T4L

● Origin on the non-motor side is selectable
● Controller: 24V

Ordering method

Model	Lead designation	Brake	Origin position change	Grease type	Stroke	Cable length Note 1	Controller	I/O connector specification
T4L	12: 12mm 6: 6mm 2: 2mm	No entry: No brakes BK: Brakes provided	None: Standard Z: Non-motor side	None: Standard GC: Clean	50 to 400 (50mm pitch)	1K: 1m 3K: 3.5m 5K: 5m 10K: 10m	ERCD	CN1: I/O flat cable 1m (Standard) CN2: Twisted-pair cable 2m (pulse train function)

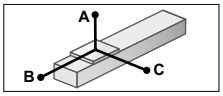
Note 1. The robot cable is flexible and resists bending. See P.692 for details on robot cable.

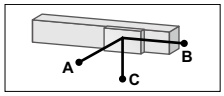
Specifications

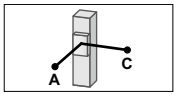
AC servo motor output (W)		30		
Repeatability Note 1 (mm)		+/-0.02		
Deceleration mechanism		Ball screw ϕ8		
Ball screw lead (mm)		12	6	2
Maximum speed (mm/sec)		720	360	120
Maximum payload (kg)	Horizontal	4.5	6	6
	Vertical	1.2	2.4	7.2
Rated thrust (N)		32	64	153
Stroke (mm)		50 to 400 (50mm pitch)		
Overall length (mm)	Horizontal	Stroke+198		
	Vertical	Stroke+236		
Maximum dimensions of cross section of main unit (mm)		W45 × H53		
Cable length (m)		Standard: 3.5 / Option: 1,5,10		
Linear guide type		2 rows of gothic arch grooves × 1 rail		
Position detector		Resolvers Note 2		
Resolution (Pulse/rotation)		16384		

Note 1. Positioning repeatability in one direction.
Note 2. Position detectors (resolvers) are common to incremental and absolute specifications. If the controller has a backup function then it will be absolute specifications.

Allowable overhang Note







Horizontal installation (Unit: mm)

		A	B	C
Lead 12	2kg	433	87	180
	4.5kg	223	33	75
Lead 6	3kg	515	58	135
	6kg	340	26	62
Lead 2	3kg	1585	58	142
	6kg	755	27	66

Wall installation (Unit: mm)

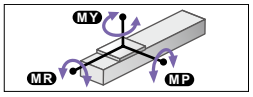
		A	B	C
Lead 12	2kg	149	54	376
	4.5kg	50	1	148
Lead 6	3kg	107	24	380
	6kg	31	0	195
Lead 2	3kg	113	24	1180
	6kg	32	0	440

Vertical installation (Unit: mm)

		A	C
Lead 12	1.2kg	125	125
Lead 6	2.4kg	56	57
Lead 2	3kg	41	42
	7.2kg	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 is calculated for 300mm stroke models.

Static loading moment



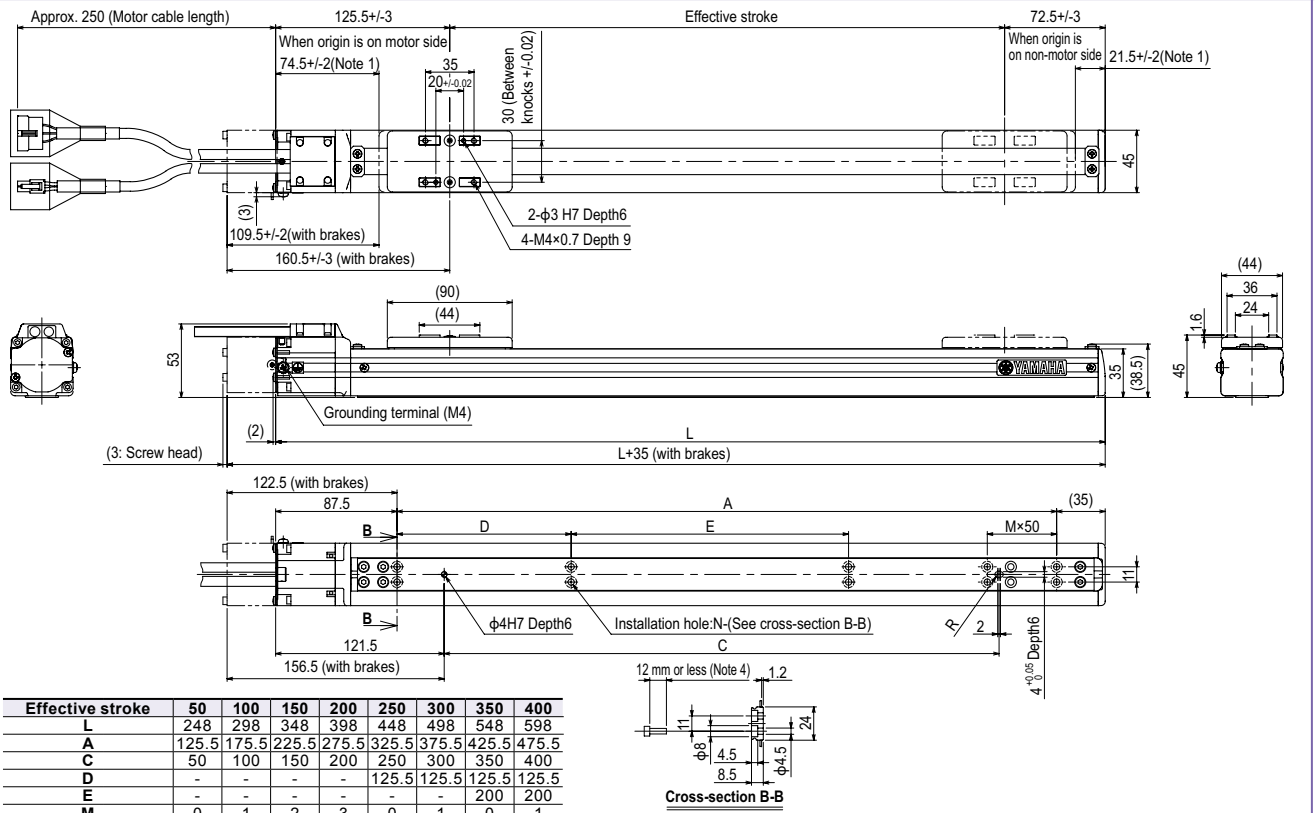
(Unit: N·m)

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

T4L



Effective stroke		50	100	150	200	250	300	350	400
L		248	298	348	398	448	498	548	598
A		125.5	175.5	225.5	275.5	325.5	375.5	425.5	475.5
C		50	100	150	200	250	300	350	400
D		-	-	-	-	125.5	125.5	125.5	125.5
E		-	-	-	-	-	-	200	200
M		0	1	2	3	0	1	0	1
N		4	6	8	10	6	8	8	10
Weight (kg) Note 3		1.1	1.2	1.4	1.5	1.6	1.7	1.8	1.9
Maximum speed for each stroke (mm/sec)	Lead 12	720							
	Lead 6	360							
	Lead 2	120							

Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. Minimum bend radius of motor cable is R30.
Note 3. 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.
Note 4. The under-head length of the hex socket-head bolt (M4×0.7) to be used for the installation work is 12mm or less.
Note 5. External view of T4LH is identical to T4L.

