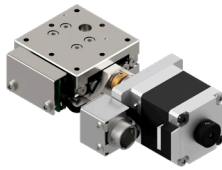
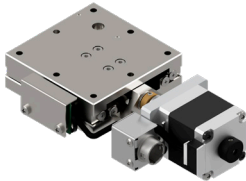


X-axis Linear Ball Guide:KXT04015/KXT06015

KXT04015M-LC



KXT06015M-LC



RoHS

Motorized Stage

X

XY

Z

Horizontal
Z

XYZ

Goniometer

Rotary

Unit

Controller

Linear
Ball

CAVE-X
Linear ball

Cross
Roller

Slide
Guide

40

50

60

70

80

100

120

Other

1-KXT
001

KXT 015M-L

Cables P.1-207 ~
Electrical specification P.1-037 ~

1 Stage table size/Travel distance

Code	size	Travel distance
04	40mm	15mm
06	60mm	

2 Sensor cover location

L	L position
R	Opposite hand

3 Motor option

Code	Specification
C	Standard
T	2 Phase stepping motor

4 Cable option

Code	Specification	Cable type	2 phase stepping motor Cable type
Blank	Cable is not included (Standard)	—	—
F	Robot cable 2m	D214-2-2R	—
G	Robot cable 2m one end loose	D214-2-2RK	DS1-2C-2-2RK
H	Robot cable 4m	D214-2-4R	—
J	Robot cable 4m one end loose	D214-2-4RK	DS1-2C-2-4RK

*2-phase motor:Cables with connectors on both ends (A/C/F/H) and connectors only (E) cannot be selected.
* One end loose position to only stage opposite side. See page P.1-207,209~ for details of cable.
Please select "cable code F or H" when connect with stepping motor controller(DS102/112).

Specification

SPEC						
Model		KXT04015M-LC	KXT04015M-LT	KXT06015M-LC	KXT06015M-LT	
(Opposite hand)		KXT04015M-RC	KXT04015M-RT	KXT06015M-RC	KXT06015M-RT	
Motor option		5 Phase stepping motor(Standard)	2 Phase stepping motor	5 Phase stepping motor(Standard)	2 Phase stepping motor	
Mechanical specification	Travel distance		15mm			
	Stage table size		40×40mm		60×60mm	
	Connector		Panel mount			
	Feed screw(Ball screw)		φ6 Lead 1			
	Guide		Linear Ball Guide			
	Main material— Surface finishing		Steel—Electroless nickel plating			
Weight		0.38kg		0.60kg		
Accuracy specification	Resolution	Full/Half	2μm/1μm	5μm/2.5μm	2μm/1μm	5μm/2.5μm
		Micro step	0.1μm(1/20 On resolution)	-	0.1μm(1/20 On resolution)	-
	MAX speed		10mm/sec			
	Uni-directional positioning accuracy		10μm			
	Repeatability positioning accuracy		±1μm			
	Load capacity		10kgf [98N]			
	Moment stiffness		Pitch 0.38/yaw 0.35/roll 0.21[°/N・cm]		Pitch 0.1/yaw 0.08/roll 0.05[°/N・cm]	
	Lost motion		2.5μm	5μm	2.5μm	5μm
	Straightness		10μm			
	Parallelism		20μm			
Pitching/Yawing		30°/25°		35°/30°		
Sensor	Limit sensor		Available			
	Origin sensor		Available			
	Slit origin sensor		—			
Provided screw (Hexagon-headed bolt)		4 of M3-8		4 of M4-8		

