

Product Discontinuation Notices

July 2, 2012

Servomotors / Servo Drivers

No. 2011098E(3)

Discontinuation Notice of SMARTSTEP A series

REQUEST

There was modification in portion of product discontinuation notices of Product News No.2011098E of March 2011 issue. What we have changed is [Combination Servo Driver and Servomotor] and [List of the discontinuation model]. Please abolish old edition, replace the latest No.2011098E(3).



Product Discontinuation

AC Servo Driver
R7D-AP[]

AC Servomotor
R7M-A[]

Recommended Replacement

AC Servo Driver
R7D-BP[]
R88D-GT[]
AC Servomotor
R88M-G[]

Discontinuation date : The end of March, 2012

Note. Discontinuation date of cables : The end of March, 2019

Caution on recommended replacement

It must need to change from SMARTSTEP A series to SMARTSTEP 2 series or G series.

Difference from discontinued product

Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics	Operation ratings	Operation methods
R7D-BP[] R88D-GT[] R88M-G[]	*	--	--	--	**	--	--

** : Fully compatible

* : The change is a little/Almost compatible

-- : Not compatible

- : No corresponding specification

Product Discontinuation and recommended replacement

Product discontinuation	Recommended replacement
R7D-AP01H	R7D-BP01H
R7M-A10030	R88M-G10030H
R7M-AP10030	R88M-GP10030H
R7D-AP08H	R88D-GT08H
R7M-A75030	R88M-G75030H
R7M-AP75030	R88M-G75030H

Please check 'List of the discontinuation model' and 'Combination Servo Driver and Servomotor' for each recommended replacement.

This information is described on end of this sheet.

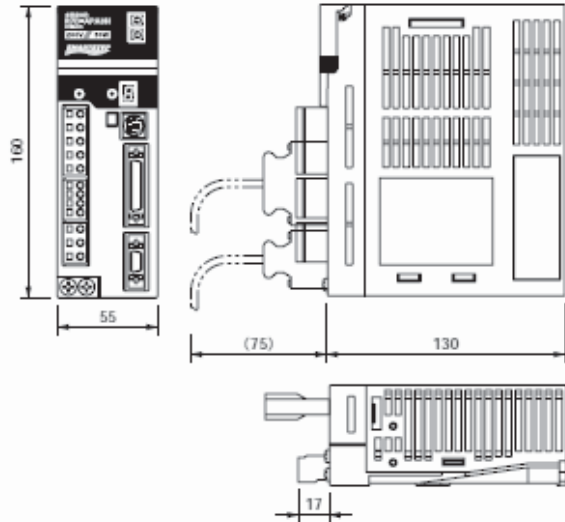
Body color

Product discontinuation	Recommendable replacement
R7D-AP[]: Ivory White	R7D-BP[]: Ivory White
R7M-A[]: Black	R88D-GT[] : Ivory White
	R88M-G[] : Metallic

