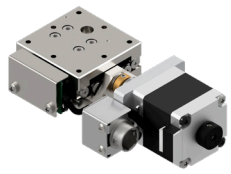
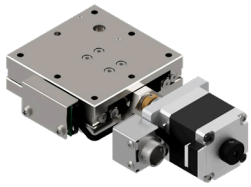
X-axis Linear Ball Guide: KXT04015/KXT06015

KXT04015M-LC



KXT06015M-LC



RoHS

KXT04015M-LC□

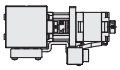
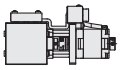
1 2 3 4

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

1 Table size/Travel distance

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

2 Sensor cover location

L	L position 
R	Opposite hand 

3 Motor option

Code	Specification
C	5 Phase stepping motor (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 one end loose	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).

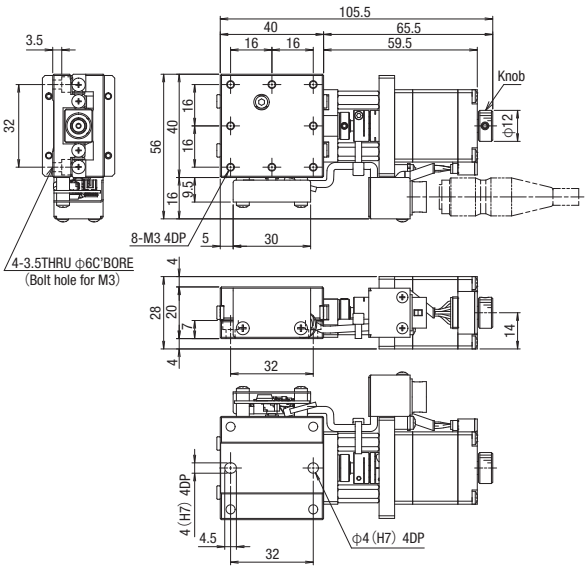
Specification

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	2 Phase stepping motor	5 Phase stepping motor	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			
	Weigh		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	

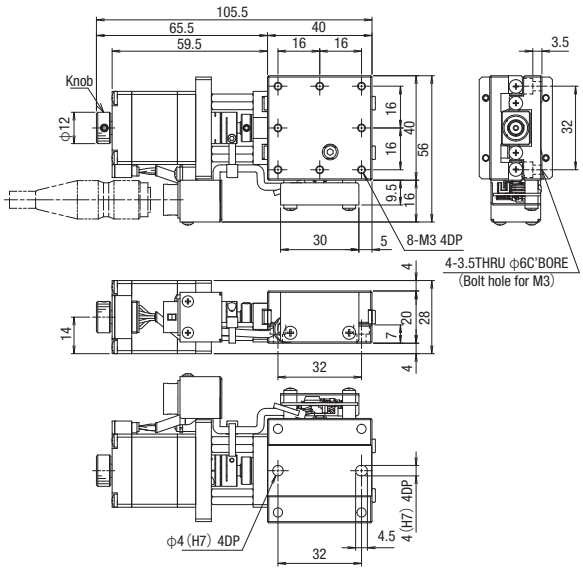
X-axis Linear Ball Guide: KXT04015/KXT06015

