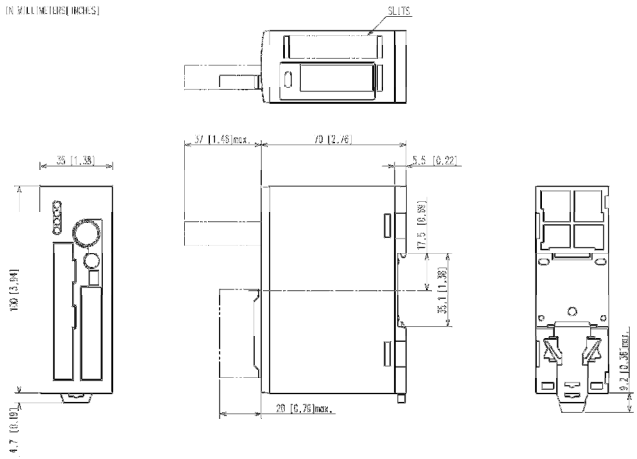
Program	Number of sequences	64 maximum
	Maximum Sequence size	1.6KB total for compiled 4.2KB total (text + compiled)
	Input method	ASCII commands via RS-485
Motion Profile Specifications	Frequency	1 to 500,000 pps (1 step increments)
	Positioning range	+8,388,607 to -8,338,607 steps
	Acceleration/Deceleration range	0.001 to 1000 sec, Linear ramp
Operation Patterns	Relative Positioning	Available
	Absolute Positioning	Available
	Linked motion	4 linked motions, maximum
	Continuous operation	Available
	Return to mechanical home operation	Available
	Return to electrical home operation	Available
	Speed change on the fly	Available in continuous operation
Communication Specifications	Communication method	In conformance with EIA-485
	Transmission rate	Selectable from 9600, 19200, 38400, 57600, 115200 bps
	Physical layer	Asynchronous mode (8 bits, 1 stop bit, no parity)
	Protocol	9-byte fixed frame length, binary transfer
	Number of multi-dropped devices	16
Input/Output Specifications	Dedicated inputs (START, PSTOP, ALMCLR etc)	11, photocoupler, 24VDC
	Dedicated outputs (Move, ALM)	2, photocoupler, Open collector, 24VDC or less, 20mA max
	Encoder inputs (A, B, Z)	Line Driver inputs, 26C231 equivalent
	General purpose inputs	6 photocoupler, 24VDC
	General purpose outputs	4 photocoupler, Open collector, 24VDC or less, 20mA max
	Pulse, Direction outputs	Line Driver outputs, 26C231 equivalent
General Specifications	Dimensions	3.93(H) in x 1.38(W) in x 2.76(D) in 100(H) mm x 35(W) mm x 70(D) mm
	Mass	5.7 oz
	Ambient temperature	0 to +40℃ (+32 to 104℉), non freezing
	Ambient humidity	85% or less (non-condensing)

■Dimensions Unit = mm [in.]

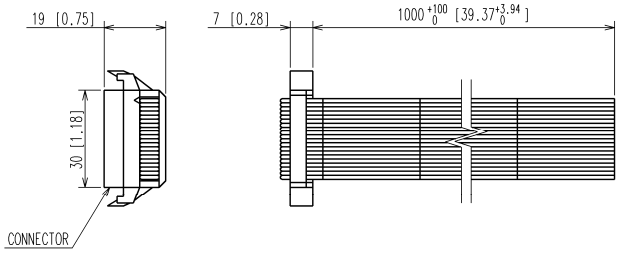
●Driver

CRD503-KP, CRD507-KP, CRD514-KP

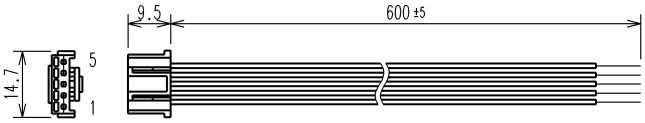
Mass: 0.2kg (0.44lb)



◇Cable with connector



◇Motor lead wire / connector assembly



●Connectors (Included)

Connector for power supply (CN1)

Connector: MC1, 5/3-STF-3,5 (Phoenix Contact)

Cable with connector (CN2, Length:3.28 feet)

Connector: FX2B-40SA-1.27R (HIROSE ELECTORIC CO.,LTD.)

Connector Leads (For Motor) (CN4, Length:2 feet)

