Locating / Adjusting / Positioning

Locating Pins



Tapered P.747



Spherical P.748



Straight, Tapered P.749

Bushings for Locating Pins

P.745









P.749

Straight, Press Fit for Easy Mounting Shouldered, Press Fit Easy Mounting Straight, Adhesive Fixation for Easy Positioning Shouldered, Adhesive Fixation for Easy Positioning P.749

P.750

P.751

P.752

Adjusting Bolts



P.753

Adjusting Bolts Hex Socket With Knurled Head P.754

Leveling Screws











P.755

Leveling Screws Standard Lock Nuts For Leveling Screws
P.756 P.757

P.758

Adjusting Stopper Screws, Hex Socket P.759

Clamping Screws





P.760

Clamping Screws Ball Type Clamping Screws Angle Type P.761 P.762

Urethane Pushers







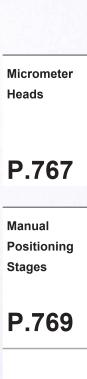


P.763

Threaded Stud Type P.764

Tapped Type P.765

Threaded Stud Type With Hex Nut P.766









Motorized Rotary Stages Ball Screw Motorized Rotary Stages Worm Gear 1-Axis Motorized Goniometer Stages Ball Screw 2-Axis Motorized Goniometer Stages Ball Screw 2-Axis Motorized Goniometer Stages Ball Screw P.801 P.803~P.804 P.805~P.806 P.809~P.810 P.811~P.812

One-Way Adjustment Unit

Application industries:

Electronic & Electrical

This figure shows the one-way adjustment unit that integrates an X-axis automatic positioning stage, which can be used for camera focusing. The positioning stage is widely used in mechanical equipment or tooling that requires positioning and position adjustment.







Motorized Positioning Stage Length 60×60mm Cover Position R Driver A Cable Length 2m C-XMBS630-R-A-2

20,186

			THB/pcs
	Quantity	Unit price	Total price
	1	20,186	20,186
	4	17,158	68,632
000000			
	0)		

Multi-Way Adjustment Unit

Application industries:

Automotive part

Lithium battery

This figure shows the multi-way manual positioning stage adjustment unit. The positioning adjustment unit has a simple structure and is easy to adjust and position, and is widely used in various positioning and adjusting mechanical equipment or tooling.

01 Locating Pin × 4 P.747



Insertion Guide Tip Shape Round Type Mounting Side O.D. 6mm Positioning Side O.D. 8mm C-JPBB6-8

75

THB/pcs

Quantity	Unit price	Total price
1	75	75
30	64	1,920



Reference price

02 Adjusting Bolt × 2 P.754

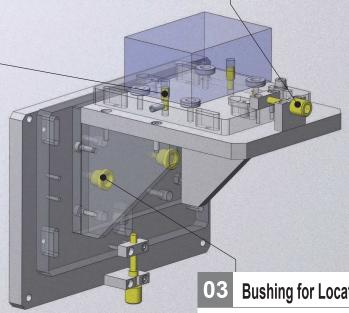


Thread Straight
Distance × Pitch M6 × 1.0
Thread Length 30mm
C-AJKTNA6-30

75

THB/pcs

Quantity	Unit price	Total price
1	75	75
30	64	1,920



Bushing for Locating Pin × 2 P.750



I.D. 10mm O.D. 15mm Length 8mm C-JBHM10-8

177

 Quantity
 Unit price
 Total price

 1
 177
 177

 10
 150
 1,500

^{*} All products prices are without tax. For prices reference, please visit MISUMI official website.

Economy series Locating Pins / Bushings Suitable for positioning at

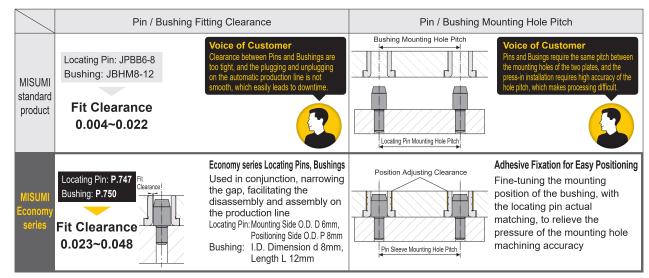
- working station in production lines.
- Designed for smooth insertion and removal for automation



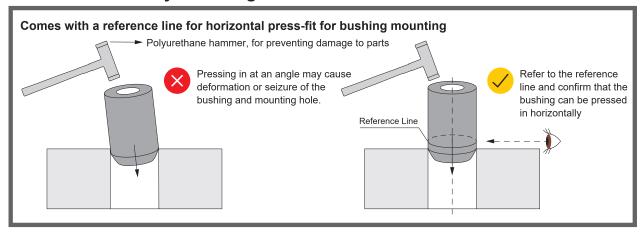
Categories of use

		Tapered / Spherical Locating Pin	Press Fit for Easy Mounting	Adhesive Fixation for Easy Positioning
	Recommended Applications			
MISUMI standard product	Priority in positioning accuracy, small pin sleeve fit clearance Fixtures with manual disassembly and assembly and less disassembly times	Positioning Side O.D. Tolerance 0 -0.01	I.D. Tolerance G6 / +0.01 * Two I.D. tolerance specifications	_
MISUMI Economy series	Priority in smooth disassembly and assembly, large pin sleeve fit clearance Workstations on automatic production lines with frequent disassembly and assembly	Positioning Side O.D. Tolerance -0.01 -0.02	I.D. Tolerance F7	O.D. Negative Tolerance

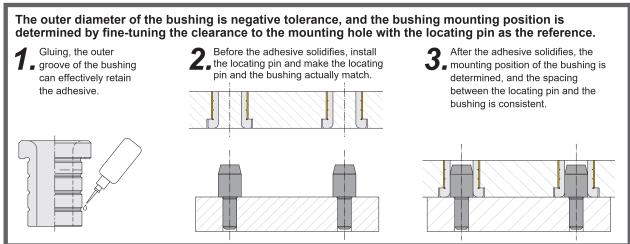
MISUMI Economy series products respond to the voice of customers and on-site problems are improved



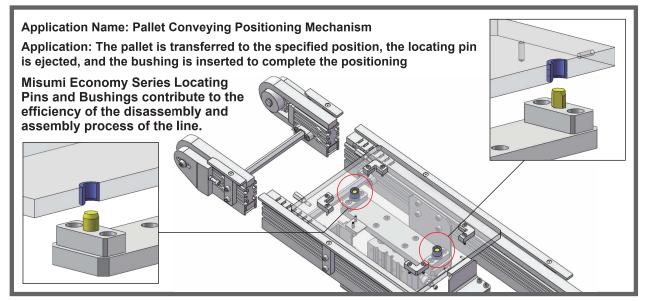
Press Fit for Easy Mounting



Adhesive Fixation for Easy Positioning



Example of Using Locating Pin and Bushing



P.753

Clamp Screws

P.760

Urethane Pushers

P.763

P.767

Motorized Positioning Stages P.769

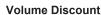
Large Head Locating Pins - Tapered

Representative model: C-JPBB6-8

Save Up to vs Standard Type

THB





Quantity	1~29	30~49	50~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity.

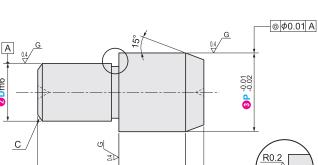
Quantity of volume discount above is for representative Part No. It may differ by the Part.

Material	Hardness	Surface Treatment
Equivalent to SUJ2	Quenching Hardness 52HRC~	None
	,	

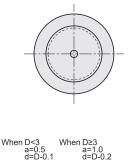
 $L_{0}^{+0.3}$

Round Diamond Type

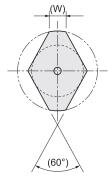
Type



 $B_{0}^{+0.3}$



(Round Type)



(Diamond Type)

a Enlarged View

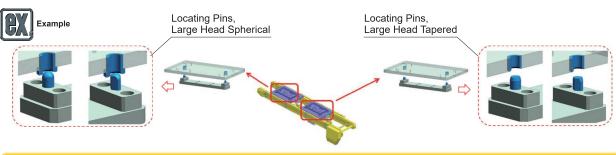
The dimensions of the relief groove are reference values and are not guaranteed values

Part Nur	nber	D Tolerance		e Positioning Side P Selection		В	С	m	(W)					
Type	2 Mounting Side O.D. D	m6		O FUS	SILIOIIII	ig Side	r Seit	ection		-	_ B		- '''	(**)
	2	+0.008	3	4						4	3	0.5	1	1.2
	3	+0.002		4	5	6				5	5	0.5	2	1.5
C-JPBB	4				5	6] 3	6			1.8
(Round Type) C-JPDB	5	+0.012 +0.004				6	8		-	10	0	1	3	2.2
(Diamond Type)	6	1 0.001					8	10		1 10	8			3
	8	+0.015						10	12	15	°	1.5	4	3.5
	10	+0.006							12	'5	10	2	4	4



Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1 Type · 2 Mounting Side O.D. D) - 3 Positioning Side O.D. P C-JPBB6















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9

Bushings for Cocating Pins

Adjusting Bolts

P.749

P.753

Clamp Screws

P.760

Urethane Pushers

P.763 Micrometer

P.767 Positioning Stages P.769



Large Head Locating Pins - Spherical

Representative model: C-JPQB10-12



THB





Quantity	1~29	30~49	50~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity.

Quantity of volume discount above is for representative Part No. It may differ by the Part.

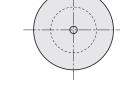
	Material	naruness	Surface Treatment		
Equ	ivalent to SUJ2	Quenching Hardness 52HRC~	None		
				(a) do 04 (b)	(Round Type)
	A 0.4 G		SR P/2 G		

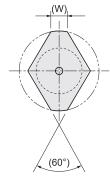
Smooth

Round Type

Туре

 $B_{0}^{+0.3}$





(Diamond Type)

a Enlarged View

R0.2

When D≥3 a=1.0 d=D-0.2 When D<3 a=0.5 d=D-0.1 The dimensions of the relief groove are reference values and are not guaranteed values.

Part Nu	mber	D Tolerance		L B		С	()A/)		
• Type	2 Mounting Side O.D. D	m6	SPOSITIONING SIDE P Selection	L	В		(W)		
	2	+0.008	3	4	3	0.5	1.2		
	3	+0.002	4 5	5 -	5	0.5	1.5		
C-JPQB		5 6	5	6		1.8			
(Round Type) C-JPQD	5	+0.012 +0.004			6 8	10		1	2.2
(Diamond Type)	(Diamond Type) 6		8 10	10	8		3		
	8	+0.015	10 12	15	0	1.5	3.5		
	10	+0.006	12	15	10	2	4		

Ordering Example

С

 $L_{0}^{+0.3}$

Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1) Type · 2) Mounting Side O.D. D) - 1) Positioning Side O.D. P



















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P.745

Bushings for S P.749

Adjusting Bolts

P.753 Clamp Screws

P.760

Urethane Pushers

P.763 Micrometer Heads

P.767

Motorized Positioning Stages P.769

Locating Pins - Straight, Tapered

Representative model: CUG4-10

Save Up to vs Standard Type

Shipping from THB day

Positioning Side O.D. D

3

5

6

8

Volume D	iscount
----------	---------

Quantity	1~29	30~49	50~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity.

Part Number

Quantity of volume discount above is for representative Part No. It may differ by the Part.

+0.008 +0.002

+0.004

D Tolerance

g6

-0.002 -0.008

-0.004 -0.012

Material	Hardness	Surface Treatment	
Equivalent to 9Cr18(SUS440C)	Quenching Hardness 55~60HRC	None	63/4.04/G
Lead-in Part D = 0.01 2	* Only m6	30∜.	°.3/ (^{0.4} /)
8		+	
<u>c</u> /_	3 L ^{+0.3}	Ę	
* Select the correspond	onding model accor	ding to D tolerance	

Ordering
Example

Type

CUM(m6)

CUG(g6)

+0.015 +0.006 -0.005 -0.014 Please order after selecting part number and parameters according to the selection steps 1 to 8. Part Number (1) Type · 2) Mounting Side O.D. D) - 3) Length L

3Length L

Selection

15

10

10 15 20

10 15 20

10 15 20

Ε С

1

1.5

2 1

20

0.5



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P.745

Bushings for Locating Pins

P.749

Adjusting Bolts

P.753

Clamp

P.760

Urethane Pushers

P.763

Micrometer

P.767

Positioning Stages

P.769

Bushings For Locating Pins - Straight, Press Fit for Easy Mounting



Representative model: C-JBAM6-6

Save Up to vs Standard Type

THB

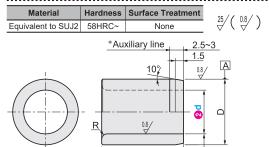
Shipping from day

Volume Discount

Quantity	1~9	10~14	15~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity.

Quantity of volume discount above is for representative Part No. It may differ by the Part.



The I.D. tolerance of bushing is high. If a vernier caliper is used for detection, the measurement result will be too small. It is recommended to use a high- precision measuring tool (internal micrometer or plug gauge, etc.) for detection		$\begin{array}{c c} & & & & & & & \\ \hline & & & & & \\ \hline & & & &$	Α	
	(the measurement result will be too small. It is recommended to use a hig	jh-	

Part Num	ber	d		0.0	D	
Type	2 I.D. d	Tolerance F7	3 Length L Selection	O.D. D	Tolerance m7	R
	4	. 0 000	5 6 8	8	. 0 040	
	5	+0.022	6 8 10	10	+0.016 +0.004	1
	6	0.010	5 6 8 10 12 15 16 20	10		
C-JBAM	8	+0.028	6 8 10 12 15 16 20 25	12	+0.021	
	10	+0.013	8 10 12 15 16 20 25	15	+0.006	2
	12	+0.034 +0.016	10 12 15 16 20 25 30	18	+0.025 +0.007	_

Ordering Example

Please order after selecting part number and parameters according to the selection steps 1 to 3 Part Number (1Type · 2I.D. d) - SLength L C-JBAM6



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749



Bushings For Locating Pins - Shouldered, Press Fit Easy Mounting

Representative model: C-JBHM10-8



THB



Volume Discount

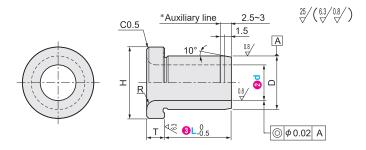
Quantity	1~9	10~14	15~
Discount	Unit Price	15%	30%

. CAD

Shipping days may differ by Quantity.

Quantity of volume discount above is for representative Part No. It may differ by the Part.

Material	Hardness	Surface Treatment
Equivalent to SUJ2	58HRC~	None



The I.D. tolerance of bushing is high. If a vernier caliper is used for detection, the measurement result will be too small. It is recommended to use a high-precision measuring tool (internal micrometer or plug gauge, etc.) for detection.

Part Number	er	d		OLength L Selection				O.D.	D		-	Б		
1 Type	2I.D. d	Tolerance F7		3 Ler	igtn i	L Sele	ection	1	D	Tolerance m7	H	Т	R	
	4		5	6					8		12			
	5	+0.022 +0.010	5	6					10	+0.016 +0.004	14	3	1	
C-JBHM	6		5	6	8	10	12	15	10		14			
C-JBHW	8	+0.028	5	6	8	10	12	15	12	+0 021	+0.021	16		
	10	+0.013		6	8	10	12		15	+0.006	19	4	2	
	12	+0.034 +0.016			8	10	12		18	+0.025 +0.007	22			



Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1)Type · (2)I.D. d) -**3**Length L C-JBHM10



















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Bushings for Locating Pins P.749

P.753 Clamp Screws

P.760

Urethane Pushers

P.763

Micrometer Heads

P.767

Motorized
Positioning Stages

Bushings For Locating Pins - Straight, Adhesive Fixation for Easy Positioning





THB



Volume Discount

Quantity	2~9	10~14	15~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity.