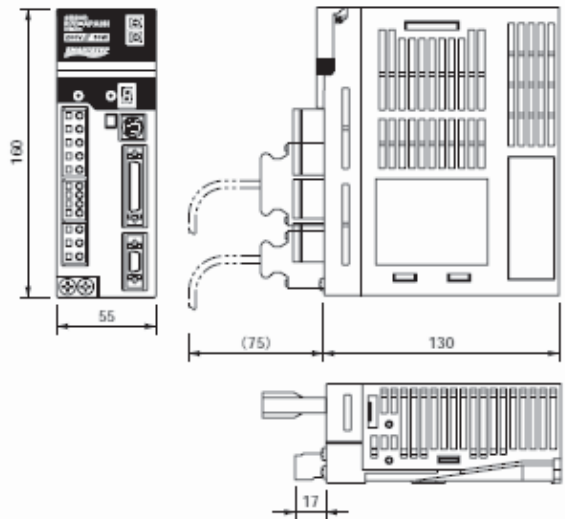
Dimensions

Product discontinuation

R7D-APA3L/-APA5L/-AP01L/
-APA3H/-APA5H/-AP01H

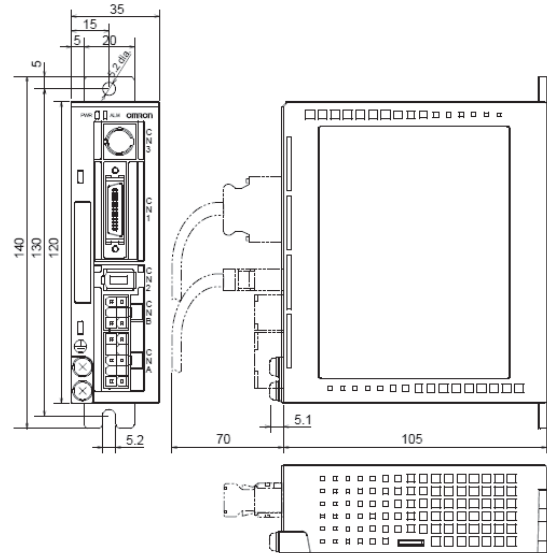


R7D-AP02L

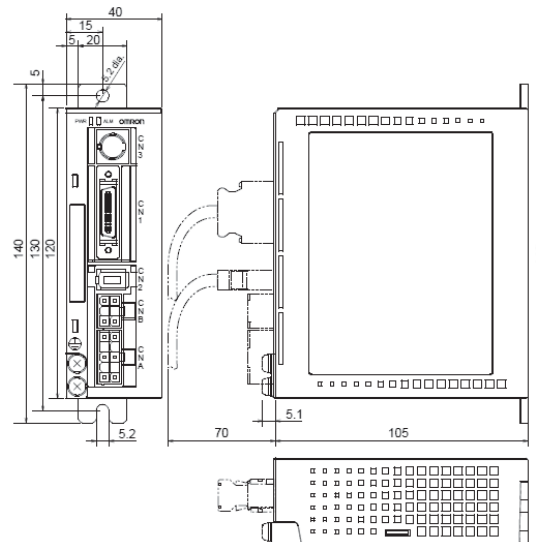


Recommendable replacement

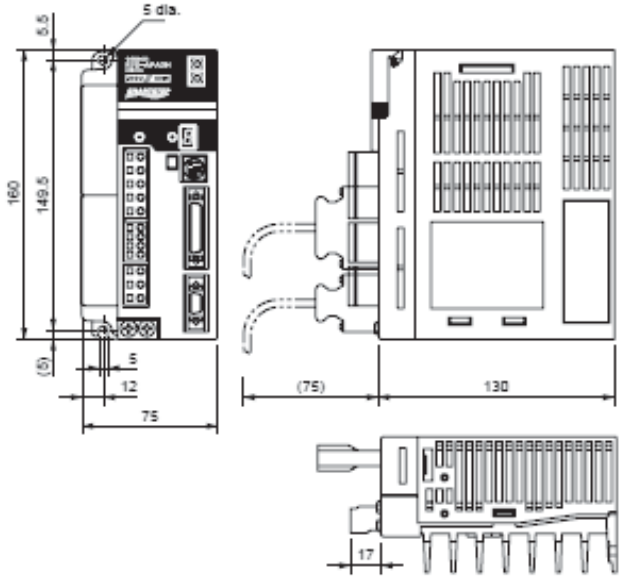
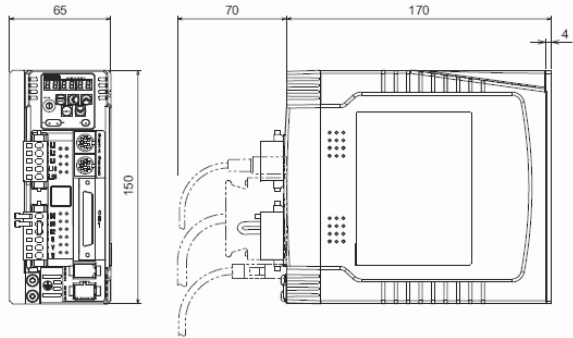
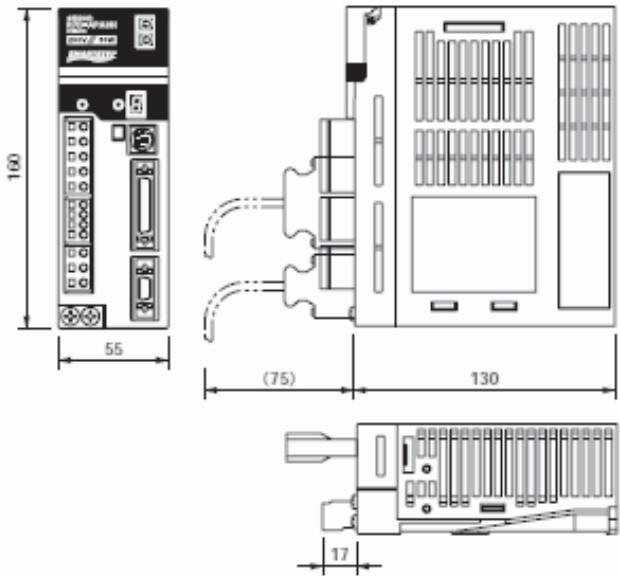
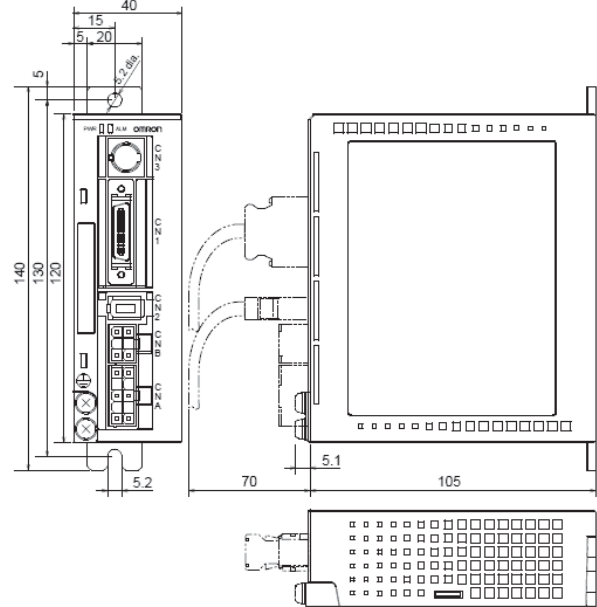
R7D-BPA5L/-BP01L/
-BP01H



R7D-BP02L



Dimensions

Product discontinuation	Recommendable replacement
<p data-bbox="244 360 395 389">R7D-AP04L</p> 	<p data-bbox="922 360 1090 389">R88D-GT04L</p> 
<p data-bbox="244 1070 395 1099">R7D-AP02H</p> 	<p data-bbox="922 1070 1090 1099">R7D-BP02HH</p> 

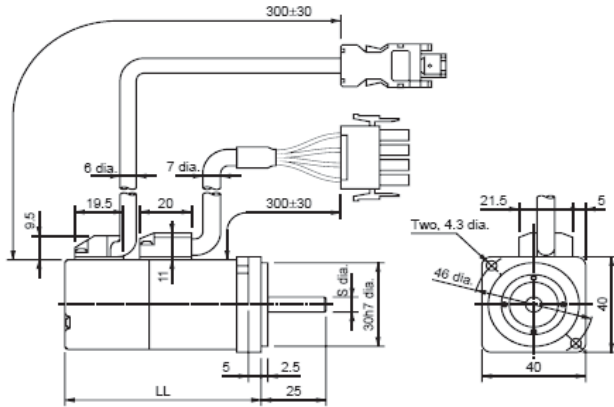
Dimensions

Product discontinuation	Recommendable replacement
<p>R7D-AP04H</p> <p>Technical drawings of the R7D-AP04H unit. The front view shows a height of 160 and a main body height of 149.5. A 5.5 diameter hole is located at the top. The bottom panel is 75 wide and 12 high, with a 5mm offset. The side view shows a depth of 75. The rear view shows a total width of 130 and a depth of 17.</p>	<p>R7D-BP04H</p> <p>Technical drawings of the R7D-BP04H unit. The front view shows a top width of 40, with 15 and 5.2 segments. The main height is 140, with 130 and 120 segments. The side view shows a depth of 70. The rear view shows a total width of 105 and a depth of 5.1.</p>
<p>R7D-AP08H</p> <p>Technical drawings of the R7D-AP08H unit. The front view shows a height of 160 and a main body height of 149.5. A 5.5 diameter hole is located at the top. The bottom panel is 90 wide and 17 high. The side view shows a depth of 75. The rear view shows a total width of 180 and a depth of 17.</p>	<p>R88D-GT08H</p> <p>Technical drawings of the R88D-GT08H unit. The front view shows a top width of 65 and a height of 150. The side view shows a depth of 70. The rear view shows a total width of 170 and a depth of 4.</p>