T4LH

Origin on the non-motor side is selectable

Controller: 100V / 200V

Ordering method

T4LH - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

Model	Lead designation	Brake	Origin position change	Grease type	Stroke	Cable length Note 1
	12: 12mm 6: 6mm 2: 2mm	No entry: No brakes BK: Brakes provided	None: Standard Z: Non-motor side	None: Standard GC: Clean	50 to 400 (50mm pitch)	3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable)

TSX - [ ] - [ ] - [ ] - [ ] - [ ]

Positioner Note 2	Driver: Power-supply voltage / Power capacity	LCD monitor	I/O selection	Battery
TSX: TS-X	105: 100V/100W or less 205: 200V/100W or less	No entry: None L: With LCD	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board Note 3	B: With battery (Absolute) N: None (Incremental)

SR1-X - **05** - [ ] - [ ] - [ ]

Controller	Driver: Power capacity	Usable for CE	I/O selection	Battery
	05: 100W or less	No entry: Standard E: CE marking	N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS	B: With battery (Absolute) N: None (Incremental)

RDV-X - **2** - **05**

Driver	Power-supply voltage	Driver: Power capacity
	2: AC200V	05: 100W or less

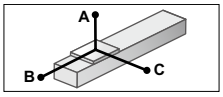
Note 1. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable.
See P.692 for details on robot cable.
Note 2. See P.600 for DIN rail mounting bracket.
Note 3. Select this selection when using the gateway function.

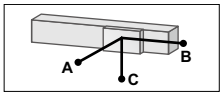
Specifications

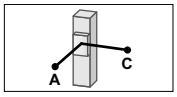
AC servo motor output (W)		30		
Repeatability Note 1 (mm)		+/-0.02		
Deceleration mechanism		Ball screw ϕ8		
Ball screw lead (mm)		12	6	2
Maximum speed (mm/sec)		720	360	120
Maximum payload (kg)	Horizontal	4.5	6	6
	Vertical	1.2	2.4	7.2
Rated thrust (N)		32	64	153
Stroke (mm)		50 to 400 (50mm pitch)		
Overall length (mm)	Horizontal	Stroke+198		
	Vertical	Stroke+236		
Maximum dimensions of cross section of main unit (mm)		W45 × H53		
Cable length (m)		Standard: 3.5 / Option: 5,10		
Linear guide type		2 rows of gothic arch grooves × 1 rail		
Position detector		Resolvers Note 2		
Resolution (Pulse/rotation)		16384		

Note 1. Positioning repeatability in one direction.
Note 2. Position detectors (resolvers) are common to incremental and absolute specifications. If the controller has a backup function then it will be absolute specifications.

Allowable overhang Note







Horizontal installation (Unit: mm)

		A	B	C
Lead 12	2kg	341	90	174
	4.5kg	172	37	72
Lead 6	3kg	355	58	134
	6kg	235	27	62
Lead 2	3kg	1105	59	142
	6kg	520	27	66

Wall installation (Unit: mm)

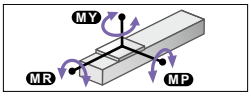
		A	B	C
Lead 12	2kg	140	73	300
	4.5kg	47	22	119
Lead 6	3kg	105	42	260
	6kg	31	11	135
Lead 2	3kg	113	42	810
	6kg	32	11	305

Vertical installation (Unit: mm)

		A	C
Lead 12	1.2kg	122	121
Lead 6	2.4kg	56	57
Lead 2	3kg	41	42
	7.2kg	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 is calculated for 300mm stroke models.

Static loading moment



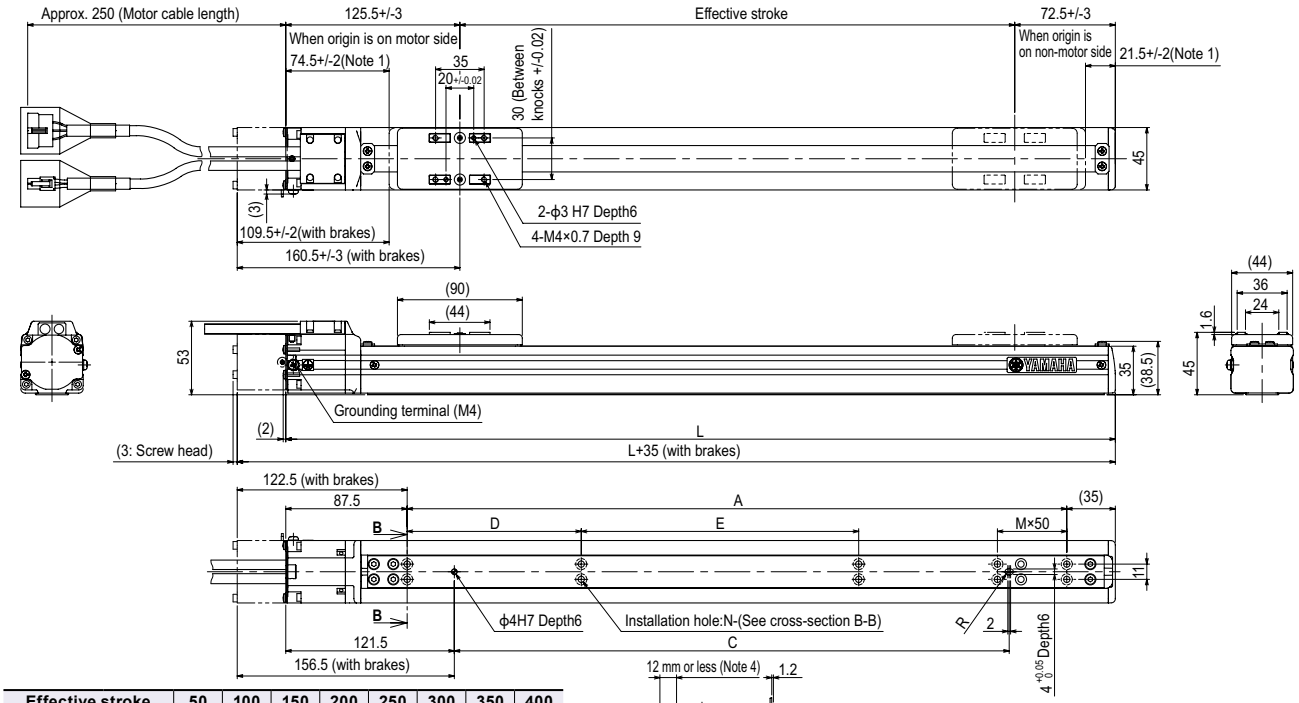
(Unit: N·m)

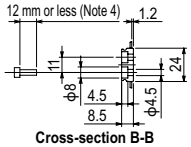
MY	MP	MR
15	19	18

Controller

Controller	Operation method
SR1-X05 RCX320 RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
TS-X105 TS-X205	I/O point trace / Remote command
RDV-X205	Pulse train control

T4LH





Cross-section B-B

Effective stroke		50	100	150	200	250	300	350	400
L		248	298	348	398	448	498	548	598
A		125.5	175.5	225.5	275.5	325.5	375.5	425.5	475.5
C		50	100	150	200	250	300	350	400
D		-	-	-	-	125.5	125.5	125.5	125.5
E		-	-	-	-	-	-	200	200
M		0	1	2	3	0	1	0	1
N		4	6	8	10	6	8	8	10
Weight (kg) Note 3		1.1	1.2	1.4	1.5	1.6	1.7	1.8	1.9
Maximum speed for each stroke (mm/sec)	Lead 12	720							
	Lead 6	360							
	Lead 2	120							

Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. Minimum bend radius of motor cable is R30.
Note 3. 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.
Note 4. The under-head length of the hex socket-head bolt (M4×0.7) to be used for the installation work is 12mm or less.
Note 5. External view of T4LH is identical to T4L.

