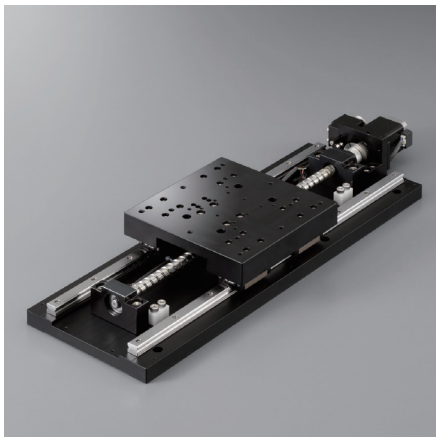
Slide Guide KXS Series Guidance

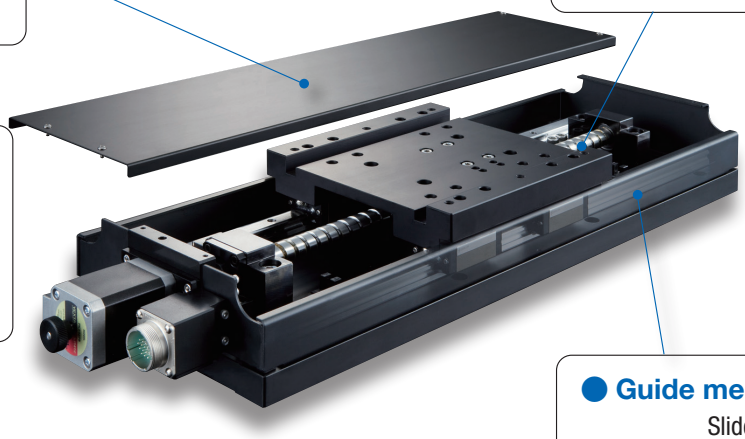


Functions

Cover type
- Anti-drop foreign material
- Grease antiscattering

Ball screw lead option
- High resolution (5mm)
- High speed (10mm)

Motor option
- Servo motor
- αStep motor
- Electromagnetic brake



Guide mechanism

Slide guide

Features

Long stroke

Slide guide allows long stroke.

Low price

Realize low price in in-house production ball screws.

High quality

Provide stable high quality by internally parts.

Compact

Place the sensor inside body. No projection on any side.

■Stroke line-up

Axis	Cover	Ball screw lead	Travel 100mm	200mm	300mm	400mm	500mm
X-axis	Installed	5mm	●	●	●	●	●
		10mm	●	●	●	●	●
	Uncovered	5mm	●	●	●	●	●
		10mm	●	●	●	●	●
XY-axis	Installed	5mm	●	●	●	–	–
		10mm	●	●	●	–	–
	Uncovered	5mm	●	●	●	–	–
		10mm	●	●	●	–	–
Z-axis	Installed	5mm	●	●	●	–	–
	Uncovered		●	●	●	–	–

For proper operation

▽How to mount

Fix with supplied screws

▽About the object that mounted on upper/bottom of stage.

When a stage is mounted on uneven or an object that is uneven, the stage table may deformed, and may also affeted the accuracy.

[Approximate flatness: up to 10μm]

▽Positioning

■Position of stage mounting

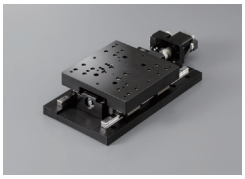
All products SPEC shows must be shown flat setting condition.

Pay attention to mount such as up side down, vertical on the side and horizontal on the side.

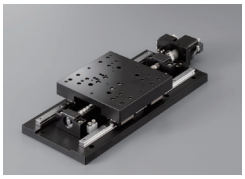
Load capacity and accuracy might be changed by the positioning.

X-axis Slide Guide: KXS18100/KXS18200/KXS18300

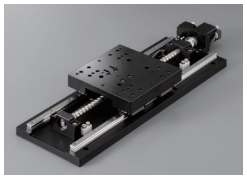
KXS18100-N



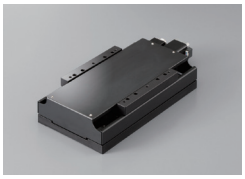
KXS18200-N



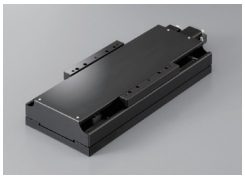
KXS18300-N



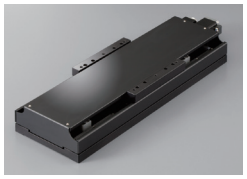
KXS18100-C



KXS18200-C



KXS18300-C



RoHS

KXS18100-N5-J□

1 2 3 4 5

1 Travel distance

100	100mm
200	200mm
300	300mm

2 Cover type

N	Uncovered	
C	Covered	

3 Ball screw lead selection

5	lead 5mm
10	lead 10mm

4 Motor option

Code	Specification
J	Standard
SA	With electromagnetic brake (Driver set)
QA	α Step (Driver set)
WA	Servo motor (Amplifier set)

* SA・QA・WA included driver and cable.

5 Cable option

Code	Specification	Cable type
Blank	Cable is not included (Standard)	—
A	2m	D214-1-2E
B	2m One end loose	D214-1-2EK
C	4m	D214-1-4E
D	4m One end loose	D214-1-4EK
E	Connector	—
F	Robot cable 2m	D214-1-2R
G	Robot cable 2m one end loose	D214-1-2RK
H	Robot cable 4m	D214-1-4R
J	Robot cable 4m one end loose	D214-1-4RK
M	Cable for electromagnetic brake	—
P	Cable for α step	
U	Cable for servo motor	

* One end loose position to only stage opposite side.
* See page ▶ P.1-287～ for more cable details.
* Please select "Code A, C, F or H" when connect with stepping motor controller(DS102/112).

[Note]
Please check available cable from compatibility list.
Not included cable for a main body. Please choose the code as below.

	Motor code	Cable code
Motor/cable products list	J	Blank, A～H、J
	SA	M
	QA	P
	WA	U

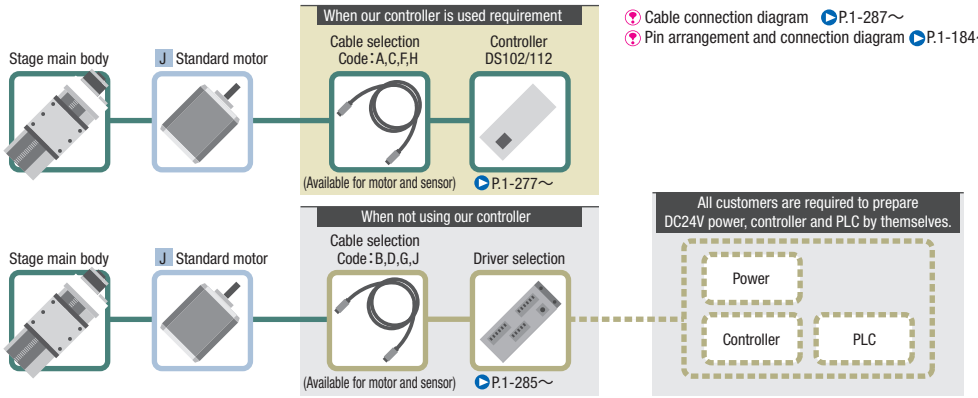
SPEC

Model		Uncovered	KXS18100-N5-J	KXS18100-N10-J	KXS18200-N5-J	KXS18200-N10-J	KXS18300-N5-J	KXS18300-N10-J
		Covered	KXS18100-C5-J	KXS18100-C10-J	KXS18200-C5-J	KXS18200-C10-J	KXS18300-C5-J	KXS18300-C10-J
Mechanical specification	Travel length		100mm		200mm		300mm	
	Table size		180×180mm					
	Feed screw (Ball screw)		ϕ15 lead 5	ϕ15 lead 10	ϕ15 lead 5	ϕ15 lead 10	ϕ15 lead 5	ϕ15 lead 10
	Guide		Slide guide					
	Main materials-Finishing		Aluminum–Black almite finishing					
	Weight	Uncovered	8.32kg		9.48kg		10.72kg	
		Covered	8.12kg		9.37kg		10.70kg	
Accuracy specification	Resolution (Pulse)	Full/Half	lead 5: 10μm/5μm lead 10: 20μm/10μm					
		Microstep	lead 5: 0.5μm (1/20 on resolution) lead 10: 1μm (1/20 on resolution)					
	MAX speed	lead 5mm	30mm/sec					
		lead 10mm	50mm/sec					
	Uni-directional positioning accuracy		15 μm		20 μm		30 μm	
	Repeatability positioning accuracy		±1 μm					
	Load capacity		30kgf [294N]					
	Moment stiffness		Pitch 0.005/yaw 0.008/roll 0.003[″/N・cm]					
	Backlash		2 μm					
	Straightness		10 μm		15 μm		20 μm	
	Parallelism		50 μm					
	Motion parallelism		20 μm				30 μm	
	Pitching/Yawing		30″/20″		50″/20″		60″/30″	
Sensor	Limit sensor		Installed					
	Origin sensor		Installed					
	Slit origin sensor		Installed					
Provided screw (Hexagon-headed bolt)			8 of M6—20					

* Might be changed specification due to motors. See page ▶ P.1-183~ for details.

