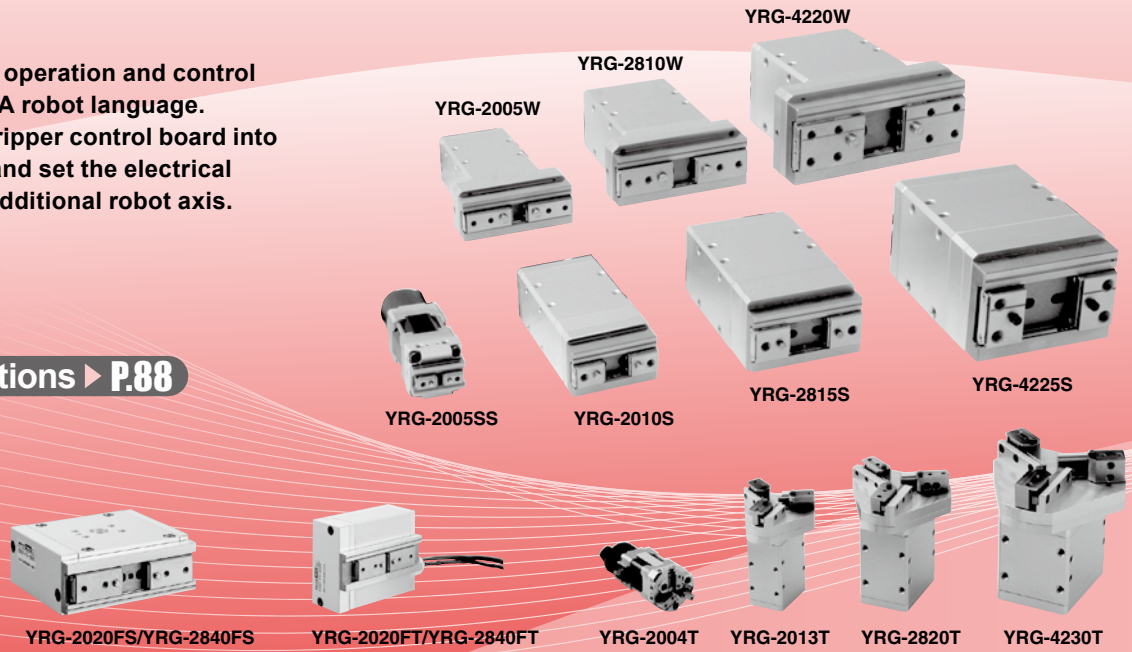


# YRG Series

Simple gripper operation and control via the YAMAHA robot language. Just install a gripper control board into the controller and set the electrical gripper as an additional robot axis.

Main functions ▶ P.88

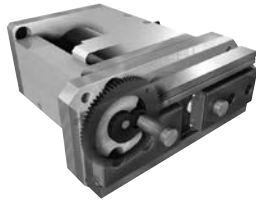


## Structure

- Single cam structure
- Double cam structure
- Ball screw structure
- Compact ball guide structure



Unique cam structure is simple and compact. The fingers work due to external force since no self-locking is used.



Unique double cam structure with gear. Simple design gives high gripping power yet body is compact.

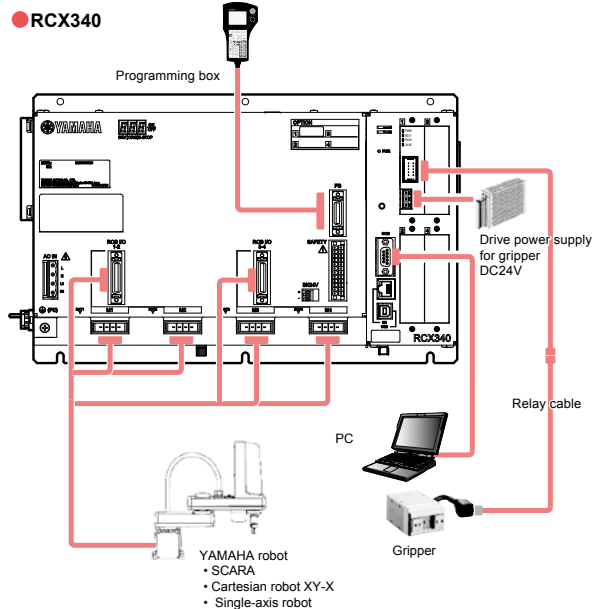
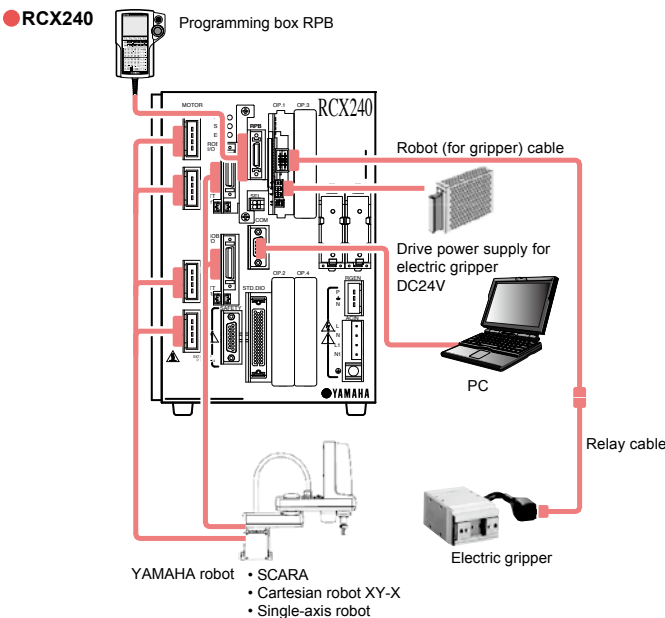


Belt-driven ground ball screw delivers a long stroke with high efficiency and high precision.



Use of special cams provides light weight and compactness. Ideal for grasping and moving a round workpiece made of glass or similar material.

## System configuration illustration



Compact single cam type

# YRG-2005SS



## Basic specifications

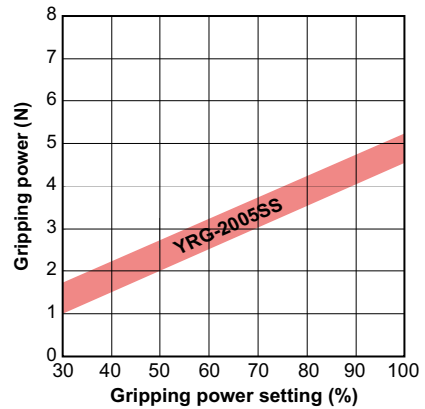
Model name		YRG-2005SS
Model number		KCF-M2010-A0
Holding power	Max. continuous rating (N)	5
	Min. setting (% (N))	30 (1.5)
	Resolution (% (N))	1 (0.05)
Open/close stroke (mm)		3.2
Speed	Max. rating (mm/sec)	100
	Min. setting (% (mm/sec))	20 (20)
	Resolution (% (mm/sec))	1 (1)
	Holding speed (Max.) (%)	50
Repetitive positioning accuracy (mm)		+/-0.02
Guide mechanism		Linear guide
Max. holding weight <sup>Note 1</sup> (kg)		0.05
Weight (g)		90

- Holding power control: 30 to 100% (1% steps)
- Speed control: 20 to 100% (1% steps)
- Acceleration control: 1 to 100% (1% steps)
- Multipoint position control: 10,000 max.

