AGXS10

Advanced model Single-axis robots

Slider type

Ordering method

AGXS10

■ Specifications

Model

No entry Standard H: High agility

Lead 30: 30 mm Straight 20: 20 mm 10: 10 mm R: Right bending 5 mm

BK: Standard/With brake L: Battery-less absolute ith no brake BKBL: Battery-less absolute

When used with high acceleration or deceleration (High agility mode)

5 mm

12 kg

5.53 m/s² (0.6 G)

AGXS10-H5

AGXS10-H10 AGXS10-H20 AGXS10-H30

15

100 to 1250 (50mm pitch)

R: From rea of motor

200 W or less

R: With EP-RU

PT: PROFINET ES: EtherCA CC: CC-Link

B: With battery

Note 1. When the shape is bending (R, L), the high acceleration/deceleration specifications cannot be selected.

For the high acceleration/deceleration specifications, the stroke is 100 to 650 mm (50 mm pitch).

100 mm to 650 mm (50 mm pitch)

10 mm

30 kg

11.71 m/s

(1.2 G)

8 kg

10.84 m/s² (1.1 G)

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Note 3. The robot cable is flexible and resists bending.

Note 4. When the actuator is used vertically, the regenerative unit is needed.

When the actuator is used horizontally and the stroke of lead 10, 20, or 30 is 300 to 800 mm, the regenerative unit is needed.

Note 5. When the motor specification is the standard (S, BK), whether to use the battery needs to be selected.

AC servo mo	tor output		200) W							
Repeatability	Note 1		+/-0.0	05 mm							
Deceleration	mechanism	Ground ball screw φ 15 (C5 class)									
Stroke		100 mm to 1250 mm(50 mm pite									
Maximum spe	ed Note 2	1800	1200	600	300						
•		mm/sec		mm/sec							
Ball screw lea	ad	30 mm	20 mm	10 mm	5 mm						
Maximum	Horizontal	25 kg	40 kg	80 kg	100 kg						
payload	Vertical	4 kg	8 kg	20 kg	30 kg						
Rated thrust		113 N	170 N	341 N	683 N						
Maximum dime		W 100 mm × H 99.5 mm									
Overall	Straight	ST + 250.5 mm									
length	Bending		ST + 22	0.5 mm							
Degree of cle	anliness Note 3	ISO C	LASS 3 or equ	(ISO14 ivalent	644-1)						
Intake air Note 4		108	√l/min t	o 90 Nl	/min						
Position dete	otor	l A	bsolute	encode	er						
Position dete	Clor	Battery	-less ab	solute e	encoder						
Resolution			23	bits							
Using ambient	temperature	0 to	40 °C, 3	5 to 80 °	%RH						
and humidity	-	(non-con	densing	1)						

■ Specifications

Vertical

Stroke

payload

Maximum

Maximum

Maximum acceleration

Ho

Vertical

payload

Ball screw lead

30 mm | 20 mm |

10 kg

19.62 m/s

(2 G)

2 kg

19.62 m/s² (2 G)

10 20 30 40

Payload [kg]

AGXS10-H

Payload [kg]

20 kg

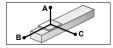
19.62 m/s

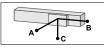
(2 G)

4 kg

19.62 m/s (2 G)

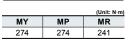
Allowable overhang











Controller Operation method I/O point trace/

Remote command

■ Controller

AGXS10-H5

4kg

12kg

С 1550 1550

> 474 474

743 743 8ka

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■ Static loading moment

AGXS10-30 Horizontal installation Wall installation (Unit: 292 146 803 481 10kg 25kg AGXS10-20 Wall installation Vortical inetallation (Unit:

HOLIZOU	<u>tai insta</u>	liation	(Unit: mm)	vvaii ins	stanati	on (vertical installation (Unit: m					
	Α	В	С		Α	В	С		Α	С		
15kg	1269	451	282	15kg	252	387	1159	3kg	2062	2062		
25kg	754	253	158	25kg	123	189	629	6kg	1012	1012		
40kg	466	142	88	40kg	51	78	311	8kg	750	750		
AGXS1 Horizon		Vertical in	stallation	<u> </u>								
	Α	В	C		Α	В	C		Α	C		
30kg	1794	298	203	30kg	162	234	1623	5kg	1926	1926		
50kg	1358		111	50kg	68	98	1060	10kg	931	931		

80kg	1266	86	59	80kg	16	22	552	20kg	434	434
AGXS1	0-5									
Horizon		lation	(Unit: mm)	Wall in	stallati	on (Jnit: mm)	Vertical in	stallation	(Unit: mm)
	Α	В	С		Α	В	С		Α	С
30kg	5605	321	225	30kg	181	258	5195	10kg	1018	1018
50kg	3694	177	124	50kg	79	113	3111	20kg	477	477
80kg	2619	95	67	80kg	22	31	1557	30kg	296	296
100kg	2224	68	48	100kg	0	0	0			

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 scalculated for 600 mm stroke models.

and humidity (non-condensing)

Note 1. Positioning repeatability in one direction.

Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 700 mm, the ball screw may resonate. (Critical speed)

At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.

Note 3. When using in a clean environment, attach a suction air joint. The degree of cleanliness is the cleanliness level achieved when using at 1000 mm/sec or less.

Note 4. The required suction amount will vary according to the operating conditions and operating environment.

Note. See P.122 for acceleration/deceleration.

Allowable overhang Note

AGXS1										
Horizon	tal insta	llation	(Unit: mm)	Wall in:	stallati	on (Jnit: mm)	Vertical in	stallation	(Unit: mm)
	Α	В	С		Α	В	С		Α	С
3kg	1041	1117	541	3kg	521	1046	1009	1kg	2054	2054
6kg	581	534	266	6kg	241	466	539	2kg	994	994
10kg	384	300	153	10kg	125	235	327			
AGXS1	0-H20									

AGXS1 Horizon		lation	(Unit: mm)	Wall in:	stallati	on (Unit: mm)	Vertical in	stallation	(Unit: mm)
	Α	В	С		Α	В	С		Α	С
5kg	1218	844	493	5kg	464	778	1177	2kg	1602	1602
12kg	575	326	193	12kg	159	261	516	4kg	788	788
20kg	375	177	106	20kg	70	113	290			

Payload	yload – Acceleration / Deceleration Graph (Estima																
							AGXS1	0-H10									
orizontal/	_		AGY	S10-H			Horizont	al instal	lation	(Unit: mm)	Wall ins	stallatio	on (Jnit: mm)	Vertical in	stallation	(Unit: mm)
/all hanging	² S 25	i	AOA	010-11				Α	В	С		Α	В	С		Α	С
ruii nunging	_					—— AGXS10-H10	10kg	1851	568	383	10kg	343	504	1784	3kg	1849	1849
	erație 15					400040 1100	20kg	973	263	177	20kg	136	199	885	5kg	1086	1086
	9 10					AGXS10-H20	30kg	671	162	109	30kg	67	98	552	8kg	656	656
	ion/Deceleration					—— AGXS10-H30	Note. Di	stance	from ce	enter of	slider top	to cent	er of gr	avity of	object be	ing car	ried at a

guide service life of 10,000 km.

Service life is calculated for 600 mm stroke models.

■ Effective stroke and maximum speed during high acceleration or deceleration

Effective	Effective stroke		150	200	250	300	350	400	450	500	550	600	650
	Lead 30	1800											
Maximum	Lead 20	1200											
speed (mm/sec)	Lead 10	600											
	Lead 5	300											

The bending unit cannot be used for the high agility mode.
The high agility mode is used in an effective stroke range of 100 to 650 (50 mm pitch).
There is no critical speed setting. The maximum speed can be set for a selectable stroke.
The speed may not reach the maximum speed if the movement distance is short or depending on the operating

Controller

conditions. Note.

When the actuator is used with the high acceleration/deceleration specifications, the operation duty and motor load factor need to be considered. (See P.93.) Note. See P.124 for acceleration/deceleration.

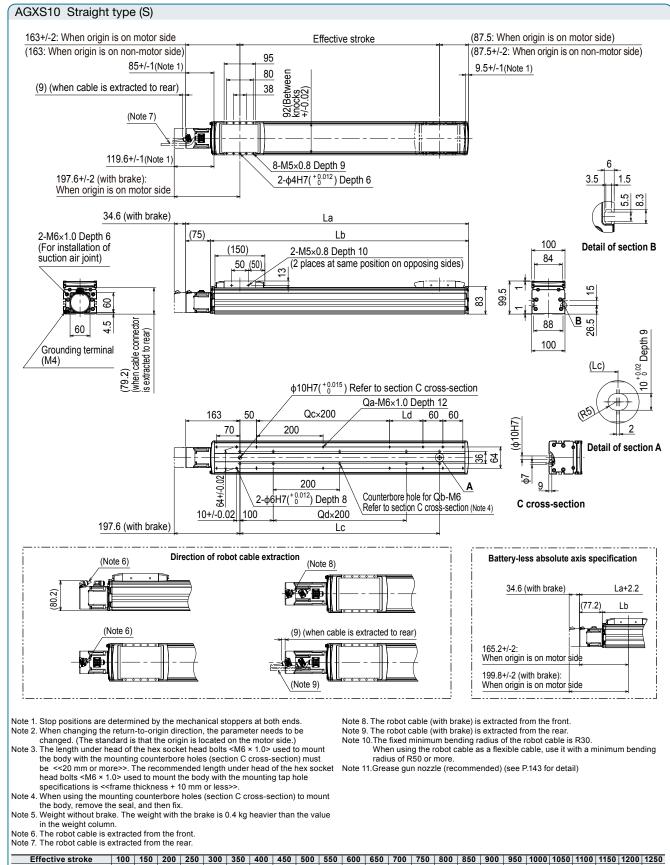
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Acceleration/Deceleration