Dimensions

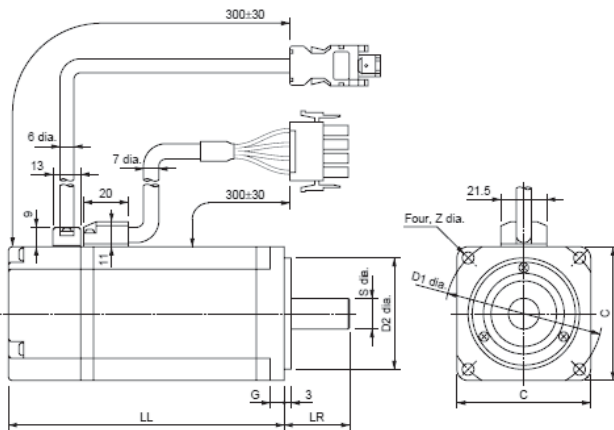
Product discontinuation

R7M-A03030/-A05030/-A10030



Model	Dimensions (mm)				
	LL	S	b	h	t1
R7M-A03030-□	69.5	6h6	2	2	1.2
R7M-A05030-□	77	6h6	2	2	1.2
R7M-A10030-□	94.5	8h6	3	3	1.8

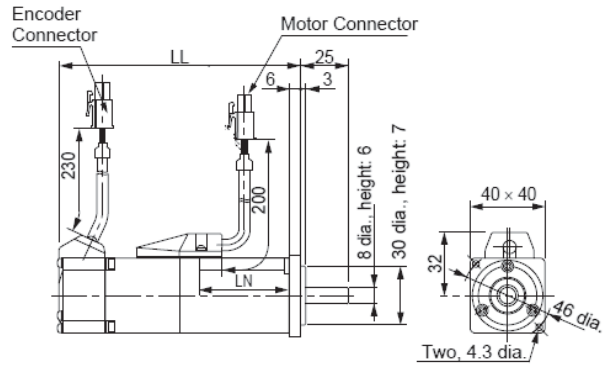
R7M-A20030/-A40030/-A75030



Model	Dimensions (mm)								
	LL	LR	C	D1	D2	G	Z	S	QK
R7M-A20030-□	96.5	30	60	70	50h7	6	5.5	14h6	20
R7M-A40030-□	124.5	30	60	70	50h7	6	5.5	14h6	20
R7M-A75030-□	145	40	80	90	70h7	8	7	16h6	30

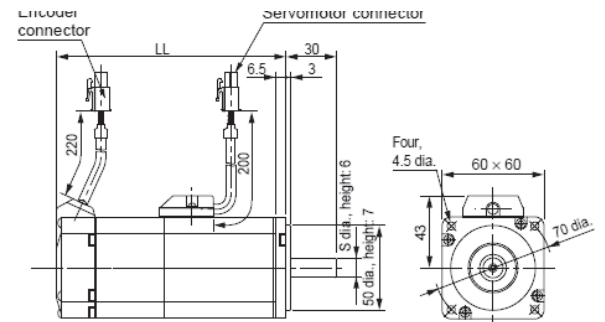
Recommendable replacement

R88M-G05030H/-G10030□



Model	LL	LN
	(mm)	(mm)
R88M-G05030H	72	26.5
R88M-G10030□*2	92	46.5

R88M-G20030□/-G40030□/-G75030H

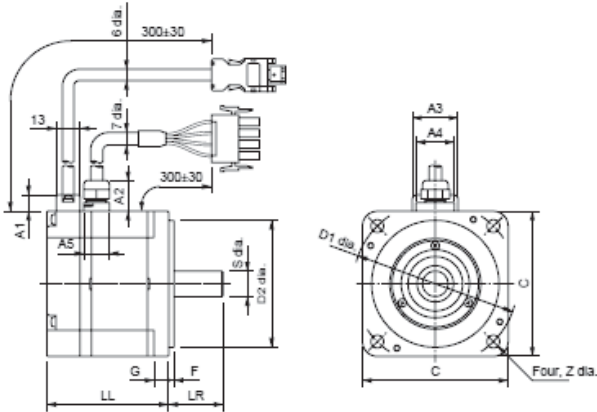


Model	Dimensions (mm)														
	LL	LR	S	D1	D2	C	G	KL1	Z	QK	b	h	M	t1	L
R88M-G20030□	79.5	30	11	70	50	60	6.5	43	4.5	18	4h9	4	M4	2.5	8
R88M-G40030□	99	30	14	70	50	60	6.5	43	4.5	22.5	5h9	5	M5	3	10
R88M-G75030□	112.2	35	19	90	70	80	8	53	6	22	6h9	6	M5	3.5	10

Dimensions

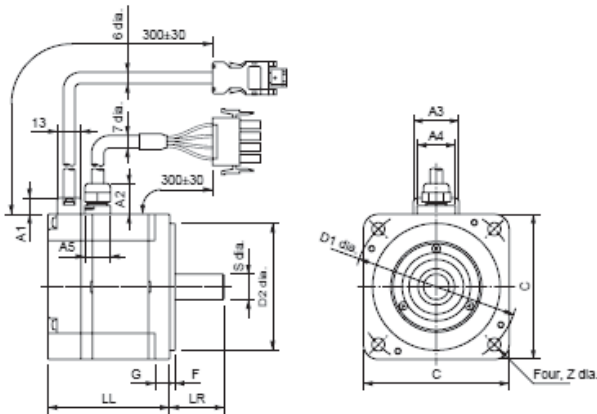
Product discontinuation

R7M-AP10030/-AP20030/-AP40030



Model	Dimensions (mm)																	
	Basic servomotor dimensions										With key (shaft end dimensions)			Cable outlet dimensions				
	LL	LR	C	D1	D2	F	G	Z	S	OK	b	h	t1	A1	A2	A3	A4	A5
R7M-AP10030-□	62	25	60	70	50h7	3	6	5.5	8h6	14	3	3	1.8	9	18	25	21	14
R7M-AP20030-□	67	30	80	90	70h7	3	8	7	14h6	16	5	5	3					
R7M-AP40030-□	87																	

