

Ordering method

AGXS10

Model	Acceleration/deceleration specifications	Lead	Shape	Motor specification	Stroke	Cable length	Cable entry location	Robot positioner	Driver: Power capacity	Regenerative unit	I/O	Battery
	No entry: Standard H: High agility	30: 30 mm 20: 20 mm 10: 10 mm 5: 5 mm	S: Straight R: Right bending L: Left bending	S: Standard/With no brake BK: Standard/With brake BL: Battery-less absolute/With no brake BKBL: Battery-less absolute/With brake	100 to 1250 (50mm pitch)	Note 3 R3: 3 m R5: 5 m R10: 10 m	R: From rear of motor F: From front of motor	EP-01	A10: 200 W or less	No entry: None R: With EP-RU	EP: EtherNet/IP™ PT: PROFINET ES: EtherCAT NS: NPN CC: CC-Link	B: With battery N: None

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

Note 2. For the high acceleration/deceleration specifications, the stroke is 100 to 650 mm (50 mm pitch).

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 100 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.

Specifications

AC servo motor output	200 W
Repeatability Note 1	+/- 0.005 mm
Deceleration mechanism	Ground ball screw ϕ 15 (C5 class)
Stroke	100 mm to 1250 mm (50 mm pitch)
Maximum speed Note 2	1800 mm/sec 1200 mm/sec 600 mm/sec 300 mm/sec
Ball screw lead	30 mm 20 mm 10 mm 5 mm
Maximum payload	Horizontal: 25 kg, 40 kg, 80 kg, 100 kg Vertical: 4 kg, 8 kg, 20 kg, 30 kg
Rated thrust	113 N, 170 N, 341 N, 683 N
Maximum dimensions of cross section of main unit	W 100 mm × H 99.5 mm
Overall length	Straight: ST + 250.5 mm Bending: ST + 220.5 mm
Degree of cleanliness Note 3	ISO CLASS 3 (ISO14644-1) or equivalent
Intake air Note 4	30 Nℓ/min to 90 Nℓ/min
Position detector	Absolute encoder Battery-less absolute encoder
Resolution	23 bits
Using ambient temperature and humidity	0 to 40 °C, 35 to 80 %RH (non-condensing)

Note 1. Positioning repeatability in one direction.

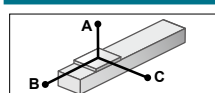
Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 700 mm, the ball screw may resonate. (Critical speed)

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.

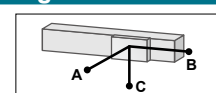
Note 4. The required suction amount will vary according to the operating conditions and operating environment.

Note. See P.122 for acceleration/deceleration.

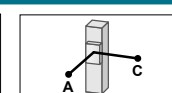
Allowable overhang



AGXS10-30 Horizontal installation (Unit: mm)			
	A	B	C
10kg	878	537	292
20kg	609	256	146
25kg	608	211	124

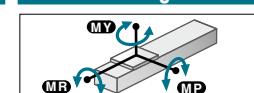


AGXS10-30 Wall installation (Unit: mm)			
	A	B	C
10kg	271	473	803
20kg	118	192	481
25kg	93	147	454



AGXS10-30 Vertical installation (Unit: mm)		
	A	C
1kg	4135	4135
4kg	985	985

Static loading moment



(Unit: N·m)		
MY	MP	MR
274	274	241

AGXS10-20 Horizontal installation (Unit: mm)			
	A	B	C
15kg	1269	451	282
25kg	754	253	158
40kg	466	142	88

AGXS10-20 Wall installation (Unit: mm)			
	A	B	C
15kg	252	387	1159
25kg	123	189	629
40kg	51	78	311

AGXS10-20 Vertical installation (Unit: mm)		
	A	C
3kg	2062	2062
6kg	1012	1012
8kg	750	750

AGXS10-10 Horizontal installation (Unit: mm)			
	A	B	C
30kg	1794	298	203
50kg	1358	162	111
80kg	1266	86	59

AGXS10-10 Wall installation (Unit: mm)			
	A	B	C
30kg	162	234	1623
50kg	68	98	1060
80kg	16	22	552