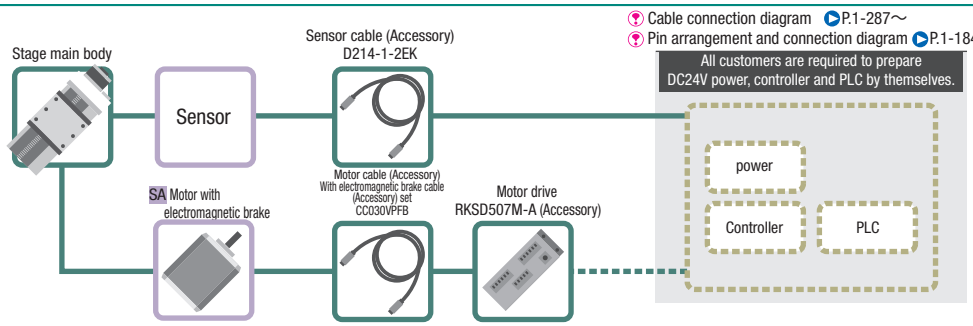
Motor option

J Standard motor
Motor model
PK546PB



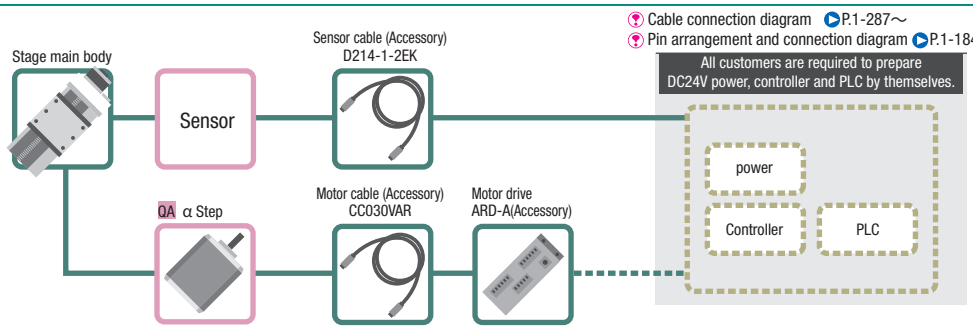
Motor option

SA With electromagnetic brake
Motor model
PKE566MC



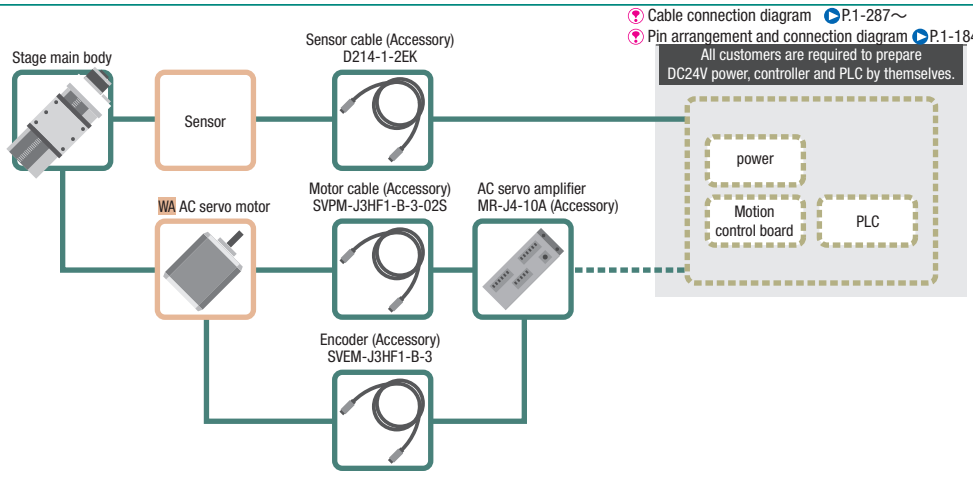
Motor option

QA α Step
Motor model
ARM46AC



Motor option

WA AC servo motor
Motor model
HG-KR13



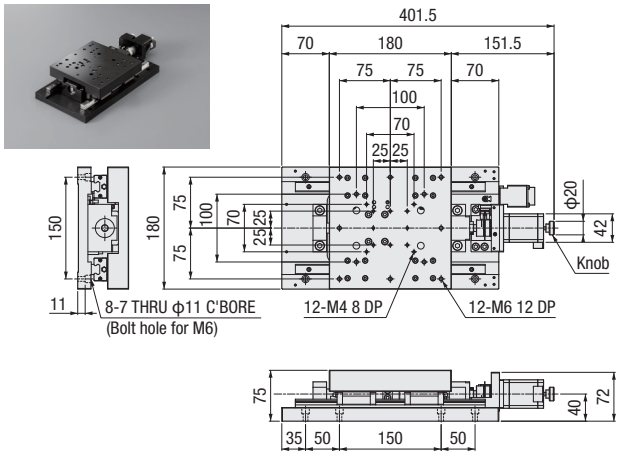
Motor code			J	SA	QA	WA
Feature			Standard	With electromagnetic brake	Small step-out	High speed
Type			5 phase stepping motor 0.75A/Phase	5 phase stepping motor 0.75A/Phase	α step	AC servo motor
Motor model※			PK546PB	PKE566MC	ARM46AC	HG-KR13
Resolution	lead 5mm	Full/Half	10μm/5μm		5μm (Set to 1000P/R)	22 bits encoder (4194304P/R)
		Micro step (1/20 split)	0.5μm		—	
	lead 10mm	Full/Half	20μm/10μm		10μm (Set to 1000P/R)	
		Micro step (1/20 split)	1μm		—	
MAX speed	lead 5mm		30mm/sec	140mm/sec	100mm/sec	200mm/sec
	lead 10mm		50mm/sec	215mm/sec	125mm/sec	400mm/sec

* Model numbers include Suruga Seiki's proprietary management codes.

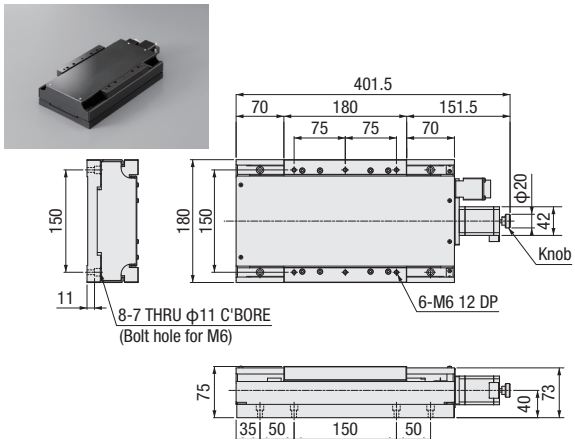
X-axis Slide Guide: KXS18100/KXS18200/KXS18300

Dimensions

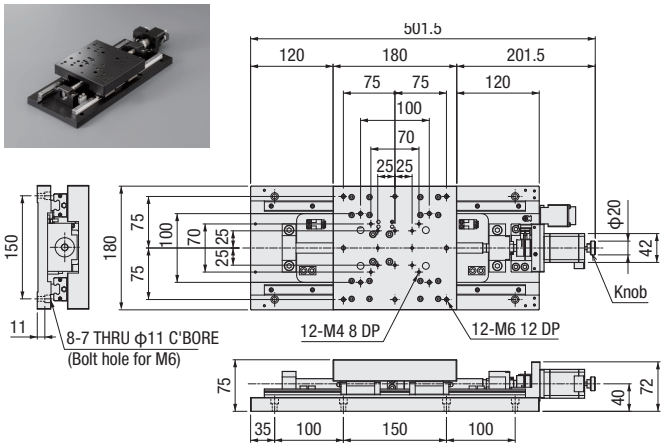
KXS18100-N5-J (KXS18100-N10-J)