Controller | SR1-X ▶ 618 | TS-X ▶ 592 | RDV-X ▶ 606

T5L

High lead: Lead 20 | Origin on the non-motor side is selectable | Controller: 24V

Ordering method

T5L	-		-		-		-		-		-	ERCD	-	
Model		Lead designation		Brake Note 1		Origin position change		Grease type		Stroke		Cable length Note 2		Controller		I/O connector specification
		20: 20mm 12: 12mm 6: 6mm		No entry: No brakes BK: Brakes provided		None: Standard Z: Non-motor side		None: Standard GC: Clean		50 to 800 (50mm pitch)		1K: 1m 3K: 3.5m 5K: 5m 10K: 10m				CN1: I/O flat cable 1m (Standard) CN2: Twisted-pair cable 2m (pulse train function)

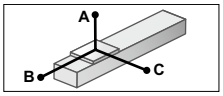
Note 1. The model with a lead of 20mm cannot select specifications with brake (vertical specifications).
Note 2. The robot cable is flexible and resists bending. See P.692 for details on robot cable.

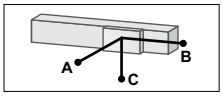
Specifications

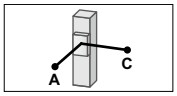
AC servo motor output (W)		30		
Repeatability Note 1 (mm)		+/-0.02		
Deceleration mechanism		Ball screw ϕ12		
Ball screw lead (mm)		20	12	6
Maximum speed Note 2 (mm/sec)		1200	800	400
Maximum payload (kg)	Horizontal	3	5	9
	Vertical	-	1.2	2.4
Rated thrust (N)		19	32	64
Stroke (mm)		50 to 800 (50mm pitch)		
Overall length (mm)	Horizontal	Stroke+201.5		
	Vertical	Stroke+239.5		
Maximum dimensions of cross section of main unit (mm)		W55×H52		
Cable length (m)		Standard: 3.5 / Option: 1,5,10		
Linear guide type		2 rows of gothic arch grooves × 1 rail		
Position detector		Resolvers Note 3		
Resolution (Pulse/rotation)		16384		

Note 1. Positioning repeatability in one direction.
Note 2. When the stroke is longer than 600mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.
Note 3. Position detectors (resolvers) are common to incremental and absolute specifications. If the controller has a backup function then it will be absolute specifications.

Allowable overhang Note







Horizontal installation (Unit: mm)

		A	B	C
Lead 20	1kg	600	323	683
	3kg	675	103	247
Lead 12	2kg	1170	159	406
	5kg	555	59	155
Lead 6	3kg	1498	104	294
	9kg	628	31	89

Wall installation (Unit: mm)

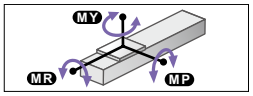
		A	B	C
Lead 20	1kg	600	291	600
	3kg	215	73	589
Lead 12	2kg	368	127	1082
	5kg	127	30	449
Lead 6	3kg	263	73	970
	9kg	54	0	400

Vertical installation (Unit: mm)

		A	C
Lead 12	1.2kg	242	240
Lead 6	2.4kg	113	113

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 600mm stroke models.

Static loading moment



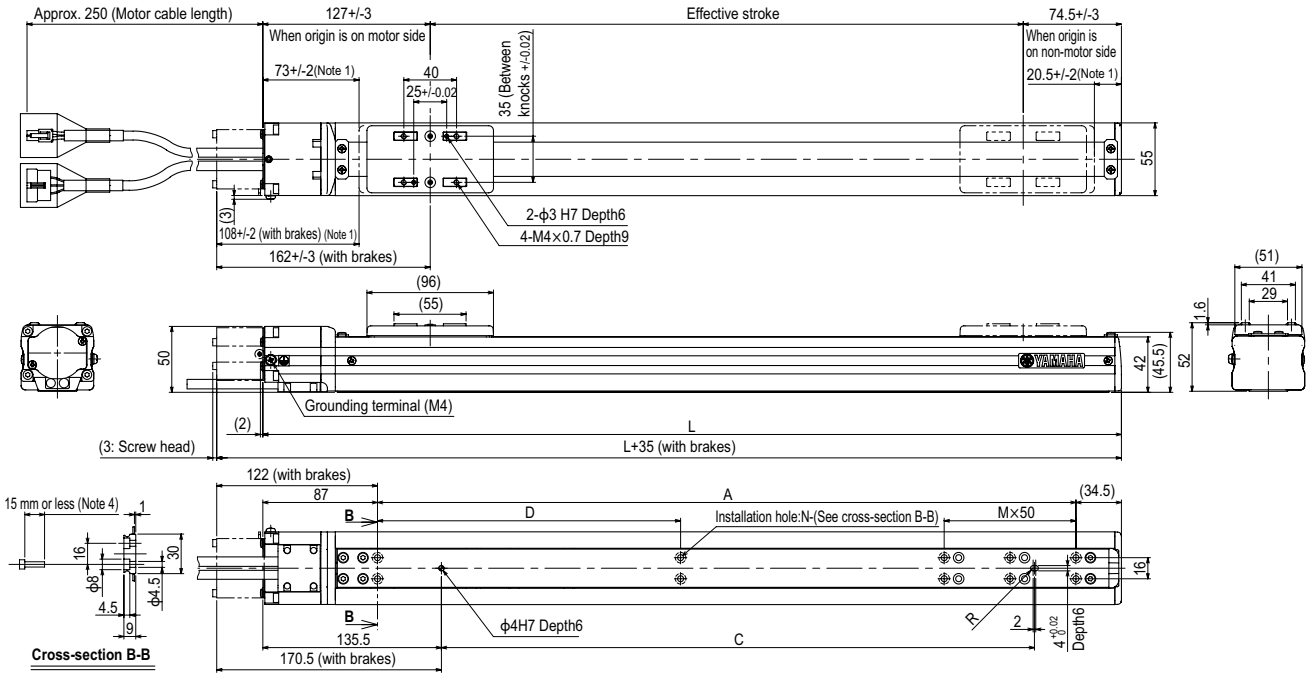
(Unit: N·m)

MY	MP	MR
30	34	40

Controller

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

T5L



Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	251.5	301.5	351.5	401.5	451.5	501.5	551.5	601.5	651.5	701.5	751.5	801.5	851.5	901.5	951.5	1001.5
A	130	180	230	280	330	380	430	480	530	580	630	680	730	780	830	880
C	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
D	-	-	-	-	-	-	230	230	230	230	230	230	230	230	230	230
M	0	1	2	3	4	5	0	1	2	3	4	5	6	7	8	9
N	4	6	8	10	12	14	6	8	10	12	14	16	18	20	22	24
Weight (kg) Note 3	1.7	1.8	2.0	2.2	2.3	2.5	2.7	2.8	3.0	3.2	3.3	3.5	3.7	3.8	4.0	4.2
Maximum speed for each stroke Note 5 (mm/sec) Lead 20	1200												960	840	720	660
Lead 12	800												640	560	480	440
Lead 6	400												320	280	240	220
Speed setting	-												80%	70%	60%	55%

Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. Minimum bend radius of motor cable is R30.
Note 3. 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.
Note 4. The under-head length of the hex socket-head bolt (M4×0.7) to be used for the installation work is 15mm or less.
Note 5. When the stroke is longer than 600mm, resonance of the ball screw may occur depending on the operation conditions (critical speed).
In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.
Note 6. External view of T5LH is identical to T5L.