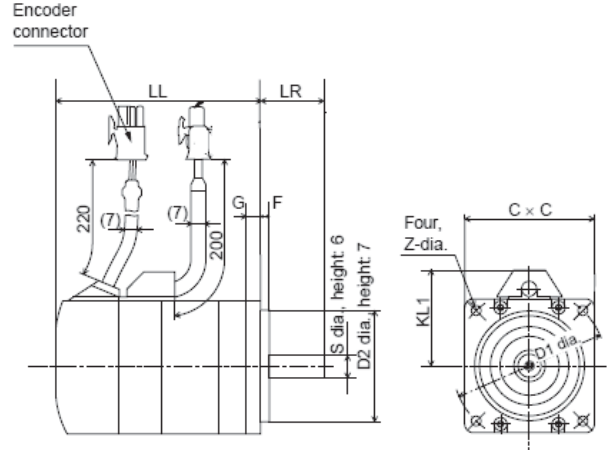
R7M-AP75030



Model	Dimensions (mm)																	
	Basic servomotor dimensions										With key (shaft end dimensions)			Cable outlet dimensions				
	LL	LR	C	D1	D2	F	G	Z	S	OK	b	h	t1	A1	A2	A3	A4	A5
R7M-AP75030-□	86.5	40	120	145	110h7	3.5	10	10	16h6	22	5	5	3	9	28	25	38	19

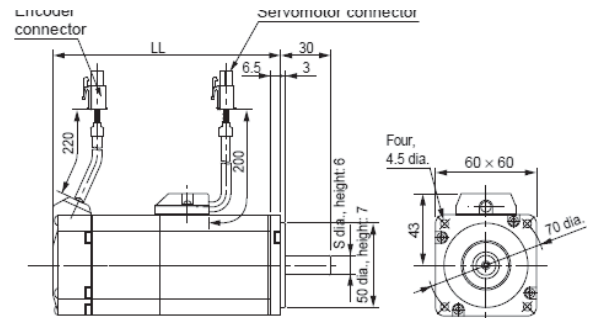
Recommendable replacement

R88M-GP10030□/-GP20030□/-GP40030□



Model	LL	LR	S	D1	D2	C	F	G
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
R88M-GP10030□	60.5	25	8	70	50	60	3	7
R88M-GP20030□	67.5	30	11	90	70	80	5	8
R88M-GP40030□	82.5	30	14	90	70	80	5	8

R88M-G75030H



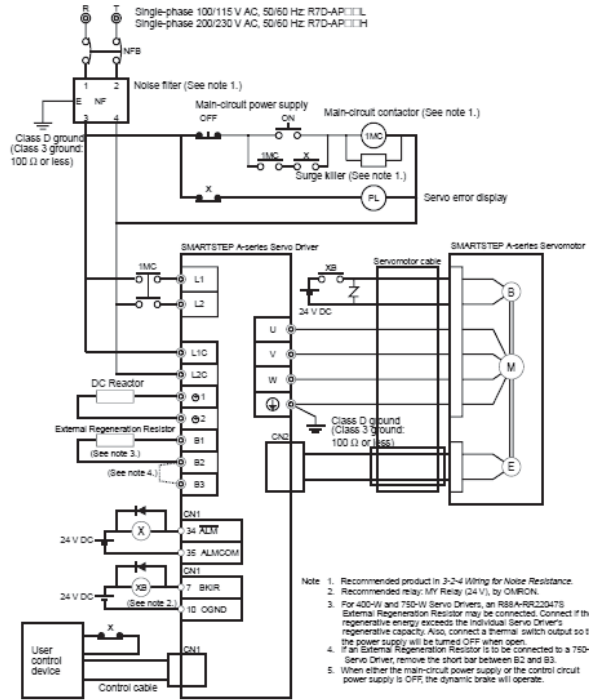
Model	Dimensions (mm)														
	LL	LR	S	D1	D2	C	G	KL1	Z	OK	b	h	M	t1	L
R88M-G75030□	112.2	35	19	90	70	80	8	53	6	22	6h9	6	M5	3.5	10

Wire Connection

Product discontinuation

Connecting to Peripheral Device

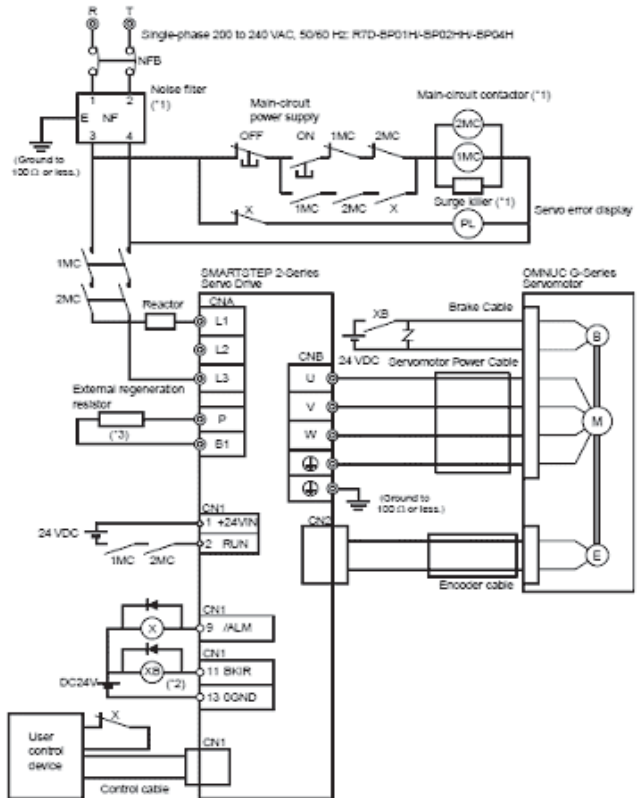
R7D-APA3L/-APA5L/-AP01L/-AP02L
-APA3H/-APA5H/-AP01H/-AP02H/-AP04H



Recommendable replacement

Connecting to Peripheral Device

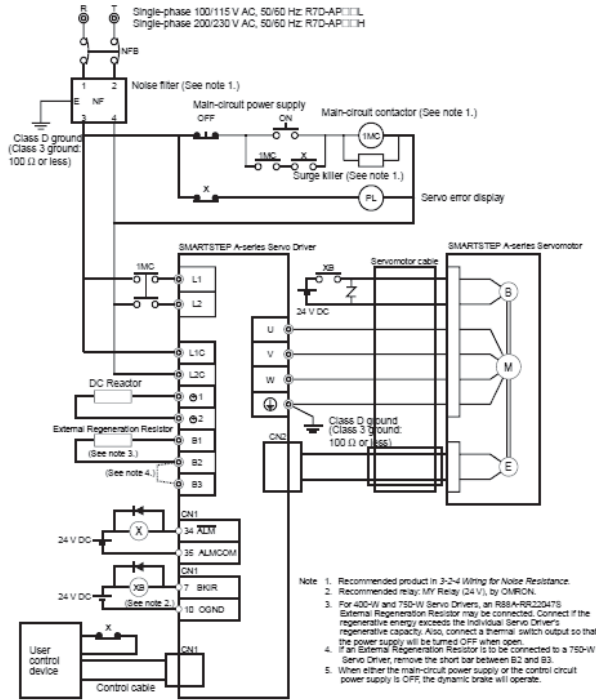
R7D-BPA5L/-BP01L/-BP02L/
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Wire Connection

