NSA-WXMS

±10μm Standard | Battery-less Absolute | Body Width 200 mm | 750 W

■ Model Specification Items

NSA	-	WXMS	-	WA	-	750	-		-		-	T2	-		-	AQ	-	
Series		Type		Encoder Type		Motor Type		Lead		Stroke		Applicable Controllers		Cable Length		Options		

Encoder Type	
WA	Battery-less Absolute

Motor Type	
750	750W

Lead	
50	50mm
25	25mm

Stroke	
650	650mm
↕	↕
2300	2300mm
	(50mm increments)

Applicable Controllers	
T2	SCON
	SSEL
	XSEL-P/Q
	XSEL-RA/SA

Cable Length	
N	None
S	3m
M	5m
X□□	Specified length

Options: Refer to Options table below.

CE RoHS

Horizontal | Vertical | Side | Ceiling

Stroke

Stroke (mm)	NSA-WXMS	Stroke (mm)	NSA-WXMS
650	○	**1500**	○
700	○	**1550**	○
750	○	**1600**	○
800	○	**1650**	○
850	○	**1700**	○
900	○	**1750**	○
950	○	**1800**	○
1000	○	**1850**	○
1050	○	**1900**	○
1100	○	**1950**	○
1150	○	**2000**	○
1200	○	**2050**	○
1250	○	**2100**	○
1300	○	**2150**	○
1350	○	**2200**	○
1400	○	**2250**	○
1450	○	**2300**	○

POINT Selection Notes

(1) The payload in the "Main Specifications" indicates the maximum value. Please refer to the "Table of Payload by Speed/Acceleration" for more details.

(2) The center mass location of the mounted object should be less than half the overhang distance. Even when the overhang distance or load moment is within the allowable value, if abnormal vibration or noise is generated during operation, use less stringent operating conditions.

(3) The guideline for the overhang load length is 900mm or less in the Ma, Mb and Mc directions. Please refer to page 29 for more information regarding the overhang load length.

(4) Estimated allowable duty varies depending on the load factor. Please refer to P. 29 for more information.

Options

Name	Model	Reference Page
AQ seal (equipped as standard) (Note 1)	**AQ**	4
Standard cable track mounting direction (standard) (Note 2)	**CT3**	4
Standard cable track mounting direction (opposite) (Note 2)	**CT4**	4
Non-motor end specification	**NM**	4
No cable track (standard) (Note 2)	**NT3**	4
No cable track (opposite) (Note 2)	**NT4**	4
User cable track mounting direction (standard) (Note 2)	**UM3**	4
User cable track mounting direction (opposite) (Note 2)	**UM4**	4

(Note 1) Be sure to fill in the Model Specification Items option column.
(Note 2) Be sure to fill in one of the codes in the Model Specification Items option column.

Cable Length

Type	Cable Code	T2
Standard	**S**(3m)	○
	M(5m)	○
Specified length	**X06**(6m) ~ **X10**(10m)	○
	X11(11m) ~ **X15**(15m)	○
	X16(16m) ~ **X20**(20m)	○
	X21(21m) ~ **X25**(25m)	○
	X26(26m) ~ **X30**(30m)	○

(Note) This is a robot cable.
(Note) The encoder cable used differs depending on the cable length.
CB-X1-PA□□□ is for less than 20m and CB-X1-PA□□□-AWG24 for over 20m up to 30m.