AGXS10-10 Vertical installation (Unit: mm)		
	A	C
5kg	1926	1926
10kg	931	931
20kg	434	434

AGXS10-5 Horizontal installation (Unit: mm)			
	A	B	C
30kg	5605	321	225
50kg	3694	177	124
80kg	2619	95	67
100kg	2224	68	48

AGXS10-5 Wall installation (Unit: mm)			
	A	B	C
30kg	181	258	5195
50kg	79	113	3111
80kg	22	31	1557
100kg	0	0	0

AGXS10-5 Vertical installation (Unit: mm)		
	A	C
10kg	1018	1018
20kg	477	477
30kg	296	296

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.

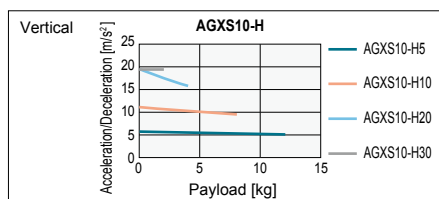
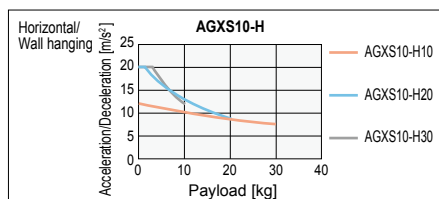
Note. Service life is calculated for 600 mm stroke models.

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

Specifications

Stroke	100 mm to 650 mm (50 mm pitch)
Ball screw lead	30 mm, 20 mm, 10 mm, 5 mm
Maximum payload	Horizontal: 10 kg, 20 kg, 30 kg, - Vertical: 2 kg, 4 kg, 8 kg, 12 kg
Maximum acceleration	Horizontal: 19.62 m/s ² (2 G), 19.62 m/s ² (2 G), 11.71 m/s ² (1.2 G), - Vertical: 19.62 m/s ² (2 G), 19.62 m/s ² (2 G), 10.84 m/s ² (1.1 G), 5.53 m/s ² (0.6 G)

Payload - Acceleration / Deceleration Graph (Estimate)



Allowable overhang

AGXS10-H30 Horizontal installation (Unit: mm)			
	A	B	C
3kg	1041	1117	541
6kg	581	534	266
10kg	384	300	153

AGXS10-H30 Wall installation (Unit: mm)			
	A	B	C
3kg	521	1046	1009
6kg	241	466	539
10kg	125	235	327

AGXS10-H30 Vertical installation (Unit: mm)		
	A	C
1kg	2054	2054
2kg	994	994

AGXS10-H5 Vertical installation (Unit: mm)		
	A	C
4kg	1550	1550
8kg	743	743
12kg	474	474

AGXS10-H20 Horizontal installation (Unit: mm)			
	A	B	C
5kg	1218	844	493
12kg	575	326	193
20kg	375	177	106

AGXS10-H20 Wall installation (Unit: mm)			
	A	B	C
5kg	464	778	1177
12kg	159	261	516
20kg	70	113	290

AGXS10-H20 Vertical installation (Unit: mm)		
	A	C
2kg	1602	1602
4kg	788	788

AGXS10-H10 Horizontal installation (Unit: mm)			
	A	B	C
10kg	1851	568	383
20kg	973	263	177
30kg	671	162	109

AGXS10-H10 Wall installation (Unit: mm)			
	A	B	C
10kg	343	504	1784
20kg	136	199	885
30kg	67	98	552

AGXS10-H10 Vertical installation (Unit: mm)		
	A	C
3kg	1849	1849
5kg	1086	1086
8kg	656	656

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 600 mm stroke models.

Effective stroke and maximum speed during high acceleration or deceleration

Effective stroke	100	150	200	250	300	350	400	450	500	550	600	650
Maximum speed (mm/sec)												
Lead 30												
Lead 20												
Lead 10												
Lead 5												

Note. The bending unit cannot be used for the high agility mode.

Note. The high agility mode is used in an effective stroke range of 100 to 650 (50 mm pitch).

Note. 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 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.

Access the website below.



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