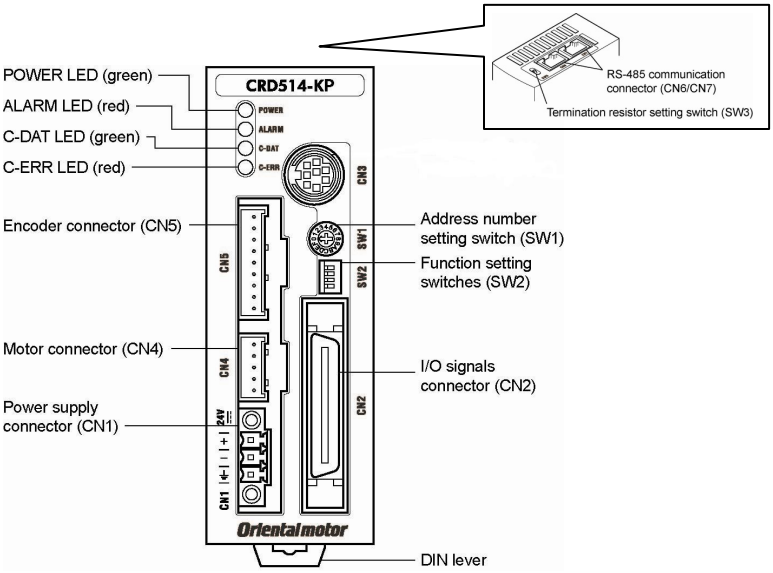
Connector housing: 51103-0500 (MOLEX)

Contact: 50351-8100 (MOLEX)

Applicable Crimp Tool: 57295-5000 (MOLEX)

●When you purchase only drivers for maintenance etc., it comes with Connector leads, a cable with connector and a connector for power supply.

Connection and Operations



Name	Description
POWER LED (green)	This LED is lit while the main power is input.
ALARM LED (red)	This LED will blink when an alarm generates (a protective function is triggered). You can check the generated alarm by counting the number of times the LED blinks.
C-DAT LED (green)	This LED will blink or illuminate steadily when the driver is communicating with the master station properly via RS-485 communication.
C-ERR LED (red)	This LED will illuminate when a RS-485 communication error occurs with the master station.
Address number setting switch (SW1)	Use this LED when controlling the system via RS-485 communication.
	Set the address number of RS-485 communication.
Function setting switches (SW2)	Use this switches when controlling the system via RS-485 communication. No.1 to 3: Used to set the baud rate of RS-485 communication. No.4: Used to set device to single or multi-axis mode
Termination resistor setting switch (SW3)	Use this switch when controlling the system via RS-485 communication. Set the termination resistor (120 Ω) of RS-485 communication.
Power supply connector (CN1)	Connection for main power supply (+24 VDC) using the supplied connector.
I/O signals connector (CN2)	Connection for the I/O signals using the supplied connector cable.
Connector (CN3)	Not used
Motor connector (CN4)	Connection for the motor.
Encoder connector (CN5)	Connection for the encoder.
RS-485 communication connectors (CN6/CN7)	Connection for the RS-485 communication cable.

Input / Output Signals

Lead wire color	Upper ribbon cable			Lead wire color	Lower ribbon cable		
	Pin No.	Signal name	Description		Pin No.	Signal name	Description
Brown-1	A1	IN-COM0	Input common	Brown-3	B1	MOVE+	Motor moving output
Red-1	A2	START	Start input	Red-3	B2	MOVE–	
Orange-1	A3	ALMCLR	Alarm Clear input	Orange -3	B3	ALM+	Alarm output
Yellow-1	A4	CROFF	Current OFF input	Yellow-3	B4	ALM–	
Green-1	A5	ABORT	Abort input	Green-3	B5	OUT1+	General output 1*2
Blue-1	A6	IN1	General inputs*1	Blue-3	B6	OUT1–	
Purple-1	A7	IN2		Purple-3	B7	OUT2+	General output 2*2
Gray-1	A8	IN3		Gray-3	B8	OUT2–	
White-1	A9	IN4		White-3	B9	OUT3+	General output 3*2
Black-1	A10	IN5		Black-3	B10	OUT3–	
Brown-2	A11	IN6		Brown-4	B11	OUT4+	General output 4*2
Red-2	A12	HOME	Homing operation input	Red-4	B12	OUT4–	
Orange -2	A13	PSTOP	Panic Stop input	Orange -4	B13	N.C.	Not used
Yellow-2	A14	SENSOR	Sensor input	Yellow-4	B14	N.C.	Not used
Green-2	A15	+LS	+ Limit switch input	Green-4	B15	PLS-OUT+	Pulse output (Line driver output)
Blue-2	A16	-LS	– Limit switch input	Blue-4	B16	PLS-OUT–	
Purple-2	A17	HOMES	Mechanical home sensor input	Purple-4	B17	DIR-OUT+	Direction output (Line driver output)
Gray-2	A18	SLIT	Slit sensor input	Gray-4	B18	DIR-OUT–	
White-2	A19	N.C.	Not used	White-4	B19	GND	GND
Black-2	A20	IN-COM1	Sensor input common	Black-4	B20	N.C.	Not used

*1 The function of General Input 1(IN1) to 6(IN6) can be assigned unique functions using the "INxxx" commands.
*2 The function of General Output 1(Out1) to 4(Out4) can be assigned unique functions using the "OUTxxx" commands.

List of Motor and Driver Combinations

Model names for motor and driver combinations are shown below.

