

# Single Axis Robots RS3 - Slider Type



CE

See notes on CE Marking. P.440

### Feature: Small, Economical Actuators

Applicable to Remote Command Control, Remote I/O Control (CC-Link / DeviceNet Specification), Parallel I/O Control and Online Command Control (RS232C Specification).

Actuator

Controller

Cable

Instruction Manual CD-ROM

Black plastic specification is applied to the main body. (Please specify as alterations)

**RoHS**

■ Components: Actuator / Controller / Cable

■ Accessories

Controller I/O Specifications			
A	NPN / PNP	CC-Link	DeviceNet
Accessories	Instruction Manual (CD-ROM) / Power Connector / Dummy Connector		
	CC-Link Connector / DeviceNet Connector		

■ Robot Material / Surface Treatment

Components	Guide Rail	Slider	Side Cover
M Material	Steel	Aluminum	Aluminum
S Surface Treatment	-	-	Anodize

■ General Specifications

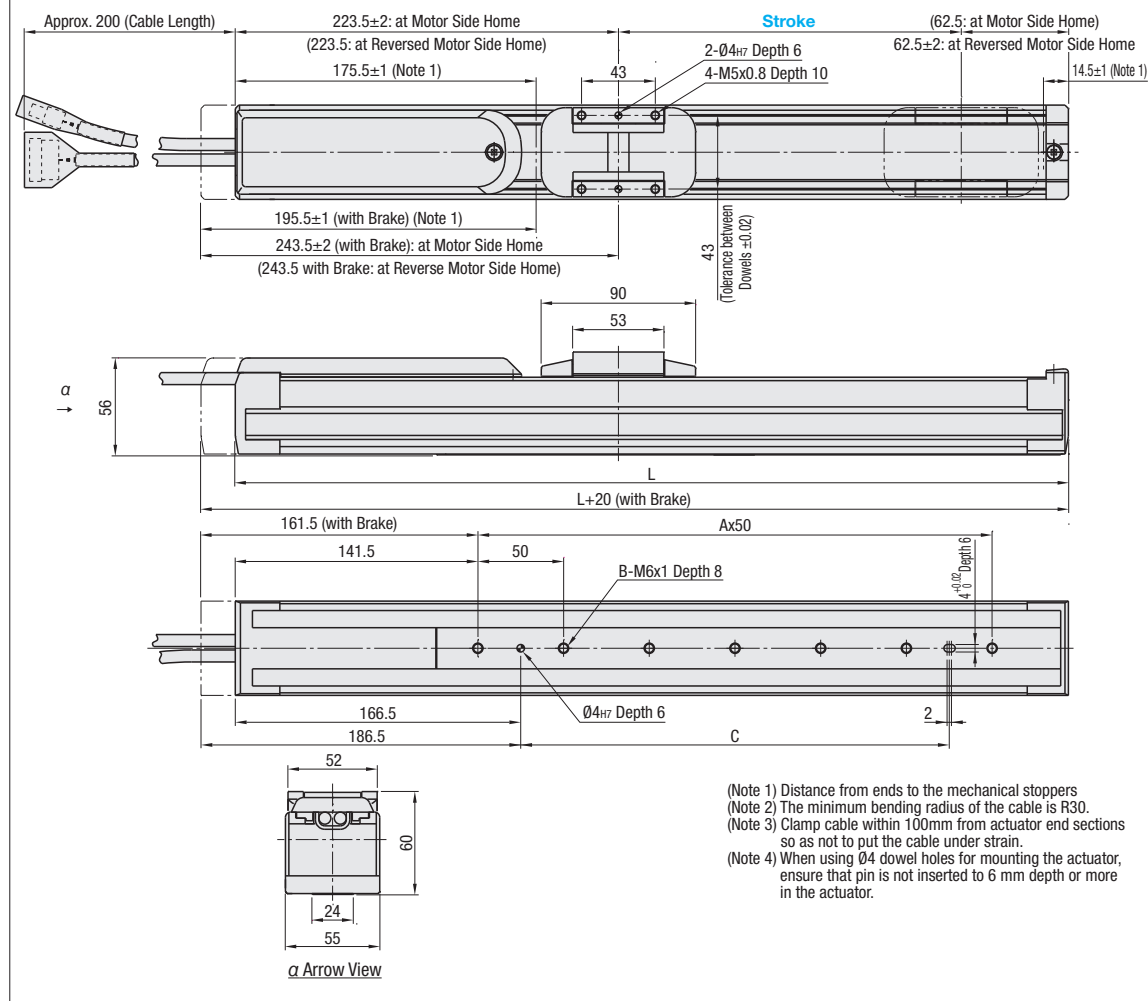
Ball Screw	Motor	Position Detector	Operating Ambient Temperature / Humidity
Ø12 (C10 Rolled)	Stepping	Resolver (Incremental)	0~40°C, 35~85%RH (No Condensation)

Controller Specifications P.437 Cycle Time Graph P.441 Clean Room Specifications are available on our website.

■ Standard Specifications Terminology & FAQ P.440

Type	Lead (mm)	Positioning Repeatability (mm)	Max Load Capacity (kg)		Max. Push Force (N)	Stroke (mm)	Maximum Velocity (Note) (mm/sec)	Rated Running Life	Input Power Supply	Maximum Positioning Point
			Horizontal	Vertical						
RS3	06	±0.02	12	4	120	50~800 (50 Pitch)	300~190	10,000 km or More	DC24V ±10%	255 points
	12		8	2	60					
	20		6	-	36					

(Note) Maximum velocity varies depending on the strokes. Please see Maximum Velocity Table on the next page.