Motorized Stage

X

XY

Z

Horizontal
Z

XYZ

Goniometer

Rotary

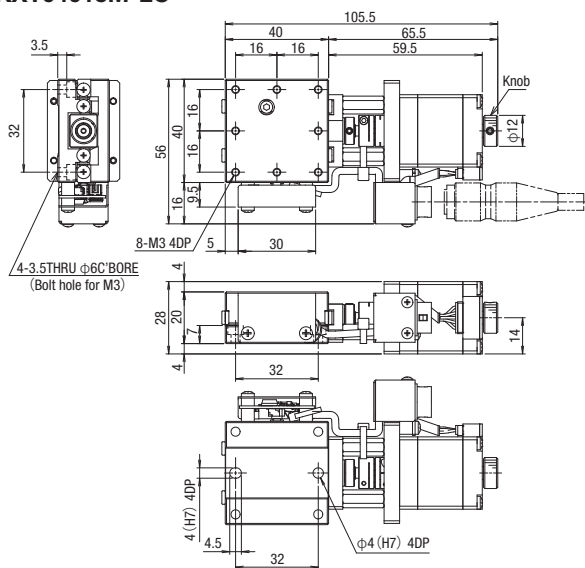
Unit

Controller

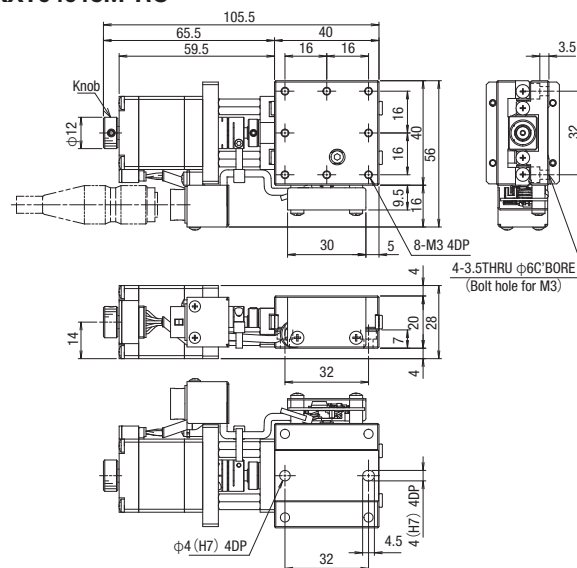
Linear
BallCAVE-X
Linear ballCross
RollerSlide
Guide☐ 40☐ 50☐ 60☐ 70☐ 80☐ 100☐ 120☐ Other1-KXT
002

