


[Motorized] High Precision Z-Axis - Cross Roller




For CAD data, see the MISUMI website.

■ **Features:** Z-Axis Stage excellent in lightweight, accuracy with positioning repeatability ±0.3µm

■ **Z-Axis Motor: C (Standard)**



■ **Z-Axis Motor: MS (Resolution(0.36°))**

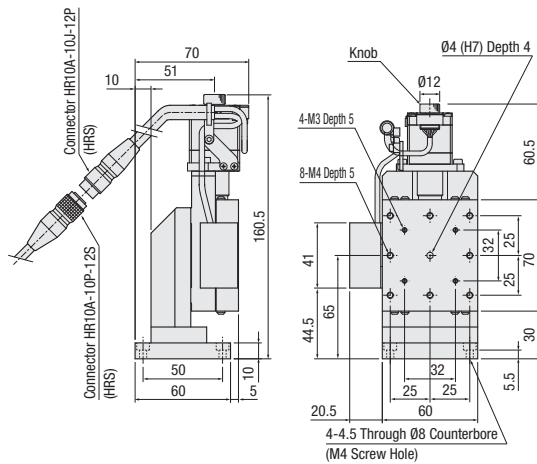


M Material: Aluminum Alloy
S Surface Treatment: Black Anodize
A Accessory: SCB4-10 (4 pcs.)

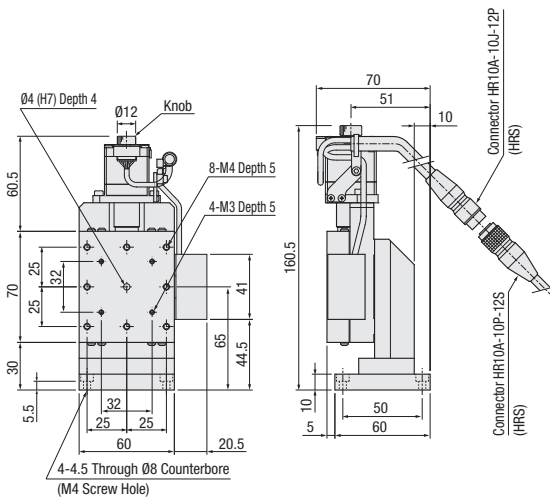
RoHS10

For Controllers, Handset Terminals, see P. 1-2014-1-P 1-2014-2

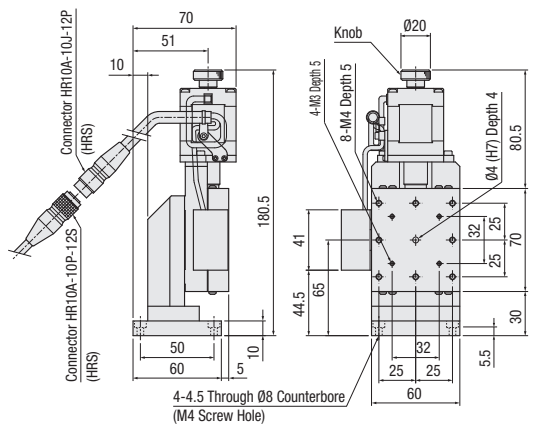
ZMPG730-L-C



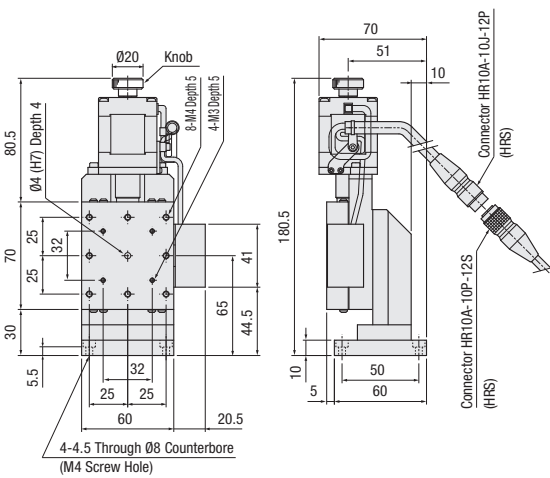
ZMPG730-R-C



ZMPG730-L-MS



ZMPG730-R-MS



Part Number	Sensor	Motor	Cable	Mechanical Standards			Accuracy Standards *1		
				Stage Surface (mm)	Travel Distance (mm)	Weight (kg)	Unidirectional Positioning Accuracy	Pitching	Yawing
ZMPG730	L (Standard)	C (Standard)	N (Cable not included (separately sold))	60x70	30	0.9	5µm or less / Full Stroke	25" or less	20" or less
	R (Reversed)	MS (Resolution(0.36°))				1.1			

*1. The above accuracy standards of Unidirectional Positioning Accuracy are for a single axis.