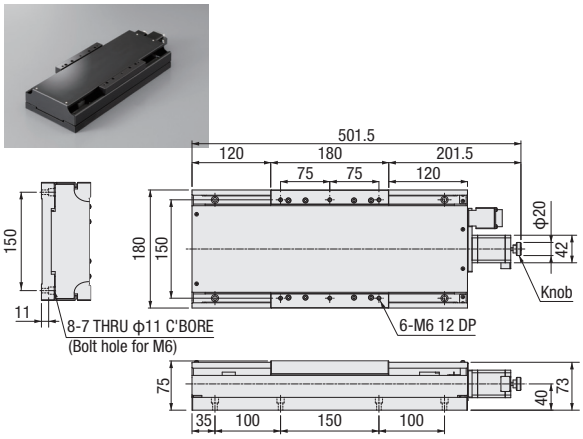
KXS18100-C5-J (KXS18100-C10-J)



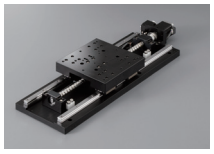
KXS18200-N5-J (KXS18200-N10-J)

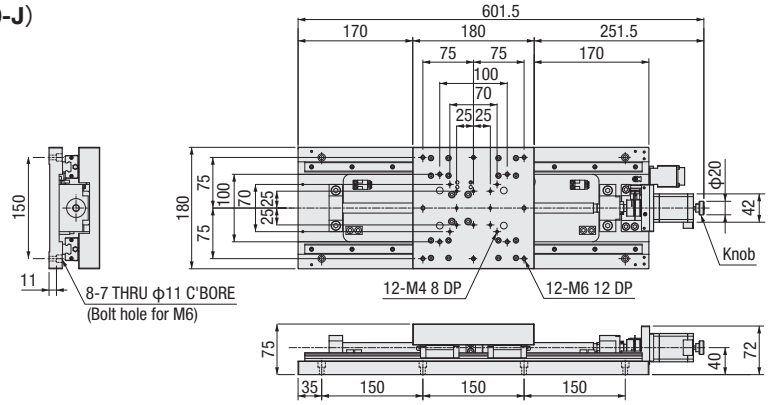


KXS18200-C5-J (KXS18200-C10-J)

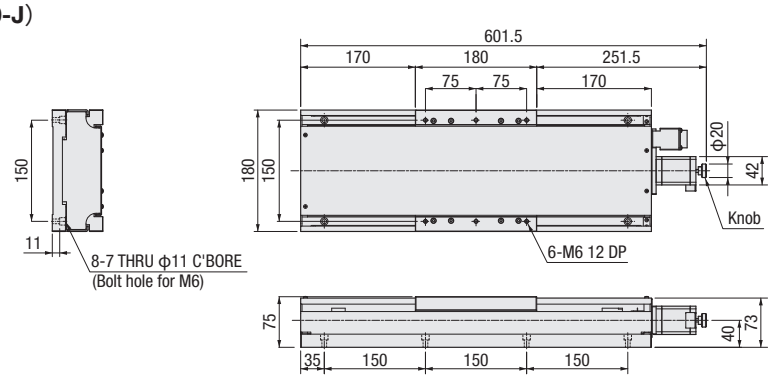


KXS18300-N5-J (KXS18300-N10-J)





KXS18300-C5-J (KXS18300-C10-J)

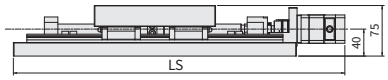


Dimensions

J Standard motor

Motor model PK546PB

That is applicable to
uncovered and covered

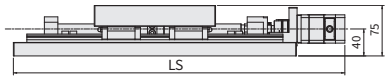


Model	J (Standard)	
	Motor size	LS
KXS18100-□□-J□	□42	402
KXS18200-□□-J□		502
KXS18300-□□-J□		602

SA With electromagnetic brake

Motor model PKE566MC

That is applicable to
uncovered and covered

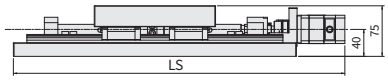


Model	SA (Electromagnetic brake)		J (Standard)
	Motor size	LS	LS
KXS18100-□□-SAM	□60	425.5	402
KXS18200-□□-SAM		525.5	502
KXS18300-□□-SAM		625.5	602

QA α step

Motor model ARM46AC

That is applicable to
uncovered and covered

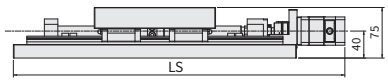


Model	QA (α step)		J (Standard)
	Motor size	LS	LS
KXS18100-□□-QAP	□42	395	402
KXS18200-□□-QAP		495	502
KXS18300-□□-QAP		595	602

WA AC servo motor

Motor model HG-KR13

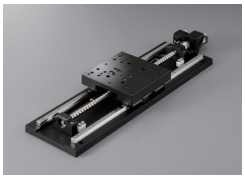
That is applicable to
uncovered and covered



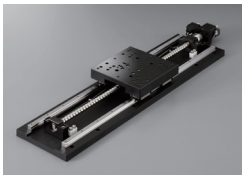
Model	WA (Servo motor)		J (Standard)
	Motor size	LS	LS
KXS18100-□□-WAU	□40	414.4	402
KXS18200-□□-WAU		514.4	502
KXS18300-□□-WAU		614.4	602

X-axis Slide Guide: KXS18400/KXS18500

KXS18400-N



KXS18500-N



KXS18400-C

KXS18500-C

RoHS

KXS18400-N5-J□

1 2 3 4 5

Calbes P.1-287～
Electrical specificationP.1-183～

1 Travel distance

400	400mm
500	500mm

2 Cover type

N	Uncovered	
C	Covered	

3 Ball screw lead selection

5	lead 5mm
10	lead 10mm

4 Motor option

Code	Specification
J	Standard
SA	With electromagnetic brake (Driver set)
QA	α Step (Driver set)
WA	Servo motor (Amplifier set)

* SA・QA・WA included driver and cable.

5 Cable option

Code	Specification	Cable type
Blank	Cable is not included (Standard)	—
A	2m	D214-1-2E
B	2m One end loose	D214-1-2EK
C	4m	D214-1-4E
D	4m One end loose	D214-1-4EK
E	Only connector (Cable is not included)	—
F	Robot cable 2m	D214-1-2R
G	Robot cable 2m one end loose	D214-1-2RK
H	Robot cable 4m	D214-1-4R
J	Robot cable 4m one end loose	D214-1-4RK
M	Cable for electromagnetic brake	—
P	Cable for α step	
U	Cable for servo motor	

* One end loose position to only stage opposite side.
* Please select "Code A, C, F or H" when connect with stepping motor controller(DS102/112).

[Note]
Please check available cable from compatibility list.
Not included cable for a main body. Please choose the code as below.

	Motor code	Cable code
Motor/cable products list	J	Blank, A～H、J
	SA	M
	QA	P
	WA	U

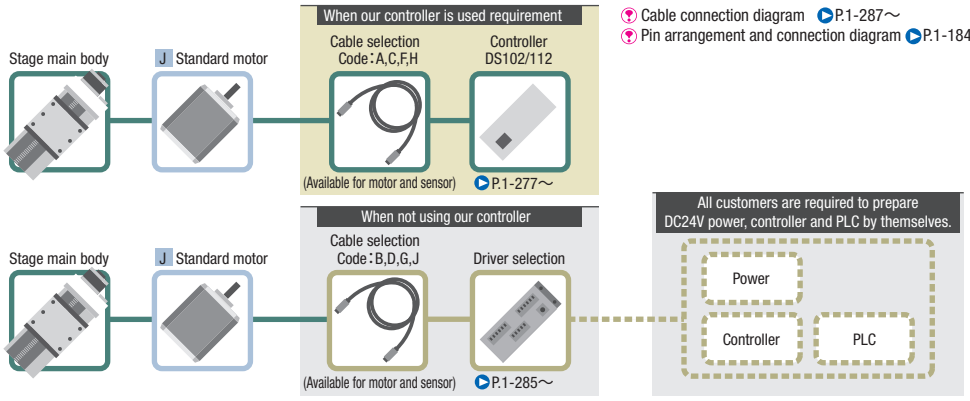
SPEC

Model		Uncovered	KXS18400-N5-J	KXS18400-N10-J	KXS18500-N5-J	KXS18500-N10-J
		Covered	KXS18400-C5-J	KXS18400-C10-J	KXS18500-C5-J	KXS18500-C10-J
Mechanical specification	Travel length		400mm		500mm	
	Table size		180×180mm			
	Feed screw (Ball screw)		φ15 lead 5	φ15 lead 10	φ15 lead 5	φ15 lead 10
	Guide		Slide guide			
	Main materials-Finishing		Aluminum–Black almite finishing			
	Weight	Uncovered	11.92kg		13.10kg	
		Covered	11.99kg		13.26kg	
Accuracy specification	Resolution (Pulse)	Full/Half	lead 5: 10μm/5μm	lead 10: 20μm/10μm		
		Microstep	lead 5: 0.5μm (1/20 on resolution)	lead 10: 1μm (1/20 on resolution)		
	MAX speed	lead 5mm	30mm/sec			
		lead 10mm	50mm/sec			
	Uni-directional positioning accuracy		35 μm		40 μm	
	Repeatability positioning accuracy		±1 μm			
	Load capacity		30kgf [294N]			
	Moment stiffness		Pitch 0.005/yaw 0.008/roll 0.003 [″/N・cm]			
	Backlash		2 μm			
	Straightness		25 μm		30 μm	
	Parallelism		50 μm			
	Motion parallelism		30 μm			
	Pitching/Yawing		60″/30″		70″/30″	
Sensor	Limit sensor		Installed			
	Origin sensor		Installed			
	Slit origin sensor		Installed			
Provided screw (Hexagon-headed bolt)			8 of M6—20		12 of M6—20	

* Might be changed specification due to motors. See page P.1-183~ for details.