Quantity of volume discount above is for representative Part No. It may differ by the Part.

Material	Hardness	Surface Treatment
Equivalent to SUJ2	58HRC~	None

Number of O.D. Grooves

9

P.745

Bushings for Locating Pins

P.749

Adjusting Bolts

P.753

Clamp Screws

P.760

Urethane Pushers

P.763

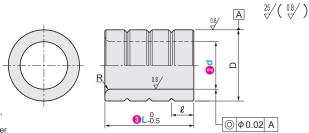
Micrometer

P.767

L<10 \rightarrow 1 pcs ℓ =L/2 10≤L≤12 \rightarrow 2 pcs ℓ =L/3

L>12 \rightarrow 3 pcs ℓ =L/4

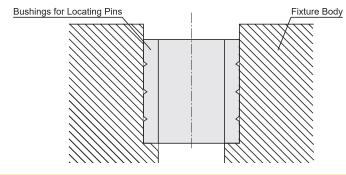
The I.D. tolerance of bushing is high. If a vernier caliper is used for detection, the measurement result will be too small. It is recommended to use a high-precision measuring tool (internal micrometer or plug gauge, etc.) for detection.



Part Number	٢	d						0.0	D Talamana						
1 Type	2 I.D. d	Tolerance H7		3 Length L Selection					O.D. D	D Tolerance g7	R				
	4		5	6	8								8		
	5	+0.012 0		6	8	10							10	-0.005 -0.020	1
C-JBAG	6		5	6	8	10	12	15	16	20			10		
C-JBAG	8	+0.015		6	8	10	12	15	16	20	25		12		
	10	0			8	10	12	15	16	20	25		15	-0.006 -0.024	2
	12	+0.018 0				10	12	15	16	20	25	30	18		

Please order after selecting part number and parameters according to the selection steps 1 to 3. **Ordering** Part Number (1Type · 2I.D. d) -**3**Length L Example C-JBAG6

Feature: The contact area between the O.D. adhesion groove and the glue is increased, effectively enhancing the adhesion strength.





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P.769

Positioning Stages

751



Bushings For Locating Pins - Shouldered, Adhesive Fixation for Easy Positioning





from



Volume Discount

Quantity	2~9	10~14	15~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity.

Quantity of volume discount above is for representative Part No. It may differ by the Part.

Material	Hardness	Surface Treatment
Equivalent to SUJ2	58HRC~	None

Number of O.D. Grooves: L<10 \rightarrow 1 pcs ℓ =L/2

10≤L≤12 \rightarrow 2 pcs ℓ =L/3 I >12 \rightarrow 3 pcs ℓ =L/4

The I.D. tolerance of bushing is high. If a vernier caliper is used for detection, the measurement result will be too small.

It is recommended to use a high-precision measuring tool (internal micrometer or plug gauge, etc.) for detection.

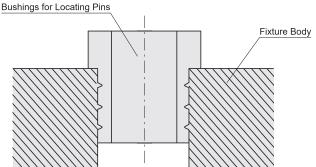
	C0.5	25/(63/08/)
or		$\neg \bigcirc \varphi 0.02 A $

Part Numbe	r	d				0.0	D Talamana						
1 Туре	2I.D. d	Tolerance H7		3Ler	igth I	L Sele	ection	1	O.D. D	D Tolerance g7	Н	Т	R
	4		5	6					8		12		
	5	+0.012	5	6					10	-0.005 -0.020	14	3	1
C-JBHG	6		5	6	8	10	12	15	10		14		
С-ЛВПО	8	+0.015	5	6	8	10	12	15	12		16		
	10	0		6	8	10	12		15	-0.006 -0.024	19	4	2
	12	+0.018 0			8	10	12		18		22		

Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1)Type · (2)I.D. d) -**3**Length L

Feature: The contact area between the O.D. adhesion groove and the glue is increased, effectively enhancing the adhesion strength.





By Type Search on MISUMI official website Q C-JBHG

Ву Keyword

Step 1► Search on MISUMI official website bushing for pin

Q □ MiSUMi 🗹

Step 2 ► Select MISUMI economy series brand



MISUMI contact

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MISUMI WEB "Chat"







P.745 Bushings for Locating Pins

P.749

Adjusting Bolts P.753

Clamp Screws

P.760

Urethane Pushers

P.763

Micrometer Heads

P.767

Motorized Positioning Stages P.769

752

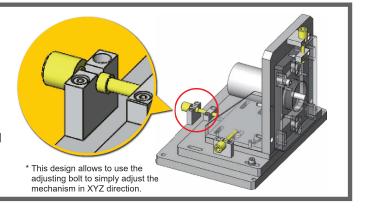
P.760

P.769



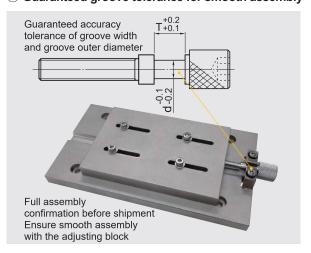
Adjusting Bolt Overview

- The adjusting bolt is often used together with the fixing block for the adjusting bolt.
- · Thread connecting positioning stage for front and rear position adjustment
- The adjustment method is generally divided into two types:
- 1 Manual adjustment with knurling at low load
- 2 Adjustment with hex wrench at high load



Customer Voice

- ① For outgoing processed products, it often happens that the adjusting block cannot be installed because the groove outer diameter or groove width is poor.
- ② The thread accuracy is not good, sometimes not smooth enough in the adjustment and sometimes too loose.
- ③ Most surface treatment of outgoing processed products is blackened with poor rust prevention performance.
- 1) Guaranteed groove tolerance for smooth assembly



2 High precision thread

Generic products on the market

No inspection standard During assembly, the thread is often too tight and cannot be screwed

Full inspection before shipment Ensure smooth adjustment during use

* Problems of generic products on the market



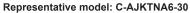
③ Excellent anti-rust performance



- * Generic products on the market are similar products randomly purchased by our company from online or offline markets
- * The test data are obtained through testing by our company, which are for reference only.



Adjusting Bolts Hex Socket With Knurled Head





from dav

Volume Discount

Quantity	1~29	30~49	50~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity. Quantity of volume discount above is for representative Part No. It may differ by the Part.

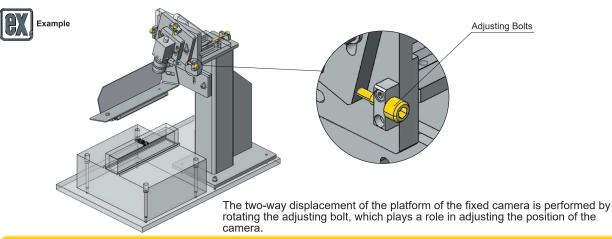
Material	Surface Treatment				
S45C	Trivalent Chromate Treatment			, А ,	
	⊘ M	3L	B T+0.1	Mesh	F

The thread precision of this product has been judged qualified through commercially available nuts equivalent to GB 6G

Part Nur	mber	OThroad Longth L Salaction	d	т	Thread M × Pitch	В	D	٨	F
1 Type	2Thread Dia. M	3Thread Length L Selection	u		Dia. P	Ь		Α	Г
	3	10 15 20 30	2.5	7	3×0.5	3	4.5	7	10
	4	10 15 20 30 40	3.5		4×0.7	3	5.5	'	10
C-AJKTNA	5	15 20 30 40 50 60 70	4.5	9	5×0.8	4.6	7.5		
	6	20 30 40 50 60 70 80	5.5	9	6×1.0	4.0	8.5	15	15
	8	30 40 50 60 70 80	7.5	12	8×1.25	6	11.5		

Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1) Type · 2) Thread Dia. M) - 3) Thread Length L **C-AJKTNA6**



How to search on website

Ву Type Search on MISUMI official website **C-AJKTNA**

Ву Keyword

Step 1 Search on MISUMI official website

Step 2 Select MISUMI economy series brand □MiSUMi 🗹



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adjusting bolt



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9

P.745 Bushings for Locating Pins P.749

> Adjusting Bolts P.753

Clamp Screws

P.760

Urethane Pushers

P.763

Micrometer Heads

P.767

Motorized
Positioning Stages

Economy series Leveling Screws High precision thread

Smooth assembly

Excellent anti-rust performance



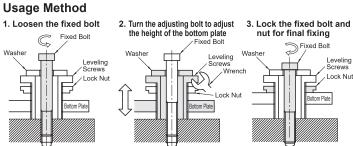
Leveling Screws Overview

- · Fine thread allows for slight adjustment of horizontal height.
- · Leveling screws are often used in conjunction with locking nuts and fixing bolts.
- Four are usually used as a group, which are installed at the four corners of the abutment, and the abutment position is adjusted up and down by a wrench to ensure the level.

Recommended combination parts

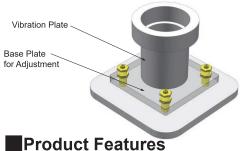
Economy Series Leveling Screws (M)	Recommended: Hexagon socket head bolt (M)	Recommended: Economy series Flat Washers (mm)
M10	M5	I.D. 6, O.D. 12, Thickness 2
M12	M6	I.D. 8, O.D. 16, Thickness 2
M16	M8	I.D. 10, O.D. 20, Thickness 3
M20	M10	I.D. 12, O.D. 25, Thickness 3

* Refer to P.756 for details



Example of Use

· Adjust the micro height difference between the substrate and the workpiece by adjusting the bolt (used in the vibrating plate)



the guide rail by adjusting the bolt Linear Guide

· Achieve the consistent horizontal height of

* Please refer to the product page for details.

Abutment for Adjustment

Voice of customer

The thread accuracy is not good, sometimes not smooth enough in the adjustment and sometimes too loose.

Fine thread is often damaged, making assembly and adjustment very difficult

MISUMI Economy series

Full inspection before shipment

Special packaging to prevent bumps

24h Salt Spray Test Results

Most surface treatment of outgoing processed products is blackened with poor rust prevention performance.



Trivalent chromate treatment Excellent anti-rust performance





Leveling Screws Standard

Representative model: C-LVBA12-25



Shipping from day

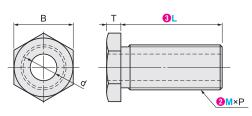
THB

Volume Discount

Quantity	1~29	30~49	50~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity. Quantity of volume discount above is for representative Part No. It may differ by the Part.

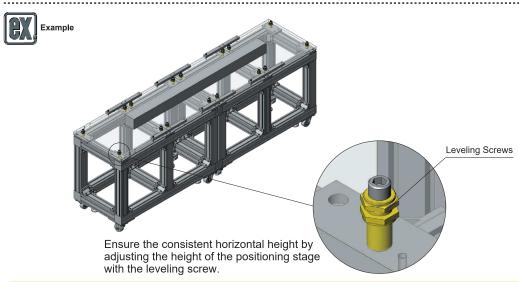
Material	Surface Treatment
S45C	Trivalent Chromate Treatment



Part Num	ber						Thread Die v Ditch			Applicable		
1 Type	2Thread Dia. M (Fine Thread)	3Thread Length L			d	Thread Dia. × Pitch (Fine Thread)	Т	В	Applicable Bolt			
	10	15	20	25	30			5.5	10×1.0	4	17	M4 · 5
CIVEA	12	15	20	25	30	40		7	12×1.0		19	M6
C-LVBA	16		20	25	30	40	50	9	16×1.5	5	22	M8
	20			25	30	40	50	13	20×1.5		27	M10 · 12

Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1) Type · 2) Thread Dia. M) - 3) Thread Length L C-LVBA12





By Type

Search on MISUMI official website **C-LVBA**

By Keyword

Step 1► Search on MISUMI official website

leveling screw

■ MiSUMi ★





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9

P.745 Bushings for 49 Locating Pins P.7

Adjusting Bolts P.753

Clamp Screws

P.760

Urethane Pushers

P.763

Micrometer Heads

P.767

Motorized Positioning Stages

Lock Nuts For Leveling Screws

Representative model: C-LVNA12



THB



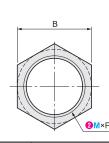


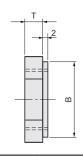
Quantity	1~29	30~49	50~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity.

Quantity of volume discount above is for representative Part No. It may differ by the Part.

Material	Surface Treatment
S45C	Trivalent Chromate Treatment



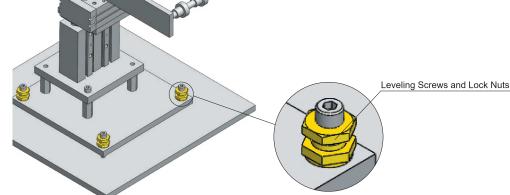


Part	Number	Thread Dia.			
1 Туре	2Thread Dia. M (Fine Thread)	M × Pitch P (Fine Thread)	Т	Width B	
	10	10×1.0	4	17	
C-LVNA	12	12×1.0		19	
C-LVNA	16	16×1.5	5	22	
	20	20×1.5		27	

Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 2.

Part Number (1)Type · 2)Thread Dia. M)

C-LVNA12



Ensure the consistent horizontal height by adjusting the height of the abutment with the leveling screw and lock nut.



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9

P.745 Bushings for Locating Pins

Adjusting Bolts

P.749

P.753

Clamp Screws

P.760

Urethane Pushers

P.763

Micrometer

P.767

Positioning Stages P.769

757

Micrometer Heads

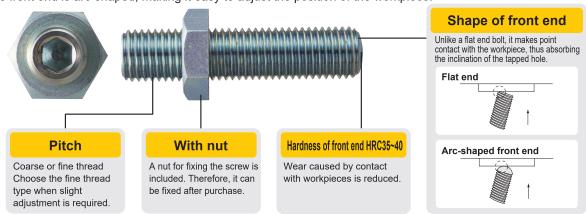
P.767 Motorized Positioning Stages

P.769

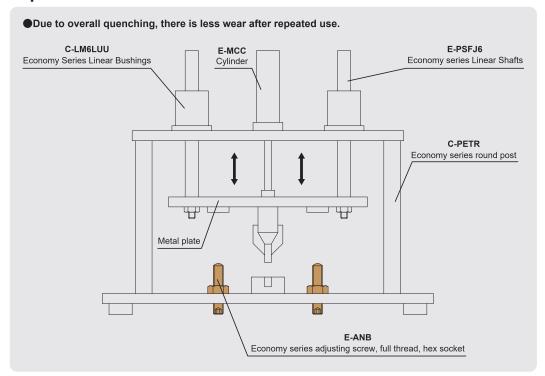


Overview of Adjusting Screws

The front end is arc-shaped, making it easy to adjust the position of the workpiece.



Example of Use



The economy series products are of high hardness due to overall quenching. Do not use them in applications involving frequent collisions.

Adjusting Stopper Screws, Coarse Thread, Hew Socket

New



Representative model: E-ANBN5-30

Save Up to vs Standard Type

THB



Volume Discount

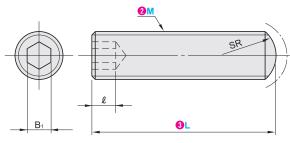
Quantity	10~29	30~49	50~
Discount	Unit Price	15%	30%

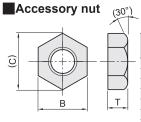
Shipping days may differ by Quantity.

Quantity of volume discount above is for representative Part No. It may differ by the Part.