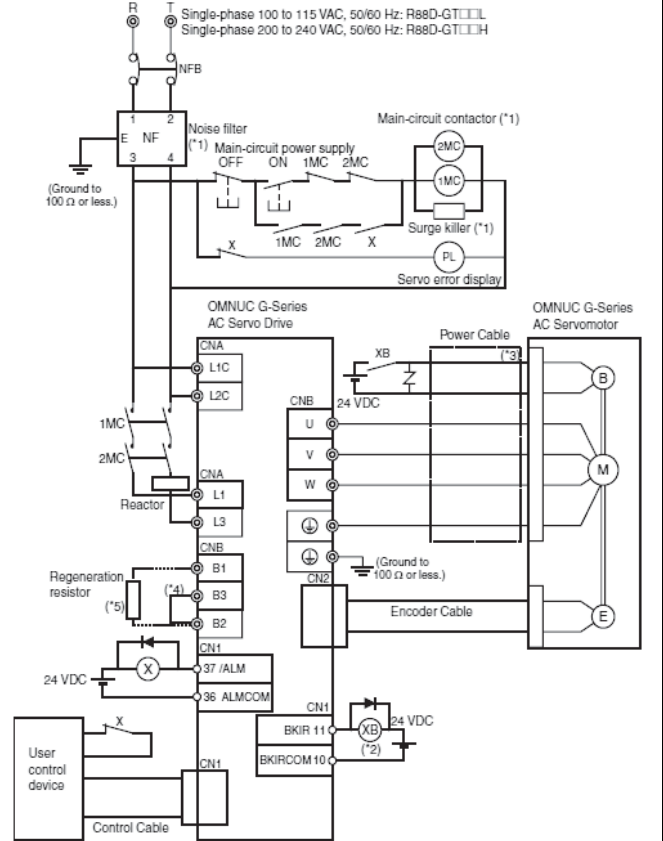
Product discontinuation

Connecting to Peripheral Device R7D-AP04L/-AP08H Single-phase input

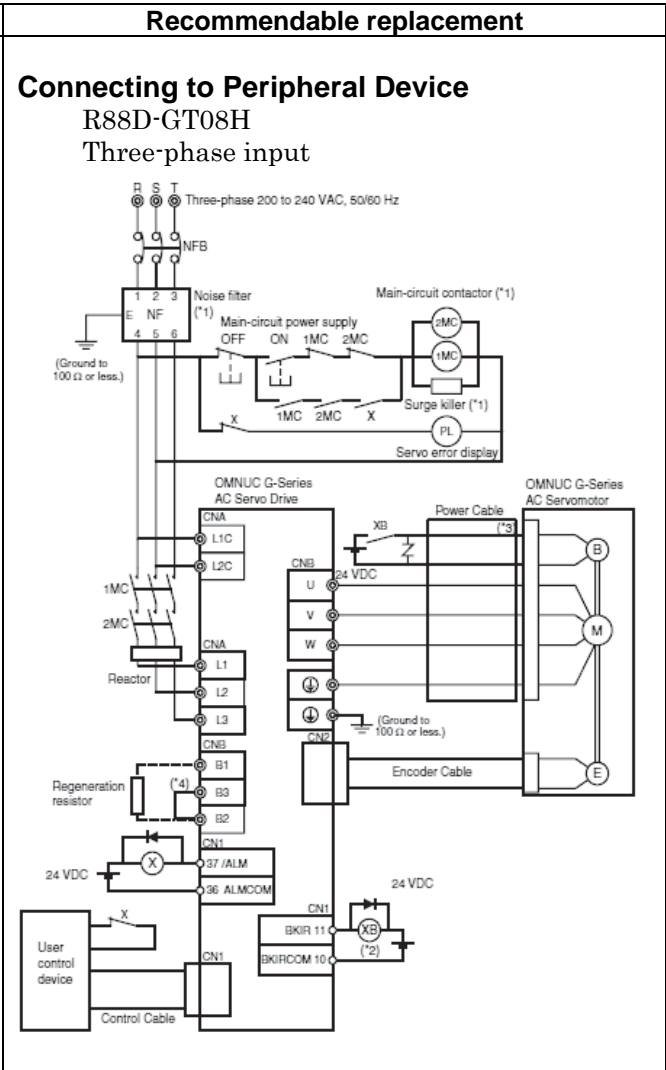
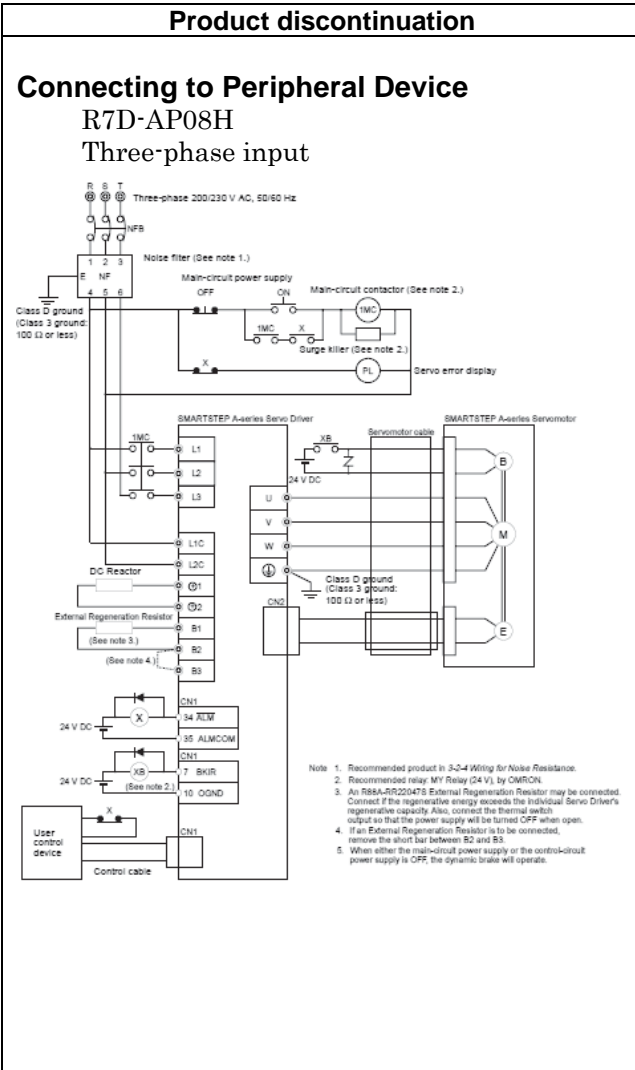


