

# C4L

Origin at non-motor side



## Ordering method

<b>C4L</b>						<b>ERCD</b>	
<b>Model</b>	<b>Lead designation</b>	<b>Brake</b>	<b>Direction of air coupler installation</b>	<b>Origin position change</b>	<b>Stroke</b>	<b>Cable length</b> <sup>Note 1</sup>	<b>Controller</b>
	12: 12mm 6: 6mm 2: 2mm	No entry: With no brake BK: With brake	L: Left (Standard) R: Right	None: Standard Z: Non-motor side	50 to 400 (50mm pitch)	1L: 1m 3L: 3.5m 5L: 5m 10L: 10m 1K/3K/5K/10K (Flexible cable)	<b>I/O connector specification</b>
							CN1: I/O flat cable 1m (Standard) CN2: Twisted-pair cable 2m (pulse train function)

Note 1. The robot cable is standard cable (1L/3L/5L/10L), but can be changed to flexible cable. See P.510 for details on robot cable.

## Basic specifications

<b>AC servo motor output (W)</b>	30	
<b>Repeatability</b> <sup>Note 1</sup> (mm)	±0.02	
<b>Deceleration mechanism</b>	Ball screw $\phi 8$ (Class C10)	
<b>Ball screw lead (mm)</b>	12	6
<b>Maximum speed (mm/sec)</b>	720	360
<b>Maximum payload (kg)</b>	<b>Horizontal</b>	<b>Vertical</b>
	4.5	6
	1.2	2.4
<b>Rated thrust (N)</b>	32	64
<b>Stroke (mm)</b>	50 to 400 (50mm pitch)	
<b>Overall length (mm)</b>	<b>Horizontal</b>	Stroke+205
	<b>Vertical</b>	Stroke+240
<b>Maximum outside dimension of body cross-section (mm)</b>	W45×H55	
<b>Cable length (m)</b>	Standard: 3.5 / Option: 1.5, 10	
<b>Degree of cleanliness</b>	ISO CLASS 3 (ISO14644-1) <sup>Note 2</sup>	
<b>Intake air (Nl/min)</b> <sup>Note 3</sup>	50	30

Note 1. Positioning repeatability in one direction.  
 Note 2. CLASS 10 (0.1 $\mu$ m) FED-STD-209D or equivalent when a suction blower is used.  
 Note 3. The necessary intake amount varies depending on the use conditions and environment.

## Allowable overhang

	Horizontal installation (Unit: mm)			Wall installation (Unit: mm)			Vertical installation (Unit: mm)		
	A	B	C	A	B	C	A	C	
<b>Lead 12</b>	2kg	429	87	179	2kg	145	52	368	
<b>4.5kg</b>	219	32	74	4.5kg	46	0	139		
<b>Lead 6</b>	3kg	511	58	135	3kg	103	22	370	
<b>6kg</b>	336	26	62	6kg	27	0	185		
<b>Lead 2</b>	3kg	1571	58	142	3kg	109	23	1150	
<b>6kg</b>	751	27	66	6kg	27	0	420		

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.  
 Note. Service life is calculated for 300mm stroke models.

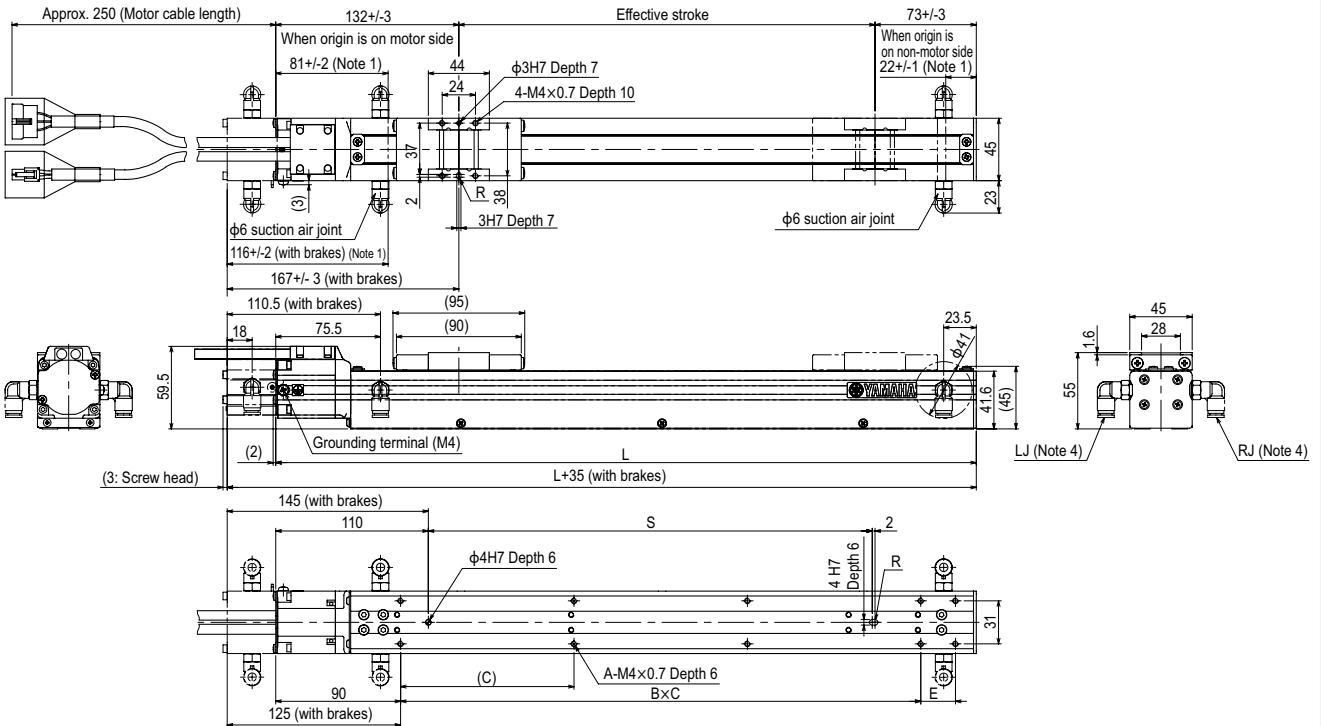
## Static loading moment

(Unit: N·m)		
MY	MP	MR
15	19	18

## Controller

Controller	Operation method
ERCD	Pulse train control / Programming / I/O point trace / Remote command / Operation using RS-232C communication

## C4L



Effective stroke	50	100	150	200	250	300	350	400
L	255	305	355	405	455	505	555	605
A	4	6	6	8	8	10	10	10
B	1	2	2	2	2	3	3	4
C	150	100	125	125	125	125	125	125
E	0	0	0	50	100	25	75	0
S	70	120	170	220	270	320	370	420
<b>Weight (kg)</b> <sup>Note 3</sup>	1.4	1.5	1.7	1.8	2	2.1	2.3	2.4
<b>Maximum speed for each stroke (mm/sec)</b>	<b>Lead 12</b>	720						
	<b>Lead 6</b>	360						
	<b>Lead 2</b>	120						

Note1. Distance from both ends to the mechanical stopper.  
 Note2. Minimum bend radius of motor cable is R30.  
 Note3. Weight of models with no brake. The weight of brake-attached models is 0.2 kg heavier than the models with no brake shown in the table.  
 Note4. Either right or left can be selected for the installation direction for the  $\phi 6$  intake air joint. (The left side is the standard.)  
 Note5. External view of C4LH is identical to C4L.