Adjusting Screw	Type	Material	Surface Treatment	Hardness
Fine Thread	E-ANB	S45C	Chromate Treatment	35~42HRC
rine i nread	E-ANBS	SUS304	-	-
Coarse Thread	E-ANBN	S45C	Chromate Treatment	35~42HRC
Coarse Thread	E-ANBNS	SUS304	-	-

* The hardness is high due to overall quenching. Do not use them in special applications requiring frequent collisions.





	м	M×I	Pitch	B ₁		В	(0)	Т	
	IVI	Fine Thread	Coarse Thread	Di	l	P	(C)	Fine	Coarse
-	3	3×0.35	3×0.5	1.5	1.5	5.5	6.4	2.4	2.4
	4	4×0.5	4×0.7	2	2.2	7	8.1		3.2
	5	5×0.5	5×0.8	2.5	2.8	8	9.2	4	4
	6	6×0.75	6×1.0	3	3	10	11.5		5
	8	8×0.75	8×1.25	4	4	13	15	5	6.5
	10	10×1.0	10×1.5	5	5	17	19.6	6	8
	12	12×1.0	12×1.75	6	6	19	21.9	0	10
	16	16×1.5	16×2.0	8	7	24	27.7	8	13
	20	20×1.5	20×2.5	10	8	30	34.6	10	16

Dimension Specification Table * Customization is available for dimensions not listed in the Specification Table. Only S45C is available for dimension L with *.

Part Number	r								31							
Type	2M								- OI							
	3	10	15	20	25	30	35	40								
	4	10	15	20	25	30	35	40	45	50	60					
(Coarse Thread)	5	10	15	20	25	30	35	40	45	50	60					
E-ANBN E-ANBNS	6		15	20	25	30	35	40	45	50	60					
(Fine Thread)	8			20	25	30	35	40	45	50	60			-		
E-ANB E-ANBS	10				25	30	35	40	45	50	60	70	80	90	100	
L-AIIDO	12					30	35	40	45	50	60	70	80	90	100	
	16							40	45	50	60	70	80	90	100	120*
	20										60	70	80	90	100	120*



Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1 Type · 2 M) **❸**L E-ANBN5 30



Ву Type













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9

Locating P.745 Bushings for Locating Pins

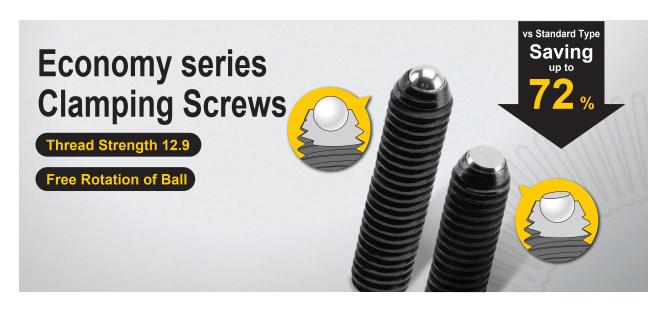
P.749 Adjusting Bolts P.753

> Clamp Screws P.760

Urethane Pushers

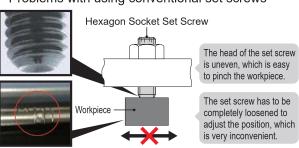
P.763 Micrometer

P.767 Positioning Stages P.769

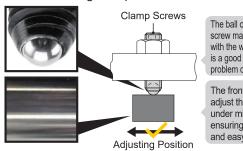


Advantages of Clamp Screw

· Problems with using conventional set screws



· Ease of using clamp screws

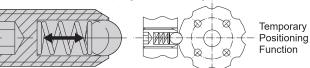


The ball of the clamp screw makes point contact with the workpiece, which is a good solution to the problem of pinch damage.

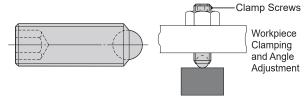
The front-end ball can adjust the workpiece under micro preloading, ensuring the accuracy and easy adjustment.

■ Difference Between Clamp Screws and Plungers

 Plunger principle: with a built-in spring, the front end ball will sink into the main body after bearing the load, and recover under the action of the spring after releasing the load.



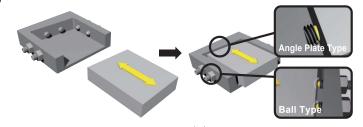
· Clamp screw principle: the workpiece is fixed by the screw thrust and the point contact of the ball.



Example of Using Clamp Screw

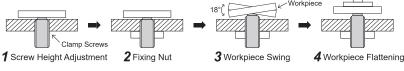
· Ball type and angle plate combination: the ball can be rolled for easy adjustment.





· Angle plate type (flat head) adjusts the height and angle of the workpiece.





Screws / Po

Locating

P.745

Bushings for 49 Locating Pins P.

> Adjusting Bolts

P.753

Clamp Screws

P.760 Urethane Pushers

P.763

Micrometer Heads

P.767
Motorized
Positioning Stages

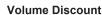
Clamping Screws Ball Type

Representative model: C-RSM6-16.8

Save Up to vs Standard Type

THB





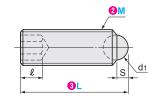
Quantity	1~69	70~119	120~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity.

Quantity of volume discount above is for representative Part No. It may differ by the Part.

Material Hardness **Surface Treatment** Body Ball Equivalent to 40Cr | Equivalent to SUS440C 48HRC~ 50~55HRC Ferrosoferric oxide protective film





The thread precision of this product has been judged qualified through commercially available nuts equivalent to GB 6G

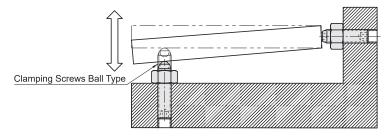
T) i ne tront end ball nea	clamping screw can be rotated.	
Part N	umber	
O T	2 Nominal Thread M	Total Length L

Part N	umber								
1 Type	2 Nominal Thread M (Coarse Thread)	€Total Length L				d1	В	l	S
	3	5.2	10.2			1.5	1.5	2	0.5
	4	6.5	10.5	16.5		2.38	2	2.5	0.7
C-RSM	5	8.6	12.6	20.6		3	2.5	3	0.9
	6	10.8	16.8	20.8	25.8	3.5	3	3.5	1.2
	8	11.2	21.2			5	4	5	1.7

Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1) Type · (2) Thread Diameter M) -**3**Total Length L C-RSM6





Adjust the angle of the workpiece by adjusting the lock screw up and down.



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9

Locating P.745

Bushings for Locating Pins P.749

Adjusting Bolts

Clamp

P.753

P.760 Urethane Pushers

P.763

Micrometer

P.767 Positioning Stages



Clamping Screws Angle Type

Representative model: C-FSM6-16



Shipping from day

29

THI

Volume Discount

Quantity	1~29	30~49	50~
Discount	Unit Price	15%	30%

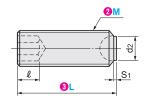
D 2D ?

Shipping days may differ by Quantity.

Quantity of volume discount above is for representative Part No. It may differ by the Part.

IV	laterial	Har	dness	Surface Treatment
Body	Ball	Body	Ball	Surface Treatment
Equivalent to 40Cr	Equivalent to SUS440C	48HRC~	50~55HRC	Ferrosoferric oxide protective film





The thread precision of this product has been judged qualified through commercially available nuts equivalent to GB 6G.

The front end ball head of the Economy series clamping screw can be rotated.

Part N	lumber						
1 Type	2 Nominal Thread M (Coarse Thread)	3 Total ∣	Length L	d2	В	l	S1
	4	6	10	2	2	2.5	0.3
	5	8	20	2.5	2.5	3	0.4
C-FSM	6	16	25	3.2	3	3.5	0.6
	8	12	20	4.5	4	5	0.8
	10	25		6	5	6	0.8

Ordering Example

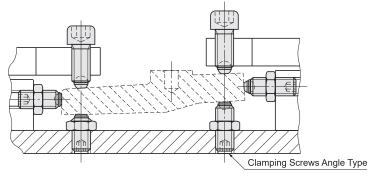
Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1) Type · 2 Thread Diameter M) - 3 Total Length L

C-FSM6

16

Example



For clamping of workpiece (for product with slope)



MISUMI contact

Tel: 038-959200 or 1382 Email: cs@misumi.co.th







9

Locating Pins / Bushings / Clamping

Locating

P.745 Bushings for Locating Pins

Adjusting Bolts

P.749

P.753

Clamp 60 Screws P.

Urethane Pushers

P.763

Micrometer Heads

P.767

Motorized Positioning Stages

Notorized Nicro

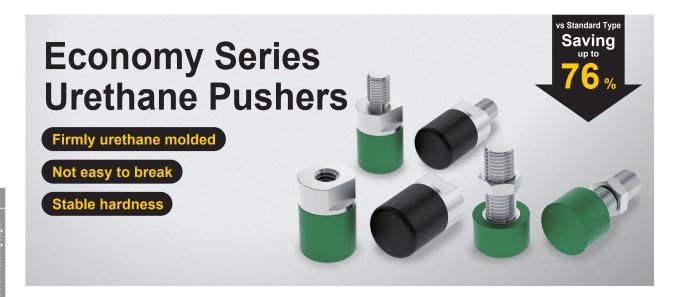
Wich Micro

Wich Micro

By 44

Wich Micro

With M



Customer confusion on usage and MISUMI Economy series improvement plan

MISUMI Economy series Customer confusion on usage Easy to fall off for the adhesive layer Firmly urethane molded Easy to fall off for the polyurethane Use high-quality materials and improve the adhesive layer coating process. The polyurethane adhesive Resulting in failure of functions such as layer is not easy to deform and the core anti-collision and vibration damping material is coated firmly and reliably. Not easy to break Easy to break with impact The adhesive layer is easy to be Reasonable product design and high-quality polyurethane raw materials deformed and broken Ensure product durability Bruise marks occur on the impact surface (No damage to the impact surface after (after 4800 impacts in 20 minutes) 4800 impacts in 20 minutes) Measured deviation within ±5 Stable hardness **Unstable hardness** Uneven hardness distribution of Ensure the hardness products in the same batch stability through strict (standard A90 as an example) process management * The above values are reference A85 A80 values and are not guaranteed values

Example of Use

Threaded Stud / Tapped Type	Threaded Stud Type With Hex Nut
Anti-collision, impact resistant	Simple buffering, noise reduction and limiting
Suitable for large impact force, high frequency and other occasions with high load requirements	Suitable for small impact force, low frequency and other occasions requiring certain limit action



Urethane Pushers Threaded Stud Type

Representative model: C-USLH12



THB



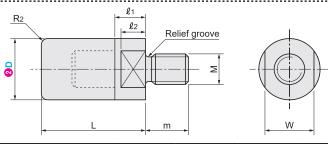


Quantity	10~29	30~49	50~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity. **L** CAD

Quantity of volume discount above is for representative Part No. It may differ by the Part.

Type	Pu	Pusher						
Туре	Urethane Hardness	Color	Material	Material				
C-USLH	Shore A90	Green	Urethane	Stainless				
C-USLM	Shore A70	Black	Orethane	Steel				



Material color is subject to the actual product.

Urethane is integrally molded on the metal core head.

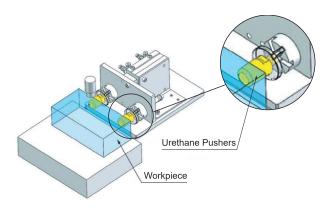
Part Numbe	Part Number		M × Pitch	R ₂	m	l1	l ₂	w
1 Type	2 O.D. D		(Coarse Thread)	IK2	m	L1	k2	VV
	6	10	M3×0.5		4.5			5
	8	12.5	M4×0.7	1	6	5	4	7
C-USLH	10	17	M5×0.8		7	5	4	8
C-USLM	12	18	M6×1.0	2	10			10
	16	21	M8×1.25		12	6	5	14
	20	25	M10×1.5	3	14	8	6	17

Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 2.

Part Number (1 Type · 2 O.D. D)

C-USLH12







By Type Search on MISUMI official website Q **C-USLH**

By Keyword

Step 1► Search on MISUMI official website urethane pusher

□ MiSUMi **M**





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9

P.745

Bushings for Locating Pins P.749

Adjusting Bolts

P.753

Clamp Screws

P.760

Urethane Pushers P.763

Micrometer Heads

P.767

Motorized Positioning Stages

Urethane Pushers Tapped Type

L CAD

Representative model: C-URLH12

Save Up to vs Standard Type

THB



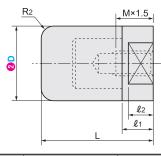


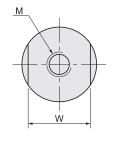
Quantity	1~29	30~49	50~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity.

Quantity of volume discount above is for representative Part No. It may differ by the Part.

Tuno	Pt	ısher		Metal core
Type	Urethane Hardness	Color	Material	Material
C-URLH	Shore A90	Green	Urethane	Stainless
C-URLM	Shore A70	Black	Orethane	Steel





- Material color is subject to the actual product.
- Turethane is integrally molded on the metal core head.

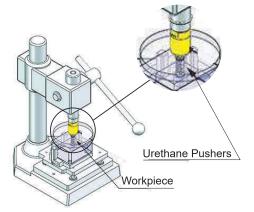
Part Number			M × Pitch	R ₂	l ₁	l2	W
1 Type	2 O.D. D		(Coarse Thread)	K2	L1	k2	•
	10	17	M3×0.5	1	_	4	8
C-URLH	12	18	M4×0.7	5		4	10
C-URLM	16	21	M5×0.8	2	6	5	14
	20	25	M6×1.0	3	8	6	17

Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 2.

Part Number (1 Type · 2 O.D. D)

C-URLH12

Example



Bushings for Locating Pins P.749

9

Adjusting Bolts

P.753

Clamp Screws

P.760

P.763

Micrometer

P.767

Positioning Stages

P.769





















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Urethane Pushers Threaded Stud Type with Hex Nut

Representative model: C-UNCH6-20

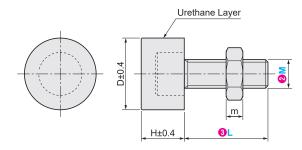


Shipping from THB day

Volume Discount			
Quantity	1~29	30~49	50~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity. Quantity of volume discount above is for representative Part No. It may differ by the Part.

Pt	ısher	Bolt	Hexagonal Nut		
Urethane Hardness	Color Material		Material	Material	
Shore A90	Green	Urethane	Stainless Steel	Stainless Steel	

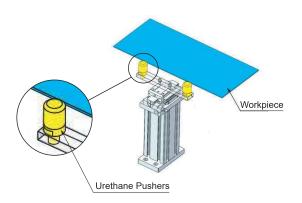


- Material color is subject to the actual product.
- Turethane is integrally molded on the metal core head.

Part	Number			O Da	14.1.0	n orth	l Cal	ootio				D	ш	
1 Type	2 Thread M (Coarse Thread)		Bolt Length L Selection						ם	Н	m			
	3	10		16								7.5	6	2.4
	4	10	15	20	25	30	35	40				10	7	3.2
	5		15	20	25	30	35	40	50			12.5	9	4
C-UNCH	6		15	20	25	30	35	40	50			15	10	5
	8			20	25	30	35	40	50	60		20	13	6.5
	10					30	35	40	50	60	70	25	15	8
	12					30	35	40	50			30	18	10

Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1) Type · 2) Thread M) - 3) Thread Length L C-UNCH6





Ву Type Search on MISUMI official website

C-UNCH

By Keyword

Step 1 Search on MISUMI official website

urethane pusher

Step 2 Select MISUMI economy series brand





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9

P.745 Bushings for Locating Pins P.749

Adjusting Bolts

P.753

Clamp Screws

P.760

Urethane Pushers P.763

Micrometer Heads

P.767

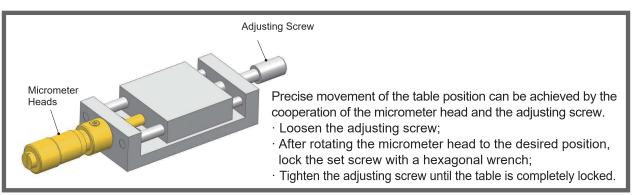
Motorized Positioning Stages

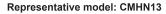


Features of MISUMI Economy Series



Example of Use





Save Up to vs Standard Type 76%

Shipping from day

534

THB

Volume Discount

Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

L CAD 2D 3D

₱Shipping days may differ by Quantity.