Note. Design the finger as short and lightweight as possible.  
 Note. Set the parameters and holding power (%) of the holding movement command so that any excessive shock is not applied to the finger during operation.  
 Note. When installing or uninstalling the finger, tighten the bolts while the finger is being held securely so that any excessive force or shock is not applied to the guide block.  
 Note. Workpiece weight that is able to be held may greatly vary depending on the material, shape, and/or holding surface conditions of the finger.

Note 1. Design the weight of a workpiece to be held so that it is approximately 1/10 to 1/20 of the holding power. (Consider further allowance when moving and swinging the gripper that keeps holding a workpiece.)

## Gripping power vs. gripping power setting (%)

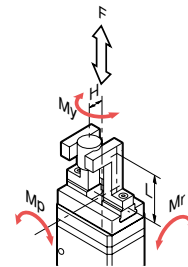


- Graph shows a general guide to gripping power versus gripping power setting (%). Variations will appear in the actual gripping power.

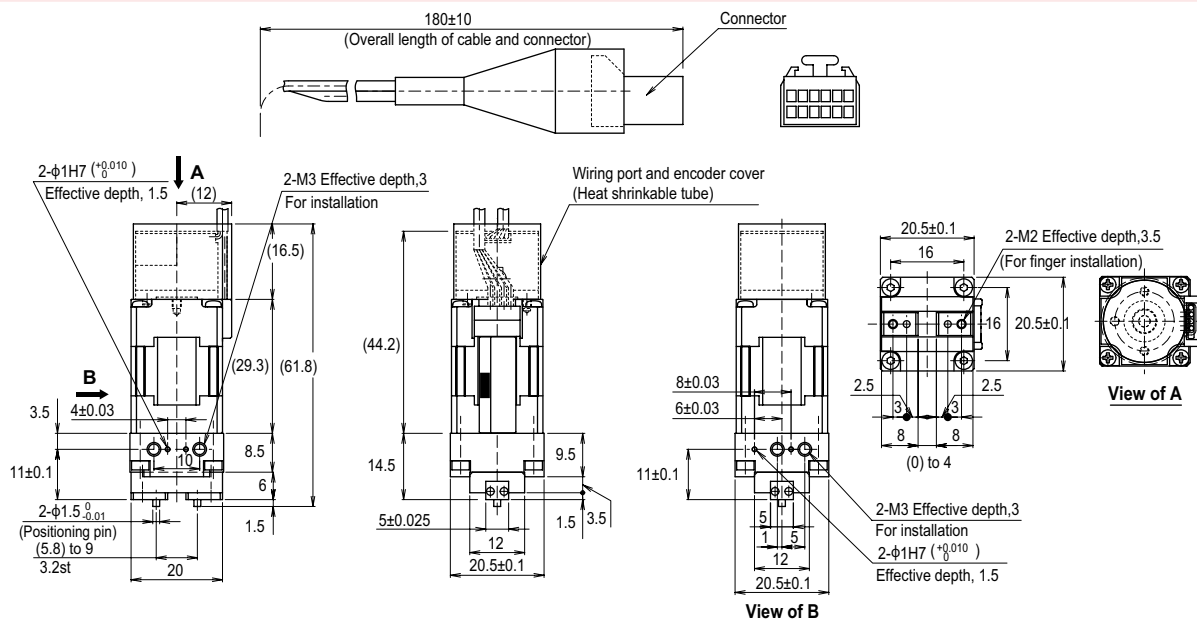
## Allowable load and load moment

		YRG-2005SS		
Guide	Allowable load	F	N	12
	Allowable pitching moment	Mp	N•m	0.04
	Allowable yawing moment	My	N•m	0.04
	Allowable rolling moment	Mr	N•m	0.08
Finger	Max. weight (1 pair)		g	10
	Max. holding position	L	mm	20
	Max. overhang	H	mm	20

- Mount the finger so that the allowable load and load moment of the guide do not exceed the values stated in the table above.
- Make the adjustment so that the finger weight, holding length (L) from the installation surface to the holding point, and overhang (H) do not exceed the values stated in the table above.
- Please contact your YAMAHA sales dealer for further information on combination of L and H.



## YRG-2005SS



Note. Avoid extreme winding of the cable and fix the cable securely so that it does not move. Take appropriate measures so that any excessive force is not applied to the root of the cable.

- Articulated robots YA
- Linear conveyer modules LCM100
- Compact single-axis robots TRANSEVO
- Single-axis robots FLIP-X
- Linear motor single-axis robots PHASER
- Cartesian robots XY-X
- SCARA robots YK-X
- Pick & place robots YP-X
- CLEAN
- CONTROLLER
- INFORMATION
- Robot positioner
- Pulse string driver
- Robot controller
- Electric gripper
- Option

# YRG Series

Single cam type

# YRG-2010S/2815S/4225S



## Basic specifications

Model name	YRG-2010S	YRG-2815S	YRG-4225S	
Model number	KCF-M2011-A0	KCF-M2011-B0	KCF-M2011-C0	
Holding power	Max. continuous rating (N)	6	22	40
	Min. setting (% (N))	30 (1.8)	30 (6.6)	30 (12)
	Resolution (% (N))	1 (0.06)	1 (0.22)	1 (0.4)
Open/close stroke (mm)		7.6	14.3	23.5
	Max. rating (mm/sec)	100		
	Min. setting (% (mm/sec))	20 (20)		
Speed	Resolution (% (mm/sec))	1 (1)		
	Holding speed (Max.) (%)	50		
	Repetitive positioning accuracy (mm)	+/-0.02		
Guide mechanism	Linear guide			
Max. holding weight <sup>Note 1</sup> (kg)	0.06	0.22	0.4	
Weight (g)	160	300	580	

- Holding power control: 30 to 100% (1% steps) • Speed control: 20 to 100% (1% steps)
- Acceleration control : 1 to 100% (1% steps) • Multipoint position control: 10,000 max.

Note. Design the finger as short and lightweight as possible.

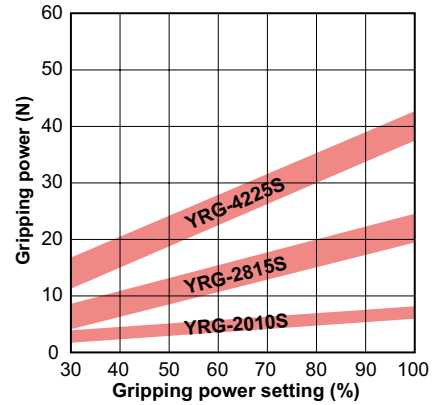
Note. Set the parameters and holding power (%) of the holding movement command so that any excessive shock is not applied to the finger during operation.

Note. When installing or uninstalling the finger, tighten the bolts while the finger is being held securely so that any excessive force or shock is not applied to the guide block.

Note. Workpiece weight that is able to be held may greatly vary depending on the material, shape, and/or holding surface conditions of the finger.