T5LH

● High lead: Lead 20 ● Origin on the non-motor side is selectable ● Controller: 100V / 200V

Ordering method

T5LH - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

Model	Lead designation	Brake Note 1	Origin position change	Grease type	Stroke	Cable length Note 2
	20: 20mm 12: 12mm 6: 6mm	No entry: No brakes BK: Brakes provided	None: Standard Z: Non-motor side	None: Standard GC: Clean	50 to 800 (50mm pitch)	3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable)

TSX - [ ] - [ ] - [ ] - [ ] - [ ]

Positioner Note 3	Driver: Power-supply voltage / Power capacity	LCD monitor	I/O selection	Battery
TSX: TS-X	105: 100V/100W or less 205: 200V/100W or less	No entry: None L: With LCD	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board Note 4	B: With battery (Absolute) N: None (Incremental)

SR1-X - **05** - [ ] - [ ] - [ ]

Controller	Driver: Power capacity	Usable for CE	I/O selection	Battery
	05: 100W or less	No entry: Standard E: CE marking	N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS	B: With battery (Absolute) N: None (Incremental)

RDV-X - **2** - **05**

Driver	Power-supply voltage	Driver: Power capacity
	2: AC200V	05: 100W or less

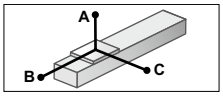
Note 1. The model with a lead of 20mm cannot select specifications with brake (vertical specifications).
Note 2. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable. See P.692 for details on robot cable.
Note 3. See P.600 for DIN rail mounting bracket.
Note 4. Select this selection when using the gateway function.

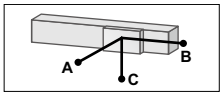
Specifications

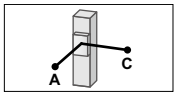
AC servo motor output (W)		30		
Repeatability Note 1 (mm)		+/-0.02		
Deceleration mechanism		Ball screw ϕ12		
Ball screw lead (mm)		20	12	6
Maximum speed Note 2 (mm/sec)		1200	800	400
Maximum payload (kg)	Horizontal	3	5	9
	Vertical	-	1.2	2.4
Rated thrust (N)		19	32	64
Stroke (mm)		50 to 800 (50mm pitch)		
Overall length (mm)	Horizontal	Stroke+201.5		
	Vertical	Stroke+239.5		
Maximum dimensions of cross section of main unit (mm)		W55×H52		
Cable length (m)		Standard: 3.5 / Option: 5,10		
Linear guide type		2 rows of gothic arch grooves × 1 rail		
Position detector		Resolvers Note 3		
Resolution (Pulse/rotation)		16384		

Note 1. Positioning repeatability in one direction.
Note 2. When the stroke is longer than 600mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.
Note 3. Position detectors (resolvers) are common to incremental and absolute specifications. If the controller has a backup function then it will be absolute specifications.

Allowable overhang Note







Horizontal installation (Unit: mm)

		A	B	C
Lead 20	1kg	967	324	598
	3kg	429	104	226
Lead 12	2kg	916	159	398
	5kg	436	60	152
Lead 6	3kg	1194	105	294
	9kg	624	31	89

Wall installation (Unit: mm)

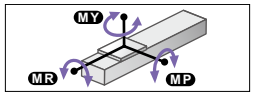
		A	B	C
Lead 20	1kg	551	304	925
	3kg	185	89	378
Lead 12	2kg	347	141	800
	5kg	119	44	355
Lead 6	3kg	259	87	950
	9kg	50	15	385

Vertical installation (Unit: mm)

		A	C
Lead 12	1.2kg	240	239
Lead 6	2.4kg	109	110

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 600mm stroke models.

Static loading moment



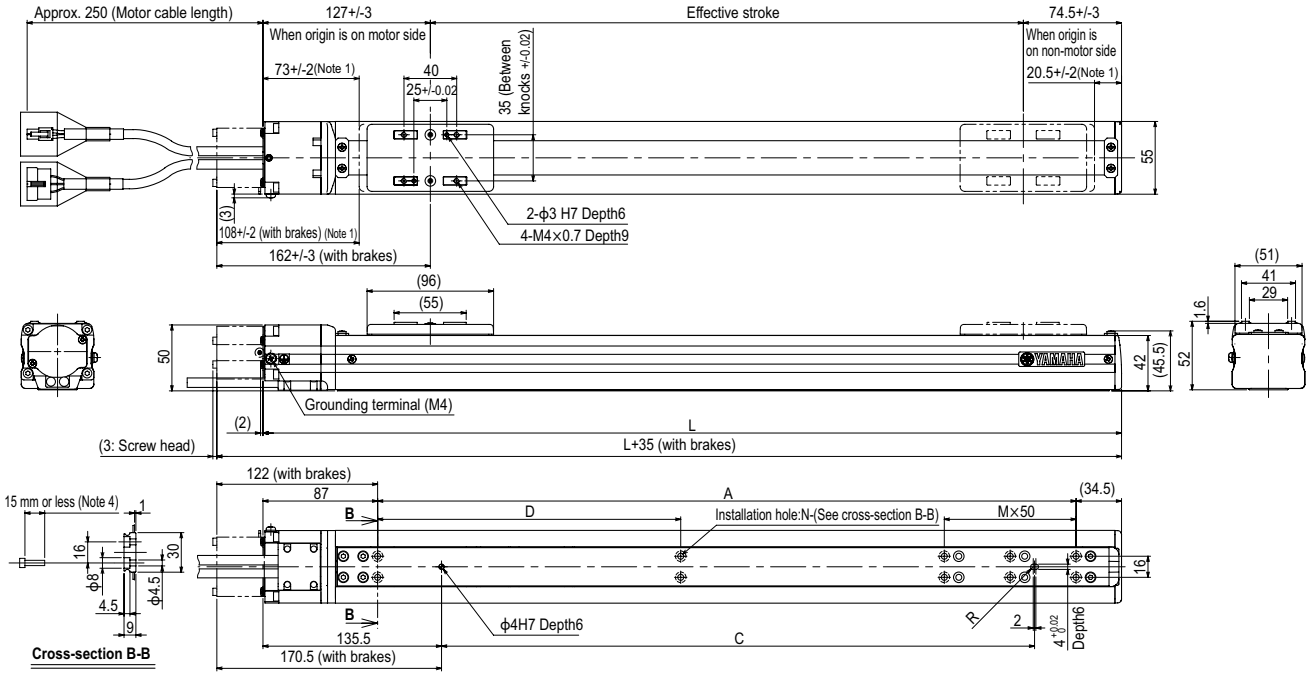
(Unit: N·m)