Recommendable replacement

Connecting to Peripheral Device R88D-GT04L/-GT08H Single-phase input



Wire Connection



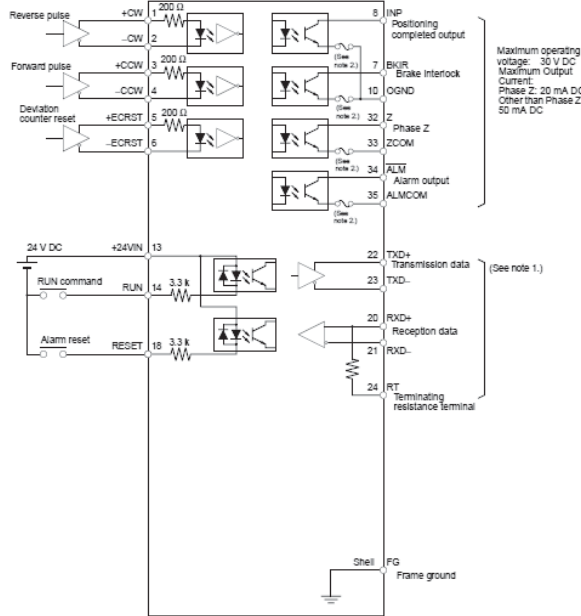
Wire Connection

Product discontinuation	Recommendable replacement
<p>Control I/O Signal Connections and External Signal Processing. R7D-APA3L/-APA5L/-AP01L/-AP02L -APA3H/-APA5H/-AP01H/-AP02H/-AP04H</p> <p>Maximum operating voltage: 30 V DC Maximum Output Current: Phase Z: 20 mA DC Other than Phase Z: 50 mA DC</p> <p>(See note 1.)</p> <p>Shell FG Frame ground</p> <p>Note 1. Interface for RS-422: • Applicable line driver: T.I. SN75174, MC3487 or equivalent • Applicable line receiver: T.I. SN75175, MC3486 or equivalent</p> <p>Note 2. Automatic-reset fuses are used for output protection. If overcurrent causes the fuse to operate, current will not flow, and after a fixed period of time it will automatically reset.</p>	<p>Control I/O Signal Connections and External Signal Processing. R7D-BPA5L/-BP01L/-BP02L/ -BP01H/-BP02HH/-BP04H</p> <p>Maximum operating voltage: 30 VDC Maximum Output Current: 50 mA DC</p> <p>Line driver output Conforms to EIA RS-422A (Load resistance: 220 Ω min.)</p> <p>Shell, 26 FG Frame ground</p>

Wire Connection

Product discontinuation

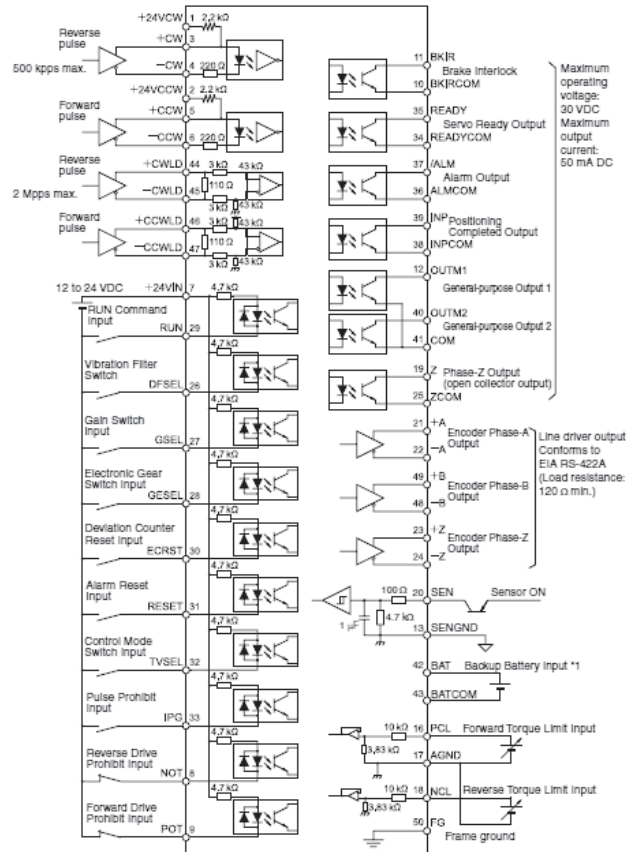
Connecting to Peripheral Device R7D-AP04L/-AP08H



- Note 1. Interface for RS-422:
- Applicable line driver: T.I. SN75174, MC3487 or equivalent
 - Applicable line receiver: T.I. SN75175, MC3486 or equivalent
- Note 2. Automatic-reset fuses are used for output protection. If overcurrent causes the fuse to operate, current will not flow, and after a fixed period of time it will automatically reset.