Note 1. Design the weight of a workpiece to be held so that it is approximately 1/10 to 1/20 of the holding power. (Consider further allowance when moving and swinging the gripper that keeps holding a workpiece.)

## Gripping power vs. gripping power setting (%)

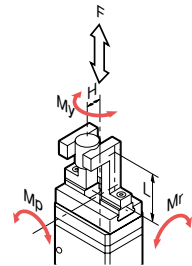


- Graph shows a general guide to gripping power versus gripping power setting (%). Variations will appear in the actual gripping power.

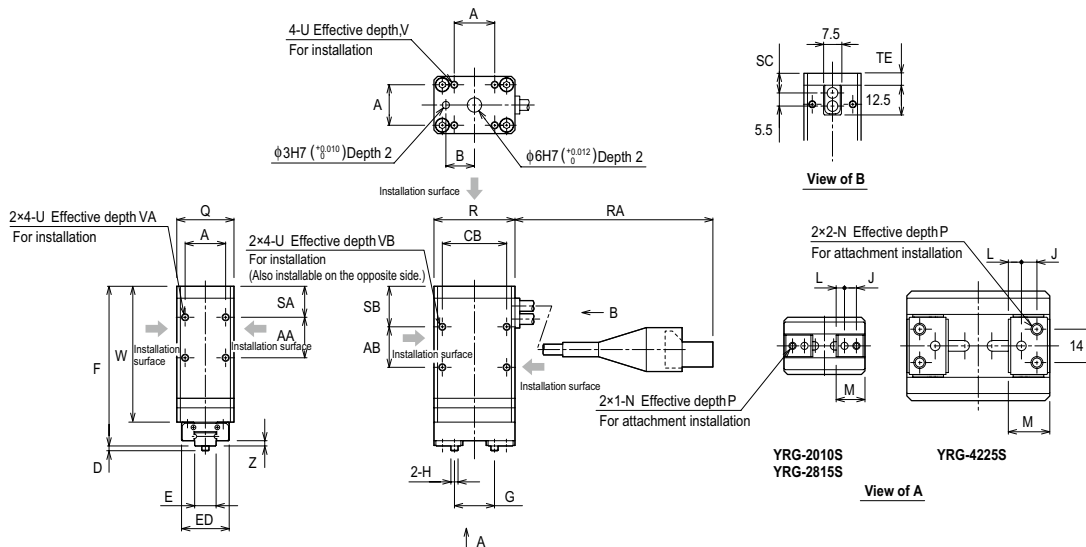
## Allowable load and load moment

			YRG-2010S	YRG-2815S	YRG-4225S
Guide	Allowable load	F N	450	350	600
	Allowable pitching moment	Mp N•m	0.7	0.5	1.1
	Allowable yawing moment	My N•m	0.8	0.6	1.3
	Allowable rolling moment	Mr N•m	2.3	2.8	8.6
Finger	Max. weight (1 pair)	g	15	30	50
	Max. holding position	L mm	20	20	25
	Max. overhang	H mm	20	25	30

- Mount the finger so that the allowable load and load moment of the guide do not exceed the values stated in the table above.
- Make the adjustment so that the finger weight, holding length (L) from the installation surface to the holding point, and overhang (H) do not exceed the values stated in the table above.
- Please contact your YAMAHA sales dealer for further information on combination of L and H.



## YRG-2010S/2815S/4225S



	A	AA	AB	B	CB	D	E	ED	F	G	H	J	L
YRG-2010S	17	17	17	12	27	2	9 <sup>0</sup> <sub>-0.05</sub>	20	71	8.4 to 16	φ3 <sup>0</sup> <sub>-0.01</sub>	5	3.5
YRG-2815S	24	24	14	15	38	2	14 <sup>0</sup> <sub>-0.05</sub>	25	78	9.6 to 23.9	φ3 <sup>0</sup> <sub>-0.01</sub>	6	4.3
YRG-4225S	36	25	13	20	50	3	24 <sup>0</sup> <sub>-0.05</sub>	40	86	12 to 35.5	φ4 <sup>0</sup> <sub>-0.012</sub>	6.5	5.5

	M	N	P	Q	R	RA	SA	SB	SC	TE	U	V	VA	VB	W	Z
YRG-2010S	12.1	M3	5	24	34	165+/-10	13	17	8.3	5	M3	5	6	6	61	2.2
YRG-2815S	15	M4	5	32	46	140+/-10	16	21	9.3	6	M4	6	8	8	69	2
YRG-4225S	17.4	M5	8	46	60	235+/-10	18	24	10.8	7.5	M5	7.5	8	10	72	3

Double cam type

# YRG-2005W/2810W/4220W



## Basic specifications

Model name	YRG-2005W	YRG-2810W	YRG-4220W	
Model number	KCF-M2012-A0	KCF-M2012-B0	KCF-M2012-C0	
Holding power	Max. continuous rating (N)	50	150	250
	Min. setting (% (N))	30 (15)	30 (45)	30 (75)
	Resolution (% (N))	1 (0.5)	1 (1.5)	1 (2.5)
Open/close stroke (mm)	5	10	19.3	
Speed	Max. rating (mm/sec)	60	60	45
	Min. setting (% (mm/sec))	20 (12)	20 (12)	20 (9)
	Resolution (% (mm/sec))	1 (0.6)	1 (0.7)	1 (0.45)
	Holding speed (Max.) (%)	50		
Repetitive positioning accuracy (mm)	±0.03			
Guide mechanism	Linear guide			
Max. holding weight <sup>Note 1</sup> (kg)	0.5	1.5	2.5	
Weight (g)	200	350	800	

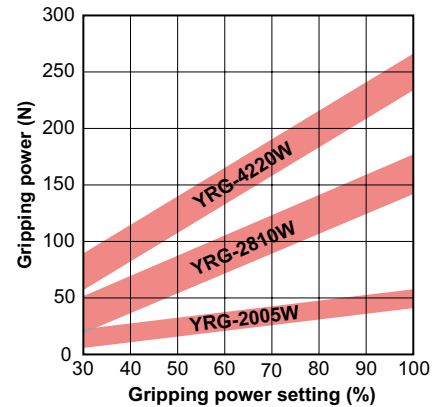
- Holding power control: 30 to 100% (1% steps)
- Speed control: 20 to 100% (1% steps)
- Acceleration control: 1 to 100% (1% steps)
- Multipoint position control: 10,000 max.

Note. Design the finger as short and lightweight as possible.  
 Note. Set the parameters and holding power (%) of the holding movement command so that any excessive shock is not applied to the finger during operation.

Note. When installing or uninstalling the finger, tighten the bolts while the finger is being held securely so that any excessive force or shock is not applied to the guide block.  
 Note. Workpiece weight that is able to be held may greatly vary depending on the material, shape, and/or holding surface conditions of the finger.

Note 1. Design the weight of a workpiece to be held so that it is approximately 1/10 to 1/20 of the holding power. (Consider further allowance when moving and swinging the gripper that keeps holding a workpiece.)

## Gripping power vs. gripping power setting (%)

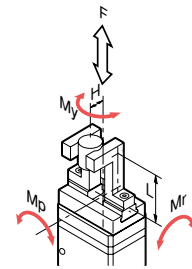


- Graph shows a general guide to gripping power versus gripping power setting (%). Variations will appear in the actual gripping power.