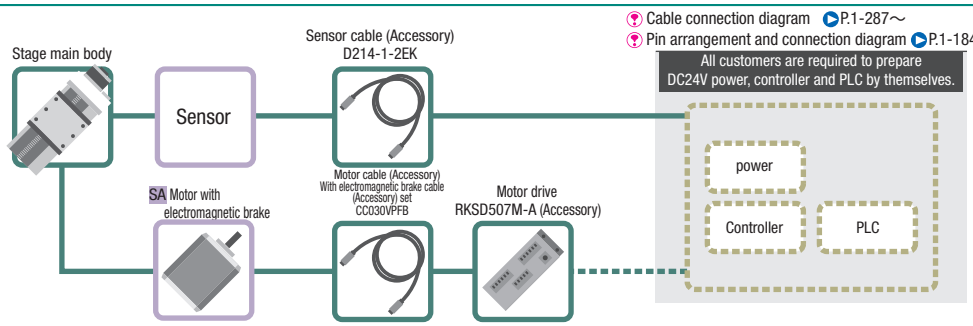
Motor option

J Standard motor
Motor model
PK546PB



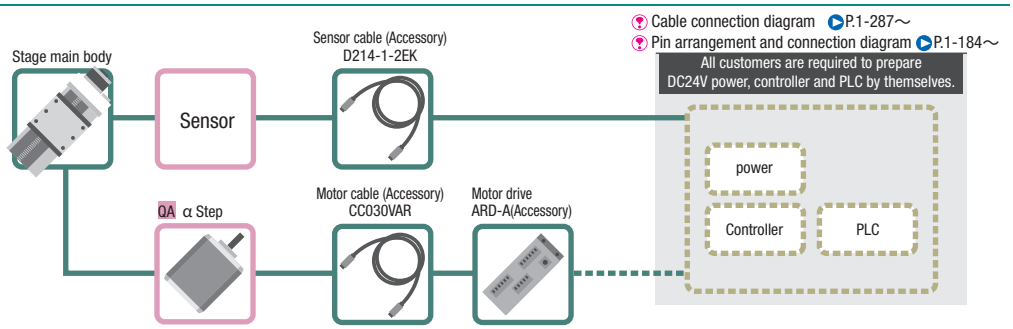
Motor option

SA With electromagnetic brake
Motor model
PKE566MC



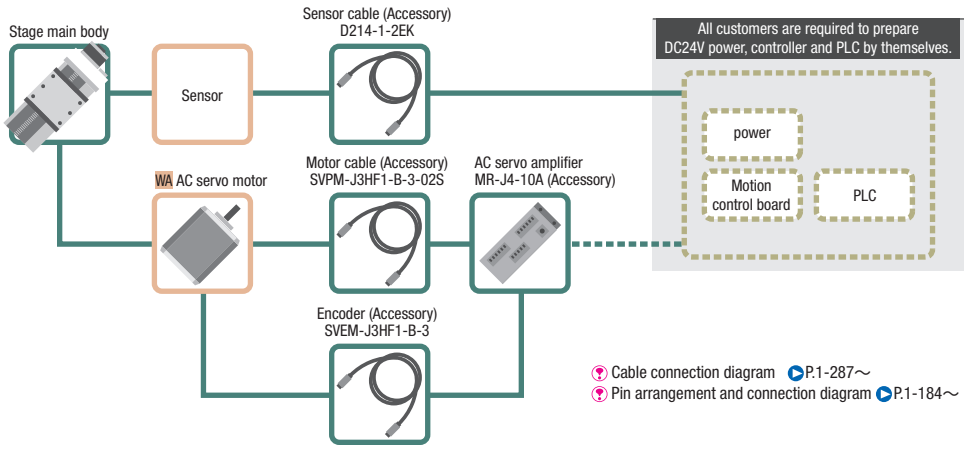
Motor option

QA α Step
Motor model
ARM46AC



Motor option

WA AC servo motor
Motor model
HG-KR13



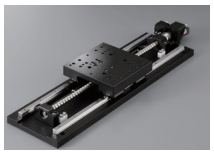
Option Code			J	SA	QA	WA
Feature			Standard	With electromagnetic brake	Small step-out	High speed
Type			5 phase stepping motor 0.75A/Phase	5 phase stepping motor 0.75A/Phase	α step motor	AC servo motor
Motor model*			**PK546PB**	**PKE566MC**	**ARM46AC**	**HG-KR13**
Resolution	lead 5mm	Full/Half	10μm/5μm		5μm (Set to 1000P/R)	22bits encoder (4194304P/R)
		Micro step (1/20 split)	0.5μm		—	
	lead 10mm	Full/Half	20μm/10μm		10μm (Set to 1000P/R)	
		Micro step (1/20 split)	1μm		—	
MAX speed	lead 5mm		30mm/sec	140mm/sec	100mm/sec	200mm/sec
	lead 10mm		50mm/sec	215mm/sec	125mm/sec	400mm/sec

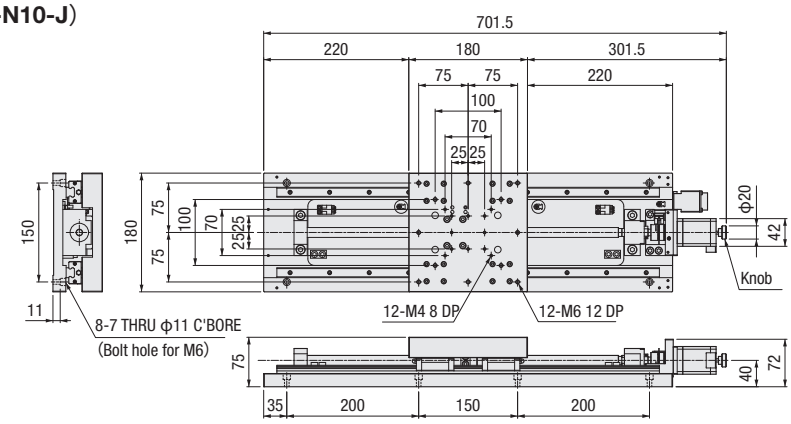
* Model numbers include Suruga Seiki's proprietary management codes.

X-axis Slide Guide: KXS18400/KXS18500

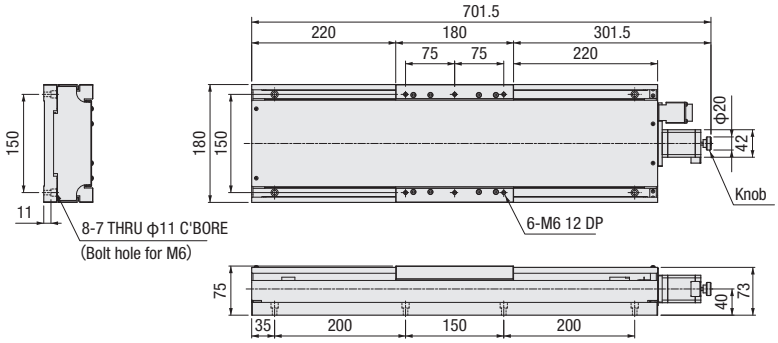
Dimensions

KXS18400-N5-J (KXS18400-N10-J)