₱Quantity of volume discount above is for representative Part No. It may differ by the Part.

■ Part No. It may differ by the Part.

■ Part No. It may differ by the Part.

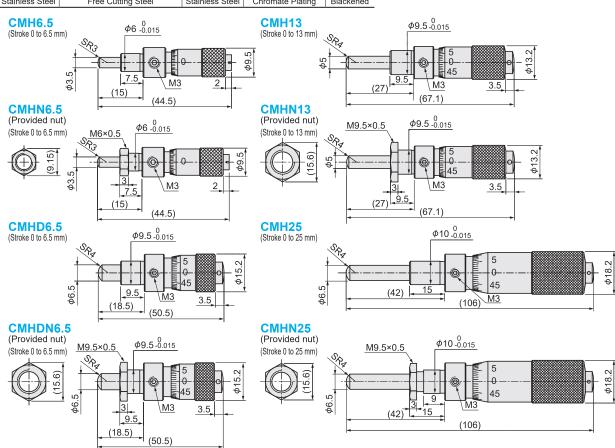
■ Part No. It may differ by the Part.

■ Part No. It may differ by the Part.

■ Part No. It may differ by Quantity.

■ Part No. It may differ by Quantit

	Material	Surface Treatment			
Spindle	Nut / Main Body / Micro drum	Set Screw	Body / Micro drum	Nut	
Stainless Steel	Free Cutting Steel	Stainless Steel	Chromate Plating	Blackened	
014110.5			014140		



Туре	Stroke (mm)	Spindle O.D. (mm)	Provided / Not Provided Nut	Minimum Reading (mm)	Travel Distance Per Rotation (mm)	Mass (kg)		
CMH6.5		3.5	None			0.01		
CMHN6.5	0~6.5	3.5	Provided			0.01		
CMHD6.5	0~0.5	0~0.5	0~0.5	6.5	None			
CMHDN6.5		0.5	Provided	0.01	0.5	0.03		
CMH13	0.40	5	None	0.01	0.5	0.03		
CMHN13	0~13	5	Provided					
CMH25	0~25	6.5	None			0.09		
CMHN25	0~25	6.5	Provided			0.09		

This product is only used as a position adjustment part, not a measuring tool.



Clampi Locating Pins / Bushings / Clampi Screws / Positioning Stages

Locating Pins

P.745 Bushings for 9 Locating Pins P.749

> Adjusting Bolts

P.753

Clamp Screws

P.760

Urethane Pushers

P.763
Micrometer 67
Heads
P.767

Motorized 99
Positioning Stages P:

768

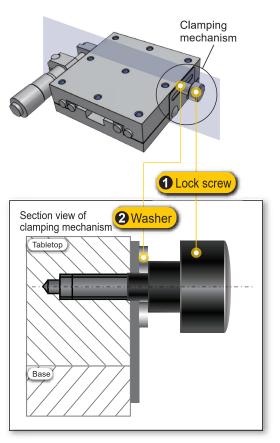
P.760



Product Features

2.5 times higher holding force due to improvement of clamp mechanism

3D figure of manual positioning stage



Problems with generic products in the market

The lock screw has a relatively low holding force (typically **40N**) after it is locked in place, which easily causes loosening.

Ø

Improvements to Economy Series Manual Positioning Stages



Partial Section View The relief groove at the root of the lock screw is removed so that the washer is centered, achieving a uniform stress.

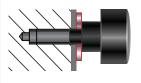
Improvement 2

Improvement 1



Partial Section View 2 The inner diameter of the washer is decreased to reduce the fit clearance between the washer and 1 the lock screw so that a uniform stress is achieved.

Improvement 3



Partial Section View **②** The material of the washer is changed from nylon to stainless steel to increase the frictional resistance.

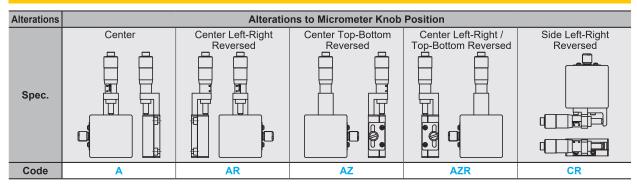
The test shows the improved holding force has reached

Compared to generic products on the market, it has increased by



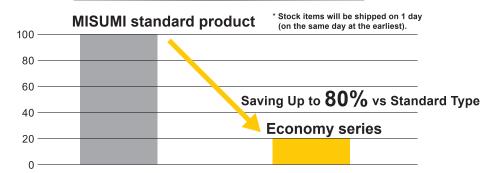
*Generic products on the market are similar products randomly purchased by our company from online or offline markets. The above data is limited to sample test results, which is for reference only. *The amount of holding force varies with the tightening torque. For complete locking, please select the opposed clamp mechanism.

There are 10 types of alterations are available to suit multiple applications

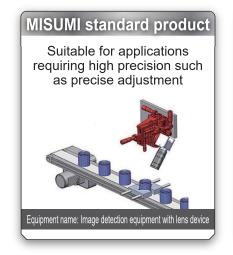


Alterations		Alterations to Micrometer Knob Position									
	Side Top-Bottom	Left-Right /	Disc Clamp	Opposed Clamp	No Micrometer Head						
Spec.	Reversed	Top-Bottom Reversed									
Code	CZ	CZR	Н	Р	MN						

Price Comparison with MISUMI Standard Product



Usage difference between economy series and standard product





Adjusting Bolts

P.753

Clamp 60 Screws P.760

Urethane Pushers

P.763 **≤**

Micrometer Heads

P.767

Motorized

Positioning Stages

P.769



X-Axis Manual Stages, Cross Roller Guide





Representative model: E-XPG40

Save Up to vs Standard Type



Volume Discount

Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

L CAD

Shipping days may differ by Quantity. Quantity of volume discount above is for representative Part No. It may differ by the Part.

Material	Surface Treatment			
Aluminum alloy	Black Anodized			

E-XPG40

9

P.745

Bushings for Locating Pins

P.749

Adjusting Bolts

P.753

Clamp Screws

P.760

Urethane Pushers

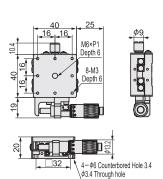
P.763

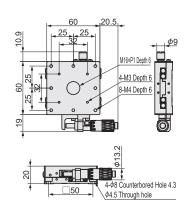
Micrometer

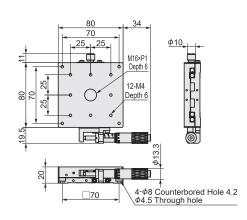
P.767

E-XPG60

E-XPG80





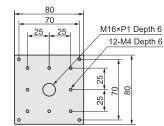


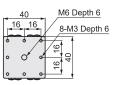
Dimensions of stage surface mounting hole

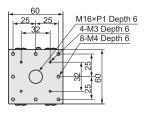
No.40

No.60

No.80















MISUMI contact

038-959200 or 1382 Tel: Email: cs@misumi.co.th



Install MISUMI APP



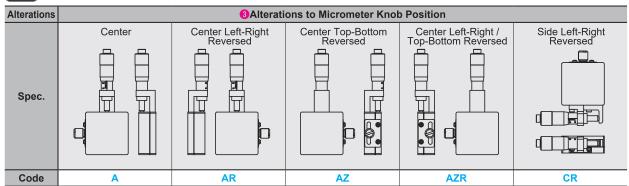
Part Number		Stage Travel		Load Capacity (N)		Straightness	Minimum	B4 (1)
1 Туре	2No.	Surface (mm)	Distance (mm)	Horizontal	Vertical	(µm)	Reading (µm)	Mass (kg)
	40	40×40		19.6	9.8	Within 20	10	0.14
E-XPG	60	60×60	±6.5	49	19.6			0.25
	80	80×80	±12.5	98	49			0.5

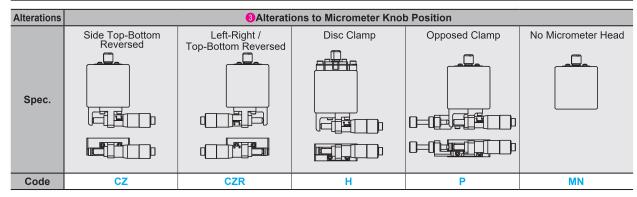
Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1) Type · (2) No.) - (3) Alterations

E-XPG40 E-XPG40







MISUMI contact

Tel: 038-959200 or 1382 Email: cs@misumi.co.th







X-Axis Manual Stages, Linear Ball Guide



9

P.745

Bushings for Locating Pins

P.749

Adjusting Bolts

P.753

Clamp Screws

P.760

Urethane Pushers

P.763

Micrometer

P.767



Representative model: E-XSG100

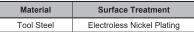
Save Up to vs Standard Type

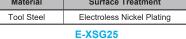


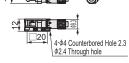
Volume Discount

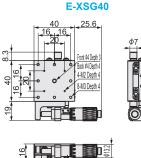
Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity. Quantity of volume discount above is for representative Part No. It may differ by the Part.

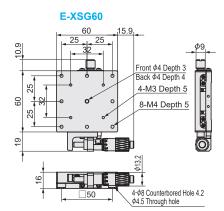




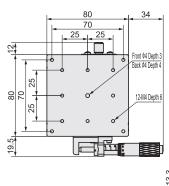


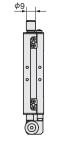


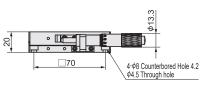




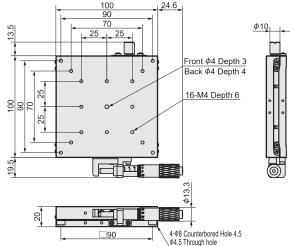
E-XSG80







E-XSG100



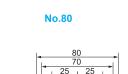
Dimensions of stage surface mounting hole

No.25

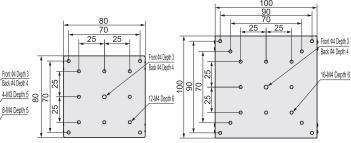
No.40

No.60

60









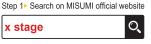




Front 04 Depth 3 Back 04 Depth 4











Part N	Part Number		Stage Surface Travel		Straightness	Minimum	Mass (kg)
1 Туре	2No.	(mm)	Distance (mm)	Horizontal	(µm)	Reading (µm)	wass (kg)
	25	25×25	±3.25	39.2			0.07
	40	40×40		98			0.23
E-XSG	60	60×60	±6.5	196	Within 10	10	0.4
	80	80×80	. 40.5	264.6			0.9
	100	100×100	±12.5	343			1.33

Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 3.

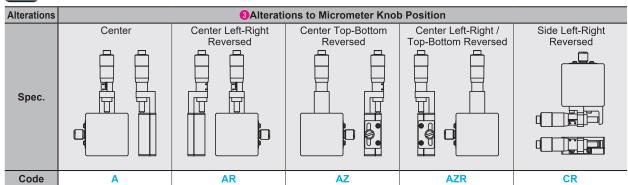
Part Number (1 Type · 2 No.) - 3 Alterations

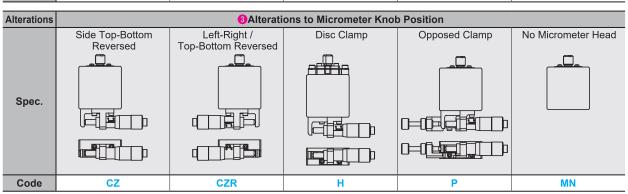
E-XSG40

E-XSG40



Alteration





MISUMI contact

Tel: 038-959200 or 1382 Email: cs@misumi.co.th





MiSUMi





XY-Axis Manual Stages, Cross Roller Guide





Representative model: E-XYPG40

Save Up to vs Standard Type



Volume Discount

Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity.

Quantity of volume discount above is for representative Part No. It may differ by the Part.

Material	Surface Treatment
Aluminum alloy	Black Anodized

E-XYPG40

19

16 16

9

P.745

Bushings for Locating Pins Locating

P.749

Adjusting Bolts

P.753

Clamp Screws

P.760

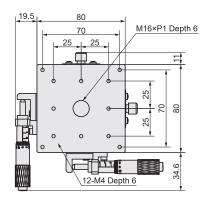
Urethane Pushers

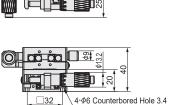
P.763

Micrometer

E-XYPG60

E-XYPG80

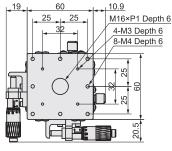


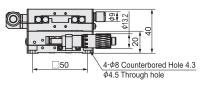


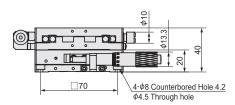
10.4

M6×P1 Depth 6

8-M3 Depth 6







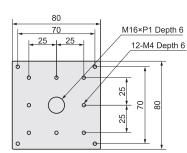
Dimensions of stage surface mounting hole

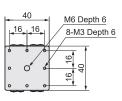
φ3.4 Through hole

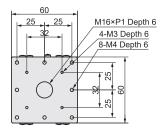
No.40

No.60

No.80







P.769















Part Number		Stage Surface Travel		Load Capacity (N)	Straightness	Minimum	Mana (ke)
1 Туре	2No.	(mm)	Distance (mm)	Horizontal	(μm)	Reading (µm)	Mass (kg)
E-XYPG	40	40×40	±6.5	17.6	Within 20	10	0.3
	60	60×60		44.1			0.52
	80	80×80	±12.5	93.1			1



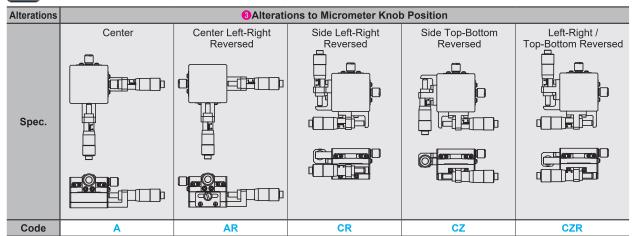
Please order after selecting part number and parameters according to the selection steps 1 to 3.

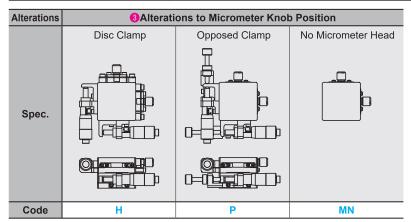
Part Number (1 Type · 2 No.) - 3 Alterations

E-XYPG40

E-XYPG40 -







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MISUMI WEB "Chat"

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ECONOMY XY-Axis Manual Stages, Linear Ball Guide





4-φ4 Counterbored Hole 2.3

φ2.4 Through hole

Representative model: E-XYSG100

Save Up to vs Standard Type



Volume Discount

4-φ6.5 Counterbored Hole 3.4

 ϕ 3.4 Through hole

Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

L CAD

Shipping days may differ by Quantity. Quantity of volume discount above is for representative Part No. It may differ by the Part.