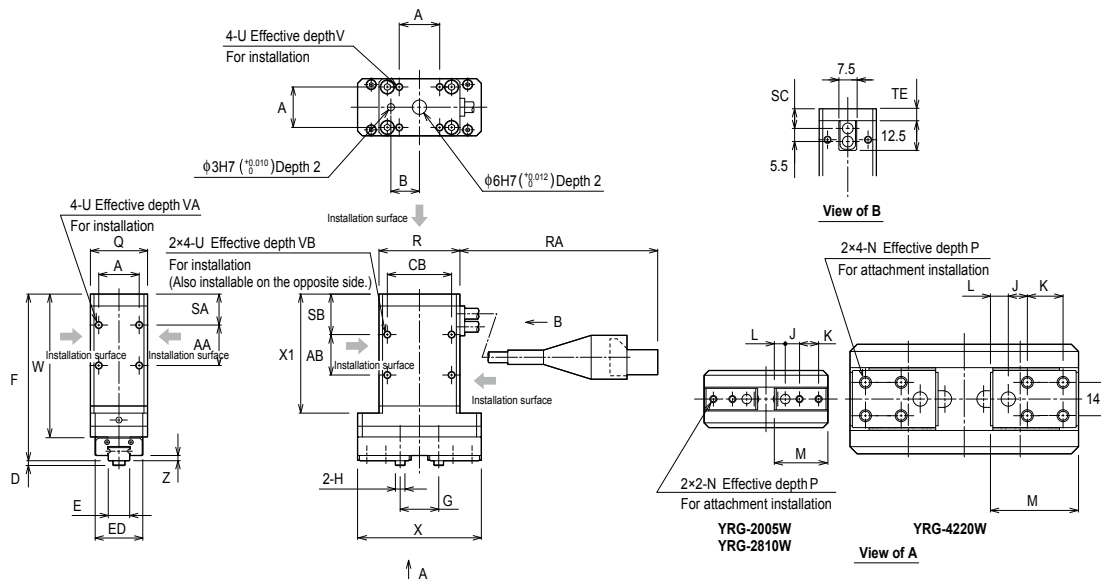
## Allowable load and load moment

Guide	Allowable load			YRG-2005W	YRG-2810W	YRG-4220W
		F	N	1000	1000	2000
Guide	Allowable pitching moment	Mp	N·m	6.7	8.1	20.1
	Allowable yawing moment	My	N·m	4	4.8	12
	Allowable rolling moment	Mr	N·m	5.1	7.8	25.9
	Max. weight (1 pair)		g	40	80	200
Finger	Max. holding position	L	mm	30	30	50
	Max. overhang	H	mm	20	20	30

- Mount the finger so that the allowable load and load moment of the guide do not exceed the values stated in the table above.
- Make the adjustment so that the finger weight, holding length (L) from the installation surface to the holding point, and overhang (H) do not exceed the values stated in the table above.
- Please contact your YAMAHA sales dealer for further information on combination of L and H.



## YRG-2005W/2810W/4220W



	A	AA	AB	B	CB	D	E	ED	F	G	H	J	K	L
YRG-2005W	17	17	17	12	27	2	9 <sup>0</sup> / <sub>-0.05</sub>	20	74	10.6 to 15.6	φ4 <sup>0</sup> / <sub>-0.012</sub>	6	8	4.6
YRG-2810W	24	24	14	15	38	2	14 <sup>0</sup> / <sub>-0.05</sub>	25	80	12.6 to 22.6	φ5 <sup>0</sup> / <sub>-0.012</sub>	7	10	5.65
YRG-4220W	36	25	13	20	50	3	24 <sup>0</sup> / <sub>-0.05</sub>	40	90	17.0 to 36.3	φ6 <sup>0</sup> / <sub>-0.012</sub>	8	15	7.5

	M	N	P	Q	R	RA	SA	SB	SC	TE	U	V	VA	VB	W	X	X1	Z
YRG-2005W	22.5	M3	5	24	34	165±/10	13	17	8.3	5	M3	5	6	6	64	52	54	2.2
YRG-2810W	27.5	M4	5	32	46	140±/10	16	21	9.3	6	M4	6	8	8	71	67	61	2
YRG-4220W	37	M5	8	46	60	235±/10	18	24	10.8	7.5	M5	7.5	8	10	76	96	63	3

# YRG Series

Screw type straight style

# YRG-2020FS/2840FS



## Basic specifications

Model name	YRG-2020FS	YRG-2840FS
Model number	KCF-M2013-A0	KCF-M2013-B0
Holding power	Max. continuous rating (N)	50
	Min. setting (% (N))	30 (15)
	Resolution (% (N))	1 (0.5)
Speed	Open/close stroke (mm)	19
	Max. rating (mm/sec)	50
	Min. setting (% (mm/sec))	20 (10)
	Resolution (% (mm/sec))	1 (0.5)
	Holding speed (Max.) (%)	50
Repetitive positioning accuracy (mm)	+/-0.01	+/-0.01
Guide mechanism	Linear guide	
Max. holding weight <sup>Note 1</sup> (kg)	0.5	1.5
Weight (g)	420	880

- Holding power control : 30 to 100% (1% steps)
- Speed control : 20 to 100% (1% steps)
- Acceleration control : 1 to 100% (1% steps)
- Multipoint position control : 10,000 max.

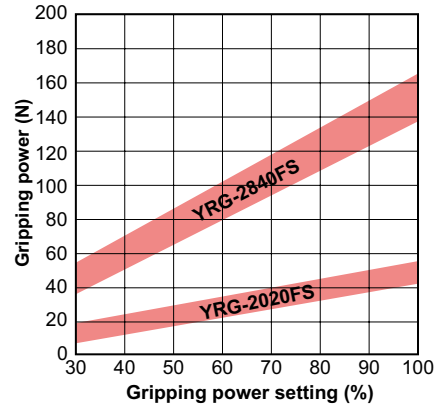
Note. Design the finger as short and lightweight as possible. Set the parameters and holding power (%) of the holding movement command so that any excessive shock is not applied to the finger during operation.

Note. When installing or uninstalling the finger, tighten the bolts while the finger is being held securely so that any excessive force or shock is not applied to the guide block.

Note. Workpiece weight that is able to be held may greatly vary depending on the material, shape, and/or holding surface conditions of the finger.

Note 1. Design the weight of a workpiece to be held so that it is approximately 1/10 to 1/20 of the holding power. (Consider further allowance when moving and swinging the gripper that keeps holding a workpiece.)

## Gripping power vs. gripping power setting (%)

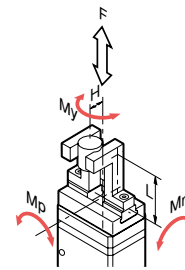


- Graph shows a general guide to gripping power versus gripping power setting (%). Variations will appear in the actual gripping power.