Main Specifications

Item			Description	
Lead		Ball screw lead (mm)	50	25
Horizontal	Payload	Max. payload (kg)	60	120
	Speed/acceleration/deceleration	Max speed (mm/s)	2500	1300
		Rated acceleration/deceleration (G)	0.3	0.3
		Max. acceleration/deceleration (G)	0.9	1
Stroke		Min. stroke (mm)	650	650
		Max. stroke (mm)	2300	2300
		Stroke pitch (mm)	50	50

Item	Description
Drive system	Ball screw ϕ25mm rolled C5 or equivalent
Positioning repeatability	±0.01mm
Lost motion	0.02mm or less
Base	Material: Aluminum with white alumite treatment
Linear guide	Direct-acting infinite circulation type
Allowable static moment	Ma: 774N·m
	Mb: 1,106N·m
	Mc: 2,175N·m
Allowable dynamic moment (Note 3)	Ma: 162N·m
	Mb: 231N·m
	Mc: 455N·m
Ambient operating temp. & humidity	0 to 40°C, max. 85% RH or less (Non-condensing)
Degree of protection	-
Vibration resistance/shock resistance	4.9m/s^2 100Hz or less
Compliant international standards	CE marking, RoHS Directive
Motor type	AC servo motor
Encoder type	Battery-less Absolute
Encoder pulse count	131072 pulse/rev

(Note 3) Assumes a standard rated life of 10,000km. The running life will vary depending on operation and installation conditions. Please contact IAI America to check the running life.

■ Slider Type Moment Direction

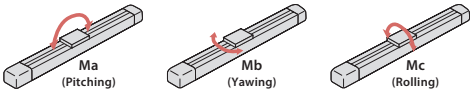


Table of Payload by Speed/Acceleration

The payload is in units of kg.

Lead	Max speed	Acceleration (G)							
(mm)	(mm/s)	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
50	2500	60	45	35	29	22	17	12	-
25	1300	120	90	70	52	40	29	20	11

Stroke and Max Speed

Lead \ Stroke	650~2300 (50mm increments)
50	2500
25	1300

(Unit: mm/s)

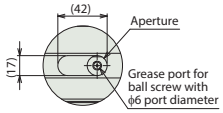
Dimensions

CAD drawings can be downloaded from our website.
www.intelligentactuator.com

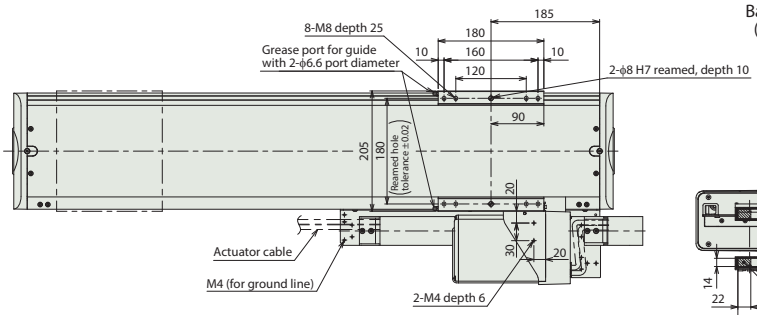
■ Standard Cable Track Mounting Direction (standard/CT3)

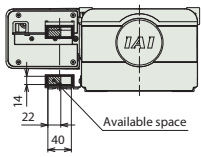
(Note) Connect the motor cable and encoder cable to the cable joint connector.
Please refer to P.30 for more information on the cable.
(Note) When the slider is returning to its home position, please be careful of interference from surrounding objects, as it will travel until it reaches the M.E.

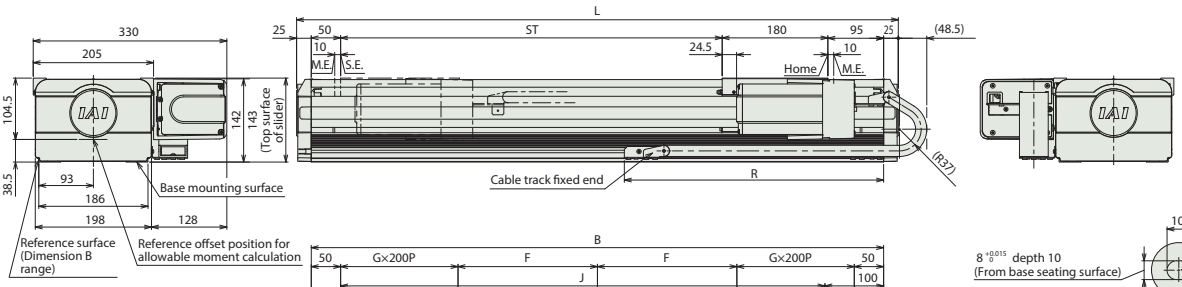
ST: Stroke
M.E: Mechanical end
S.E: Stroke end