Dimensions

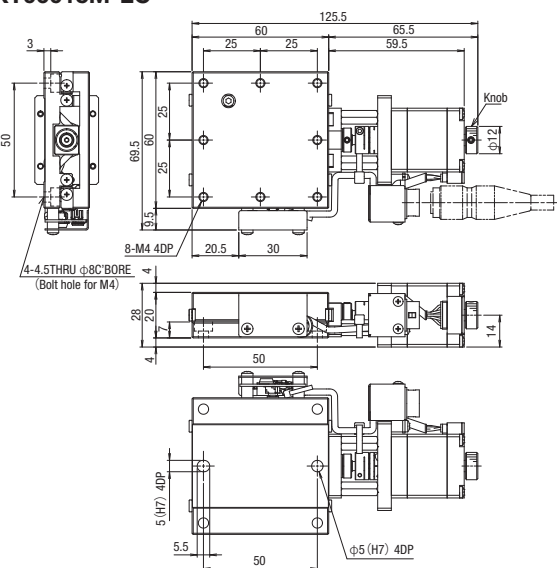
KXT04015M-LC



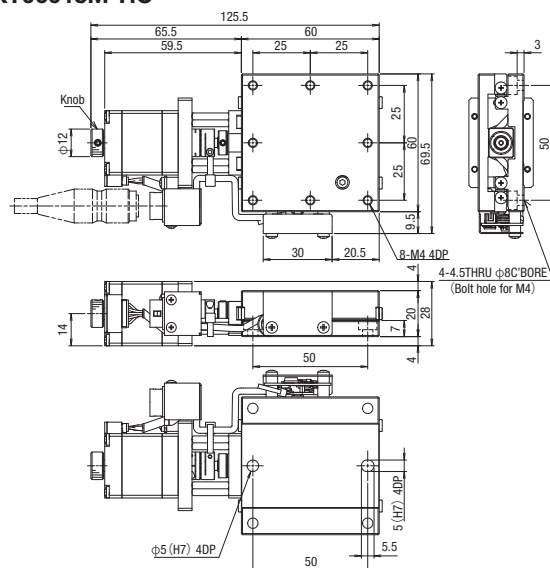
KXT04015M-RC



KXT06015M-LC

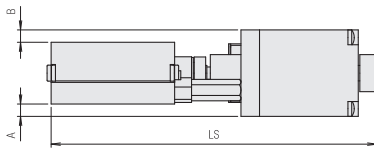


KXT06015M-RC

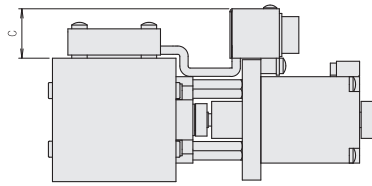


Dimensions

Side view



Top View



C Standard motor

Motor model C005C-90215P-1

T 2 Phase stepping motor

Motor model SJA28N32-0674B-01

Model	Motor	Motor size	Connector	A(mm)	B(mm)	C(mm)	LS(mm)
KXT04015M-°C	C	□ 28	M	4	4	16	105.5
KXT06015M-°C						9.5	125.5
KXT04015M-°T	T	□ 28	M	4	4	16	105.5
KXT06015M-°T						9.5	125.5



XY

Z

Horizontal
Z

XYZ

Goniometer

Rotary

Unit

Controller

Linear Ball

CAVE-X
Linear ball

Cross Roller

Slide Guide

40

50

60

70

80

☐ 100

120

Other

KXT

1-KXT
004

Electrical specification:KXT04015/ KXT06015

Motor • Electrical specification

Motor code			C	T
Stage model			KXT04015M/KXT06015M	
Motor Specification (*1)	Type		5 phase stepping motor (0.75A/Phase)	2 phase stepping motor (0.67A/Phase)
	Feature		Standard	—
	Model*2		C005C-90215P-1	SJA28N32-0674B-01
	With electromagnetic brake		—	—
	Manufacturer		Oriental Motor Co., Ltd.	SURUGA SEIKI
	Step angle		0.72°	1.8°
	mass		0.11kg	—
	Motor size	☐ size L size	☐ 28mm 37mm	—
	Excitation (moment) maximum torque		0.048N • m	0.059N • m
	Driver model		CVD507-K-A9	—
Connector	Driver power input		DC24V±10% 1.4A(MAX)	—
	Brake power input		—	—
	Panel mount		HR10A-10R-12PC(71) (Hirose Electric Co., Ltd.)	HR10A-10R-10PC(71) (Hirose Electric Co., Ltd.)
Sensor board	Receiving connector		HR10A-10P-12S(73) (Hirose Electric Co., Ltd.)	HR10A-10P-10S(73) (Hirose Electric Co., Ltd.)
	Limit sensor		Available	—
	Origin sensor		Available	—
	Slit origin sensor		—	—
	Sensor		Photo microsensor EE-SX4320 (Omron Co., Ltd.)	—
	Power-supply voltage		DC5~24V±5%	—
	Current consumption		Total 60mA or less	—
	Control output		NPN open collector output DC30V 10mA or less	—
	Output logic		On detection (light shield condition): Output transistor OFF (Non-continuity)	—

*1 P.1-213~ for details of single motor specification.

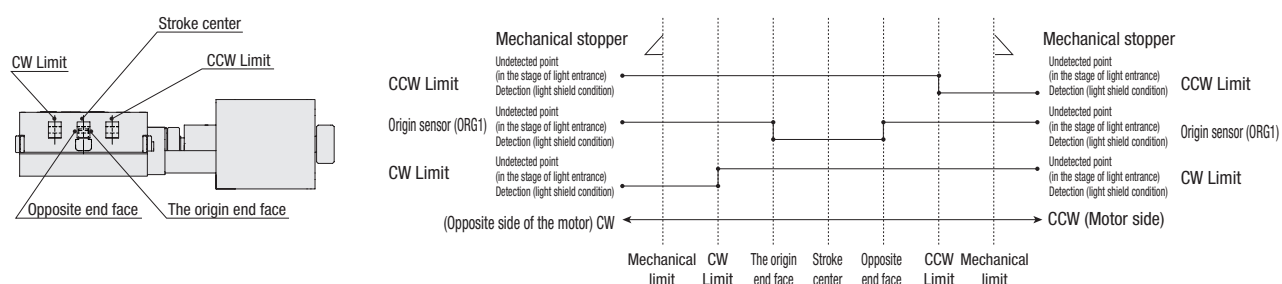
*2 Model is our own management model.