Material	Surface Treatment
Tool Steel	Electroless Nickel Plating

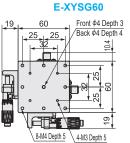
E-XYSG25

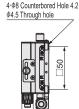
Front Ø3 Depth 3 Back Ø3 Depth 3

E-XYSG40

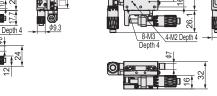
Front Ø4 Depth 3

Back Ø4 Depth 4



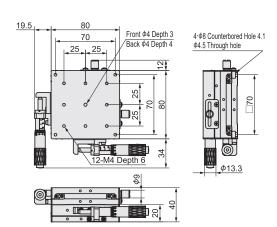


φ13.2

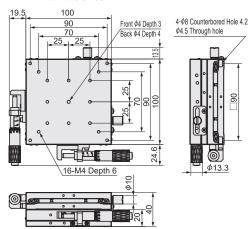




E-XYSG80



E-XYSG100



Dimensions of stage surface mounting hole

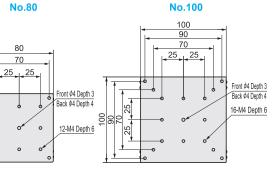
No.25 No.40 No.60

800

Back Ø4 Depth 4

4-M3 Depth 5

8-M4 Depth 5



P.769 How to search on website



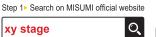


Back \$4 Depth 4

8-M3 Depth 4

4-M2 Depth 4 8





80

70



777

9

Bushings for Locating Pins P.749

P.745

Adjusting Bolts P.753

Clamp Screws

P.760 Urethane Pushers

P.763 Micrometer

P.767

60

Part N	umber	Stage Surface	Travel	Load Capacity (N)	Straightness	Minimum	Maga (kg)
1 Туре	2 No.	(mm)	Distance (mm)	Horizontal	(µm)	Reading (µm)	Mass (kg)
	25	25×25	±3.25	38.2			0.14
	40	40×40		95	Within 10	10	0.46
E-XYSG	60	60×60	±6.5	192			0.8
	80	80×80		255		1.8	
	100	100×100	±12.5	329			2.66

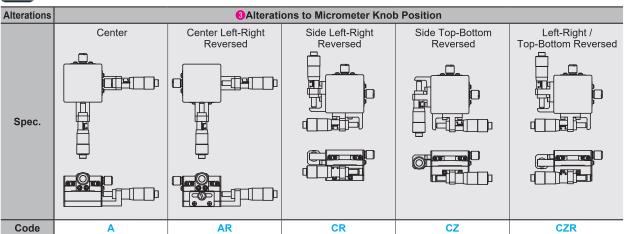
Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 3.

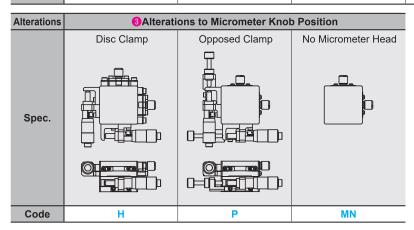
Part Number (1 Type · 2 No.) - 3 Alterations

E-XYSG40

E-XYSG40







MISUMI contact





Economy XY-Axis Manual Stages, Linear Ball Guide, Thin Type

New



Representative model: E-XYSSG100

Save Up to vs Standard Type

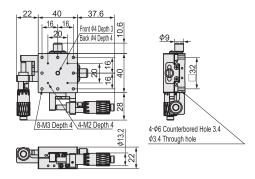


Volume Discount

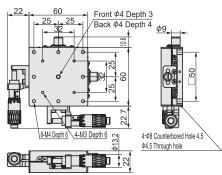
Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

Material	Surface Treatment
Tool Steel	Flectroless Nickel Plating

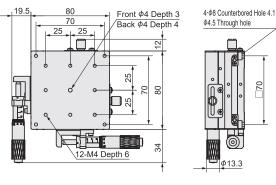
E-XYSSG40



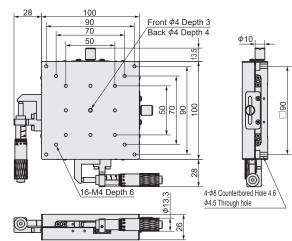
E-XYSSG60



E-XYSSG80



E-XYSSG100

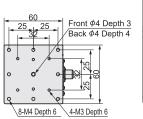


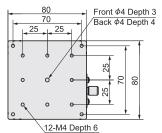


Dimensions of stage surface mounting hole

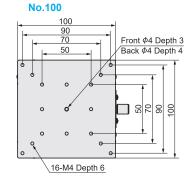


No.40 No.60





No.80





8-M3 Depth 4



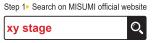
Front ϕ 4 Depth 3

Back Φ4 Depth 4

4-M2 Depth 4











779

P.745

9

Bushings for Locating Pins Locating P.749

Adjusting Bolts

P.753 Clamp Screws

P.760

Urethane Pushers

P.763 Micrometer

P.767 P.769

Shipping days may differ by Quantity. Quantity of volume discount above is for representative Part No. It may differ by the Part.

Part N	umber	Stage Surface	Travel	Load Capacity (N)	Straightness	Minimum	Mana (kg)
① Туре	2No.	(mm)	Distance (mm)	Horizontal	(µm)	Reading (µm)	Mass (kg)
	40	40×40	±6.5	88			0.34
E VVCC	60		10.5	186	Ment : 40		0.64
E-XYSSG	80	80×80	142.5	196	Within 10	10	1.32
	100 100×100	100×100	±12.5	245			2

Ordering Example

Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1 Type · 2 No.) - 3 Alterations

E-XYSSG40 E-XYSSG40 -

Δ



Alterations	3	Alterations to Micrometer Knob Positio	n
Spec.	Center	Side Left-Right Reversed	No Micrometer Rotation
Code	A	CR	MN

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MISUMI contact







9 Locating Pins / Bushings Screws / Positioning

Locating Pins

P.745
Bushings for 49
Locating Pins P.749

Adjusting Bolts

P.753

Clamp Screws

P.760

Urethane Pushers

P.763

Micrometer Heads

P.767
Motorized
Positioning Stages

P.769



Z-Axis Manual Stages, Cross Roller Guide





Representative model: E-ZPG60

Save Up to vs Standard Type



Volume Discount

Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity. Quantity of volume discount above is for representative Part No. It may differ by the Part.

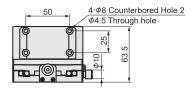
Material	Surface Treatment
Aluminum alloy	Black Anodized

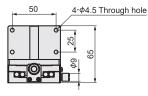
 $4-\phi 3.5$ Through hole

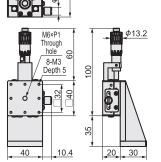
E-ZPG40

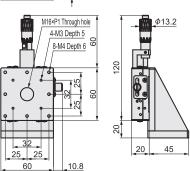
E-ZPG60

E-ZPG80





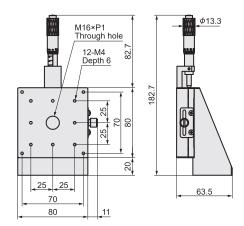




M16×P1 Depth 6

4-M3 Depth 6

8-M4 Depth 6



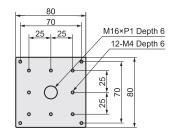
Dimensions of stage surface mounting hole

No.40

No.60

60

25 ı 25 No.80



P.760

Urethane Pushers

9

P.745

Bushings for Locating Pins

P.749

Adjusting Bolts

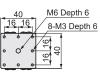
P.753

Clamp Screws

P.763

Micrometer

P.767 P.769



















Part N	umber	Stage Surface	Travel	Load Capacity (N)	Straightness	Minimum	Maga (kg)	
1 Type	2No.	(mm)	Distance (mm)	Distance (mm) Horizontal		Reading (µm)	Mass (kg)	
	40	40×40	±6.5	9.8	Within 20	10	0.2	
E-ZPG	60	60×60		19.6			0.45	
	80	80×80	±12.5	49			0.8	

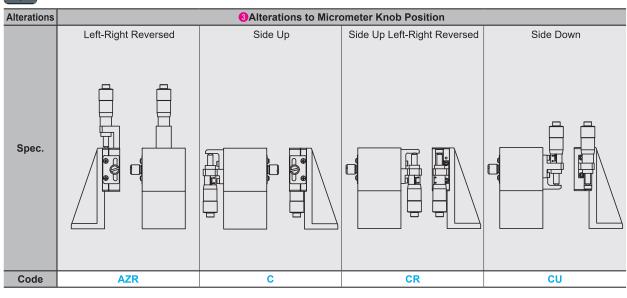
Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1 Type · 2 No.) - 3 Alterations

E-ZPG60 E-ZPG60

C





MISUMI contact

Tel: 038-959200 or 1382 Email: cs@misumi.co.th









economy Z-Axis Manual Stages, Linear Ball Guide





Representative model: E-ZSG25

Save Up to vs Standard Type



Volume Discount

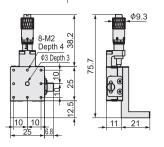
Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

. CAD

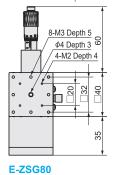
Shipping days may differ by Quantity. Quantity of volume discount above is for representative Part No. It may differ by the Part.

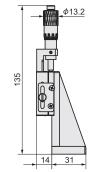
Type	Material	Surface Treatment
Body	Tool Steel	Electroless Nickel Plating
Z Support	Aluminum Alloy	-



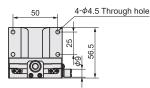


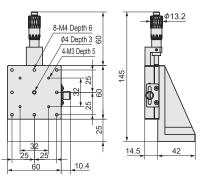




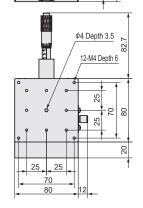


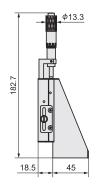
E-ZSG60





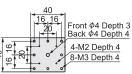


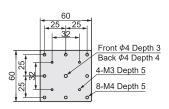




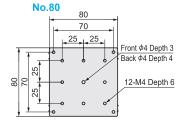
Dimensions of stage surface mounting hole No.25







No.60







Back φ3 Depth 3

8-M2 Depth 4











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9

P.745 Bushings for Locating Pins Locating

Adjusting Bolts

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Clamp Screws

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P.760

Urethane Pushers

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Part Number		Stage Surface	Travel	Load Capacity	Straightness	Minimum	Mana (Isa)
1 Туре	② No.	(mm)	Distance (mm)	(N) ,	(μm)	Reading (µm)	Mass (kg)
E-ZSG	25	25×25	±3.25	9.8			0.09
	40	40×40	±6.5				0.32
	60	60×60		49	Within 10	10	0.58
	80	80×80	±12.5				1.2

Ordering **Example** Please order after selecting part number and parameters according to the selection steps 1 to 3.

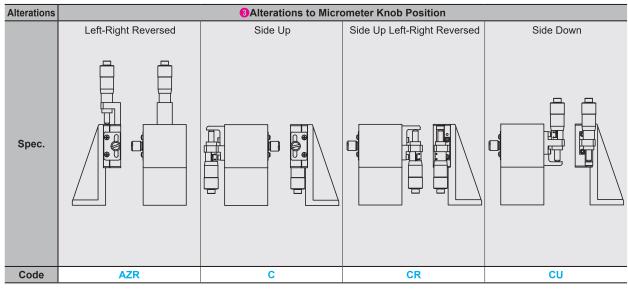
C

Part Number (1 Type · 2 No.) - 3 Alterations

E-ZSG25

E-ZSG25





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P.745 Bushings for 49 Locating Pins P.749

Adjusting Bolts

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Urethane Pushers

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Micrometer Heads

P.767

Motorized
Positioning Stages P.769



XZ-Axis Manual Stages, Cross Roller Guide





Representative model: E-XZPG60

Save Up to vs Standard Type



Volume Discount

Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

. CAD

Shipping days may differ by Quantity. Quantity of volume discount above is for representative Part No. It may differ by the Part.

Material	Surface Treatment		
Aluminum alloy	Black Anodized		

E-XZPG40

9

P.745

Bushings for Locating Pins

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Adjusting Bolts

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Clamp Screws

P.760

Urethane Pushers

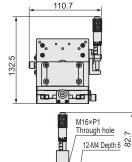
P.763

Micrometer

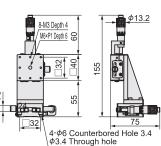
E-XZPG60

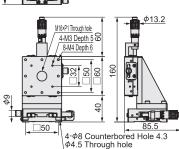
89.5

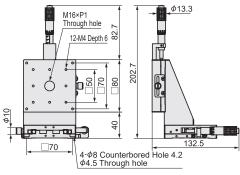
E-XZPG80









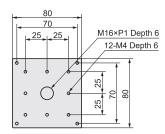


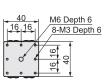
Dimensions of stage surface mounting hole

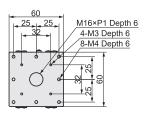
No.40

No.60

No.80























4	
7	
3	

Locating Pins

9

P.745 Bushings for 49 Locating Pins P.749

Adjusting Bolts

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Clamp Screws

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Urethane Pushers

P.763

Micrometer Heads

P. Positioning Stages

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Part N	umber	Stage Surface (mm)	Travel Dist	ance (mm)	Load Capacity (N)	Straightness (µm)	Minimum Reading	Macc (kg)
1 Type	⊘ No.	Surface (mm)	X-Axis	Z-Axis	Horizontal	(µm)	(µm)	Mass (kg)
E-XZPG	40	40×40	±6.5	±6.5	9.8	Within 20	10	0.34
	60	60×60			19.6			0.7
	80	80×80	±12.5	±12.5	49			1.3

Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1 Type · 2 No.) - 3 Alterations E-XZPG60

E-XZPG60



Alterations	SAlterations to Micrometer Knob Position						
Spec.	Center	Side Up	Side Down	Reversed			
Code	Α	С	CU	R			

Tel: 038-959200 or 1382 Email: cs@misumi.co.th









XZ-Axis Manual Stages, Linear Ball Guide





Representative model: E-XZSG40

Save Up to vs Standard Type



Volume Discount

Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

Shipping days may differ by Quantity. Quantity of volume discount above is for representative Part No. It may differ by the Part.

Type	Material	Surface Treatment
Body	Tool Steel	Electroless Nickel Plating
Z Support	Aluminum Alloy	-

9

Locating Pins

P.745

Bushings for Locating Pins

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Adjusting Bolts

P.753

Clamp Screws

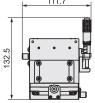
P.760

Urethane Pushers

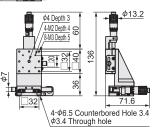
P.763

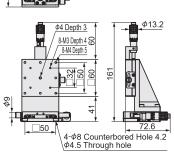
Micrometer

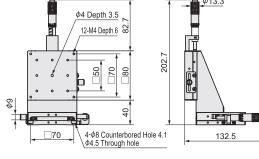
E-XZSG40 E-XZSG60 E-XZSG80 111.7





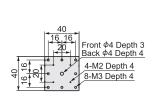


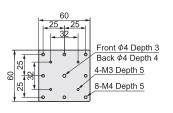


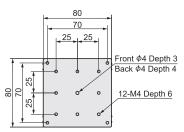


Dimensions of stage surface mounting hole

No.40 No.60







No.80

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P.769

Part N	umber	Stage Surface (mm)	Travel	Load Capacity	Straightness (µm)	Minimum Reading (μm)	Mass (kg)
1 Type	⊘ No.	(mm)	Distance (mm)	(N).	(μm)	(μm)	Mass (kg)
	40	40×40	±6.5		Within 10	10	0.55
E-XZSG	60	60×60	10.5	49			0.98
	80	80×80	±12.5				2.1

Ordering Example Please order after selecting part number and parameters according to the selection steps 10 to 3.