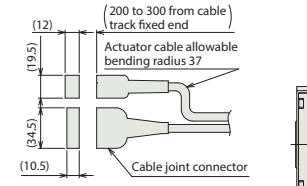


Detailed view of V
Ball screw grease lubrication port
(with grease port cap removed)

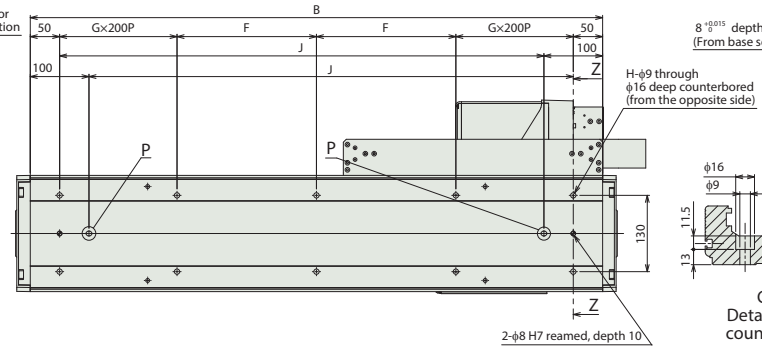




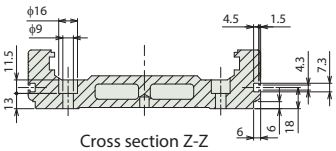




Actuator cable connecting part



Detailed view of P
Base oblong hole details



Cross section Z-Z
Details of base mounting counterbored deep holes
Details of T-slot

■ Dimensions by Stroke

Stroke	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300
L	1025	1075	1125	1175	1225	1275	1325	1375	1425	1475	1525	1575	1625	1675	1725	1775	1825	1875	1925	1975	2025	2075	2125	2175	2225	2275	2325	2375	2425	2475	2525	2575	2625	2675
B	975	1025	1075	1125	1175	1225	1275	1325	1375	1425	1475	1525	1575	1625	1675	1725	1775	1825	1875	1925	1975	2025	2075	2125	2175	2225	2275	2325	2375	2425	2475	2525	2575	2625
F	237.5	262.5	287.5	312.5	137.5	162.5	187.5	212.5	237.5	262.5	287.5	312.5	137.5	162.5	187.5	212.5	237.5	262.5	287.5	312.5	137.5	162.5	187.5	212.5	237.5	262.5	287.5	312.5	137.5	162.5	187.5	212.5	237.5	262.5
G	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5	5	5	5	5	5
H	10	10	10	10	14	14	14	14	14	14	14	14	18	18	18	18	18	18	18	18	22	22	22	22	22	22	22	22	26	26	26	26	26	26
J	825	875	925	975	1025	1075	1125	1175	1225	1275	1325	1375	1425	1475	1525	1575	1625	1675	1725	1775	1825	1875	1925	1975	2025	2075	2125	2175	2225	2275	2325	2375	2425	2475
R	442	460	478	514	532	568	586	604	640	658	694	712	730	766	784	802	838	856	892	910	928	964	982	1018	1036	1054	1090	1108	1144	1162	1180	1216	1234	1252