MY	MP	MR
30	34	40

Controller

Controller	Operation method
SR1-X05 RCX320 RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
TS-X105 TS-X205	I/O point trace / Remote command
RDV-X205	Pulse train control

T5LH



Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	251.5	301.5	351.5	401.5	451.5	501.5	551.5	601.5	651.5	701.5	751.5	801.5	851.5	901.5	951.5	1001.5
A	130	180	230	280	330	380	430	480	530	580	630	680	730	780	830	880
C	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
D	-	-	-	-	-	-	230	230	230	230	230	230	230	230	230	230
M	0	1	2	3	4	5	0	1	2	3	4	5	6	7	8	9
N	4	6	8	10	12	14	6	8	10	12	14	16	18	20	22	24
Weight (kg) Note 3	1.7	1.8	2.0	2.2	2.3	2.5	2.7	2.8	3.0	3.2	3.3	3.5	3.7	3.8	4.0	4.2
Maximum speed for each stroke Note 5 (mm/sec) Lead 20	1200												960	840	720	660
Lead 12	800												640	560	480	440
Lead 6	400												320	280	240	220
Speed setting	-												80%	70%	60%	55%

Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. Minimum bend radius of motor cable is R30.
Note 3. 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.
Note 4. The under-head length of the hex socket-head bolt (M4×0.7) to be used for the installation work is 15mm or less.
Note 5. When the stroke is longer than 600mm, resonance of the ball screw may occur depending on the operation conditions (critical speed).
In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.
Note 6. External view of T5LH is identical to T5L.

Controller SR1-X ▶ 618 TS-X ▶ 592 RDV-X ▶ 606

T6L

● High lead: Lead 20 ● Origin on the non-motor side is selectable
● Controller: 100V / 200V

Ordering method

T6L – [ ] – [ ] – [ ] – [ ] – [ ] – [ ]

Model	Lead designation	Brake Note 1	Origin position change	Grease type	Stroke	Cable length Note 2
	20: 20mm 12: 12mm 6: 6mm	No entry: No brakes BK: Brakes provided	None: Standard Z: Non-motor side	None: Standard GC: Clean	50 to 800 (50mm pitch)	3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable)

TSX – [ ] – [ ] – [ ] – [ ] – [ ]

Positioner Note 3	Driver: Power-supply voltage / Power capacity	LCD monitor	I/O selection	Battery
TSX: TS-X	105: 100V/100W or less 205: 200V/100W or less	No entry: None L: With LCD	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board Note 4	B: With battery (Absolute) N: None (Incremental)

SR1-X – **05** – [ ] – [ ] – [ ]

Controller	Driver: Power capacity	Usable for CE	I/O selection	Battery
	05: 100W or less	No entry: Standard E: CE marking	N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS	B: With battery (Absolute) N: None (Incremental)

RDV-X – **2** – **05** – **RBR1**

Driver	Power-supply voltage	Driver: Power capacity	Regenerative unit
	2: AC200V	05: 100W or less	

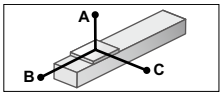
Note 1. The model with a lead of 20mm cannot select specifications with brake (vertical specifications).
Note 2. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable. See P.692 for details on robot cable.
Note 3. See P.600 for DIN rail mounting bracket.
Note 4. Select this selection when using the gateway function.

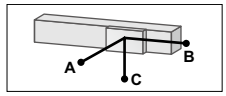
Specifications

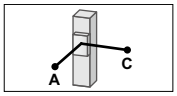
AC servo motor output (W)		60		
Repeatability Note 1 (mm)		+/-0.02		
Deceleration mechanism		Ball screw φ12		
Ball screw lead (mm)		20	12	6
Maximum speed Note 2 (mm/sec)		1333	800	400
Maximum payload (kg)	Horizontal	10	12	30
	Vertical	-	4	8
Rated thrust (N)		51	85	170
Stroke (mm)		50 to 800 (50mm pitch)		
Overall length (mm)	Horizontal	Stroke+247.5		
	Vertical	Stroke+285.5		
Maximum dimensions of cross section of main unit (mm)		W65×H56		
Cable length (m)		Standard: 3.5 / Option: 5,10		
Linear guide type		2 rows of gothic arch grooves × 1 rail		
Position detector		Resolvers Note 3		
Resolution (Pulse/rotation)		16384		

Note 1. Positioning repeatability in one direction.
Note 2. When the stroke is longer than 600mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.
Note 3. Position detectors (resolvers) are common to incremental and absolute specifications. If the controller has a backup function then it will be absolute specifications.

Allowable overhang Note







Horizontal installation (Unit: mm)

		A	B	C
Lead 20	2kg	319	184	234
	6kg	98	37	77
	10kg	64	0	55
Lead 12	3kg	624	125	335
	8kg	273	41	121
	12kg	216	24	77
Lead 6	5kg	694	73	236
	10kg	374	33	109
	30kg	159	0	25

Wall installation (Unit: mm)

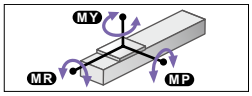
		A	B	C
Lead 20	2kg	234	152	265
	6kg	61	13	71
	10kg	30	0	42
Lead 12	3kg	293	96	510
	8kg	89	14	210
	12kg	43	0	130
Lead 6	5kg	204	45	530
	10kg	72	0	245
	30kg	0	0	0

Vertical installation (Unit: mm)

		A	C
Lead 12	1kg	355	352
	2kg	165	165
	4kg	70	72
Lead 6	2kg	171	172
	4kg	73	74
	8kg	23	26

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 600mm stroke models.