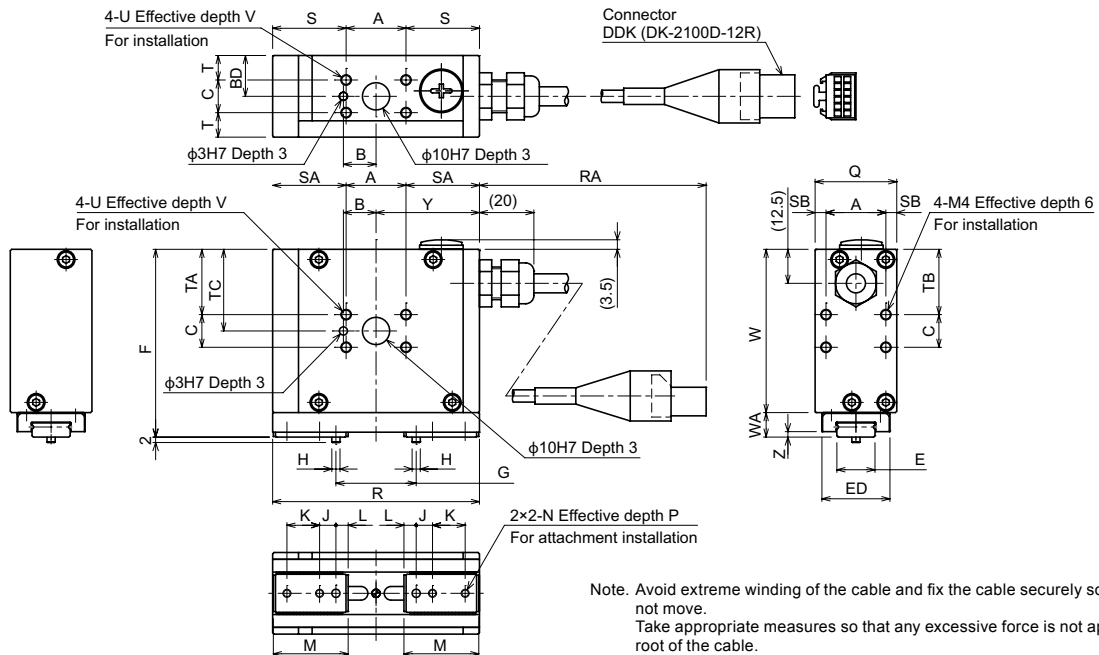
## Allowable load and load moment

			YRG-2020FS	YRG-2840FS
Guide	Allowable load	F N	1000	1300
	Allowable pitching moment	Mp N·m	3.5	5
	Allowable yawing moment	My N·m	4.2	6
	Allowable rolling moment	Mr N·m	7.3	12.7
Finger	Max. weight (1 pair)	g	40	80
	Max. holding position	L mm	30	30
	Max. overhang	H mm	20	20

- Mount the finger so that the allowable load and load moment of the guide do not exceed the values stated in the table above.
- Make the adjustment so that the finger weight, holding length (L) from the installation surface to the holding point, and overhang (H) do not exceed the values stated in the table above.
- Please contact your YAMAHA sales dealer for further information on combination of L and H.



## YRG-2020FS/2840FS



Note. Avoid extreme winding of the cable and fix the cable securely so that it does not move. Take appropriate measures so that any excessive force is not applied to the root of the cable.

	A	B	BD	C	D	E	ED	F	G	H	J	K	L	M	N
YRG-2020FS	22	12	15	12	2	14 <sup>0</sup> <sub>-0.05</sub>	25	69	10.5 to 29.5	φ3 <sup>0</sup> <sub>-0.01</sub>	6	12	4.5	27.5	M3
YRG-2840FS	30	15	20	16	2	18 <sup>0</sup> <sub>-0.05</sub>	30	84	13 to 51	φ4 <sup>0</sup> <sub>-0.012</sub>	8	14	5.5	34.5	M4

	P	Q	R	RA	S	SA	SB	T	TA	TB	TC	TD	U	V	W	WA	Y	Z
YRG-2020FS	5	30	76	175+/-10	27	27	4	9	24	24	30	12.5	M4	6	60	9	38	2
YRG-2840FS	7.5	40	110	135+/-10	40	40	5	12	28	28	36	14	M5	7.5	72	12	55	3

Screw type "T" style

# YRG-2020FT/2840FT



## Basic specifications

Model name	YRG-2020FT	YRG-2840FT
Model number	KCF-M2014-A0	KCF-M2014-B0
Holding power	Max. continuous rating (N)	50
	Min. setting (% (N))	30 (15)
	Resolution (% (N))	1 (0.5)
Speed	Open/close stroke (mm)	19
	Max. rating (mm/sec)	50
	Min. setting (% (mm/sec))	20 (10)
	Resolution (% (mm/sec))	1 (0.5)
	Holding speed (Max.) (%)	50
Repetitive positioning accuracy (mm)	+/-0.01	+/-0.01
Guide mechanism	Linear guide	
Max. holding weight <sup>Note 1</sup> (kg)	0.5	1.5
Weight (g)	420	890

• Holding power control: 30 to 100% (1% steps) • Speed control: 20 to 100% (1% steps)  
 • Acceleration control : 1 to 100% (1% steps) • Multipoint position control: 10,000 max.

Note. Design the finger as short and lightweight as possible.  
 Note. Set the parameters and holding power (%) of the holding movement command so that any excessive shock is not applied to the finger during operation.  
 Note. When installing or uninstalling the finger, tighten the bolts while the finger is being held securely so that any excessive force or shock is not applied to the guide block.  
 Note. Workpiece weight that is able to be held may greatly vary depending on the material, shape, and/or holding surface conditions of the finger.

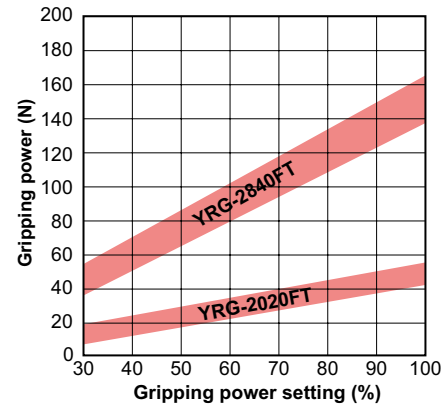
Note 1. Design the weight of a workpiece to be held so that it is approximately 1/10 to 1/20 of the holding power. (Consider further allowance when moving and swinging the gripper that keeps holding a workpiece.)

## Allowable load and load moment

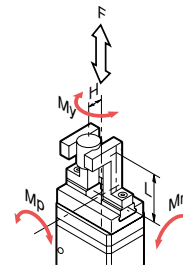
Guide		YRG-2020FT		YRG-2840FT	
		F	N		
Guide	Allowable load			1000	1300
	Allowable pitching moment	Mp	N·m	3.5	5
	Allowable yawing moment	My	N·m	4.2	6
	Allowable rolling moment	Mr	N·m	7.3	12.7
Finger	Max. weight (1 pair)		g	40	80
	Max. holding position	L	mm	30	30
	Max. overhang	H	mm	20	20

- Mount the finger so that the allowable load and load moment of the guide do not exceed the values stated in the table above.
- Make the adjustment so that the finger weight, holding length (L) from the installation surface to the holding point, and overhang (H) do not exceed the values stated in the table above.
- Please contact your YAMAHA sales dealer for further information on combination of L and H.