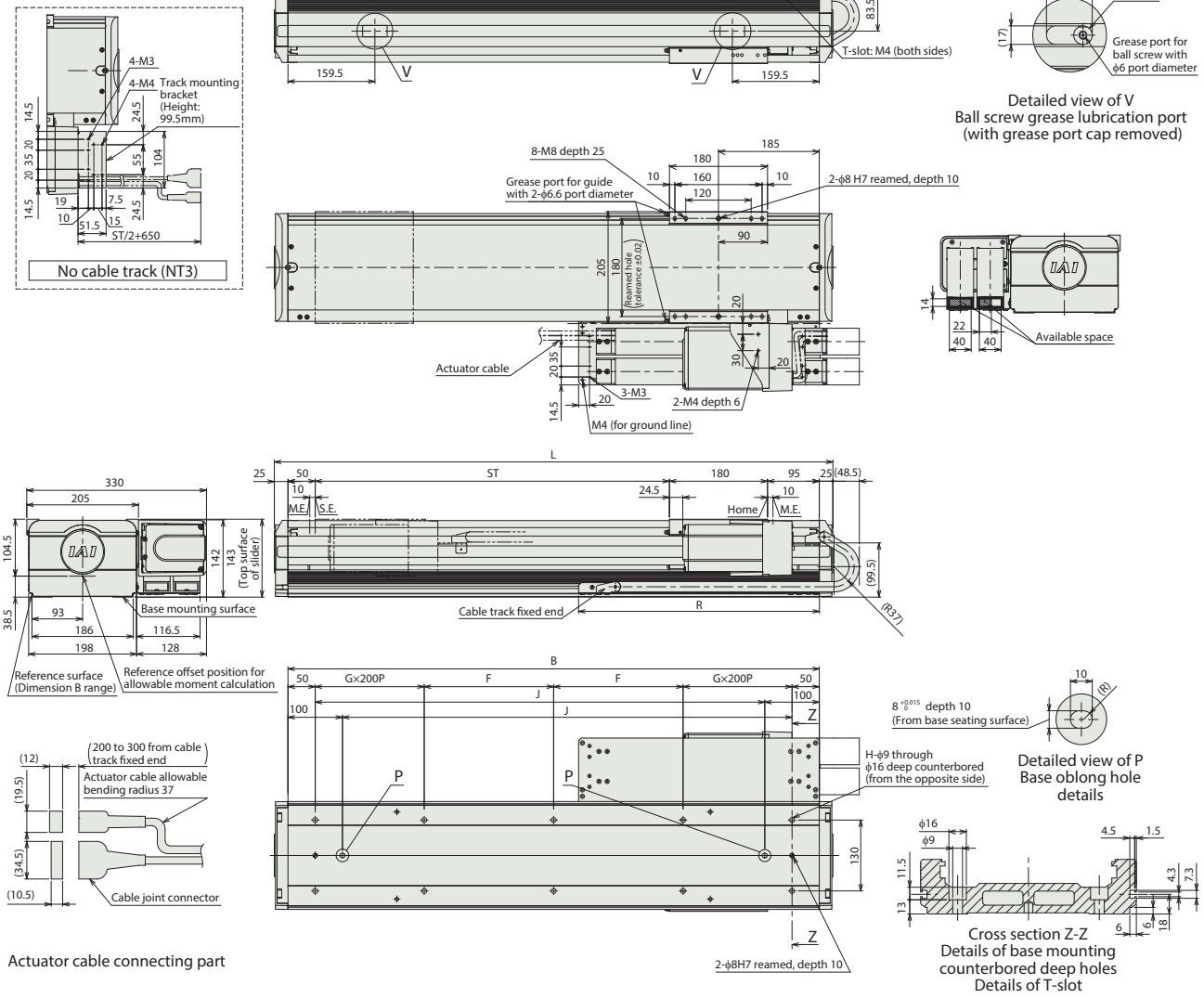
■ Mass by Stroke

Stroke	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300
Mass (kg)	37.6	38.8	39.9	41.1	42.1	43.3	44.4	45.6	46.7	47.8	49.0	50.1	51.2	52.4	53.5	54.6	55.8	56.9	58.0	59.2	60.3	61.4	62.5	63.7	64.8	66.0	67.1	68.2	69.4	70.5	71.6	72.8	73.9	75.0

■ User Cable Track Mounting Direction (standard/UM3)

(Note) Connect the motor cable and encoder cable to the cable joint connector.
Please refer to P.30 for more information on the cable.
(Note) When the slider is returning to its home position, please be careful of interference from surrounding objects, as it will travel until it reaches the M.E.

