

# C4H



APPLICATION  
TRANSPERO

Compact  
single-axis robots

FLIP-X  
Single-axis robots

PHASER  
Linear motor  
single-axis robots

XY-X  
Cartesian  
robots

YK-XG  
SCARA  
robots

YP-X  
Pick & place  
robots

CLEAN

CONTROLLER

INFORMATION

Single-axis

Cartesian

SCARA

## Ordering method

<b>C4H</b>						<b>SR1-X</b>	<b>05</b>			
<b>Model</b>	<b>Lead</b>	<b>Brake</b>	<b>Direction of air coupler installation</b>	<b>Stroke</b>	<b>Cable length</b> <small>Note 1</small>	<b>Controller</b>	<b>Driver</b>	<b>Usable for CE</b>	<b>Input/Output selection</b>	<b>Battery</b>
	12: 12mm 6: 6mm 2: 2mm	No entry: With no brake BK: With brake	L: Left (Standard) R: Right	50 to 300 (50mm pitch)	3L: 3.5m (Standard) 5L: 5m 10L: 10m	SR1-X TS-X <small>Note 2</small> RDX <small>Note 2</small>	05: 100W or less	No entry: Standard E: CE marking	N: NPN P: PNP CC: CC-Link DN: DeviceNet PB: Profibus YC: YC-Link <small>Note 3</small>	No entry: None (Incremental specification) B: With battery (Absolute specification)

Note 1. The robot cable is standard cable and may be changed to a flex-resistant type. See P.423 for more information on robot cables.  
Note 2. To find TS-X, RDX selection options, see the ordering method listed on each controller's page (TS-X: P.355, RDX: P.365).  
Note 3. Available only for the slave.

## Basic specifications

AC servo motor output (W)	30		
Repeatability <small>Note 1</small> (mm)	+/-0.02		
Deceleration mechanism	Ball screw (Class C10)		
Ball screw lead (mm)	12	6	2
Maximum speed (mm/sec)	720	360	120
Maximum payload (kg)	Horizontal	4.5	6
	Vertical	1.2	2.4
Rated thrust (N)	32	64	153
Stroke (mm)	50 to 300 (50mm pitch)		
Overall length (mm)	Horizontal	Stroke+205	
	Vertical	Stroke+240	
Maximum outside dimension of body cross-section (mm)	W45 x H55		
Cable length (m)	Standard: 3.5 / Option: 5, 10		
Degree of cleanliness	CLASS 10 <small>Note 2</small>		
Intake air (Nl/min)	20 to 30 <small>Note 3</small>		

Note 1. Positioning repeatability in one direction.  
Note 2. Per 1cf (0.1μm base), when suction blower is used.  
Note 3. The necessary intake amount varies depending on the use conditions and environment.  
Note. Please consult YAMAHA when using the specification with the origin at non-motor side.

## Allowable overhang

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

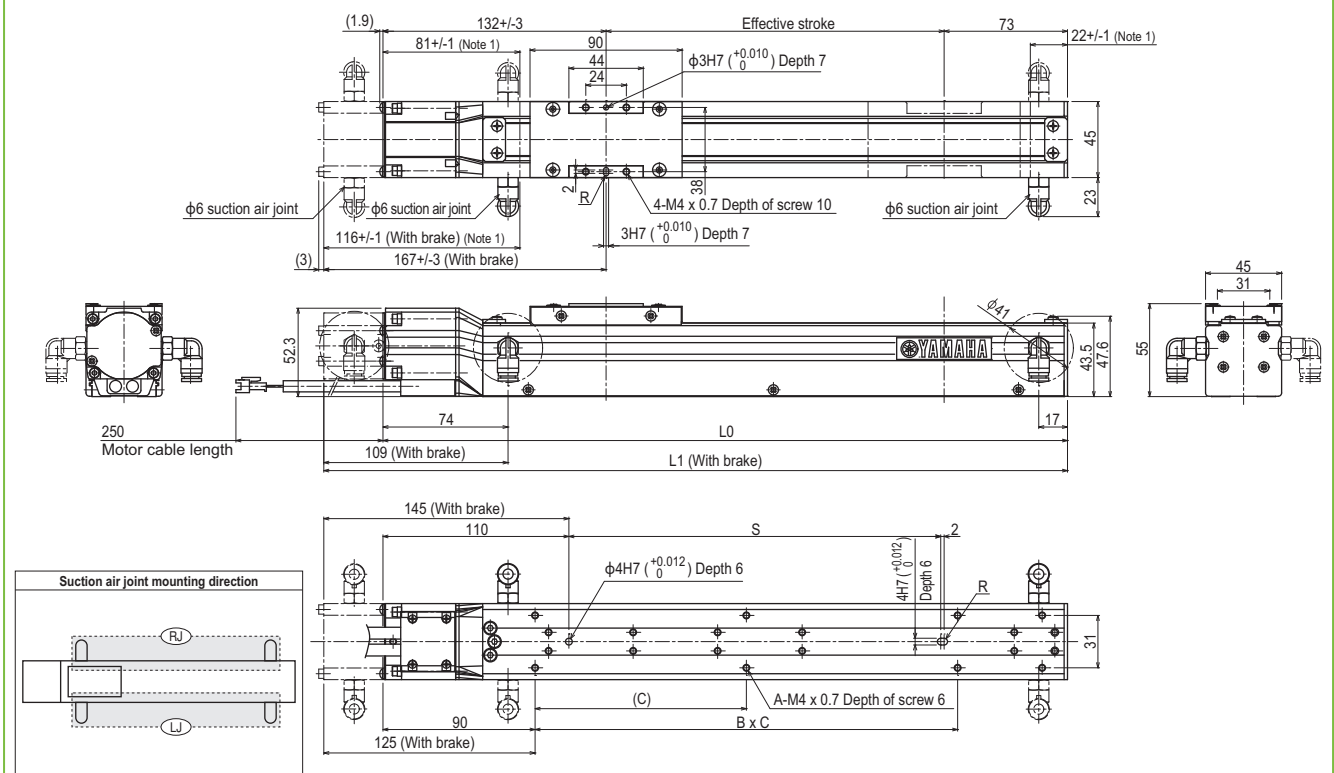
## Static loading moment

			(Unit: N-m)		
MY	MP	MR	MY	MP	MR
15	19	18	15	19	18

## Controller

Controller	Operation method
SR1-X-05	Programming / I/O point trace / Remote command / Operation using RS-232C communication
TS-X205	I/O point trace
RDX-05	Pulse train control

## C4H



Effective stroke	50	100	150	200	250	300
A	4	6	6	8	8	10
B	1	2	2	2	2	3
C	150	100	125	125	125	125
E	0	0	0	50	100	25
L0	255	305	355	405	455	505
L1	290	340	390	440	490	540
S	70	120	170	220	270	320
Weight (kg) <small>Note 4</small>	1.3	1.4	1.6	1.7	1.8	2.0

Note 1. Distance from both ends to the mechanical stopper.  
Note 2. Either right or left can be selected for the installation direction for the φ6 intake air joint.  
Note 3. Minimum bend radius of motor cable is R50.  
Note 4. 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.