Type	Model	Motor Model	Driver Model
High-Resolution Type	**CRK523PMAKP**	PK523PMA	CRD503-KP
	CRK523PMBKP	PK523PMB	
	CRK524PMAKP	PK524PMA	
	CRK524PMBKP	PK524PMB	
	CRK525PMAKP	PK525PMA	
	CRK525PMBKP	PK525PMB	
	CRK544PMAKP	PK544PMA	CRD507-KP
	CRK544PMBKP	PK544PMB	
	CRK546PMAKP	PK546PMA	
	CRK546PMBKP	PK546PMB	
	CRK564PMAKP	PK564PMA	CRD514-KP
	CRK564PMBKP	PK564PMB	
	CRK566PMAKP	PK566PMA	
	CRK566PMBKP	PK566PMB	
	CRK569PMAKP	PK569PMA	
	CRK569PMBKP	PK569PMB	
High-Torque Type	**CRK513PAKP**	PK513PA	CRD503-KP
	CRK513PBKP	PK513PB	
	CRK523PAKP	PK523PA	
	CRK523PBKP	PK523PB	
	CRK525PAKP	PK525PA	
	CRK525PBKP	PK525PB	
	CRK544PAKP	PK544PA	CRD507-KP
	CRK544PBKP	PK544PB	
	CRK546PAKP	PK546PA	
	CRK546PBKP	PK546PB	
Standard Type	**CRK543AKP**	PK543NAW	CRD507-KP
	CRK543BKP	PK543NBW	
	CRK544AKP	PK544NAW	
	CRK544BKP	PK544NBW	
	CRK545AKP	PK545NAW	
	CRK545BKP	PK545NBW	
	CRK564AKP	PK564NAW	CRD514-KP
	CRK564BKP	PK564NBW	
	CRK566AKP	PK566NAW	
	CRK566BKP	PK566NBW	
	CRK569AKP	PK569NAW	
	CRK569BKP	PK569NBW	

Type	Model	Motor Model	Driver Model
TH geared Type	**CRK523PAKP-T7.2**	PK523PA-T7.2	CRD503-KP
	CRK523PBKP-T7.2	PK523PB-T7.2	
	CRK523PAKP-T10	PK523PA-T10	
	CRK523PBKP-T10	PK523PB-T10	
	CRK523PAKP-T20	PK523PA-T20	
	CRK523PBKP-T20	PK523PB-T20	
	CRK523PAKP-T30	PK523PA-T30	
	CRK523PBKP-T30	PK523PB-T30	
	CRK543AKP-T3.6	PK543AW-T3.6	CRD507-KP
	CRK543BKP-T3.6	PK543BW-T3.6	
	CRK543AKP-T7.2	PK543AW-T7.2	
	CRK543BKP-T7.2	PK543BW-T7.2	
	CRK543AKP-T10	PK543AW-T10	
	CRK543BKP-T10	PK543BW-T10	
	CRK543AKP-T20	PK543AW-T20	
	CRK543BKP-T20	PK543BW-T20	
	CRK543AKP-T30	PK543AW-T30	
	CRK543BKP-T30	PK543BW-T30	
	CRK564AKP-T3.6	PK564AW-T3.6	CRD514-KP
	CRK564BKP-T3.6	PK564BW-T3.6	
	CRK564AKP-T7.2	PK564AW-T7.2	
	CRK564BKP-T7.2	PK564BW-T7.2	
	CRK564AKP-T10	PK564AW-T10	
	CRK564BKP-T10	PK564BW-T10	
	CRK564AKP-T20	PK564AW-T20	
	CRK564BKP-T20	PK564BW-T20	
	CRK564AKP-T30	PK564AW-T30	
	CRK564BKP-T30	PK564BW-T30	

Cable (Sold separately)

Encoder Cables RoHS

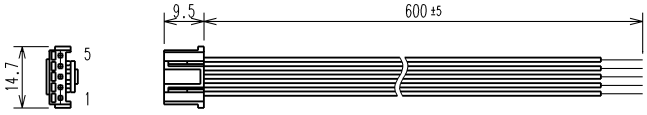
These lead wires with connector assemblies are available for use to connect the encoder to the driver.

Encoder cable

■Product Line

Model	L mm(ft.)	AWG
LC09A-006	600 (2)	22 (0.3mm^2)

■Dimension



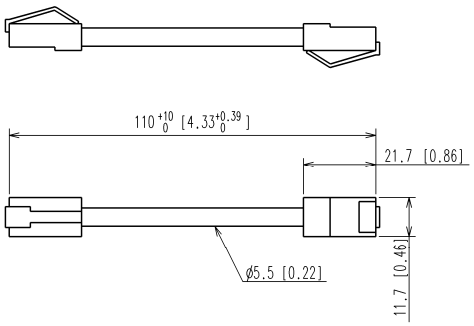
RS-485 Communication Cable RoHS

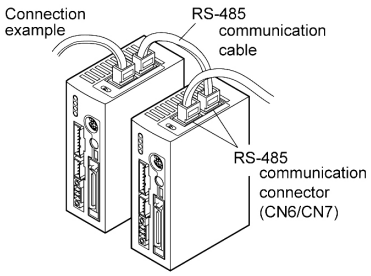
This cable with connector assemblies are available for use with the multi-axis operation to connect drivers.

■Product Line

Model	L mm(ft.)
CC001-RS4	110 (0.36)

■Dimension **Unit = mm [in.]**





Specifications are subject to change without notice.
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