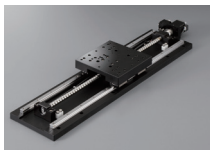


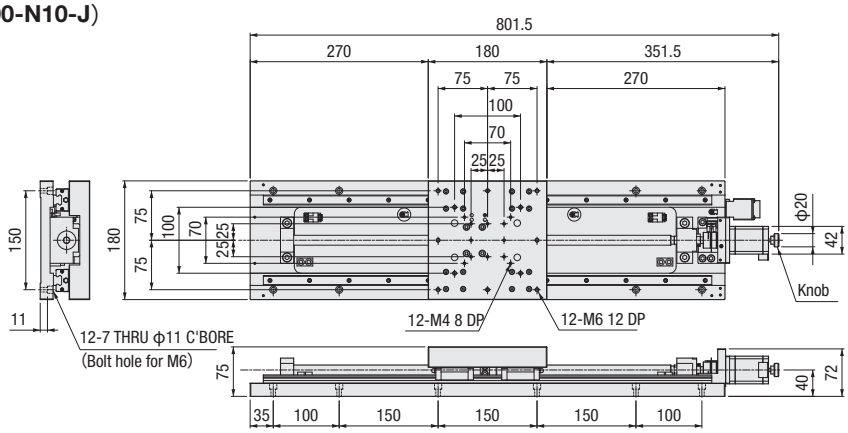


KXS18400-C5-J (KXS18400-C10-J)

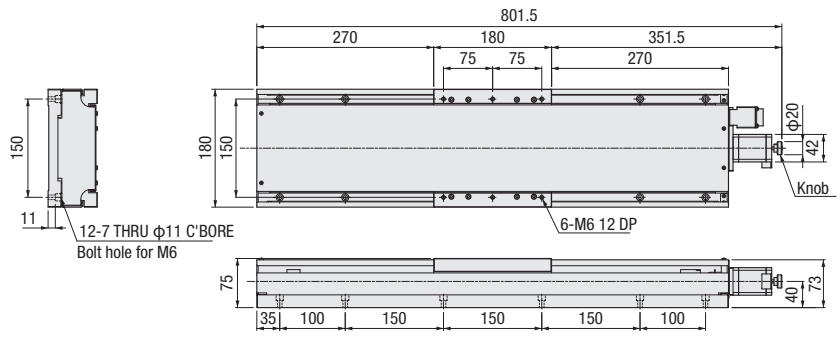


KXS18500-N5-J (KXS18500-N10-J)





KXS18500-C5-J (KXS18500-C10-J)

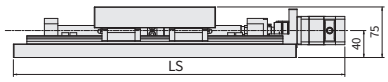


Dimensions

J Standard motor

Motor model PK546PB

That is applicable to
uncovered and covered

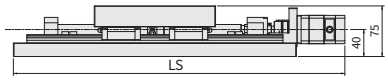


Model	J (Standard)	
	Motor size	LS
KXS18400-□□-J□	□42	702
KXS18500-□□-J□		802

SA With electromagnetic brake

Motor model PKE566MC

That is applicable to
uncovered and covered

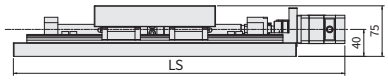


Model	SA (Electromagnetic brake)		J (Standard)
	Motor size	LS	LS
KXS18400-□□-SAM	□60	725.5	702
KXS18500-□□-SAM		825.5	802

QA α step

Motor model ARM46AC

That is applicable to
uncovered and covered

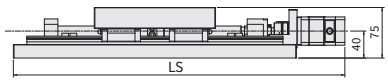


Model	QA (α step)		J (Standard)
	Motor size	LS	LS
KXS18400-□□-QAP	□42	695	702
KXS18500-□□-QAP		795	802

WA AC servo motor

Motor model HG-KR13

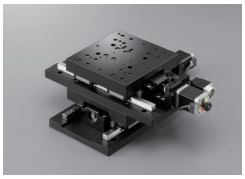
That is applicable to
uncovered and covered



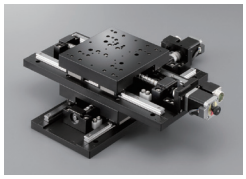
Model	WA (Servo motor)		J (Standard)
	Motor size	LS	LS
KXS18400-□□-WAU	□40	714.4	702
KXS18500-□□-WAU		814.4	802

XY-axis Slide Guide: KYS18100/KYS18200/KYS18300

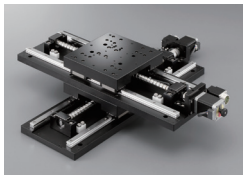
KYS18100-N



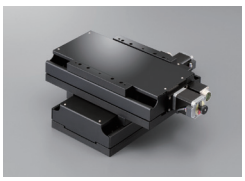
KYS18200-N



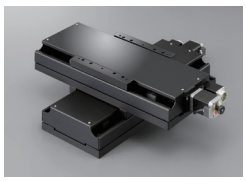
KYS18300-N



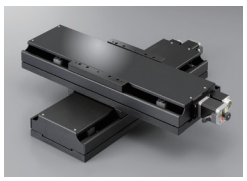
KYS18100-C



KYS18200-C



KYS18300-C



RoHS

KYS18100-N5-J□

1 2 3 4 5

1 Travel distance

100	100mm
200	200mm
300	300mm

2 Cover type

N	Uncovered 
C	Covered 

3 Ball screw lead selection

5	lead 5mm
10	lead 10mm

4 Motor option

Code	Specification
J	Standard
SA	With electromagnetic brake (Driver set)
QA	α Step (Driver set)
WA	Servo motor (Amplifier set)

* SA・QA・WA included driver and cable.

5 Cable option

Code	Specification	Cable type
A	2m	D214-1-2E
B	2m One end loose	D214-1-2EK
C	4m	D214-1-4E
D	4m One end loose	D214-1-4EK
E	Only connector (Cable is not included)	—
F	Robot cable 2m	D214-1-2R
G	Robot cable 2m one end loose	D214-1-2RK
H	Robot cable 4m	D214-1-4R
J	Robot cable 4m one end loose	D214-1-4RK
M	Cable for electromagnetic brake	—
P	Cable for α step	
U	Cable for servo motor	
Blank	Cable is not included (Standard)	—

* One end loose position to only stage opposite side.
See page ▶ P.1-287~ for details of cable.
* Please select "Code A, C, F or H" when connect with stepping motor controller(DS102/112).

[Note]
Please check available cable from compatibility list.
Not included cable for a main body. Please choose the code as below.

	Motor code	Cable code
Motor/cable products list	J	Blank, A～H、J
	SA	M
	QA	P
	WA	U

SPEC

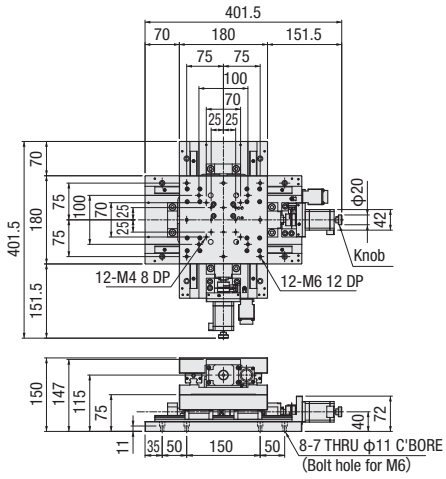
Model		Uncovered	KYS18100-N5-J	KYS18100-N10-J	KYS18200-N5-J	KYS18200-N10-J	KYS18300-N5-J	KYS18300-N10-J
		Covered	KYS18100-C5-J	KYS18100-C10-J	KYS18200-C5-J	KYS18200-C10-J	KYS18300-C5-J	KYS18300-C10-J
Mechanical specification	Travel length		100mm		200mm		300mm	
	Table size		180×180mm					
	Feed screw (Ball screw)		ϕ15 lead 5	ϕ15 lead 10	ϕ15 lead 5	ϕ15 lead 10	ϕ15 lead 5	ϕ15 lead 10
	Guide		Slide guide					
	Main materials-Finishing		Aluminum–Black almite finishing					
	Weight	Uncovered	16.64kg		18.96kg		21.44kg	
		Covered	16.24kg		18.74kg		21.4kg	
Accuracy specification	Resolution (Pulse)	Full/Half	lead 5: 10μm/5μm lead 10: 20μm/10μm					
		Microstep	lead 5: 0.5μm (1/20 on resolution) lead 10: 1μm (1/20 on resolution)					
	MAX speed	lead 5	30mm/sec					
		lead 10	50mm/sec					
	Load capacity		21kgf [205.8N]		20kgf [196N]		19kgf [186.2N]	
	Perpendicularity		50 μm/Travel		100 μm/Travel		150 μm/Travel	
Sensor	Limit sensor		Installed					
	Origin sensor		Installed					
	Slit origin sensor		Installed					
Provided screw (Hexagon-headed bolt)			8 of M6—20					

Single-axis accuracy specification				
	Uni-directional positioning accuracy	15 μm	20 μm	30 μm
	Repeatability positioning accuracy	±1 μm		
	Backlash	2 μm		
	Pitching/Yawing	30″/20″	50″/20″	60″/30″

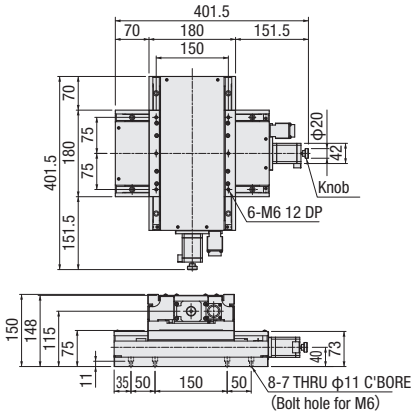
* Might be changed specification due to motors. See page ▶ P.1-183~ for details.