ST: Stroke
M.E: Mechanical end
S.E: Stroke end



■ Dimensions by Stroke

Stroke	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300
L	1025	1075	1125	1175	1225	1275	1325	1375	1425	1475	1525	1575	1625	1675	1725	1775	1825	1875	1925	1975	2025	2075	2125	2175	2225	2275	2325	2375	2425	2475	2525	2575	2625	2675
B	975	1025	1075	1125	1175	1225	1275	1325	1375	1425	1475	1525	1575	1625	1675	1725	1775	1825	1875	1925	1975	2025	2075	2125	2175	2225	2275	2325	2375	2425	2475	2525	2575	2625
F	237.5	262.5	287.5	312.5	137.5	162.5	187.5	212.5	237.5	262.5	287.5	312.5	137.5	162.5	187.5	212.5	237.5	262.5	287.5	312.5	137.5	162.5	187.5	212.5	237.5	262.5	287.5	312.5	137.5	162.5	187.5	212.5	237.5	262.5
G	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5	5	5	5	5	5
H	10	10	10	10	14	14	14	14	14	14	14	14	18	18	18	18	18	18	18	18	22	22	22	22	22	22	22	22	26	26	26	26	26	26
J	825	875	925	975	1025	1075	1125	1175	1225	1275	1325	1375	1425	1475	1525	1575	1625	1675	1725	1775	1825	1875	1925	1975	2025	2075	2125	2175	2225	2275	2325	2375	2425	2475
R	442	460	478	514	532	568	586	604	640	658	694	712	730	766	784	802	838	856	892	910	928	964	982	1018	1036	1054	1090	1108	1144	1162	1180	1216	1234	1252

■ Mass by Stroke

Stroke		650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300
Mass (kg)	With user cable track	38.1	39.3	40.4	41.6	42.7	43.9	45.0	46.2	47.4	48.5	49.7	50.8	52.0	53.1	54.3	55.4	56.6	57.8	58.9	60.1	61.2	62.4	63.5	64.7	65.9	67.0	68.2	69.3	70.5	71.6	72.8	74.0	75.1	76.3
	No cable track	36.9	38.0	39.1	40.2	41.3	42.4	43.5	44.6	45.7	46.8	47.9	49.0	50.1	51.2	52.3	53.4	54.5	55.6	56.7	57.8	58.9	60.0	61.1	62.2	63.3	64.4	65.5	66.6	67.7	68.8	69.9	71.0	72.1	73.2

Applicable Controllers

The actuators on this page can be operated by the controllers indicated below. Please select the type depending on your intended use.

Name	External view	Max. number of connectable axes	Power supply voltage	Control method													Maximum number of positioning points	Reference page
				Positioner	Pulse-train	Program	Network option *											
							DV	CC	CIE	PR	CN	ML	ML3	EC	EP	PRT	SSN	ECM		
SCON-CB/CGB		1	Single phase 200VAC	●	●	-	●	●	●	●	●	●	●	●	●	●	-	-	512 (768 for network spec.)	Please contact IAI America for more information
SCON-LC/LCG		1		-	-	●	●	●	-	●	●	●	-	●	●	●	-	-	512 (768 for network spec.)	
SSEL-CS		2		●	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-P/Q		6	Single phase 200VAC Three-phase 200VAC	-	-	●	●	●	-	●	-	-	-	-	●	-	-	-	20000	
XSEL-RA/SA		8		-	-	●	●	●	-	●	-	-	-	●	●	-	-	-	55000 (Depending on the type)	

(Note) For network abbreviations such as DV and CC, please contact IAI America.