■ Dimensions / Mass

Type	Dimensions / Mass	Stroke (mm)															
		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
RS3	L (mm)	336	386	436	486	536	586	636	686	736	786	836	886	936	986	1036	1086
	A (mm)	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	B (mm)	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	C (mm)	100	150	200	250	300	350	400	450	500	500	500	500	500	500	500	500
	Mass (kg)	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.5	4.7	4.9	5.1	5.3

The mass of "With Brake" Type is 0.2kg heavier.

Part Number			Selection			
Type	Lead (mm)	With or w/o Brake (1)	Controller	I/O Module	Cable Length (m)	Stroke (mm)
RS3	06	None: Leave blank Included: B	C1 DC24V ±10%	NPN: N PNP: P CC-Link: C DeviceNet: D	1 3 5 10 (Flexible Cable)	50~800 (50mm Increment)
	12					
	20					

(1) Choose "with brake" type for use in vertical applications. (W/ brake type is not available for Lead 20)

Ordering Example: Part Number - Controller - I/O Module - Cable Length - Stroke

RS306B - C1 - N - 3 - 400

Days to Ship

Configure Online

Price Configure Online

Robot Body Price

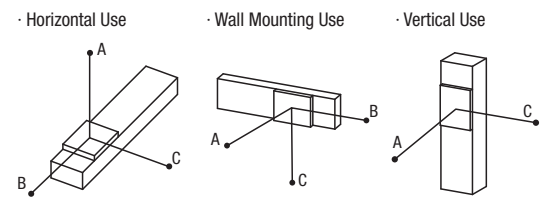
Part Number	Unit Price 1~5 pc(s).															
	Stroke (mm)															
	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
RS3_																
RS3_B																

Controller Price			Cable Price		
Type	I/O Module	Unit Price 1~5 pc(s).	Cable Length (m)	Unit Price 1~5 pc(s).	
C1	N		1		
	P		3		
	C		5		
	D		10		

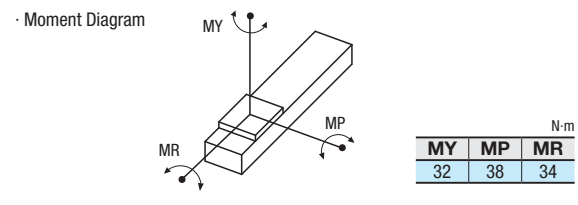
(Robot Body Price) + (Controller Price) + (Cable Price) = Total Price  
 <Ex.> For RS306-C1-N-3-400

**Note**  
 Power interruption circuit is not installed in this controller. Please be sure to provide an external power interruption circuit and form an emergency stop circuit. Circuit Examples P.438

### Allowable Overhang Load



### Allowable Static Moment



Lead	Mass	mm			
		A	B	C	
06	12kg	465	39	64	
	10kg	442	47	78	
	8kg	480	61	100	
12	6kg	573	83	136	
	8kg	403	56	88	
	6kg	399	76	118	
20	4kg	500	118	179	
	6kg	352	71	104	
	4kg	366	109	148	
06	12kg	28	17	338	
	10kg	43	26	355	
	8kg	64	39	413	
12	6kg	101	62	519	
	8kg	55	34	305	
	6kg	85	55	334	
20	4kg	146	96	449	
	6kg	71	49	262	
	4kg	118	88	309	
06	12kg	28	17	338	
	10kg	43	26	355	
	8kg	64	39	413	
12	6kg	101	62	519	
	8kg	55	34	305	
	6kg	85	55	334	
20	4kg	146	96	449	
	6kg	71	49	262	
	4kg	118	88	309	

■ Max. Velocity (mm/sec)

Type	Lead (mm)	Stroke (mm)				
		50~600	650	700	750	800
RS3	06	300(250)	280(250)	250	220	190
	12	600(500)	560(500)	500	440	380
	20	1000	933	833	733	633

( ) Values in ( ) are for vertical application.  
 (1) When the stroke is 650mm or more, the resonance of ball screws may occur according to the operating area (critical speed). In that case, reduce the operation speed by referring to the maximum velocity shown in the table above.

Alterations

Part Number - Controller Type - I/O Module Type - Cable Length - Stroke - (G, E, etc.)

RS306B - C1 - N - 3 - 400 - G-E

Alterations	Grease Type Alteration	Change of Home Position	Handy Terminal Standard Specification	Handy Terminal w / Deadman's Switch	Support Software w / USB Communication Cable	Support Software w / D-Sub Communication Cable	I/O Cable	Robot Instruction Manual	Controller Instruction Manual	Main Body Plastic Color Alterations
Code	G	E	H	D	S	R	T	MJ / ME	KJ / KE	BC
Spec.	Grease is changed to low particle generation grease. (NSK LG2)	The home position is relocated to the opposite side of the motor.	Handy Terminal is included. Spec. P.415, 439	Handy Terminal w / Deadman's Switch is included. Spec. P.415, 439	Support Software w / USB Communication Cable is included. Spec. P.415, 439	Support Software w / D-Sub Communication Cable is included. Spec. P.439	I/O Cable is included. Required for NPN/PNP configurations. Spec. P.416, 439	Instruction Manual for robot main structures is included. M.J. Japanese Language ME: English Language	Instruction Manual for controllers is included. K.J. Japanese Language KE: English Language	Change the actuator plastic parts color to black.

(1) For optional items, see P.439 (2) Optional items can be purchased more economically as Alterations than as single items.  
 (3) Point data requires Handy Terminal or Support Software.  
 (4) Parallel Communication I/O Control requires I/O Cable.