Dimensions

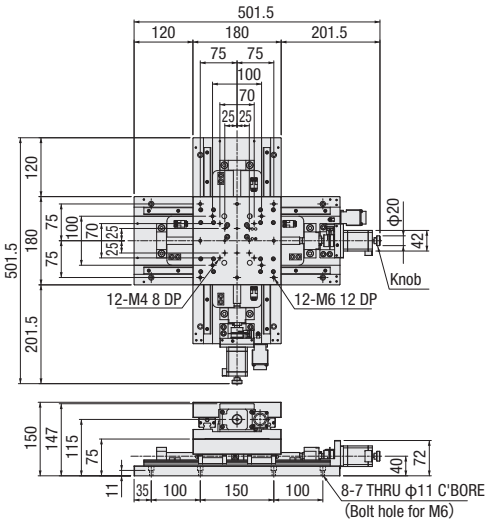
KYS18100-N5-J (KYS18100-N10-J)



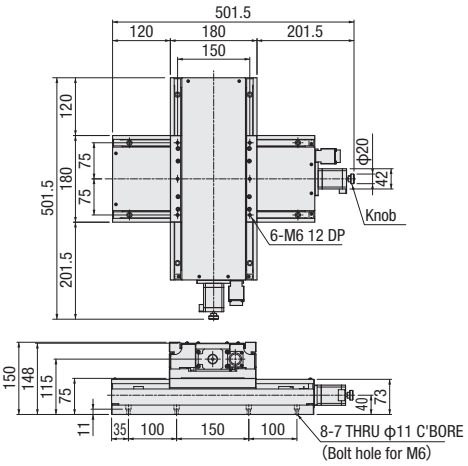
KYS18100-C5-J (KYS18100-C10-J)



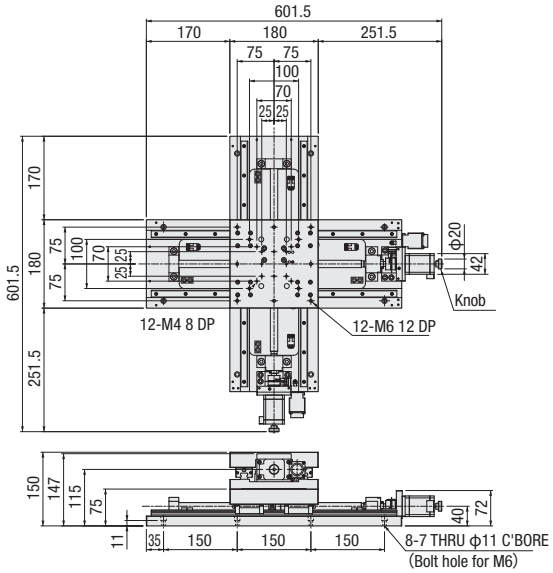
KYS18200-N5-J (KYS18200-N10-J)



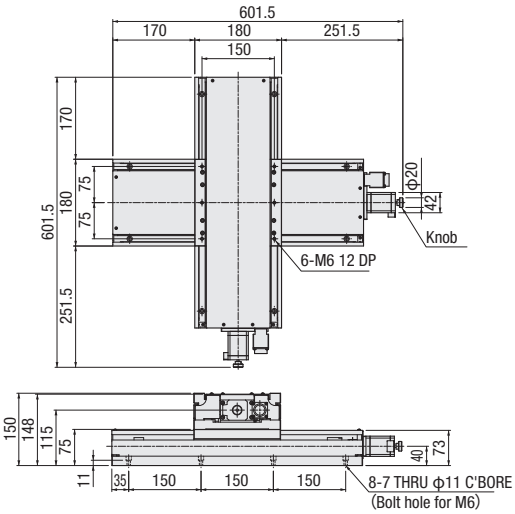
KYS18200-C5-J (KYS18200-C10-J)



KYS18300-N5-J (KYS18300-N10-J)



KYS18300-C5-J (KYS18300-C10-J)



Z-axis Slide Guide: KZS18100/KZS18200/KZS18300

KZS18100-N

KZS18200-N

KZS18300-N

RoHS

KZS18100-C

KZS18200-C

KZS18300-C

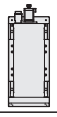
KZS18100-N5-J□

1 2 3 4 5

1 Travel distance

100	100mm
200	200mm
300	300mm

2 Cover type

N	Uncovered	
C	Covered	

3 Ball screw lead selection

5	lead 5mm

4 Motor option

Code	Specification
J	Standard
SA	With electromagnetic brake (Driver set)
QA	α Step (Driver set)
WA	Servo motor (Amplifier set)

* SA・QA・WA included driver and cable.

5 Cable option

Code	Specification	Cable type
A	2m	D214-1-2E
B	2m One end loose	D214-1-2EK
C	4m	D214-1-4E
D	4m One end loose	D214-1-4EK
E	Only connector (Cable is not included)	—
F	Robot cable 2m	D214-1-2R
G	Robot cable 2m one end loose	D214-1-2RK
H	Robot cable 4m	D214-1-4R
J	Robot cable 4m one end loose	D214-1-4RK
M	Cable for electromagnetic brake	—
P	Cable for α step	
U	Cable for servo motor	
Blank	Cable is not included (Standard)	—

* One end loose position to only stage opposite side.
* See page Page287~ for more cable details.
* Please select “Code A, C, or F” when connect with stepping motor controller(DS102/112).

[Note]
Please check available cable from compatibility list.
Not included cable for a main body. Please choose the code as below.

	Motor code	Cable code
Motor/cable products list	J	Blank, A～H、J
	SA	M
	QA	P
	WA	U

SPEC

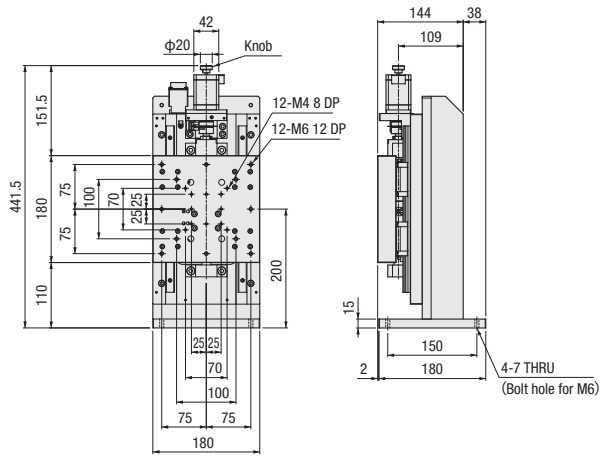
Model		Uncovered	KZS18100-N5-J	KZS18200-N5-J	KZS18300-N5-J
		Covered	KZS18100-C5-J	KZS18200-C5-J	KZS18300-C5-J
Mechanical specification	Travel length		100mm	200mm	300mm
	Table size		180×180mm		
	Feed screw (Ball screw)		φ15 lead 5		
	Guide		Slide guide		
	Main materials-Finishing		Aluminum–Black almite finishing		
	Weight	Uncovered	13.9kg	15.06kg	16.3kg
		Covered	13.7kg	14.95kg	16.28kg
Accuracy specification	Resolution (Pulse)	Full/Half	10μm/5μm		
		Microstep	0.5μm (1/20 on resolution)		
	MAX speed		30mm/sec		
	Load capacity (Excitation)		10kgf [98N]		
	Vertical degree		Within 50μm/Travel	Within 100μm/Travel	Within 150μm/Travel
Sensor	Limit sensor		Installed		
	Origin sensor		Installed		
	Slit origin sensor		Installed		
Provided screw (Hexagon-headed bolt)			4 of M6—25		

Single axis accuracy specification	Uni-directional positioning accuracy	Within 15μm	Within 20μm	Within 30μm
	Repeatability positioning accuracy	Within ±1μm		
	Backlash	Within 2μm		
	Pitching/Yawing	Within 30″/Within 20″	Within 50″/Within 20″	Within 60″/Within 30″

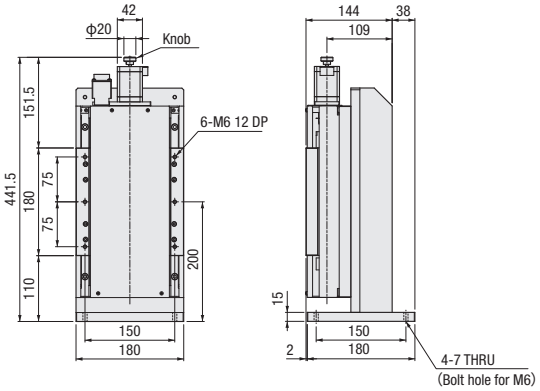
* Might be changed specification due to motors. See page P.1-183~ for details.