Pin allocation • Connection diagram

C	Available for motor and sensor	【 Pin allocation (common) 】 Connector model HR10A-10R-12PC(71) (HRS)	【 Connection diagram (common) 】
T	Available for motor and sensor	【 Pin allocation (common) 】 Connector model HR10A-10R-10PC(71) (HRS)	【 Connection diagram (common) 】

* Cable details P.1-207,209~

Timing chart



Unit [mm]

Direction of CW

Direction of CCW

	Reference coordinate	Mechanical limit	CW Limit	The origin end face	Stroke center	Opposite end face	CCW Limit	Mechanical limit
KXT	Return to origin	7	6.2	0	1.5	3	9.2	10
	Stroke center	8.5	7.7	1.5	0	1.5	7.7	8.5

* Return to origin means that is performed return to origin type 4 using DS102/DS112 series.(DS102/DS112 are dedicated to 5-phase motors)

* The coordinate is a basis of design value. Dimension error may occur about plus or minus 0.5 mm.

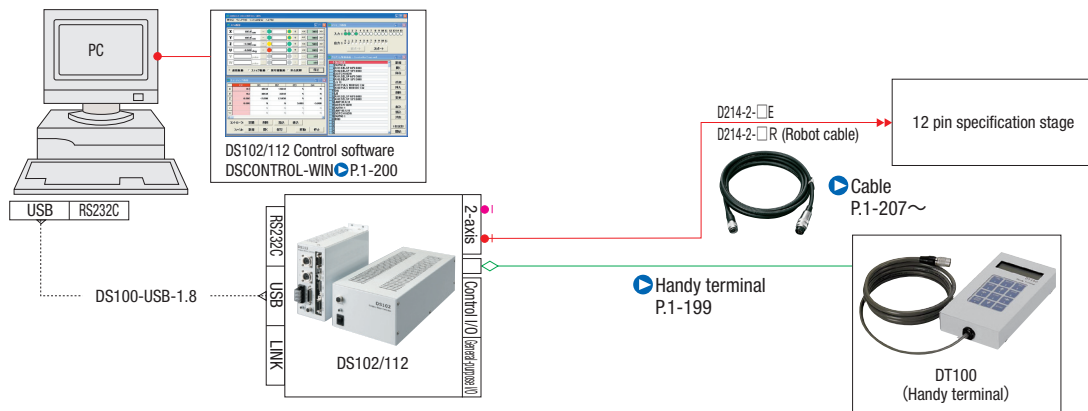
Note: The timing chart shows only timing of sensor, it is not for output signal logic.

Refer to ON/OFF display of output transistor that shows on electrical specifications-sensor-output logic for output signal logic.