Part Number (1 Type · 2 No.) - 3 Alterations E-XZSG40

E-XZSG40



Alterations		3 Alterations to Micro	ometer Knob Position	
Spec.	Center	Side Up	Side Down	Reversed
Code	Α	С	CU	R

MISUMI contact

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MiSUMi



XYZ-Axis Manual Stages, Cross Roller Guide





Representative model: E-XYZPG60

Save Up to vs Standard Type



Volume Discount

Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

. CAD

Shipping days may differ by Quantity. Quantity of volume discount above is for representative Part No. It may differ by the Part.

Material	Surface Treatment
Aluminum alloy	Black Anodized

E-XYZPG40

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Bushings for Locating Pins

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Adjusting Bolts

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Clamp Screws

P.760

Urethane Pushers

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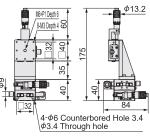
Micrometer

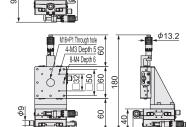
E-XYZPG60

E-XYZPG80

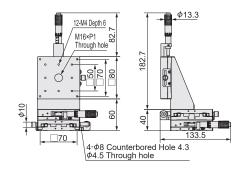








4-φ8 Counterbored Hole 3.4 φ3.5 Through hole

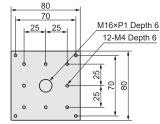


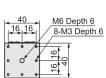
Dimensions of stage surface mounting hole

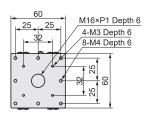
No.40

No.60

No.80





















Micrometer Heads

P.767 Motorized Positioning Stages

P.769

Part Number		Stage Surface (mm)	Travel	Load Capacity	Straightness	Minimum	Macc (kg)
1 Туре	2No.	(mm)	Distance (mm)	(N).	(μm)	Reading (µm)	Mass (kg)
	40	40×40		9.8			0.48
E-XYZPG	60	60×60	±6.5	19.6	Within 20	10	0.95
	80	80×80	±12.5	49			1.8

Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1 Type · 2 No.) - 3 Alterations

E-XYZPG60 E-XYZPG60



Alterations	③ Alterations to Micrometer Knob Position					
Spec.	Center	Side Up	Side Down	Reversed		
Code	Α	С	CU	R		

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ECONOMY XYZ-Axis Manual Stages, Linear Ball Guide





Representative model: E-XYZSG40

Save Up to vs Standard Type

Shipping from days

Volume Discount

Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

Туре	Material	Surface Treatment
Body	Tool Steel	Electroless Nickel Plating
Z Support	Aluminum Alloy	-

E-XYZSG40

9

P.745

Bushings for Locating Pins

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Adjusting Bolts

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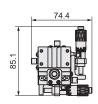
Clamp Screws

P.760

Urethane Pushers

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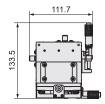
Micrometer

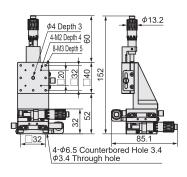


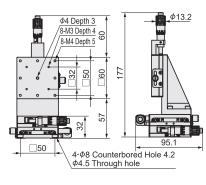
E-XYZSG60

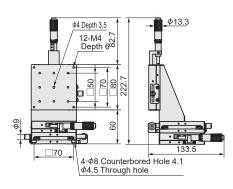


E-XYZSG80





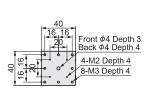


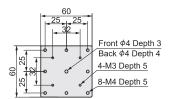


Dimensions of stage surface mounting hole

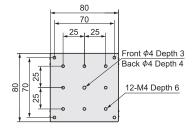
No.40

No.60





No.80



P.767 P.769



Search on MISUMI official website E-XYZSG Type









Shipping days may differ by Quantity. Quantity of volume discount above is for representative Part No. It may differ by the Part.

Micrometer Heads

P.767 Motorized Positioning Stages

P.769

Install MISUMI APP

Part N	Part Number		Travel Distance (mm)	Load Capacity	Straightness (µm)	Minimum Reading	Mass (kg)
1 Type	⊘ No.	Stage Surface (mm)	Distance (mm)	(N).	(µm)	Reading (µm)	Mass (kg)
	40	40×40	±6.5				0.78
E-XYZSG	60	60×60	10.0	49	Within 10	10	1.38
	80	80×80	±12.5				3

Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1 Type · 2 No.) - 3 Alterations

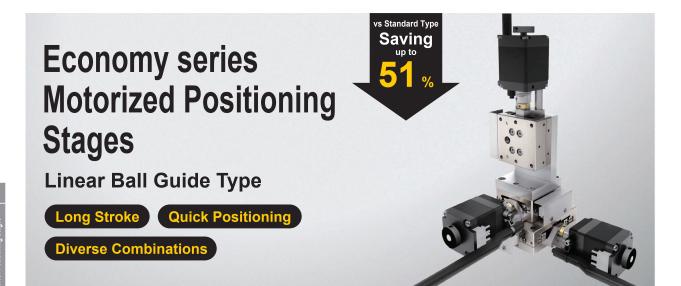
E-XYZSG40 E-XYZSG40



Alterations		3Alterations to Micrometer Knob Position					
Spec.	Center	Side Up	Side Down	Reversed			
Code	Α	С	CU	R			

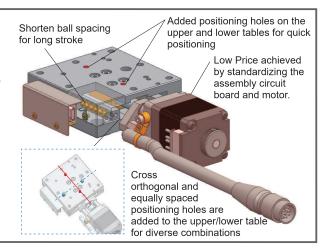
Tel: 038-959200 or 1382 Email: cs@misumi.co.th





Feature

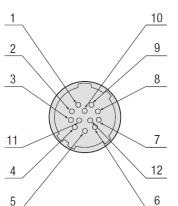
- ① Low price is achieved by simplifying the structure and sharing the parts.
- ② Quick positioning is achieved by adding positioning holes to the upper and lower seats of the stage.
- ③ Long stroke is achieved by rearranging the balls and extending the lower seat, etc.
- 4 The aperture and position of the whole series of positioning holes are common to achieve mutual grouping and diversity of combinations.



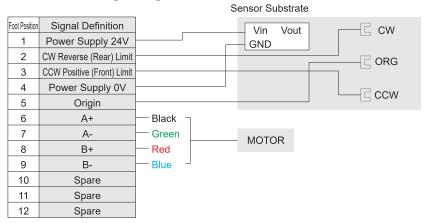
Universal Specifications

Feed	Screw	Ball Screw φ6, Lead 1mm	
Guide		Linear Ball Guide Type	
Туре		2-Phase Stepper Motor 1.3A / Phase	
Motor	Step Angle	1.8°	
Commenter	Part Number	HR10A-10J-12P (HIROSE)	
Connector	Receiving Side Part Number	HR10A-10P-12S (HIROSE)	
	Power Voltage	DC24V±10%	
Sensor Substrate	Sensor Type	Photomicro Sensor EE-SX4320 (OMRON)	
	Control Output	NPN Open Collector Output	
	Output Logic	When detecting (shading): output transistor OFF (non-conductive)	

Connector Pin Configuration

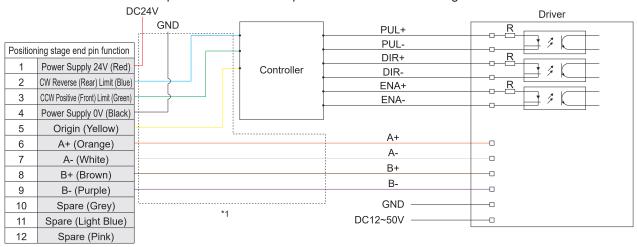


■Connecting Diagram



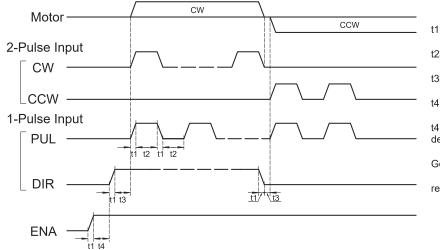
Connection Example

MISUMI Economy series positioning stage has been equipped with two-phase stepper motor, driver and cable. Customers only need to prepare 24V power supply and host computer (PLC or motion control card) to use it. The connection examples between various products are shown in the figure below.



^{*1.} The cable in the dotted box is a 2m or 4m cable.

■Timing Diagram



t1<0.1us

t2≥0.9us

t3≥10us

t4: ENA (Enable Signal)

t4 should be at least 10µs ahead of DIR, determined as high.

Generally, ENA+ and ENA- are

recommended to be suspended.

Adjusting Bolts

P.753

Clamp Screws

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Micrometer Heads

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Positioning Stages P.7

Driver

Two-Phase	Pulse Signal Voltage (V)	Power Voltage (V)	Output Current (A)	Subdivision	Pulse Input Mode
Stepper motor Driver	5~24	DC12~50	0.1~2.2	200~51200	2-Pulse (CW/CCW) / 1-Pulse(Step/Dir)

Current Setting

Constant Value	SW1	SW2	SW3	SW4
Default[0.1A]	on	on	on	on
0.2A	off	on	on	on
0.3A	on	off	on	on
0.5A	off	off	on	on
0.6A	on	on	off	on
0.7A	off	on	off	on
0.8A	on	off	off	on
1.0A	off	off	off	on
1.2A	on	on	on	off
1.3A	off	on	on	off
1.5A	on	off	on	off
1.6A	off	off	on	off
1.7A	on	on	off	off
1.8A	off	on	off	off
2.0A	on	off	off	off
2.2A	off	off	off	off

Subdivision Setting

Steps / Revolution	SW5	SW6	SW7	SW8
Default[200]	on	on	on	on
400	off	on	on	on
800	on	off	on	on
1600	off	off	on	on
3200	on	on	off	on
3600	off	on	off	on
6400	on	off	off	on
12800	off	off	off	on
1000	on	on	on	off
2000	off	on	on	off
4000	on	off	on	off
5000	off	off	on	off
7200	on	on	off	off
8000	off	on	off	off
10000	on	off	off	off
51200	off	off	off	off

Pulse Input Mode

Mode	SW11	SW12
2-Pulse (CW/CCW)	off	on
1-Pulse (Step/Dir)	off	off

Example of Use

Application Name: Motor Installation Error Simulation Testing Machine

Application: A magnet is fixed at the front end of the motor output shaft and the PCB inspection substrate is fixed on the positioning stage to make the magnet close to the PCB inspection center.

The actual installation error of the motor is simulated by the motorized positioning stage position transformation, and the PCB will detect and record the electrical signal when the motor output shaft is in different positions.

P.753

Bushings for Locating Pins

P.749

Adjusting Bolts

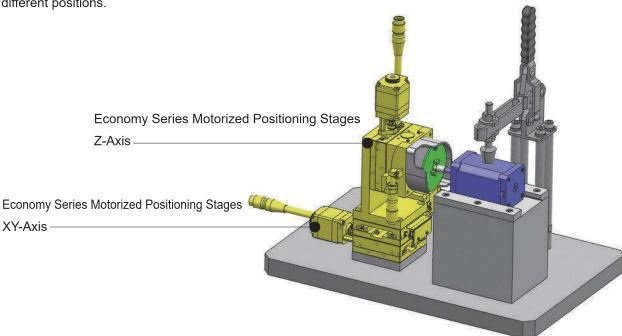
Clamp Screws

P.760

P.763

Micrometer :

P.767 Motorized Positioning Stages





X-Axis Motorized Positioning Stages

Representative model: C-XMBS630-R-A-2

Save Up to vs Standard Type

Shipping from

day

Volume Discount

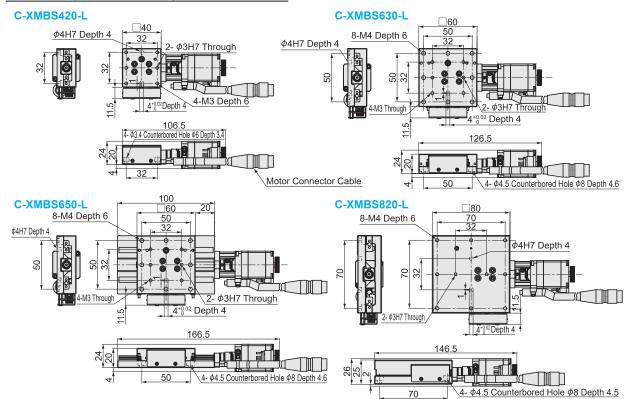
Quantity	1~3	4~5	6~		
Discount	Unit Price	15%	30%		

L CAD

Shipping days may differ by Quantity.

Quantity of volume discount above is for representative Part No. It may differ by the Part.

Material	Surface Treatment	Accessories
Alloy Steel	Electroless Nickel Plating	Locating Pins: 4 pcs



- Motor side connector cable lengths vary by model, which are subject to the actual products.
- The purchased model already includes the positioning stage body, the corresponding driver and cable, so no need to purchase separately.
- The above figure shows the model when cover L is selected. Please check the detailed dimensions by CAD data when selecting the cover R.

Part No	umbe	r				6	Mechanical Specification										Sensor		
1 Туре	Cate		Stage Surface (mm)	Cover Position	4 Driver	Cable	Travel Distance (mm)	Load Capacity (N)	Weight (kg)	Resolution (Pulse)	Maximum Speed	One-Way Positioning Accuracy	Repetitive Positioning Accuracy	Invalid Motion	Parallelism	Motion Straightness	Motion Parallelism	Limit Sensor	Origin Sensor (ORG1)
C-XMBS		40×40	L R		. 2	18	+ -	0.4	10		10 Within							Dussidad	
		60×60	L R	•		28		0.6					40	00					
		650	60×100	L R	A	4	43		0.8	- 5μm -	um mm/ sec	20um	±5.0μm	10µm	10μm 30μm	10μm 20μι	Zυμm	Provided	Provided
		820	80×80	L R			20	117.6	0.8										



Please order after selecting part number and parameters according to the selection steps 1 to 5.

Part Number (1 Type · 2 Category) - 3 Cover Position - 4 Driver -C-XMBS630 2



Search on MISUMI official website **C-XMBS** Type

Keyword







9

Locating Pins

P.745 Bushings for Locating Pins P.749

Adjusting Bolts

P.753

Clamp Screws

P.760

Urethane Pushers

P.763

Micrometer Heads

P.767 Motorized Positioning Stages

P.769

XY-Axis Motorized Positioning Stages

Representative model: C-XYMBS630-R-A-2

Save Up to vs Standard Type 46%

Shipping from days

40,339

THE

Volume Discount

Quantity	1~3	4~5	6~	
Discount	Unit Price	15%	30%	

D 2D (*)

Shipping days may differ by Quantity.

• Quantity of volume discount above is for representative Part No. It may differ by the Part.