Dimensions

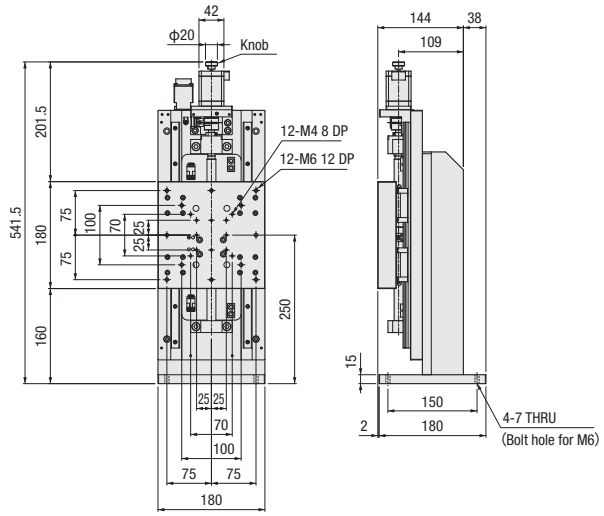
KZS18100-N5-J



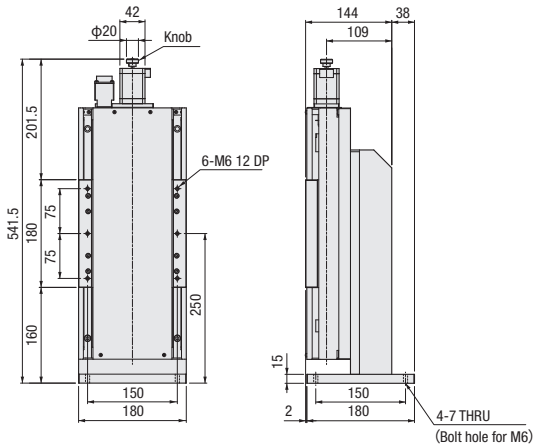
KZS18100-C5-J



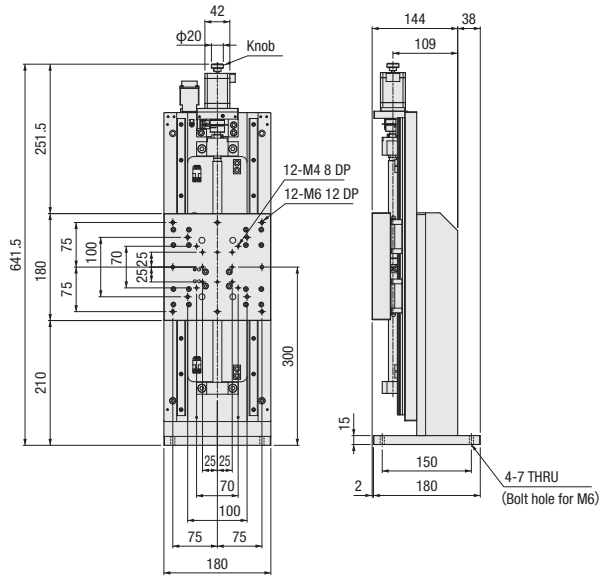
KZS18200-N5-J



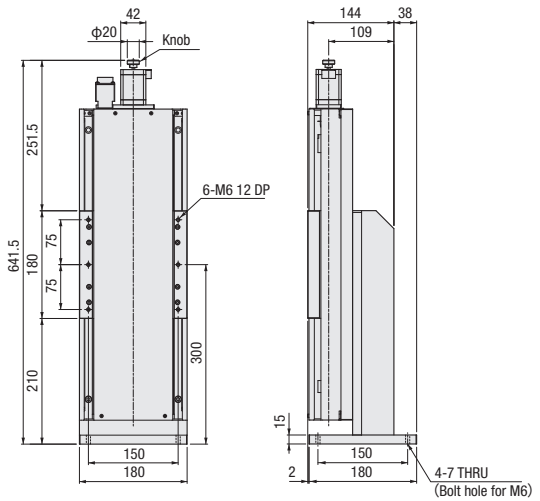
KZS18200-C5-J



KZS18300-N5-J



KZS18300-C5-J



Electrical Specification: KXS Series

電気仕様

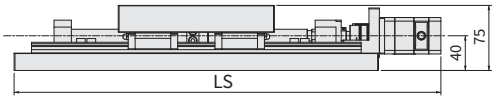
Motor code			J	SA	QA	WA	
Models			KXS18100 / KXS18200 / KXS18300 / KXS18400 / KXS18500				
Motor Specification (*1)	Type		5 phase stepping motor 0.75A/Phase	5 phase stepping motor 0.75A/Phase	α step motor	AC servo motor	
	Feature		Standard	With electromagnetic brake	Small step-out	High speed	
	Model (*2)		PK546PB	PKE566MC	ARM46AC	HG-KR13	
	Electromagnetic brake		–	Installed	–		
	Maker		Oriental Motor Co., Ltd.			Mitsubishi Electric corporation	
	Step angle (Position detector)		0.72°		0.36° (Set to 1000P/R)	22 bits encoder (4194304P/R)	
	Mass		0.5kg	1.2kg	0.47kg	0.54kg	
	Motor size	□size	42mm	60mm	42mm	40mm	
		L size	74mm	94.5mm	68mm	82.4mm	
	Excitation (moment) maximum torque		0.42N・m	0.96N・m	0.3N・m	1.10N・m	
	Driver type		CVD507-K-A9	RKSD507M-A	ARD-A	MR-J4-10A	
	Input power (Voltage・frequency)			Single phase AC100-120V 50/60Hz	Single phase AC100-115V 50/60Hz	Three and single phase AC200-240V 50/60Hz	
Sensor	Limit sensor		Installed				
	Origin sensor		Installed				
	Slit origin sensor		Installed		–		
	Model		Photo microsensor EE-SX674 (Omron Co., Ltd.)				
	Power voltage		DC5～24V ±10%				
	Consumption current		Total 140mA or less (35mA or less per 1 sensor)				
	Control output		NPN open collector output DC5~24V 100mA or less Residual voltage 0.8V or less when the load current is 100mA Residual voltage 0.4V or less when the load current is 40mA				
	Output logic		Limit,Origin sensor on detection (light shield condition): Output transistor OFF (Non-continuity) (Slit origin sensor is OFF when detected. (Non-continuity))				
Connector	Motor	Model	SRCN2A21-16P (JAE)	motor side:5557-06R-210(MOLEX) electromagnetic brake side:5557-02R-210(MOLEX)	5557-10R-210 (MOLEX)	Motor cable	–
				motor side:5559-06P-210(MOLEX) electromagnetic brake side:5559-02P-210(MOLEX)		Encoder cable	–
		Receiving connector	SRCN6A21-16S (JAE)	350720-1 (Tyco Electronics Japan G.K.)	5559-10P-210 (MOLEX)	Motor cable	JN4FT04SJ1-R (JAE)
						Encoder cable	1674320-1 (Tyco Electronics Japan G.K.)
	Sensor	Model	SRCN2A21-16P (JAE)				
		Receiving connector	SRCN6A21-16S (JAE)				

*1 See page P.1-297~ for details of single motor specification.
* The electric specification of XY, Z are the same.

Motor option：Resolution / MAX speed

Motor code			J	SA	QA	WA
Resolution	Lead 5mm	Full/Half	10μm/5μm		5μm/2.5μm	22 bits encoder (4194304P/R)
		Microstep	0.5μm (1/20 resolution)		–	
	Lead 10mm	Full/Half	20μm/10μm		10μm/5μm	
		Microstep	1μm (1/20 resolution)		–	
MAX speed	Lead 5mm		30mm/sec	140mm/sec	100mm/sec	200mm/sec
	Lead 10mm		50mm/sec	215mm/sec	125mm/sec	400mm/sec

Dimensions

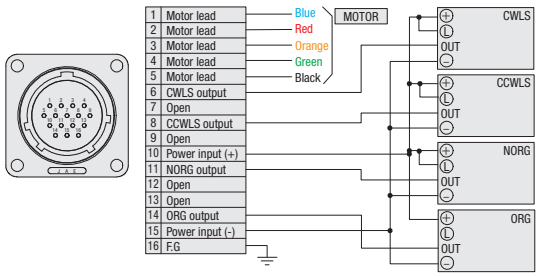


Motor code	Size □ [mm]	LS				
		KXS18100	KXS18200	KXS18300	KXS18400	KXS18500
J	42	402	502	602	702	802
SA	60	425.5	525.5	625.5	725.5	825.5
QA	42	395	495	595	695	795
WA	40	414.4	514.4	614.4	714.4	814.4

Pin allocation・Connection diagram

J — Available for motor and sensor

[Motor and sensor pin allocation (the same)] [Motor and sensor connection diagram (the same)]



*Please select the cable from the option code.
*See page ▶ P.1-287 for details of cable.