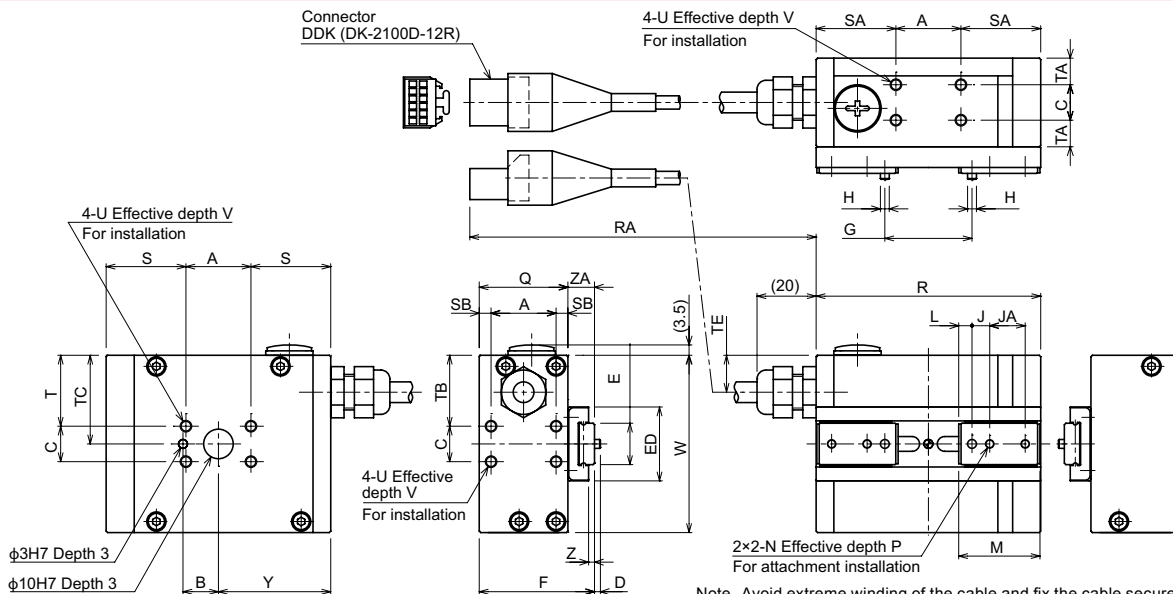
## Gripping power vs. gripping power setting (%)



• Graph shows a general guide to gripping power versus gripping power setting (%). Variations will appear in the actual gripping power.



## YRG-2020FT/2840FT



Note. Avoid extreme winding of the cable and fix the cable securely so that it does not move.  
 Take appropriate measures so that any excessive force is not applied to the root of the cable.

	A	B	C	D	E	ED	F	G	H	J	JA	K	L	M	N	P
YRG-2020FT	22	12	12	2	14 <sub>0-0.05</sub>	25	39	10.5 to 29.5	φ3 <sub>0-0.01</sub>	6	12	12	4.5	27.5	M3	5
YRG-2840FT	30	15	16	2	18 <sub>0-0.05</sub>	30	52	13 to 51	φ4 <sub>0-0.012</sub>	8	14	14	5.5	34.5	M4	7.5

	Q	R	RA	S	SA	SB	T	TA	TB	TC	TD	TE	U	V	W	Y	Z	ZA
YRG-2020FT	30	76	175+/-10	27	27	4	24	9	24	30	12.5	12.5	M4	6	60	38	2	9
YRG-2840FT	40	110	135+/-10	40	40	5	28	12	28	36	14	14	M5	7.5	72	55	3	12

# YRG Series

Three fingers type

# YRG-2004T



## Basic specifications

Model name	YRG-2004T	
Model number	KCF-M2015-A0	
Holding power	Max. continuous rating (N)	2.5
	Min. setting (% (N))	30 (0.75)
	Resolution (% (N))	1 (0.025)
Open/close stroke (mm)	3.5	
Speed	Max. rating (mm/sec)	100
	Min. setting (% (mm/sec))	20 (20)
	Resolution (% (mm/sec))	1 (1)
	Holding speed (Max.) (%)	50
Repetitive positioning accuracy (mm)	+/-0.03	
Guide mechanism	Linear guide	
Max. holding weight <sup>Note 1</sup> (kg)	0.02	
Weight (g)	90	

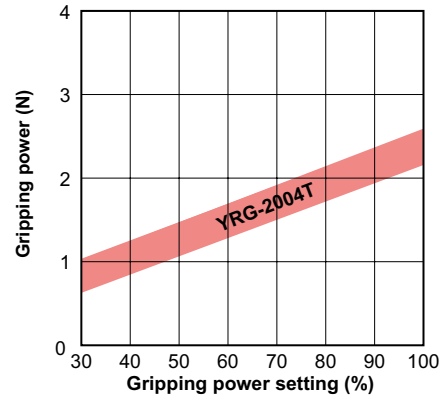
• Holding power control : 30 to 100% (1% steps) • Speed control : 20 to 100% (1% steps)  
 • Acceleration control : 1 to 100% (1% steps) • Multipoint position control : 10,000 max.

Note. Design the finger as short and lightweight as possible.  
 Note. Set the parameters and holding power (%) of the holding movement command so that any excessive shock is not applied to the finger during operation.

Note. When installing or uninstalling the finger, tighten the bolts while the finger is being held securely so that any excessive force or shock is not applied to the guide block.  
 Note. Workpiece weight that is able to be held may greatly vary depending on the material, shape, and/or holding surface conditions of the finger.

Note 1. Design the weight of a workpiece to be held so that it is approximately 1/10 to 1/20 of the holding power. (Consider further allowance when moving and swinging the gripper that keeps holding a workpiece.)

## Gripping power vs. gripping power setting (%)



• Graph shows a general guide to gripping power versus gripping power setting (%). Variations will appear in the actual gripping power.

## Allowable load and load moment

		YRG-2004T	
Finger	Allowable load	N	6
	Allowable pitching moment	N·m	0.02
	Max. weight (1 pair)	g	10
	Max. holding position	L mm	15

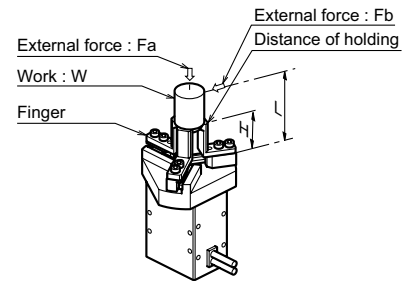
• When the external forces  $F_a$  and  $F_b$  are applied to a portion the distance (L) apart from the finger installation surface, the load (F) and moment (M) are calculated from the formulas shown below.