Static loading moment



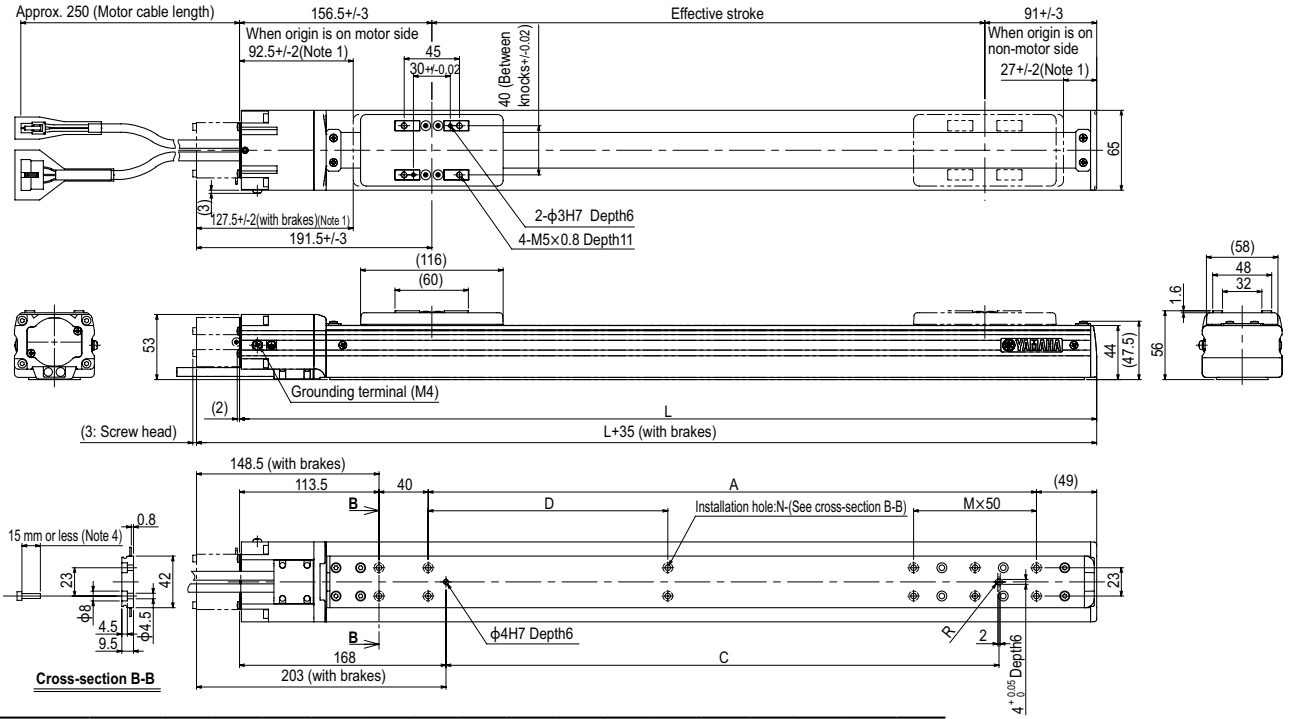
(Unit: N·m)

MY	MP	MR
35	40	50

Controller

Controller	Operation method
SR1-X05 RCX320 RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
TS-X105 TS-X205	I/O point trace / Remote command
RDV-X205-RBR1	Pulse train control

T6L



Effective stroke		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L		297.5	347.5	397.5	447.5	497.5	547.5	597.5	647.5	697.5	747.5	797.5	847.5	897.5	947.5	997.5	1047.5
A		95	145	195	245	295	345	395	445	495	545	595	645	695	745	795	845
C		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
D		-	-	-	-	-	-	195	195	195	195	195	195	195	195	195	195
M		0	1	2	3	4	5	0	1	2	3	4	5	6	7	8	9
N		6	8	10	12	14	16	8	10	12	14	16	18	20	22	24	26
Weight (kg) Note 3		2.4	2.6	2.8	3.1	3.3	3.5	3.7	4.0	4.2	4.4	4.6	4.8	5.1	5.3	5.5	5.7
Maximum speed for each stroke Note 5 (mm/sec)	Lead 20	1333												1133	1000	866	800
	Lead 12	800												680	600	520	480
	Lead 6	400												340	300	260	240
	Speed setting	-												85%	75%	65%	60%

Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. Minimum bend radius of motor cable is R30.
Note 3. 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.
Note 4. The under-head length of the hex socket-head bolt (M4×0.7) to be used for the installation work is 15mm or less.
Note 5. When the stroke is longer than 600mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.

T9

High lead: Lead 30

Origin on the non-motor side is selectable: Lead 10·20·30

Note. Strokes longer than 1050mm are special order items. Please consult us for delivery time.

Ordering method

T9

Model	Lead designation	Brake Note 1	Origin position change	Grease type	Stroke	Cable length Note 2
	30: 30mm 20: 20mm 10: 10mm 5: 5mm	No entry:No brakes BK: Brakes provided	None: Standard Z: Non-motor side Note 2	None: Standard GC: Clean	Lead 20·10·5: 150 to 1050 (50mm pitch) Lead 30: 150 to 1250 (50mm pitch)	3L: 3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable)

TSX

Positioner Note 4	Driver: Power-supply voltage / Power capacity	Regenerative unit	LCD monitor	I/O selection	Battery
TSX: TS-X	105: 100V/100W or less 205: 200V/100W or less	No entry: None R: With RGT	No entry: None L: With LCD	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board Note 5	B: With battery (Absolute) N: None (Incremental)

SR1-X

Controller	Driver: Power capacity	Usable for CE	Regenerative unit	I/O selection	Battery
	05: 100W or less	No entry: Standard E: CE marking	No entry: None R: With RG1	N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS	B: With battery (Absolute) N: None (Incremental)

RDV-X

Driver	Power-supply voltage	Driver: Power capacity	Regenerative unit
	2: AC200V	05: 100W or less	RBR1

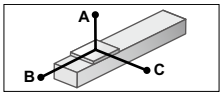
Note 1. The model with a lead of 30mm cannot select specifications with brake (vertical specifications).
Note 2. If selecting 5mm lead specifications then the origin point cannot be changed to the non-motor side.
Note 3. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable. See P.692 for details on robot cable.
Note 4. See P.600 for DIN rail mounting bracket.
Note 5. Select this selection when using the gateway function.

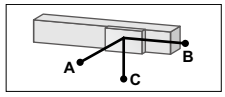
Specifications

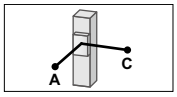
AC servo motor output (W)		100			
Repeatability Note 1 (mm)		+/-0.01			
Deceleration mechanism		Ball screw ϕ15			
Ball screw lead (mm)		30	20	10	5
Maximum speed Note 2 (mm/sec)		1800	1200	600	300
Maximum payload (kg)	Horizontal	15	30	55	80
	Vertical	–	4	10	20
Rated thrust (N)		56	84	169	339
Stroke (mm)		150 to 1250 Note 3 (50mm pitch)			
Overall length (mm)	Horizontal	Stroke+259			
	Vertical	Stroke+289			
Maximum dimensions of cross section of main unit (mm)		W94 × H98			
Cable length (m)		Standard: 3.5 / Option: 5,10			
Linear guide type		4 rows of circular arc grooves × 1 rail			
Position detector		Resolvers Note 4			
Resolution (Pulse/rotation)		16384			

Note 1. Positioning repeatability in one direction.
Note 2. When the stroke is longer than 700mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.
Note 3. Strokes longer than 1050mm are available only for high lead (Lead 30). (Special order item)
Note 4. Position detectors (resolvers) are common to incremental and absolute specifications. If the controller has a backup function then it will be absolute specifications.