Recommendable replacement

Connecting to Peripheral Device R88D-GT04L/-GT08H



Characteristics

Product discontinuation	Recommendable replacement																												
<p>R7D-AP[]L Input power supply voltage: Main circuit power supply voltage: Single-phase 100 to 115VAC, 50/60Hz Control circuit power supply voltage: Single-phase 100 to 115VAC, 50/60Hz</p> <p>R7D-APA3H/-APA5H/ -AP01H/-AP02H/-AP04H Input power supply voltage: Main circuit power supply voltage: Single-phase 200 to 230VAC, 50/60Hz Control circuit power supply voltage: Single-phase 200 to 230VAC, 50/60Hz</p> <p>R7D-AP08H Input power supply voltage: Main circuit power supply voltage: Single-phase and three-phase 200 to 230VAC, 50/60Hz Control circuit power supply voltage: Single-phase 200 to 230VAC, 50/60Hz</p> <p>R7D-AP[]</p> <table border="1"> <thead> <tr> <th>Item</th> <th>Specifications</th> </tr> </thead> <tbody> <tr> <td>Ambient operating temperature</td> <td>0 to 55°C</td> </tr> <tr> <td>Ambient operating humidity</td> <td>90% max. (with no condensation)</td> </tr> <tr> <td>Ambient storage temperature</td> <td>-20 to 85°C</td> </tr> <tr> <td>Ambient storage humidity</td> <td>90% max. (with no condensation)</td> </tr> <tr> <td>Insulation resistance</td> <td>Between power line terminals and case: 0.5 MΩ min. (at 500 V DC)</td> </tr> <tr> <td>Dielectric strength</td> <td>Between power line terminals and case: 1,500 V AC for 1 min at 50/60 Hz Between each control signal and case: 500 V AC for 1 min</td> </tr> </tbody> </table>	Item	Specifications	Ambient operating temperature	0 to 55°C	Ambient operating humidity	90% max. (with no condensation)	Ambient storage temperature	-20 to 85°C	Ambient storage humidity	90% max. (with no condensation)	Insulation resistance	Between power line terminals and case: 0.5 MΩ min. (at 500 V DC)	Dielectric strength	Between power line terminals and case: 1,500 V AC for 1 min at 50/60 Hz Between each control signal and case: 500 V AC for 1 min	<p>R7D-BPA5L/-BP01L/-BP02L Input power supply voltage: Single-phase 100 to 115VAC, 50/60Hz</p> <p>R88D-GT04L Main circuit power supply voltage: Single-phase 100 to 115VAC, 50/60Hz Control circuit power supply voltage: Single-phase 100 to 115VAC, 50/60Hz</p> <p>R7D-BP01H/-BP02H/-BP04H Input power supply voltage: Single-phase 200 to 240VAC, 50/60Hz</p> <p>R88D-GT08H Main circuit power supply voltage: Both single-phase and three-phase 200 to 240VAC, 50/60Hz Control circuit power supply voltage: Single-phase 200 to 240VAC, 50/60Hz</p> <p>R7D-BP[]/ R88D-GT[]</p> <table border="1"> <thead> <tr> <th>Item</th> <th>Specifications</th> </tr> </thead> <tbody> <tr> <td>Ambient operating temperature</td> <td>0 to 55°C, 90% RH max. (with no condensation)</td> </tr> <tr> <td>Ambient operating humidity</td> <td></td> </tr> <tr> <td>Ambient storage temperature</td> <td>-20 to 85°C, 90% RH max. (with no condensation)</td> </tr> <tr> <td>Ambient storage humidity</td> <td></td> </tr> <tr> <td>Insulation resistance</td> <td>Between power supply/power line terminals and frame ground: 0.5 MΩ min. (at 500 VDC)</td> </tr> <tr> <td>Dielectric strength</td> <td>Between power supply/power line terminals and frame ground: 1,500 VAC for 1 min at 50/60 Hz Between each control signal and frame ground: 500 VAC for 1 min</td> </tr> </tbody> </table>	Item	Specifications	Ambient operating temperature	0 to 55°C, 90% RH max. (with no condensation)	Ambient operating humidity		Ambient storage temperature	-20 to 85°C, 90% RH max. (with no condensation)	Ambient storage humidity		Insulation resistance	Between power supply/power line terminals and frame ground: 0.5 MΩ min. (at 500 VDC)	Dielectric strength	Between power supply/power line terminals and frame ground: 1,500 VAC for 1 min at 50/60 Hz Between each control signal and frame ground: 500 VAC for 1 min
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Operation ratings

Product discontinuation	Recommendable replacement
<p>Maximum response frequency for command pulse R7D-AP[] : 250kpps</p>	<p>Maximum response frequency for command pulse R7D-BP[] : 500kpps</p> <p>R88D-GT08H Line Driver input : 2Mpps Open-collector input : 500kpps</p>

Combination Servo Driver and Servomotor

Input power voltage	Product discontinuation			Recommended replacement		
	Wattage	Servo Driver R7D	Servomotor R7M	Wattage	Servo Driver	Servomotor R88M
100 to 115VAC	30W	-APA3L	-A03030*	50W	R7D-BPA5L	-G05030H*
	50W	-APA5L	-A05030*	50W	R7D-BPA5L	-G05030H*
	100W	-AP01L	-A10030*	100W	R7D-BP01L	-G10030L*
	200W	-AP02L	-A20030*	200W	R7D-BP02L	-G20030L*
	400W	-AP04L	-A40030*	400W	R88D-GT04L	-G40030L*
	100W	-AP01L	-AP10030*	100W	R7D-BP01L	-GP10030L*
	200W	-AP02L	-AP20030*	200W	R7D-BP02L	-GP20030L*
200 to 230VAC	30W	-APA3H	-A03030*	50W	R7D-BP01H	-G05030H*
	50W	-APA5H	-A05030*	50W	R7D-BP01H	-G05030H*
	100W	-AP01H	-A10030*	100W	R7D-BP01H	-G10030H*
	200W	-AP02H	-A20030*	200W	R7D-BP02HH	-G20030H*
	400W	-AP04H	-A40030*	400W	R7D-BP04H	-G40030H*
	750W	-AP08H	-A75030*	750W	R88D-GT08H	-G75030H*
	100W	-AP01H	-AP10030*	100W	R7D-BP01H	-GP10030H*
	200W	-AP02H	-AP20030*	200W	R7D-BP02HH	-GP20030H*
	400W	-AP04H	-AP40030*	400W	R7D-BP04H	-GP40030H*
	750W	-AP08H	-AP75030*	750W	R88D-GT08H	-G75030H*

' * ' mark added the servomotor model express shaft end specification and brake option.

Detail information is described in the list of discontinuation model on end of this sheet.