$$F = F_a + W \times g$$

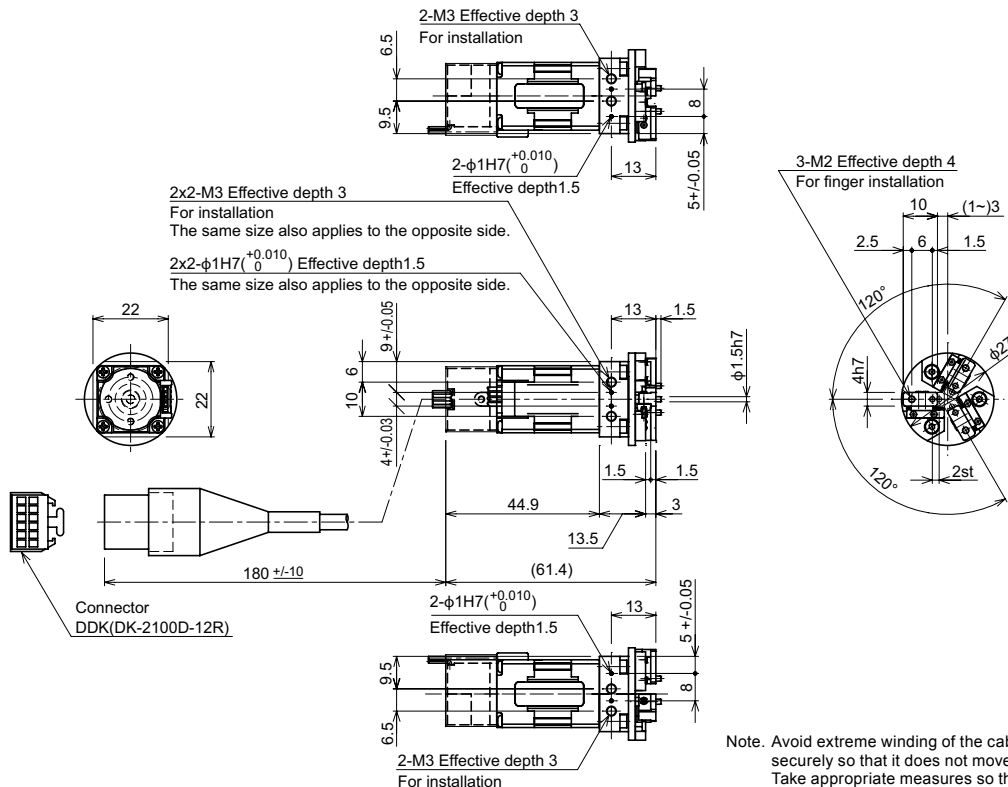
$$M = F_b \times L$$

$F_a$  : External force [N]  
 $F_b$  : External force [N]  
 $W$  : Workpiece weight [Kg]  
 $g$  : Gravity acceleration [m/s<sup>2</sup>]  
 $L$  : Distance of holding point [m]

$F$  : Load [N]  
 $M$  : Moment [N·m]  
 $L$  : Distance of point of external force application [m]



## YRG-2004T



Note. Avoid extreme winding of the cable and fix the cable securely so that it does not move. Take appropriate measures so that any excessive force is not applied to the root of the cable.

Three fingers type

# YRG-2013T/2820T/4230T



## Basic specifications

Model name	YRG-2013T	YRG-2820T	YRG-4230T	
Model number	KCF-M2015-B0	KCF-M2015-C0	KCF-M2015-D0	
Holding power	Max. continuous rating (N)	2	10	20
	Min. setting (% (N))	30 (0.6)	30 (3)	30 (6)
	Resolution (% (N))	1 (0.02)	1 (0.1)	1 (0.2)
Open/close stroke (mm)	13	20	30	
Speed	Max. rating (mm/sec)	100		
	Min. setting (% (mm/sec))	20 (20)		
	Resolution (% (mm/sec))	1 (1)	1 (1)	1 (1)
	Holding speed (Max.) (%)	50	50	50
Repetitive positioning accuracy (mm)	±0.03			
Guide mechanism	Linear guide			
Max. holding weight <sup>Note 1</sup> (kg)	0.02	0.1	0.2	
Weight (g)	190	340	640	

- Holding power control: 30 to 100% (1% steps) • Speed control: 20 to 100% (1% steps)
- Acceleration control: 1 to 100% (1% steps) • Multipoint position control: 10,000 max.

Note. Design the finger as short and lightweight as possible.

Note. Set the parameters and holding power (%) of the holding movement command so that any excessive shock is not applied to the finger during operation.

Note. When installing or uninstalling the finger, tighten the bolts while the finger is being held securely so that any excessive force or shock is not applied to the guide block.

Note. Workpiece weight that is able to be held may greatly vary depending on the material, shape, and/or holding surface conditions of the finger.

Note 1. Design the weight of a workpiece to be held so that it is approximately 1/10 to 1/20 of the holding power. (Consider further allowance when moving and swinging the gripper that keeps holding a workpiece.)

## Allowable load and load moment

		YRG-2013T	YRG-2820T	YRG-4230T		
Finger	Allowable load	N	20	30	50	
	Allowable pitching moment	N·m	0.1	0.2	0.4	
	Max. weight (1 pair)	g	20	30	50	
	Max. holding position	L	mm	20	30	40

• When the external forces Fa and Fb are applied to a portion the distance (L) apart from the finger installation surface, the load (F) and moment (M) are calculated from the formulas shown below.

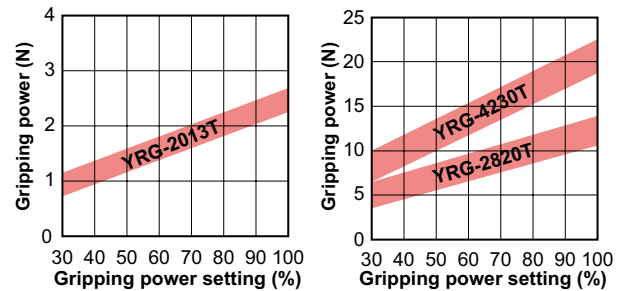
$$F = Fa + W \times g$$

$$M = Fb \times L$$

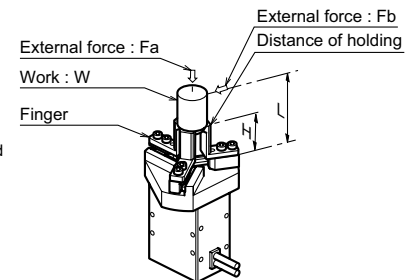
Fa : External force [N]  
 Fb : External force [N]  
 W : Workpiece weight [Kg]  
 g : Gravity acceleration [m/s<sup>2</sup>]  
 H : Distance of holding point [m]

F : Load [N]  
 M : Moment [N·m]  
 L : Distance of point of external force application [m]

## Gripping power vs. gripping power setting (%)



• Graph shows a general guide to gripping power versus gripping power setting (%). Variations will appear in the actual gripping power.



## YRG-2013T/2820T/4230T

Note. Avoid extreme winding of the cable and fix the cable securely so that it does not move. Take appropriate measures so that any excessive force is not applied to the root of the cable.