Connectin example

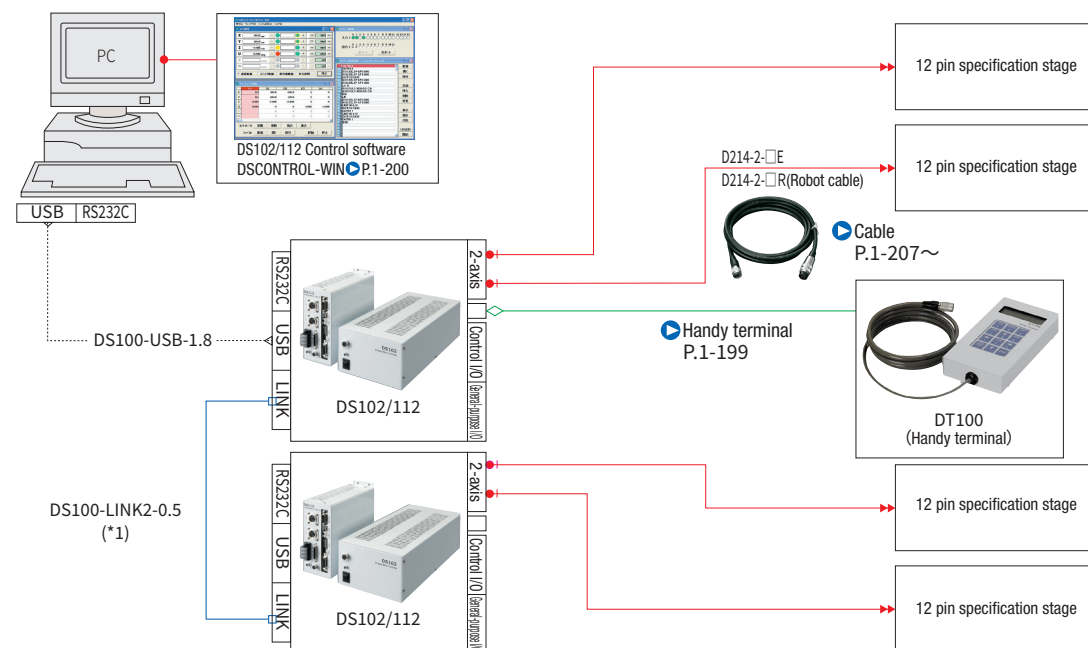
Connection example 1 Motorized Stage 1axis: When holding a terminal device (using control software)

*USB cable connection between PC and controller.



Connection example 2 Motorized Stage 4axis: When holding a terminal device (using control software)

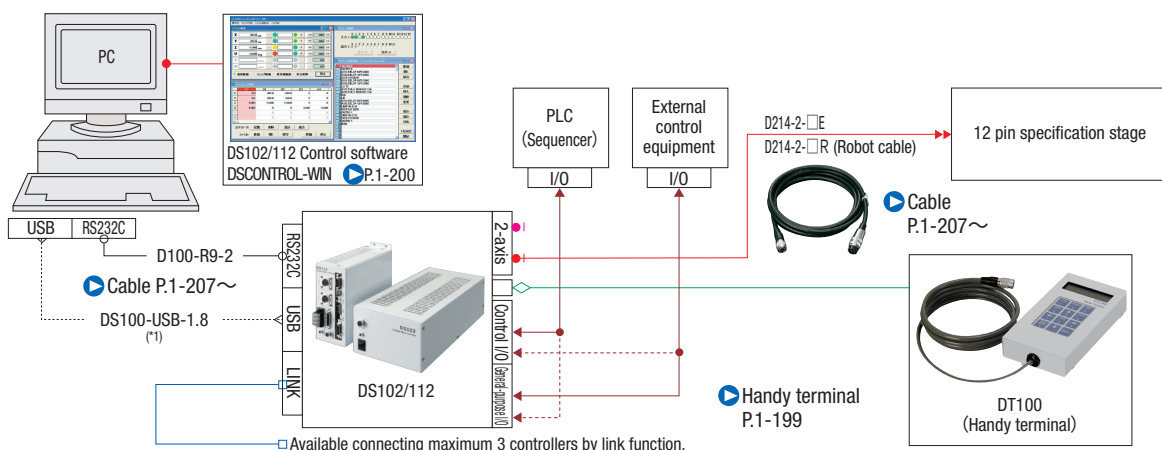
*USB cable connection between PC and controller.



(Note) It is possible to control up to 3 controllers (for a maximum of 6-axis control) with link function.

Connection example 3 When controlling from the PLC I/O Unit.

*USB cable connection between PC and controller.



Available connecting maximum 3 controllers by link function.