Allowable overhang Note







Horizontal installation (Unit: mm)

		A	B	C
Lead 30	5kg	864	501	383
	15kg	491	156	140
Lead 20	5kg	1292	505	462
	15kg	572	158	151
	30kg	455	73	75
Lead 10	20kg	617	119	127
	40kg	422	53	59
	55kg	420	36	40
Lead 5	50kg	722	42	47
	60kg	657	33	37
	80kg	577	23	25

Wall installation (Unit: mm)

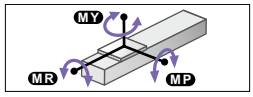
		A	B	C
Lead 30	5kg	348	384	776
	15kg	87	40	306
Lead 20	5kg	416	388	1186
	15kg	92	42	386
	30kg	0	0	61
Lead 10	10kg	193	132	910
	20kg	53	0	400
	30kg	0	0	109
Lead 5	10kg	197	133	2360
	20kg	54	0	985
	30kg	0	0	427

Vertical installation (Unit: mm)

		A	C
Lead 20	1kg	600	600
	2kg	1098	1098
Lead 10	4kg	545	545
	8kg	594	594
Lead 5	10kg	280	280
	15kg	221	221
	20kg	135	135
	30kg	92	92

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)

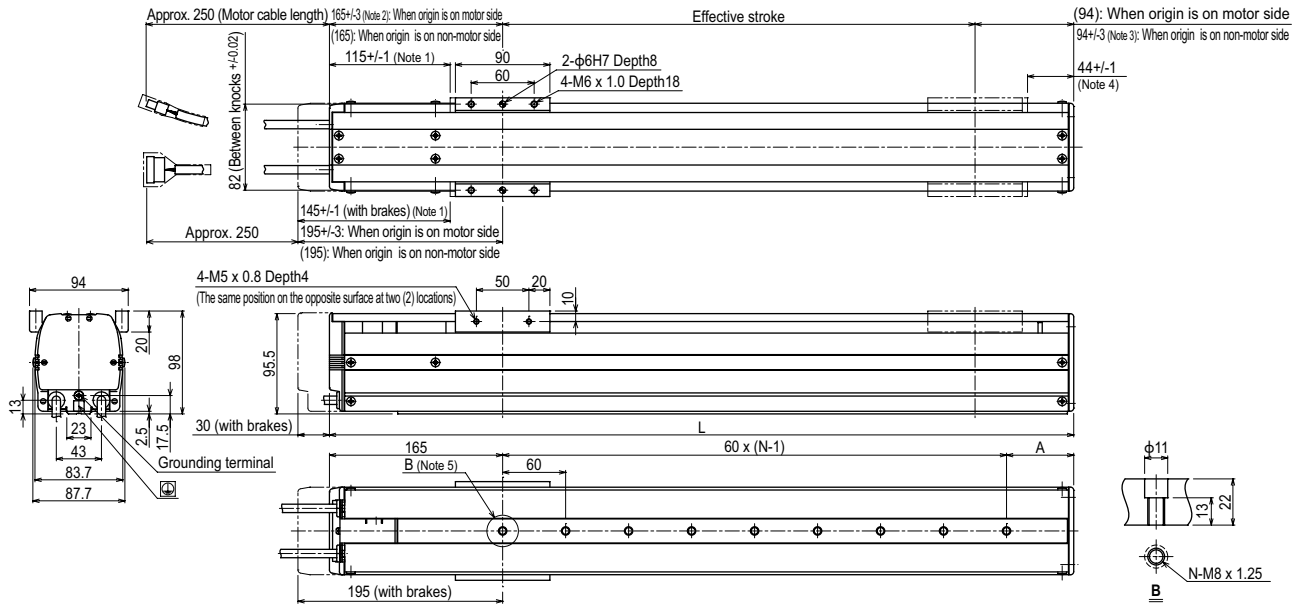
MY	MP	MR
86	133	117

Controller

Controller	Operation method
SR1-X05 Note RCX320 RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
TS-X105 Note TS-X205 Note	I/O point trace / Remote command
RDV-X205-RBR1	Pulse train control

Note. Regenerative unit is required when the models used vertically and with 700mm or larger stroke.

T9



Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. 167.5+/-4 when the high lead specification (Lead 30) is used.
Note 3. 94+/-4 when the high lead specification (Lead 30) is used.
Note 4. 41.5+/-1 when the high lead specification (Lead 30) is used.
Note 5. When installing the unit, washers, etc., cannot be used in the ϕ11 counter bore hole.
Note 6. Minimum bend radius of motor cable is R5.
Note 7. Weight of models with no brake. The weight of brake-attached models is 0.5 kg heavier than the models with no brake shown in the table.

Effective stroke		150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100 Note 9	1150 Note 9	1200 Note 9	1250 Note 9
L		409	459	509	559	609	659	709	759	809	859	909	959	1009	1059	1109	1159	1209	1259	1309	1359	1409	1459	1509
A		64	54	44	94	84	74	64	54	44	94	84	74	64	54	44	94	84	74	64	54	44	94	84
N		4	5	6	6	7	8	9	10	11	11	12	13	14	15	16	16	17	18	19	20	21	21	22
Weight (kg) Note 7		5.5	5.9	6.2	6.6	6.9	7.3	7.6	8.0	8.3	8.7	9.0	9.4	9.7	10.0	10.3	10.7	11.0	11.4	11.7	12.1	12.5	12.9	13.3
Maximum speed Note 8 (mm/sec)	Lead 30	1800												1440		1170		900		810				
	Lead 20	1200												960		780		600		540				
	Lead 10	600												480		390		300		270				
	Lead 5	300												240		195		150		135				
	Speed setting	–												80%		65%		50%		45%				

Note 8. When the stroke is longer than 700mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table above.
Note 9. Strokes longer than 1050mm are special order items. Please contact us for speed setting.

T9H

High lead: Lead 30

Origin on the non-motor side is selectable: Lead 20·30

Note. Strokes longer than 1050mm are special order items. Please consult us for delivery time.

Ordering method

T9H –

Model	Lead designation	Brake Note 1	Origin position change	Grease type	Stroke	Cable length Note 3
	30: 30mm 20: 20mm 10: 10mm 5: 5mm	No entry:No brakes BK: Brakes provided	None: Standard Z: Non-motor side Note 2	None: Standard GC: Clean	Lead 20·10·5: 150 to 1050 (50mm pitch) Lead 30: 150 to 1250 (50mm pitch)	3L:3.5m 5L: 5m 10L: 10m 3K/5K/10K (Flexible cable)

TSX –

Positioner Note 4	Driver: Power-supply voltage / Power capacity	Regenerative unit	LCD monitor	I/O selection	Battery
TSX: TSX-X	110: 100V/200W 210: 200V/200W	No entry: None R: With RGT	No entry: None L: With LCD	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board Note 5	B: With battery (Absolute) N: None (Incremental)

SR1-X – **10** –

Controller	Driver: Power capacity	Usable for CE	Regenerative unit	I/O selection	Battery
	10: 200W	No entry: Standard E: CE marking	No entry: None R: With RG1	N: NPN P: PNP CC: CC-Link DN: DeviceNet™ PB: PROFIBUS	B: With battery (Absolute) N: None (Incremental)

RDV-X – **2** – **10** – **RBR1**

Driver	Power-supply voltage	Driver: Power capacity	Regenerative unit
	2: AC200V	10: 200W or less	

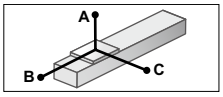
Note 1. The model with a lead of 30mm cannot select specifications with brake (vertical specifications).
Note 2. If selecting 10mm·5mm lead specifications then the origin point cannot be changed to the non-motor side.
Note 3. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable. See P.692 for details on robot cable.
Note 4. See P.600 for DIN rail mounting bracket.
Note 5. Select this selection when using the gateway function.