Product discontinuation Servomotor	Recommended replacement Servomotor	Applicable load Inertia (kg· m ²)		Rated torque (N· m)		Momentary maximum torque (N· m)	
		R7M-A	R88M-G	R7M-A	R88M-G	R7M-A	R88M-G
R7M-A03030	R88M-G05030H	5.10 E-05	1.90 E-04	0.095	0.16	0.29	0.48
R7M-A05030	R88M-G05030H	6.60 E-05	1.90 E-04	0.159	0.16	0.48	0.48
R7M-A10030	R88M-G10030[]	1.08 E-04	1.53 E-04	0.318	0.32	0.96	0.95
R7M-A20030	R88M-G20030[]	3.57 E-04	4.20 E-04	0.637	0.64	1.91	1.78
R7M-A40030	R88M-G40030[]	5.61 E-04	7.80 E-04	1.27	1.3	3.82	3.60
R7M-A75030	R88M-G75030H	1.33 E-03	1.74 E-03	2.39	2.4	7.1	7.05
R7M-AP10030	R88M-GP10030L	1.63 E-04	1.80 E-04	0.318	0.32	0.96	0.85
R7M-AP20030	R88M-GP20030L	3.14 E-04	6.80 E-04	0.637	0.64	1.91	1.86
R7M-AP40030	R88M-GP40030[]	5.21 E-04	1.28 E-03	1.27	1.3	3.82	3.60
R7M-AP10030	R88M-GP10030H	1.63 E-04	1.80 E-04	0.318	0.32	0.96	0.90
R7M-AP20030	R88M-GP20030H	3.14 E-04	6.80 E-04	0.637	0.64	1.91	1.82
R7M-AP75030	R88M-G75030H	2.11 E-03	1.74 E-03	2.39	2.4	7.1	7.05

*** List of the discontinuation model AC Servomotors / Drivers / Peripheral devices**

Servo Drivers : Date of discontinuation March, 2012

Series	Specification	Product Discontinuation
SMARTSTEP A series	100VAC	30W R7D-APA3L
		50W R7D-APA5L
		100W R7D-AP01L
		200W R7D-AP02L
		400W R7D-AP04L
	200VAC	30W R7D-APA3H
		50W R7D-APA5H
		100W R7D-AP01H
		200W R7D-AP02H
		400W R7D-AP04H
		750W R7D-AP08H

Servomotors : Date of discontinuation March, 2012

L enters for 100V and H enters for 200V into ' * ' mark of the recommended replacement.

Series	Specification			Product Discontinuation	Recommended replacement	
SMART STEP A series	Cylinder type motors	Without Key Straight shaft	Without Brake	30W	R7M-A03030	R88M-G05030H
				50W	R7M-A05030	R88M-G05030H
				100W	R7M-A10030	R88M-G10030*
				200W	R7M-A20030	R88M-G20030*
				400W	R7M-A40030	R88M-G40030*
				750W	R7M-A75030	R88M-G75030H
		With Key Straight shaft	Without Brake	30W	R7M-A03030-S1	R88M-G05030H-S2
				50W	R7M-A05030-S1	R88M-G05030H-S2
				100W	R7M-A10030-S1	R88M-G10030*-S2
				200W	R7M-A20030-S1	R88M-G20030*-S2
				400W	R7M-A40030-S1	R88M-G40030*-S2
				750W	R7M-A75030-S1	R88M-G75030H-S2
	Without Key Straight shaft	With Brake	30W	R7M-A03030-B	R88M-G05030H-B	
			50W	R7M-A05030-B	R88M-G05030H-B	
			100W	R7M-A10030-B	R88M-G10030*-B	
			200W	R7M-A20030-B	R88M-G20030*-B	
			400W	R7M-A40030-B	R88M-G40030*-B	
			750W	R7M-A75030-B	R88M-G75030H-B	
	With Key Straight shaft	With Brake	30W	R7M-A03030-BS1	R88M-G05030H-BS2	
			50W	R7M-A05030-BS1	R88M-G05030H-BS2	
			100W	R7M-A10030-BS1	R88M-G10030*-BS2	
			200W	R7M-A20030-BS1	R88M-G20030*-BS2	
			400W	R7M-A40030-BS1	R88M-G40030*-BS2	
			750W	R7M-A75030-BS1	R88M-G75030H-BS2	
	Flat type motors	Without Key Straight shaft	Without Brake	100W	R7M-AP10030	R88M-GP10030*
				200W	R7M-AP20030	R88M-GP20030*
				400W	R7M-AP40030	R88M-GP40030*
				750W	R7M-AP75030	R88M-G75030H
		With Key Straight shaft	Without Brake	100W	R7M-AP10030-S1	R88M-GP10030*-S2
				200W	R7M-AP20030-S1	R88M-GP20030*-S2
				400W	R7M-AP40030-S1	R88M-GP40030*-S2
				750W	R7M-AP75030-S1	R88M-G75030H-S2
Without Key Straight shaft		With Brake	100W	R7M-AP10030-B	R88M-GP10030*-B	
			200W	R7M-AP20030-B	R88M-GP20030*-B	
			400W	R7M-AP40030-B	R88M-GP40030*-B	
			750W	R7M-AP75030-B	R88M-G75030H-B	
With Key Straight shaft		With Brake	100W	R7M-AP10030-BS1	R88M-GP10030*-BS2	
			200W	R7M-AP20030-BS1	R88M-GP20030*-BS2	
			400W	R7M-AP40030-BS1	R88M-GP40030*-BS2	
			750W	R7M-AP75030-BS1	R88M-G75030H-BS2	

Peripheral devices

Date of discontinuation March, 2012

Product Name	Product Discontinuation
Parameter unit	R7A-PR02A

Date of discontinuation March, 2019

Product Name	Specification		Product Discontinuation
Encoder Cables	Separate Motor Cables	3m	R7A-CRA003C
		5m	R7A-CRA005C
		10m	R7A-CRA010C
		15m	R7A-CRA015C
		20m	R7A-CRA020C
Encoder Cables	Robot Cables	3m	R7A-CRA003CR
		5m	R7A-CRA005CR
		10m	R7A-CRA010CR
		15m	R7A-CRA015CR
		20m	R7A-CRA020CR
Computer Monitor Cable	For DOS/V		R7A-CCA002P2
Computer Monitor Cable	For PC-98		R7A-CCA002P3
Motor Cables (Integrated Encoder and Power Cable)	For Motors without Brakes	1m	R7A-CEA001S
		3m	R7A-CEA003S
		5m	R7A-CEA005S
		10m	R7A-CEA010S
		15m	R7A-CEA015S
		20m	R7A-CEA020S
	For Motors with Brakes	1m	R7A-CEA001B
		3m	R7A-CEA003B
		5m	R7A-CEA005B
		10m	R7A-CEA010B
		15m	R7A-CEA015B
		20m	R7A-CEA020B
Encoder connector (Motor side)			R7A-CNA02R

As of July 2012

In the interest of product improvement, specifications are subject to change without notice.