SA — Motor

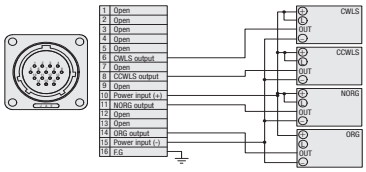
Cable for motor (3m)

Electromagnetic brake cable (3m)

* Type of cable: CC030VPFB See page ▶ P.1-294 for details.

SA — Sensor

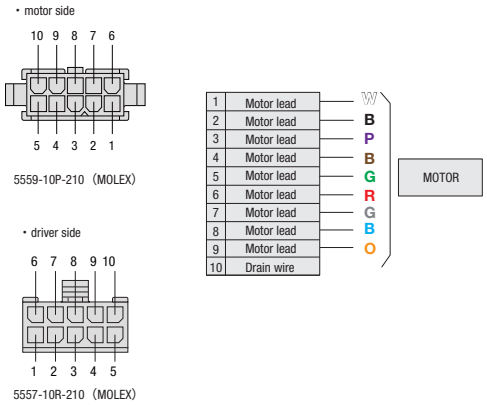
[Motor and sensor pin allocation (sensor)] [Motor and sensor connection diagram (sensor)]



* Type of cable: D214-1-2EK See page ▶ P.1-287～ for details.

QA — Motor

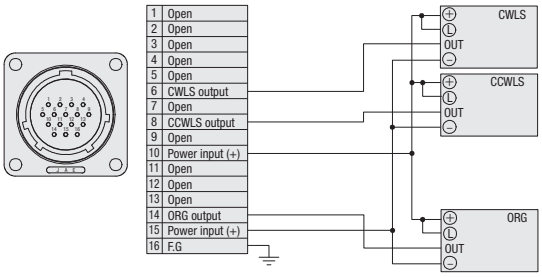
Cable for motor (3m)



※Motor cable model:CC030VAR See page ▶ P.1-293 for details.

QA — Sensor

[Motor and sensor pin allocation (sensor)] [Motor and sensor connection diagram (sensor)]

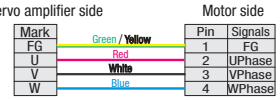


* Type of cable: D214-1-2EK See page ▶ P.1-287 for details.

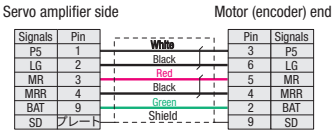
WA — Motor

Motor cable type: SVPM-J3HF1-B-3-02S
Encoder cable type: SVEM-J3HF1-B-3 See page ▶ P.1-295 for details.
* An above cable is an accessory.

SVPM-J3HF1-B-3-02S

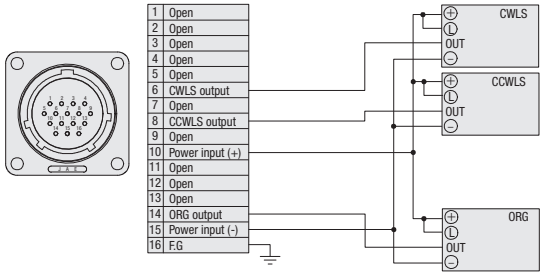


SVEM-J3HF1-B-3



WA — Sensor

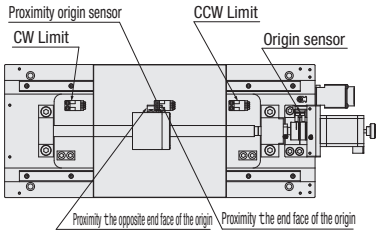
[Motor and sensor pin allocation (sensor)] [Motor and sensor connection diagram (sensor)]

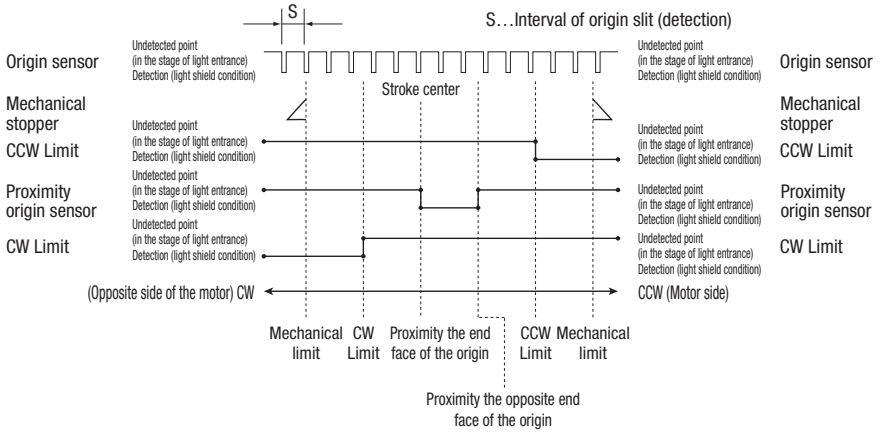


* Type of cable: D212-1-2EK See page ▶ P.1-287 for details.

Electrical Specification: KXS Series

Timing chart





Unit [mm] Direction of CW ◄——► Direction of CCW

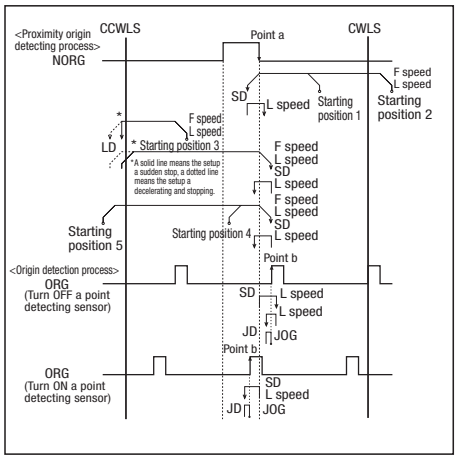
	Reference coordinate	Mechanical limit	CW Limit	The proximity origin end face Stroke center	Proximity origin Opposite end face	CCW Limit	Mechanical limit
KXS18100	Return to origin	54	51	0	20	51	54
KXS18200	Return to origin	104	101	0	20	101	104
KXS18300	Return to origin	154	151	0	20	151	154
KXS18400	Return to origin	204	201	0	20	201	204
KXS18500	Return to origin	254	251	0	20	251	254
The same	Detection clearance of slit origin S=5 and 10 (By ball screw lead)						

* Applicable for motor code J and S.
* Return to origin means that is performed return to origin type 1 using DS102/DS112 series.
* Origin becomes any position till the origin sensor is detected shielded disk slit of the origin side after through the proximity end face.
* The coordinate value should be on the design. Dimension error may occur about plus or minus 0.5 mm.

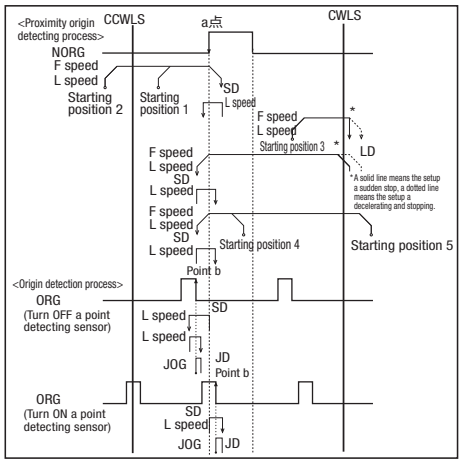
Note: The timing chart shows only timing of sensor, it is not for output signal logic.
Refer to ON/OFF display of output transistor that shows on electrical specifications-sensor-output logic for output signal logic.

KXS series recommendation return to origin method

[Type 1] Detect in the direction of CCW and perform detected process for CW edge (point a) of NORG signal. Next detect an edge of CCW side (point b) of ORG signal.



[Type 2] Detect in the direction of CW and perform detected process for CCW edge (point a) of NORG signal. Next detect on edge of CW side (point b) of ORG signal.



[Type 7] After finished type1, perform detected process for CCW edge (point c) of TIMING signal.

[Type 8] After finished type2, perform detected process for CW edge (point c) of TIMING signal.

Return to origin sequence P.1-281～