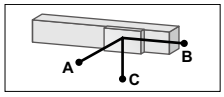
Specifications

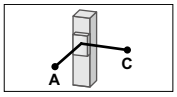
AC servo motor output (W)		200			
Repeatability Note 1 (mm)		+/-0.01			
Deceleration mechanism		Ball screw ϕ15			
Ball screw lead (mm)		30	20	10	5
Maximum speed Note 2 (mm/sec)		1800	1200	600	300
Maximum payload (kg)	Horizontal	25	40	80	100
	Vertical	–	8	20	30
Rated thrust (N)		113	170	341	683
Stroke (mm)		150 to 1250 Note 3 (50mm pitch)			
Overall length (mm)	Horizontal	Stroke+273			
	Vertical	Stroke+303			
Maximum dimensions of cross section of main unit (mm)		W94 × H98			
Cable length (m)		Standard: 3.5 / Option: 5,10			
Linear guide type		4 rows of circular arc grooves × 1 rail			
Position detector		Resolvers Note 4			
Resolution (Pulse/rotation)		16384			

Note 1. Positioning repeatability in one direction.
Note 2. When the stroke is longer than 700mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.
Note 3. Strokes longer than 1050mm are available only for high lead (Lead 30). (Special order item)
Note 4. Position detectors (resolvers) are common to incremental and absolute specifications. If the controller has a backup function then it will be absolute specifications.

Allowable overhang Note







Horizontal installation (Unit: mm)

		A	B	C
Lead 30	10kg	415	286	183
	20kg	270	105	93
Lead 20	10kg	667	244	225
	20kg	330	112	107
	40kg	162	42	47
Lead 10	30kg	392	75	81
	50kg	297	40	44
	80kg	265	21	24
Lead 5	60kg	477	22	37
	80kg	412	22	25
	100kg	362	16	18

Wall installation (Unit: mm)

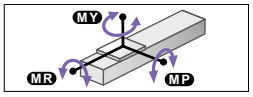
		A	B	C
Lead 30	10kg	140	120	323
	20kg	41	0	123
Lead 20	10kg	170	128	549
	20kg	46	0	182
	40kg	0	0	0
Lead 10	20kg	52	0	335
	25kg	24	0	235
	30kg	0	0	108
Lead 5	20kg	54	0	710
	25kg	25	0	505
	30kg	0	0	355

Vertical installation (Unit: mm)

		A	C
Lead 20	4kg	515	515
	6kg	334	334
	8kg	244	244
Lead 10	10kg	217	217
	15kg	133	133
	20kg	90	90
Lead 5	15kg	135	135
	20kg	92	92
	30kg	49	49

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)

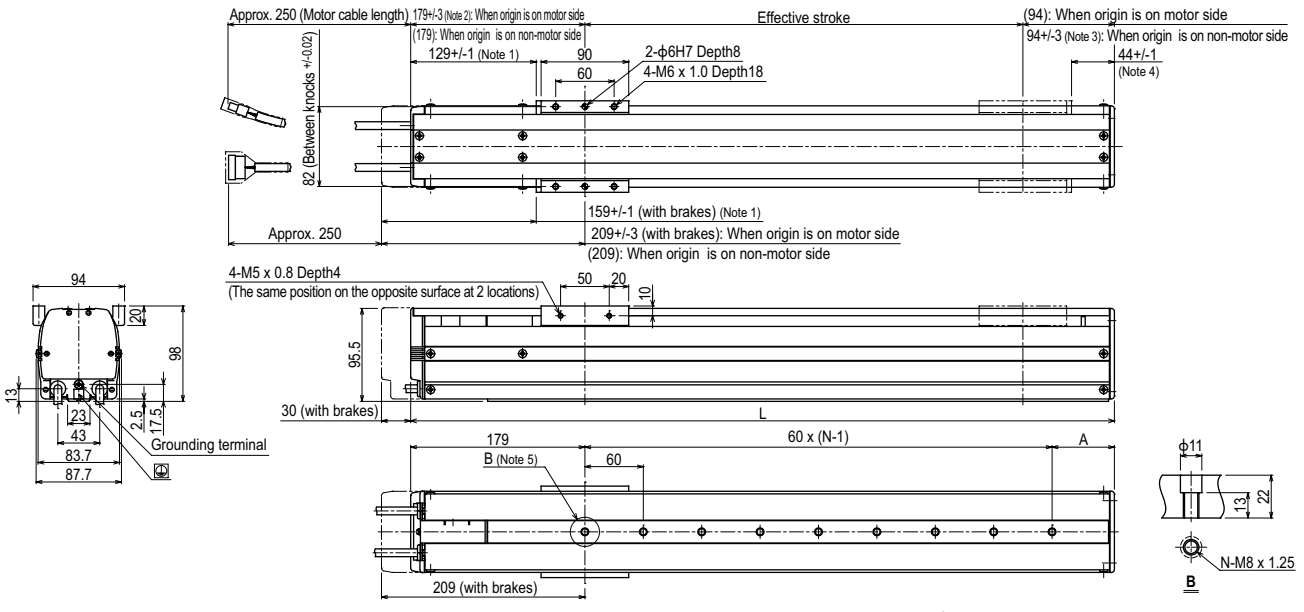
MY	MP	MR
86	133	117

Controller

Controller	Operation method
SR1-X10 Note RCX320 RCX340	Programming / I/O point trace / Remote command / Operation using RS-232C communication
TS-X110 Note	I/O point trace /
TS-X210 Note	Remote command
RDV-X210-RBR1	Pulse train control

Note. When using the unit vertically, a regeneration unit is required.

T9H



Note 1. Stop positions are determined by the mechanical stoppers at both ends.
Note 2. 181.5+/-4 when the high lead specification (Lead 30) is used.
Note 3. 94+/-4 when the high lead specification (Lead 30) is used.
Note 4. 41.5+/-1 when the high lead specification (Lead 30) is used.
Note 5. When installing the unit, washers, etc., cannot be used in the ϕ11 counter bore hole.
Note 6. Minimum bend radius of motor cable is R5.
Note 7. Weight of models with no brake. The weight of brake-attached models is 0.5 kg heavier than the models with no brake shown in the table.

Effective stroke		150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100 Note 9	1150 Note 9	1200 Note 9	1250 Note 9
L		423	473	523	573	623	673	723	773	823	873	923	973	1023	1073	1123	1173	1223	1273	1323	1373	1423	1473	1523
A		64	54	44	94	84	74	64	54	44	94	84	74	64	54	44	94	84	74	64	54	44	94	84
N		4	5	6	6	7	8	9	10	11	11	12	13	14	15	16	16	17	18	19	20	21	21	22
Weight (kg) Note 7		5.8	6.2	6.5	6.9	7.3	7.7	8.0	8.4	8.8	9.1	9.5	9.9	10.2	10.6	11.0	11.4	11.7	12.1	12.5	12.9	13.3	13.7	14.1
Maximum speed Note 8 (mm/sec)	Lead 30	1800												1440		1170		900		810				
	Lead 20	1200												960		780		600		540				
	Lead 10	600												480		390		300		270				
	Lead 5	300												240		195		150		135				
	Speed setting	–												80%		65%		50%		45%				

Note 8. When the stroke is longer than 700mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table above.
Note 9. Strokes longer than 1050mm are special order items. Please contact us for speed setting.

Controller SR1-X ▶ 618 | TS-X ▶ 592 | RDV-X ▶ 606