	A	B	C	D	E	F	G	H	HA	HB	J	K	L	N
YRG-2013T	50	19	34	24	50	19	42	17	13	13	17	M3	6	17
YRG-2820T	58	19	46	32	66	25	40	24	16	16	24	M4	8	14
YRG-4230T	59	25	60	46	86	34	45	25	18	18	36	M5	8	13

	NA	NB	P	Q	R	S	T	U	V	W	WA	AA	BA
YRG-2013T	17	72	27	M3	6	17	17	M3	5	11.4 to 4.6	6.8st	12	10 <sup>0</sup> <sub>-0.02</sub>
YRG-2820T	21	80	38	M4	8	24	24	M4	6	15.9 to 5.6	10.3st	15	10 <sup>0</sup> <sub>-0.02</sub>
YRG-4230T	24	88	50	M5	10	36	36	M5	7.5	21.9 to 6.6	15.3st	20	14 <sup>0</sup> <sub>-0.02</sub>

	BB	BC	BD	BE	BF	BG	BH	BJ	BK	BL
YRG-2013T	16	2.5	10	***	3x1-M3	8	2	φ3 <sup>0</sup> <sub>-0.01</sub>	165±/10	8.3
YRG-2820T	19.5	2.5	6	8	3x2-M3	6	2	φ3 <sup>0</sup> <sub>-0.01</sub>	140±/10	9.3
YRG-4230T	22.5	2.5	6	10	3x2-M4	8	3	φ4 <sup>0</sup> <sub>-0.012</sub>	235±/10	10.8

Articulated robots  
YA  
Linear COMEYO  
robotics  
LCM100  
Compact  
single-axis robots  
TRANSEVO  
Single-axis robots  
FLIP-X  
Linear motor  
single-axis robots  
PHASER  
Cartesian  
robots  
XY-X  
SCARA  
robots  
YK-X  
Pick & place  
robots  
YP-X  
CLEAN  
CONTROLLER  
INFORMATION  
Robot  
positioner  
Pulse string  
driver  
Robot  
controller  
Electric  
gripper  
Option



Articulated robots  
YA

Linear conveyer modules  
LCM100

Compact single-axis robots  
TRANSEVO

Single-axis robots  
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PHASER

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YK-X

Pick & place robots  
YP-X

CLEAN CONTROLLER INFORMATION

Robot positioner

Pulse string driver

Robot controller

Electric gripper

Option

## Electric gripper basic specifications

Item		Specifications	
Basic specifications	Applicable controller	RCX240/RCX240S	RCX340
	Number of connection grippers	Max. 2 units (One unit per slot, max. 2 slots)	Max. 4 units
Axis control	Control method	PTP motion	
	Min. setting unit	0.01mm	
	Position indication unit	Pulses, mm (millimeters)	
	Speed setting	20 to 100% (in 1% steps, Changeable by the program.)	
Programming	Acceleration setting	1 to 100% (in 1% steps, Setting by the acceleration parameter)	
	Teaching	MDI (coordinate data input), direct teaching, teaching playback, offline teaching (data input from external unit)	

## Gripper control board specifications

Item		Specifications	
Axis control	No. of axes	1 axis	
	Position detection method	Optical rotary encoder	
	Min. setting distance	0.01mm	
	Speed setting	Set in the range of 20 to 100% to the max. parameter speed.	
Protective alarm		Overcurrent, overload, voltage failure, system failure, position deviation over, feedback error, etc.	
LED status indication		POWER (Green), RUN (Green), READY (Yellow), ALARM (Red)	
Power supply	Drive power	DC 24V +/-10% 1.0A Max.	

## Part names and functions

### RCX240

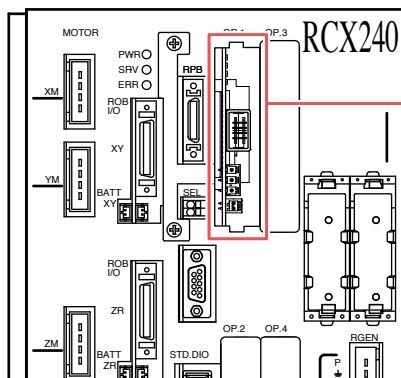
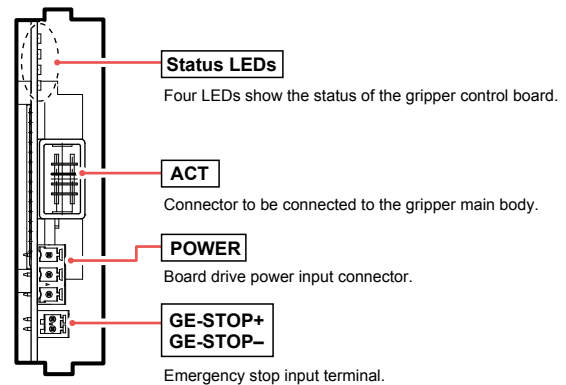


Figure when viewed from the front of the controller



### RCX340

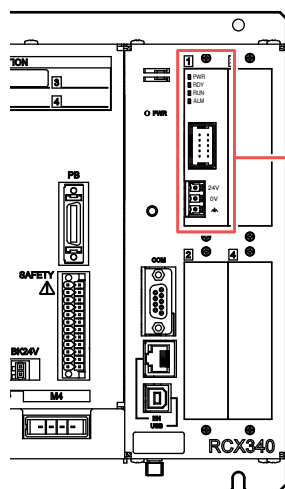
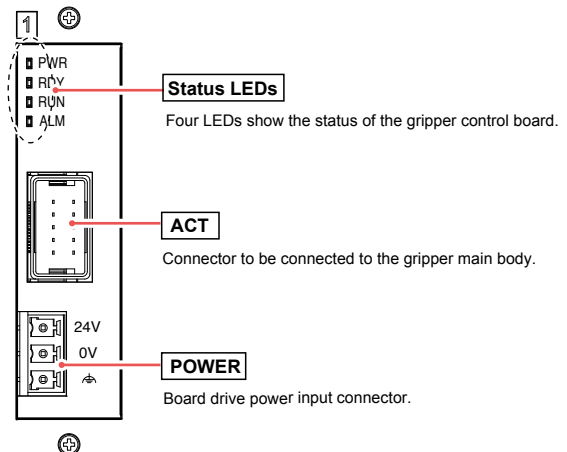


Figure when viewed from the front of the controller



# Accessories and part options

## YRG Series



### Standard accessories

● **Gripper control board**

Model	For RCX240/RCX240S	KX0-M4400-F1	<b>RCX240/S</b>
	For RCX340	KCX-M4400-G0	<b>RCX340</b>

Note. This board includes a 24V supply connector.

● **Robot (for gripper) cable**



Model	3.5m	KCF-M4751-31	<b>RCX240/S</b> <b>RCX340</b>
	5m	KCF-M4751-51	
	10m	KCF-M4751-A1	

Note. Be sure to adjust the total length of the robot (for gripper) cable and relay cable to 14m or less.

● **Relay cable**



Model	0.5m	KCF-M4811-11	<b>RCX240/S</b> <b>RCX340</b>
	1m	KCF-M4811-21	
	1.5m	KCF-M4811-31	
	2m	KCF-M4811-41	
	2.5m	KCF-M4811-51	
	3m	KCF-M4811-61	
	3.5m	KCF-M4811-71	
	4m	KCF-M4811-81	

● **Connector for 24V power supply**



Model	KCF-M5382-00	<b>RCX240/S</b> <b>RCX340</b>
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● **Connector for gripper emergency stop**



Model	KCF-M5370-00	<b>RCX240/S</b>
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Note. Not included with the RCX340.

- Articulated robots  
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- Cartesian robots  
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- Robot positioner
- Pulse string driver
- Robot controller
- Electric gripper
- Option