Dimensional outline drawings

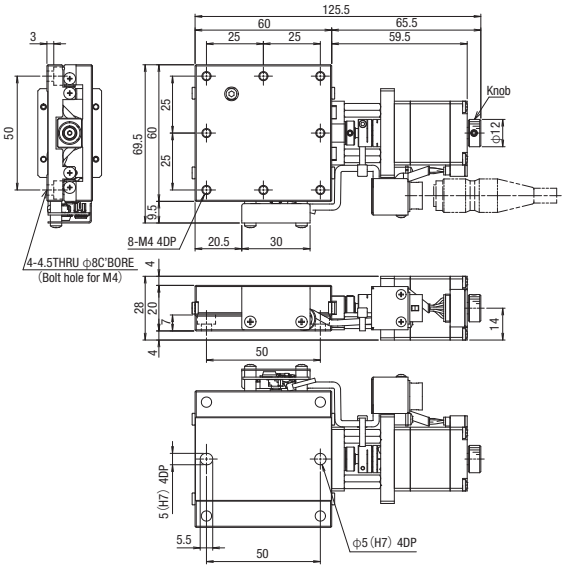
KXT04015M-LC



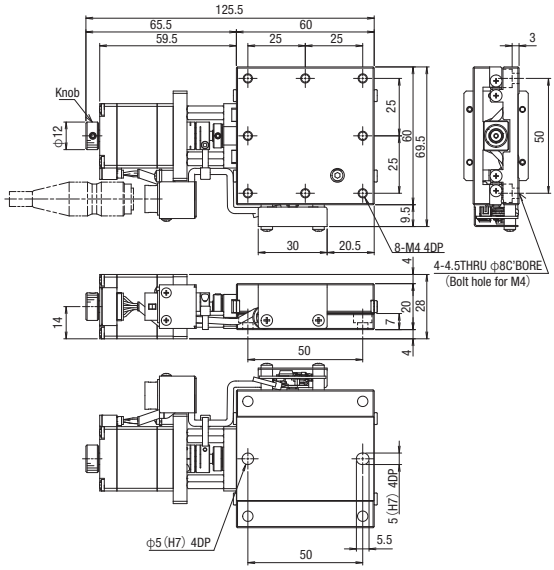
KXT04015M-RC



KXT06015M-LC

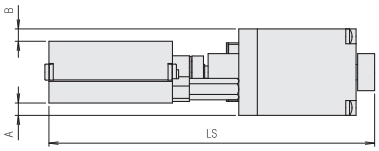


KXT06015M-RC

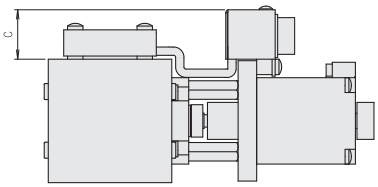


Dimensional outline drawings

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

Electrical Specification：KXT04015/KXT06015

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	□28mm	
		L size	37mm	
	Excitation (moment) maximum torque		0.048N・m	0.059N・m
	Driver model		CVD507-K-A9	—
	Driver power input		DC24V±10%　1.4A(MAX)	—
	Brake power input		—	
Connector	Panel mount		HR10A-10R-12PC(71) (Hirose Electric Co., Ltd.)	HR10A-10R-10PC(71) (Hirose Electric Co., Ltd.)
	Receiving connector		HR10A-10P-12S(73) (Hirose Electric Co., Ltd.)	HR10A-10P-10S(73) (Hirose Electric Co., Ltd.)
Sensor board	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)	

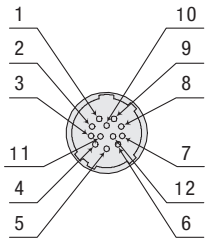
*1 P.1-297～ for details of single motor specification.
*2 Model is our own management model.

Pin allocation・Connection diagram

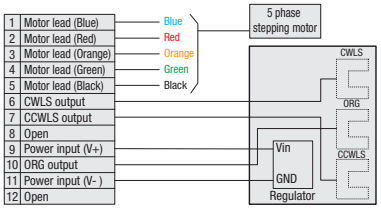
C

Available for motor and sensor

【Pin allocation (common)】
Connector model
HR10A-10R-12PC(71) (HRS)



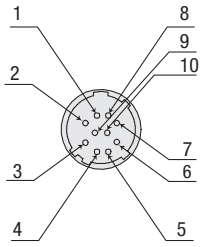
【Connection diagram (common)】



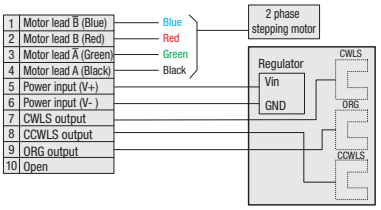
T

Available for motor and sensor

【Pin allocation (common)】
Connector model
HR10A-10R-10PC(71) (HRS)