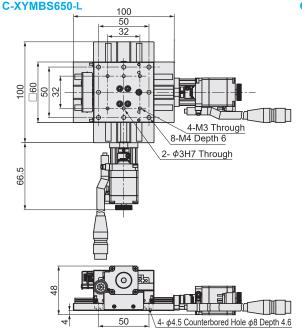
Material	Surface Treatment	Accessories
Alloy Steel	Electroless Nickel Plating	Locating Pins: 4 pcs

C-XYMBS420-L 11.5 2- Φ3H7 Through 40 32 4-M3 Depth 6

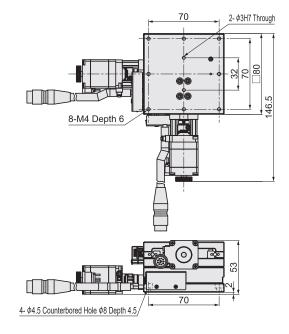
C-XYMBS630-L 11.5 126.5 60 30 32 4-M3 Through Motor Connector Cable 2- \$\phi_3 \text{H7} Through}

\4- φ4.5 Counterbored Hole φ8 Depth 4.6

C-XYMBS820-L



4- φ3.4 Counterbored Hole φ6 Depth 3.4



- Motor side connector cable lengths vary by model, which are subject to the actual products.
- The purchased model already includes the positioning stage body, the corresponding driver and cable, so there is to purchase separately.
- The above figure shows the situation when cover L is selected. Please check the detailed dimensions by CAD data when selecting the cover R.
- When the 820 cover as above figure is L-shaped, the upper shaft is L-shaped and the lower shaft is R-shaped. When the 820 cover is R-shaped, the upper shaft is R-shaped and the lower shaft is L-shaped.

Locating F.24 Pins

Adjusting .d Bushings for Bolts & Locating Pins

₹
P.753

Clamp Screws

P.760

Urethane Pushers

Micrometer Heads

≥ P.767

P. Motorized Positioning Stages

797

Part I	Number		01			00.61	Mecha	nical Specif	ication
1 Туре	2Cat	egory	Stage Surface (mm)	Surface Position		5Cable Length (m)	Travel Distance (mm)	Load Capacity (N)	Weight (kg)
	XY-Axis	420	40×40	L		2 4	18	94	0.8
		420	40×40	R	A		10	04	0.0
		630	60×60	L			28	92	1.2
C-XYMBS		030	00/00	R			20	32	1,2
C-XTIVIDS	AT-AXIS		60×100	L			43	90	1.6
		650		R			43	90	1.0
		000	2020	L			20	109.0	1.6
		820	80×80	R			20	109.0	1.0

Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 5.

Part Number (1 Type · 2 Category - 3 Cover Position - 4 Driver - 5 Cable Length

		-XYMBS63		ccuracy Sp	ecification*	- A		_	Sen	ısor
Туре	Resolution (Pulse)	Maximum Speed	One-Way Positioning Accuracy	Repetitive Positioning Accuracy	Invalid Motion	Daniella liane	Motion Straightness	Motion Parallelism	Limit Sensor	Origin Sensor (ORG1)
420		10 mm/sec	Within 20μm	Within ±5.0µm	10µm	30µm	10μm	20μm	Provided	
630										
650	- 5μm									Provided
820										

^{*1} The accuracy specification is the guaranteed value when the motorized positioning stage is set horizontally.



Ву Type Search on MISUMI official website Q, C-XYMBS

Ву Keyword

Step 1► Search on MISUMI official website

Q, motorized stage









MISUMI contact

Tel: 038-959200 or 1382 Email: cs@misumi.co.th

MISUMI WEB "Chat"





Z-Axis Motorized Positioning Stages

Representative model: C-ZMBS630-R-A-2

Save Up to vs Standard Type



Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

. CAD

Shipping days may differ by Quantity.

Quantity of volume discount above is for representative Part No. It may differ by the Part.

Material	Surface Treatment	Accessories				
Alloy Steel	Electroless Nickel Plating	Locating Pins: 4 pcs				

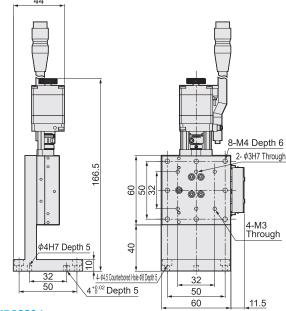
C-ZMBS420-L

40 Motor Connector Cable 4-M3 Depth 6 φ4H7 Through 4 8

4443.5 Counterbored Hole 46 Depth 33

4^{+0.02}Through

C-ZMBS630-L



P.753

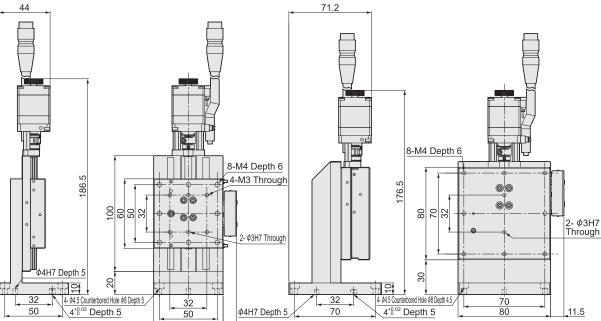
Clamp Screws

P.763

Micrometer

C-ZMBS650-L C-ZMBS820-L

2- φ3H7 Through



- For detailed dimensions of the positioning stage, refer to the X-Axis.
- Motor side connector cable lengths vary by model, which are subject to the actual products.
 The purchased model already includes the positioning stage body, the corresponding driver and cable, so there is to purchase separately.
- The above figure shows the situation when cover L is selected. Please check the detailed dimensions by CAD data when selecting the cover R.

P.745

Bushings for Locating Pins P.749

Adjusting Bolts

P.760

Urethane Pushers

P.767

Part I	Number		C+				Mecha	nical Specif	ication
1 Туре	2 Cat	egory	Stage Surface (mm)	Occupant	4 Driver	5Cable Length (m)	Travel Distance (mm)	Load Capacity (N)	Weight (kg)
	Z-Axis	420	40×40	L	A	2 4	18	49	0.45
		420	40×40	R			10		0.45
		630	60×60	L			28		0.65
C-ZMBS		030	00^00	R					0.05
C-ZIVIBS	Z-AXIS		60×100	L			40		0.85
		650		R			43		0.65
				L			20	58.8	0.9
		820	80×80	R					0.9

Please order after selecting part number and parameters according to the selection steps 1 to 5. Ordering Part Number (1)Type · 2/Category) - | 3/Cover Position | - | 4/Driver | - | 5/Cable Length Example

ype .	GCalegory)	- T- L	Occover
ZMBS630)	-	L

			Δ	ccuracy Sp	ecification ³	×1			Sensor		
Туре	Resolution (Pulse)	Maximum Speed	One-Way Positioning Accuracy	Repetitive Positioning Accuracy	Invalid Motion	Parallelism	Motion Straightness	Motion Parallelism	Limit Sensor	Origin Sensor (ORG1)	
420				Within ±5.0µm	10µm	30µm	10μm	20μm	Provided		
630	5	10	Within							Provided	
650	- 5μm	mm/sec	20μm								
820											

*1 The accuracy specification is the guaranteed value when the motorized positioning stage is set horizontally.



Ву Type Search on MISUMI official website Q, C-ZMBS

Ву Keyword

Step 1► Search on MISUMI official website

Q, motorized stage







Step 2 ► Select MISUMI economy series brand



P.769

MISUMI contact

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Economy series Motorized Rotary Stages

vs Standard Type Saving

Ball screw type (small angle frequent adjustment) Worm gear type (360 degree rotation angle adjustment)

Positioning holes provided for quick disassembly and assembly

Localized production, simplified structure, and low price

✓2-Pulse (CW/CCW) and 1-Pulse(Step/Dir) control is available to meet multiple applications



■Ball Screw Type Rotary Stages

About Travel Distance and Constant Speed

The linear drive of a ball screw is converted into rotary motion by the internal structure of the positioning stage. There is no linear relation between the travel distance of the ball screw and the travel angle of the positioning stage, and the rotation speed is not constant even if the pulse signal is sent at a constant speed.

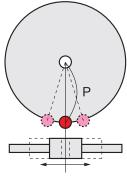
Travel Distance Calculation Formula

A calculation formula based on the stroke center. ①Travel angle = arcSin ((input pulse × X)/P) 2Input pulse = P × Sin (travel angle)/X

Meaning of formula parameters and calculation example:

		•
Definition	Value	Unit
Rotation radius P*	21	mm
Ball screw lead	1	mm
Motor basic step angle	1.8	۰
Ball screw travel distance per pulse X	0.0025	mm

^{*}The rotation radius is not the radius of the circular tabletop.



P=Rotation radius

Basic specification

Part Number	Motor basic step angle	Rotation radius P							
E-RMBG40		21							
E-RMBG60		24							
E-RMBG80	1.8°	36							
E-RMBG100		45							
E-RMBG120		55							

Installation posture of positioning stage

The performance of each product is based on the condition of being set up on a level surface.

Be careful when using a product that is mounted upside down, to the side (vertically or horizontally), or in any posture other than on a level surface.

The load capacity and accuracy may vary greatly with the installation posture.

For Product Features by Posture information, pleas refer to below table:

We will introduce the optimum mechanism products and usage methods to meet your operating conditions.

▼Table of Product Features by Posture

Part Number	Movable guide [feeding method]	Upside-down use	Side (horizontal) use	Side (vertical) use
E-RMBG	Angular contact ball bearing (ball screw type)	0	0	0

Usable despite the restrictions on load and torque.

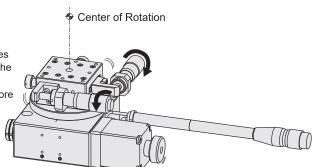
About Rotation Center

About how to align rotational center axes

When assembling a rotary positioning stage with matching devices and workpieces, align the center axes as far as possible so that the performance of the stage can be maximized.

It is recommended that the center axes be aligned as follows before use.

- While rotating the rotary positioning stage, use a micrometer to index the position with the minimum eccentricity to fix the positioning stage or workpiece.
- · When used in combination with an XY-axis manual positioning stage, fine adjustment of center axis can be done easily.
- The body of the positioning stage does not have a reference plane for mounting.



Screws / Positioning Sta

Locating Pins

P.745 Bushings for 9 Locating Pins P.749

Adjusting Bolts

P.753

Clamp Screws

P.760

Urethane Pushers

P.763

Micrometer Heads

P.767

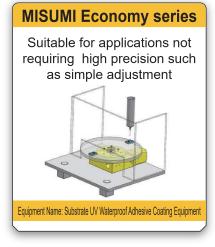
Motorized

Positioning Stages

P.769

Usage difference between economy series and standard product





Motorized Rotary Stages Ball Screw Type

New Products

9

P.745

Bushings for Locating Pins

P.749

Adjusting Bolts

P.753

Clamp Screws

P.760

Urethane Pushers

P.763

Micrometer

P.767



Representative model: E-RMBG60-A-2

Save Up to vs Standard Type 65%

26,452

THE



Volume Discount

Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

L CAD 2D S

₱Shipping days may differ by Quantity.

₱Quantity of volume discount above is for representative Part No. It may differ by the Part.

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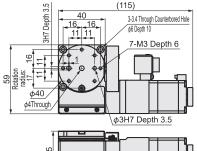
■ Part No. It may differ by the Part.

■ Part No. It may differ by Quantity.

■ Part No. It may differ by Quantit

Material	Surface Treatment
Aluminum alloy	Black Anodized

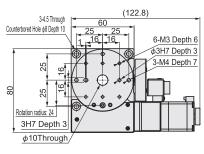
E-RMBG40

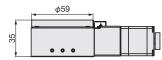


35

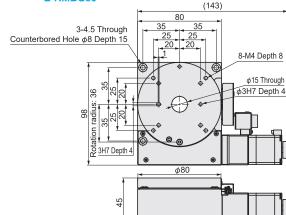
E-RMBG60

E-RMBG100

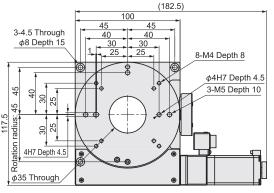


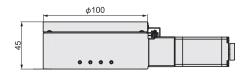


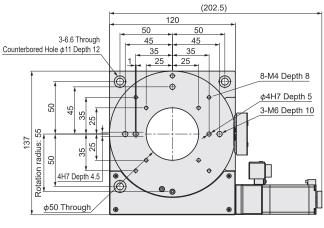
E-RMBG80

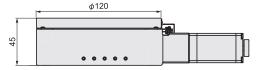


E-RMBG120









Positioni

Part Number					Mechar	ical Speci	fication		Accura	acy Specific	ation
1 Туре	2No.	3 Driver	4 Cable	Stage Surface (mm)	Travel Distance (°)	Load Capacity (N)	Weight (kg)	Maximum Speed (°/sec)		Repetitive Positioning Accuracy	Parallelism (µm)
	40			φ40	±12.3	39.2	0.5	28	-		
	60		(2m cable)	φ59	±12	58.8	0.7	24			
E-RMBG	80	A		φ80	±12	78.4	1.4	16	Within 0.08°	Within ±0.01°	Within 50
100 120		(4m cable)	φ100	±12.5	98	1.8	12				
	120			φ120	±12	117.6	2.3	12			

Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 1.

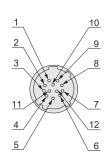
Part Number (1 Type · 2 No.) - 3 Driver - 4 Cable E-RMBG40

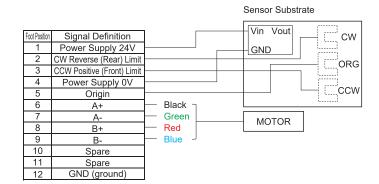
Specification Table

Specification	II Table								
No.		40	60	80	100	120			
Fee	ed Screw	Ball Screw φ6, Lead 1mm							
В	earing		An	gular contact ball bea	aring				
Matau	Туре	2-Phase Sta	ndard Stepper Motor	1.3A / Phase	2-Phase High Torque St	epper Motor 1.3A / Phase			
Motor	Step Angle			1.8°					
Resolution	on (Pulse) Full	≈0.0136°	≈0.0119°	≈0.0080°	≈0.0064°	≈0.0052°			
	Power Voltage			DC12~50V					
Duivan	Output Current	0.1~2.2A							
Driver	Pulse Signal Voltage	5~24V							
	Subdivision	200~51200							
0	Part Number	HR10A-10R-12P (HIROSE)							
Connector	Receiving Side Part Number	HR10A-10P-12S (HIROSE)							
	Limit Sensor		Provided						
	Origin Sensor			Provided					
Sensor	Power Voltage			DC24V±10%					
Substrate	Sensor Type		Photomicr	o Sensor EE-SX4320	O (OMRON)				
	Control Output		NP	N Open Collector Ou	ıtput				
	Output Logic	V	Vhen detecting (shad	ing): output transisto	r OFF (non-conductiv	e)			

Connector Pin Configuration

Connecting Diagram







Search on MISUMI official website Ву E-RMBG Type

Ву Keyword Step 1► Search on MISUMI official website rotary stage







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Motorized Rotary Stages Worm Gear Type

New

9

P.745

Bushings for Locating Pins

P.749

Adjusting Bolts

P.753

Clamp Screws

P.760

Urethane Pushers

P.763

Micrometer

P.767



Representative model: E-RMPG60-A-2

Save Up to vs Standard Type



Volume Discount

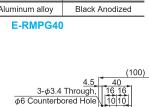
Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

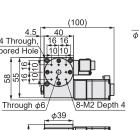
E-RMPG60

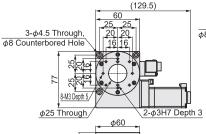
Shipping days may differ by Quantity. Quantity of volume discount above is for representative Part No. It may differ by the Part.

E-RMPG80

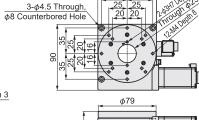
Surface Treatment Aluminum alloy Black Anodized



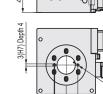




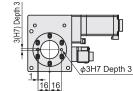


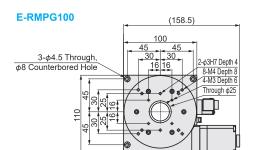


(140)

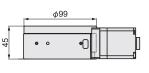


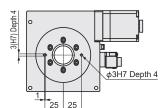
 ϕ 3H7 Depth 4



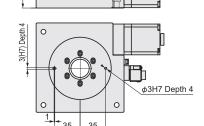


* Diameters of 4 holes are reduced to \$\phi 25.