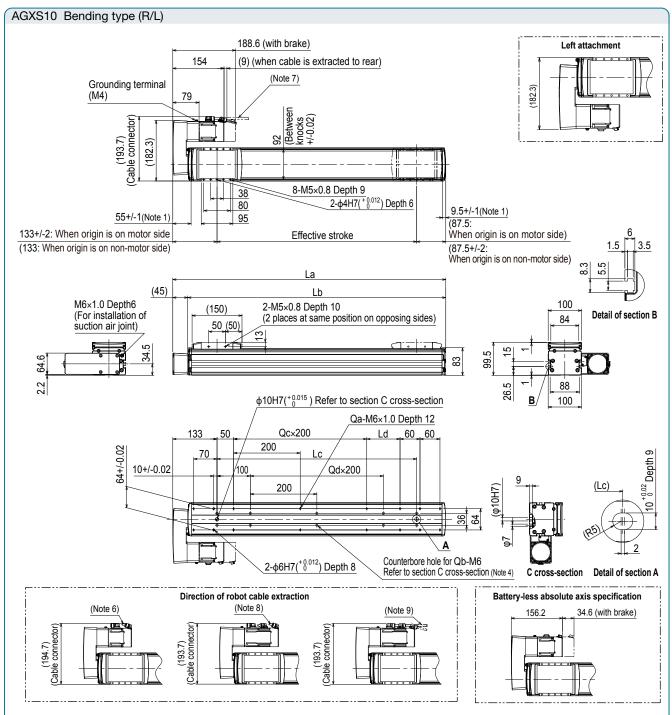
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The cycle time simulation and service life calculation can be performed easily from our member site. For details, see P.12.



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- Note 1. Stop positions are determined by the mechanical stoppers at both ends
- Note 2. When changing the return-to-origin direction, the parameter needs to be changed. (The standard is that the origin is located on the motor side.)
- Note 3. The length under head of the hex socket head bolts <M6 × 1.0> used to mount the body with the mounting counterbore holes (section C cross-section) must be <<20 mm or more>>. The recommended length under head of the hex socket head bolts <M6 × 1.0> used to mount the body with the mounting tap hole specifications is <<fra>frame thickness + 10 mm or less>>.
- Note 4. When using the mounting counterbore holes (section C cross-section) to mount the body, remove the seal, and then fix.
- Note 5. Weight without brake. The weight with the brake is 0.4 kg heavier than the value
- in the weight column.

 Note 6. The robot cable is extracted from the front.

 Note 7. The robot cable is extracted from the rear.

- Note 8. The robot cable (with brake) is extracted from the front.
- Note 9. The robot cable (with brake) is extracted from the rear. Note 10.The fixed minimum bending radius of the robot cable is R30.
- When using the robot cable as a flexible cable, use it with a minimum bending radius of R50 or more.
- Note 11.When the shape is bending (R, L), the high acceleration/deceleration specifications cannot be selected.

 Note 12.Grease gun nozzle (recommended) (see P.143 for detail)

Effect	tive stroke	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900							
	La	320.5	370.5	420.5	470.5	520.5	570.5	620.5	670.5	720.5	770.5	820.5	870.5	920.5	970.5	1020.5	1070.5	1120.5	1170.5	1220.5	1270.5	1320.5	1370.5	1420.5	1470.5
	Lb	275.5	325.5	375.5	425.5	475.5	525.5	575.5	625.5	675.5	725.5	775.5	825.5	875.5	925.5	975.5	1025.5	1075.5	1125.5	1175.5	1225.5	1275.5	1325.5	1375.5	1425.5
	Lc	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
	Ld	0	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150
	Qa	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	20	20	20
	Qb	4	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16	16
	Qc	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
	Qd	0	0	0	0	0	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5
Weigl	ht (kg) Note 5	6.6	7.1	7.6	8.1	8.6	9.1	9.6	10.1	10.6	11.1	11.6	12.1	12.6	13.1	13.6	14.1	14.6	15.1	15.6	16.1	16.6	17.1	17.6	18.1
	Lead 30							1800							1530	1350	1170	990	900	810	720	630	54	40	450
Maximum	Lead 20	1200													1020	900	780	660	600	540	480	420	36	06	300
speed	Lead 10	600												510	450	390	330	300	270	240	210	18	30	150	
(mm/sec)	Lead 5	300											255	225	195	165	150	135	120	105	9		75		
	Speed setting												85%	75%	65%	55%	50%	45%	40%	35%	30)%	25%		