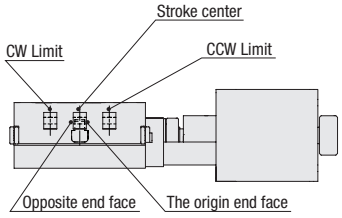


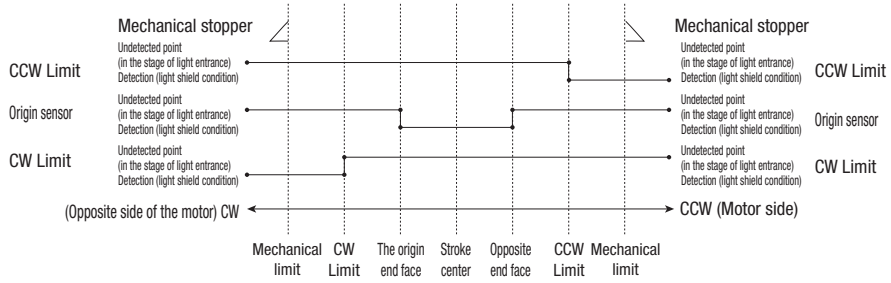
【Connection diagram (common)】



* Cable details P.1-287～

Timing chart





Unit [mm]　　Direction of CW ◀ ▶ Direction of CCW

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

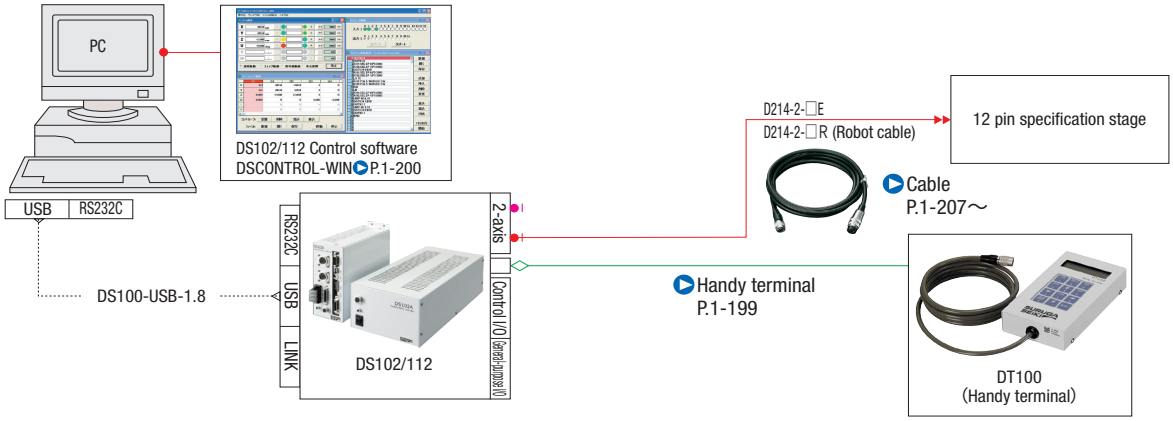
* Return to origin means that is performed return to origin type 4 using DS102/DS112 series.(DS102/DS112 are dedicated to 5-phase motors)
* The coordinate is a basis of design value. Dimension error may occur about plus or minus 0.5 mm.

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

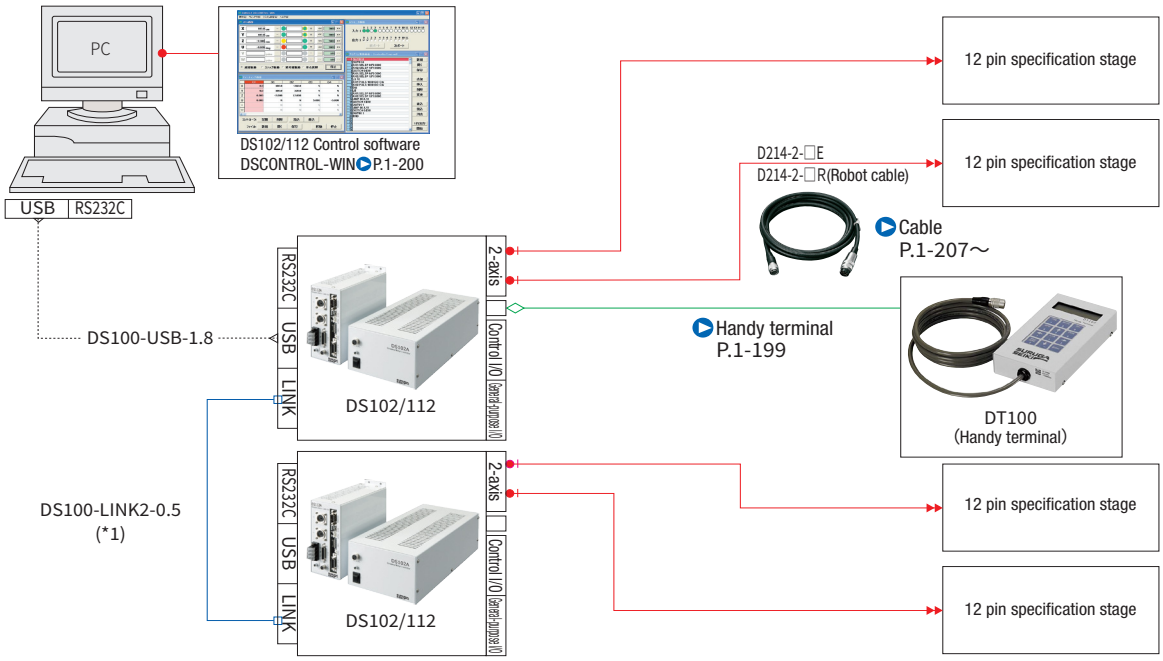
Connection example 1　Motorized Stage 1axis: When holding a terminal device (using control software)

*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.