E-RMPG120 (174.5)120 $3-\phi6.6$ Through φ11 Counterbored Hole 8-M4 Depth 8 Through ϕ 25, 2-φ3H7 Depth 4



φ119

P.769

















^{*} This positioning stage is suitable for large angle and 360° continuous rotation.

Part Num	ber			ı	Mechani	cal Spe	cificat	ion	Accur	acy Specific	ation	Se	nsor
1 Type	2No.	3 Driver	4 Cable	Stage Surface (mm)	Travel Distance (°)	Load Capacity (N)		Maximum Speed (°/sec)	One-Way Positioning Accuracy	Repetitive Positioning Accuracy	Parallelism (µm)	Limit Sensor	Origin Sensor (ORG1)
	40			φ39		29.4	0.5 25	25	Within 0.15°		Within 50		
	60		(2m cable) A (4m cable)	φ60	\dashv	39.2	0.9	15		Within ±0.08°		None	Provided
E-RMPG	80	A		φ79		39.2	1.1	15					
	100			φ99		196	1.9	25					
	120			φ119		196	2.2	25					

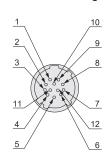
Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 4.

Part Number (1 Type · 2 No.) - 1 Driver - 1 Cable

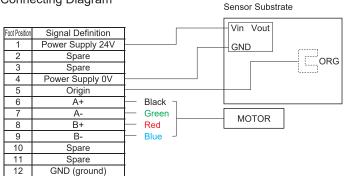
Specification Table

Specification	n rabie								
	No.	40	60	80	100	120			
Reduction ratio		1/120	1/180	1/180	1/120	1/120			
В	earing		D	eep groove ball bear	ing				
Type Motor		2-Phase Standard Stepper Motor 1.3A / Phase	•	que Stepper Motor / Phase	2-Phase Standard Stepper Motor 2.0A / Phase	2-Phase Standard Stepper Motor 2.0A / Phase			
	Step Angle			1.8°					
Resolution (Pulse) Full		≈0.015°	≈0.01°	≈0.01°	≈0.015°	≈0.015°			
	Power Voltage	DC12~50V							
Driver	Output Current	0.1~2.2A							
Driver	Pulse Signal Voltage	5~24V							
	Subdivision	200~51200							
Connector	Part Number	HR10A-10R-12P (HIROSE)							
Connector	Receiving Side Part Number	HR10A-10P-12S (HIROSE)							
	Limit Sensor	None							
	Origin Sensor			Provided					
Sensor	Power Voltage			DC24V±10%					
Substrate	Sensor Type		Photomicr	o Sensor EE-SX4320	O (OMRON)				
	Control Output		NP	N Open Collector Ou	ıtput				
	Output Logic	W	/hen detecting (shad	ing): output transisto	r OFF (non-conductiv	e)			

Connector Pin Configuration



Connecting Diagram



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MISUMI WEB "Chat"



Install MISUMI APP



Economy Series Motorized Goniometer Stages

Saving up to



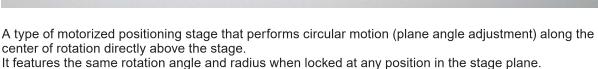
Ball Screw Type

✓ Suitable for small angle frequent adjustment

✓ Positioning holes provided for quick disassembly and assembly

Localized production, simplified structure, and low price

✓2-Pulse (CW/CCW) and 1-Pulse(Step/Dir) control is available to meet multiple applications



About Travel Distance and Constant Speed

The linear drive of a ball screw is converted to rotary motion by bearings in the positioning stage. (The travel distance of the ball screw is inconsistent with the travel angle of the stage because linear motion has been converted to rotary motion.)

As a result, the resolution of each pulse is different between the stroke center and the stroke end. The rotation speed is not constant even if the pulse signal is sent at a constant speed.

■Travel Distance Calculation Formula

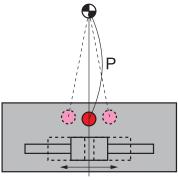
*A calculation formula based on the stroke center.

- 1) Travel angle = arcSin ((input pulse × X)/P)
- (2)Input pulse = P × Sin (travel angle)/X

Meaning of formula parameters and calculation example:

Definition	Value	Unit
Rotation radius P*	55	mm
Ball screw lead	1	mm
Motor basic step angle	1.8	0
Ball screw travel distance per pulse X	0.0025	mm

^{*} The radius of rotation varies with the positioning stage.



New

P=Rotation radius

Basic specification

Part Number	Motor basic step angle	Rotation radius P
E-GMPBG60-50		55
E-GMPBG60-75	1.8°	80
E-GMPBG60-100	1.0	105
E-GMPBG60-125		130

Product Overview

∇Installation method

When the upper plate is slid to CW or CCW side, 2 counterbored holes are visible (4 holes in total). When a sine motion stage is driven through the controller, the limit sensor works, but there is no guarantee for the detection of mounting holes. Be sure to manually expose the mounting holes and secure with the supplied bolts.

Please pay attention to the above instructions. **[Reference**] standard of flatness: 10µm or less]

 ∇ About objects mounted on the top / bottom of the stage If an object with an uneven surface is mounted or the stage is mounted on an uneven surface, the stage surface may be deformed and accuracy may be affected.

Please pay attention to the above instructions. [Reference standard of flatness: 10µm or less]

∇About installation posture of positioning stage

The horizontal installation of the stage is a prerequisite for the performance parameters of each product.

Be careful when using a product that is mounted upside down, to the side (vertically or horizontally), or in any posture other than on a level surface.

The load capacity and accuracy may vary greatly with the installation posture.

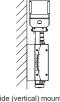
For Product Features by Posture information, pleas refer to below

▼Table of Product Features by Posture

Part Number	Movable guide (feeding method)	Upside-down use	Side (horizontal) use	Side (vertical) use
E-GMPG E-GMPWG	Cross roller (ball screw)	0	0	0

O Usable, with restrictions on load and torque

Upside-down mounting



Side (vertical) mounting

About Swing Accuracy and Height of Rotation Center

Our cross roller type goniometer stages have a very small swing around the center of rotation and high accuracy.

∇Swing accuracy of rotation center

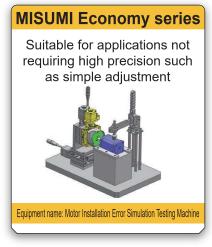
Place a steel ball at the height of the center of rotation (the actual center of rotation, not the theoretical point in the design), and use the amount of swing (X.Y.Z) of the ball during the full stroke movement as the swing accuracy of the rotation center.

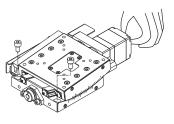
∀ Height of rotation center (interval between workpieces)

The height of rotation center is the distance between the top of the stage and the center of the steel ball of the guide.

Usage difference between economy series and standard product







P.745 Bushings for Locating Pins P.749

Adjusting Bolts

P.753

Clamp Screws

P.760

Urethane Pushers

P.763

Micrometer Heads

P.767 P.769

1-Axis Motorized Goniometer Stages Ball Screw Type



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Bushings for Locating Pins

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Urethane Pushers

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Micrometer



Representative model: E-GMPG60-50-L-A-2

Save Up to vs Standard Type

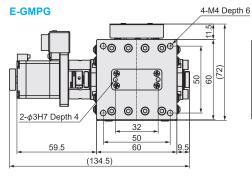


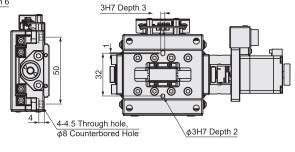
Volume Discount

Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

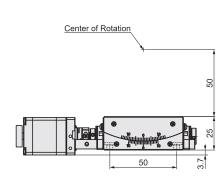
Shipping days may differ by Quantity. Quantity of volume discount above is for representative Part No. It may differ by the Part.



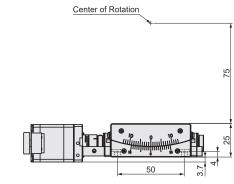




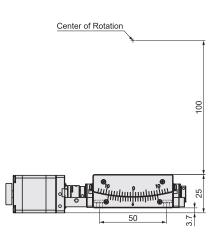
E-GMPG60-50



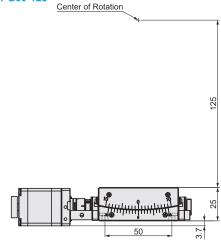




E-GMPG60-100



E-GMPG60-125





P.767













Step 2 ► Select MISUMI economy series brand

P.769

Part Number						Mechanical Specification				Accuracy Specification		Sensor				
1 Type	2No.	3Sensor Position		4 Driver	6 Cable	Stage Surface (mm)	Travel Distance (°)	Load Capacity (N)	Height of Rotation Center (mm)	Weight (kg)	Maximum Speed (°/sec)	One-Way Positioning Accuracy	Repetitive Positioning Accuracy	Limit Sensor	Origin Sensor (ORG1)	
	60-50							±9		50±0.2	10.5	10.5				
E CMPC	60-75	L (forward)		(2m cable) 4 (4m cable)	e)	0000		60460	±5.5	40	75±0.2	0.5	7	Within	Within	Described and
E-GMPG	60-100	R (reverse)	A		60×60	±5	49	100±0.2	0.5	5.5	0.08°	±0.01° Pr	Provided	Provided		
	60-125					±4		125±0.2		4.5						

Ordering Example Please order after selecting part number and parameters according to the selection steps 1 to 3.

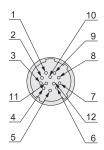
Part Number (1 Type · 2 No.) - Sensor Position - 1 Driver - 5 Cable E-GMPG60-50

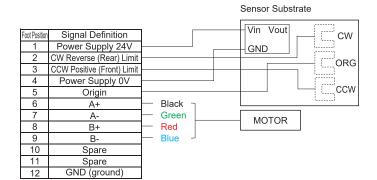
Specification Table

Specification	n Table									
	No.	60-50	60-75	60-100	60-125					
Fee	d Screw	Ball Screw φ6, Lead 1mm								
(Guide	Curved cross roller guide								
Motor	Туре	2-Phase Stepper Motor 1.3A / Phase								
MOTOL	Step Angle	1.8°								
Resolutio	on (Pulse) Full	≈0.0052°	≈0.0036°	≈0.0027°	≈0.0022°					
	Power Voltage	DC12~50V								
Duinen	Output Current	0.1~2.2A								
Driver	Pulse Signal Voltage	5~24V								
	Subdivision	200~51200								
Connector	Part Number	HR10A-10R-12P (HIROSE)								
Connector	Receiving Side Part Number	HR10A-10P-12S (HIROSE)								
	Limit Sensor	Provided								
	Origin Sensor	Provided								
Sensor	Power Voltage		DC24'	V±10%						
Substrate	Sensor Type		Photomicro Sensor E	EE-SX4320 (OMRON)						
	Control Output		NPN Open Co	ollector Output						
	Output Logic	When	detecting (shading): outpu	t transistor OFF (non-cond	luctive)					

Connector Pin Configuration

Connecting Diagram





MISUMI contact

Tel: 038-959200 or 1382 Email: cs@misumi.co.th







MiSUMi



^{*} The position of the sensor cover is L in the figure above.

2-Axis Motorized Goniometer Stages Ball Screw Type

New



Representative model: E-GMPWG60-50-L-A-2

Save Up to vs Standard Type



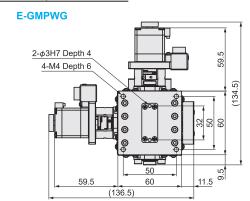
Volume Discount

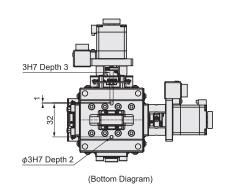
Quantity	1~3	4~5	6~
Discount	Unit Price	15%	30%

. CAD

Shipping days may differ by Quantity. Quantity of volume discount above is for representative Part No. It may differ by the Part.

Material **Surface Treatment** Aluminum alloy Black Anodized

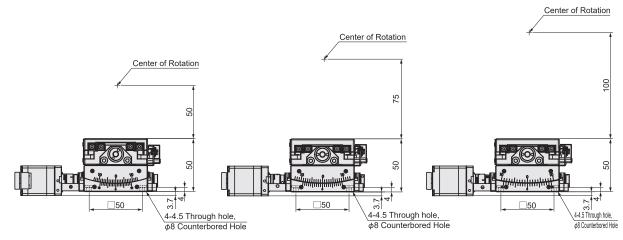




E-GMPWG60-50

E-GMPWG60-75

E-GMPWG60-100



Part Number					Mechanical Specification					Accuracy Specification										
1 Туре	2No.	3Sensor Position	4 Driver	4Driver 6Cabl	4Driver 6Cable	Stage Surface (mm)	Travel Distance (°) Upper / Lower Axis	Capacity	Height of Rotation Center (mm)		Maximum Speed (°/sec) Upper / Lower Axis	One-way	Repetitive Positioning Accuracy							
	60-50		1 1	7	(2m cable) 60×60	±9°/±5.5°		50±0.2		10.5/7										
E-GMPWG	60-75	(forward)				-	7	7	-	-	7	-	-	-		±5.5°/±5°	49	75±0.2	1.0	7/5.5
	60-100	(reverse)					±5°/±4°		100±0.2		5.5/4.5									

Ordering **Example** Please order after selecting part number and parameters according to the selection steps 1 to 3.

Part Number (1 Type · 2 No.) - Sensor Position - Driver - Cable E-GMPWG60-50

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P.745 Bushings for Locating Pins

P.749 Adjusting Bolts

P.753

Clamp Screws

P.760 Urethane Pushers

P.763 Micrometer

P.767 P.769

^{*} The position of the sensor cover is L in the figure above.

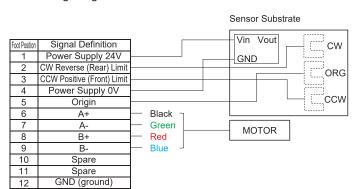
Specification Table

No.		60-50	60-75	60-100						
Feed	d Screw	Ball Screw φ6, Lead 1mm								
G	uide	Curved cross roller guide								
	Type	2-Phase Stepper Motor 1.3A / Phase								
Motor	Step Angle	1.8°								
Resolution	Upper axis	≈0.0052°	≈0.0036°	≈0.0027°						
(Pulse)	Lower axis	≈0.0036°	≈0.0027°	≈0.0022°						
	Power Voltage		DC12~50V							
	Output Current	0.1~2.2A								
Driver	Pulse Signal Voltage	5~24V								
	Subdivision	200~51200								
0	Part Number	HR10A-10R-12P (HIROSE)								
Connector	Receiving Side Part Number	HR10A-10P-12S (HIROSE)								
	Limit Sensor	Provided								
	Origin Sensor	Provided								
Sensor	Power Voltage	DC24V±10%								
Substrate	Sensor Type	Ph	otomicro Sensor EE-SX4320 (OMR	ON)						
	Control Output	NPN Open Collector Output								
	Output Logic	When detectin	g (shading): output transistor OFF (non-conductive)						

Connector Pin Configuration

10 9 12

Connecting Diagram





Tel: 038-959200 or 1382 Email: cs@misumi.co.th





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9

P.745 Bushings for 49 Locating Pins 2.

Adjusting Bolts

P.753

Clamp Screws

P.760

Urethane Pushers

P.763

Micrometer Heads

P.767

Motorized Positioning Stages P.769