Ordering Example: **Part Number** - **Sensor** - **Motor** - **Cable**

ZMPG730 - L - C - N
ZMPG730 - R - MS - N

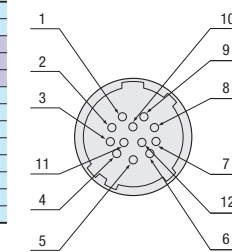
Days to Ship Configure Online

Common Specifications

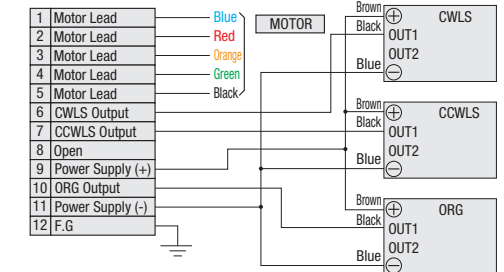
Feed Screw Guide	Ball Screw Ø8, Lead 1 Cross Roller Guide
Resolution *2	Full 2µm (1µm)*3
	Half 1µm(0.5µm)*3
Max. Speed *4	20mm/sec
Positioning repeatability	Within ±0.3µm
Load Capacity	29.4N
Lost Motion	1µm or less
Backlash	0.5µm or less
Straightness	3µm or less
Parallelism	30µm or less
Motion Parallelism	10µm or less

*2. This represents the travel distance of stage per one pulse signal.
 *3. The values in () are for Motor Option MS (Micro Step).
 *4. This represents the max. speed that can be driven by the recommended controller switched to Full Step mode, with the max. load applied.
 (The value differs depending on the current driving controller and the current load.)
 The value differs depending on the motor option.
 The above specifications table is for a single axis stage placed flatly.

Connector Pin Configuration



Connecting Diagram

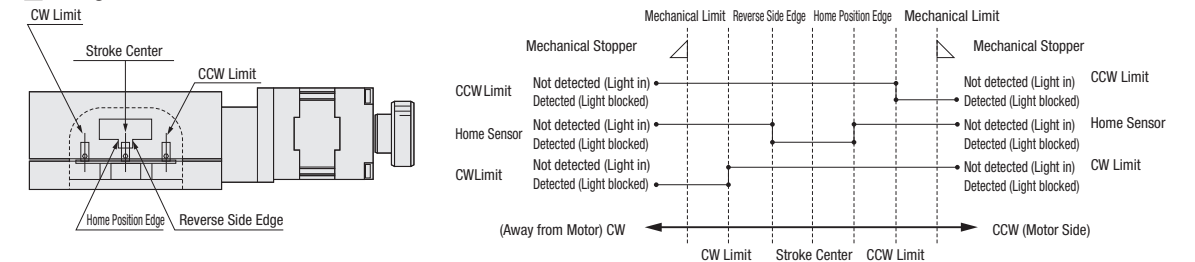


Electrical Specifications

Part Number	C Standard		MS Resolution(0.36°)	
	Type	5-Phase Stepping Motor 0.75A/Phase (Oriental Motor Co., Ltd.)		C005C-90215P-1(┘28mm)
Motor	Part Number	C005C-90215P-1(┘28mm)		C7214-9015-1(┘38mm)
	Step Angle	0.72°		0.36°
Connector	Driver Part Number	-		
	Part Number	HR10A-10J-12P (73) (Hirose Electric Co., LTD.)		
	Applicable Receptacle Connector	HR10A-10P-12S (73) (Hirose Electric Co., LTD.)		
	Contact Part Number	-		
	Applicable Receptacle Contact Part Number	-		
Sensor	Limit Sensor	Provided		
	Slit Home Origin Sensor	Provided		
	Home Sensor	-		
	Part Number	Photomicrosensor: PM-L25 (Panasonic Industrial Devices SUNX Co., Ltd.)		
	Power Supply Voltage	DC5~24V or less ±10%		
	Current Consumption	45mA or less (15mA or less per Sensor)		
	Control Output	NPN Open Collector Output DC30V or less, 50mA or less Residual Voltage 2V or less (when load current is 50mA) Residual Voltage 1V or less (when load current is 16mA)		
	Output Logic	Detecting (Dark): Output Transistor OFF (Non-Conducting)		

Senors with Part Number PM-┘24 are to be discontinued and replaced by next-generation products with Part Number PM-┘25 from April 2017.

Timing Chart



Reference Position	CW Direction		CCW Direction	
	Mechanical Limit	CW Limit	Other Signal Edge	Mechanical Limit
ZMPG730 Homing	18.5	17.5	4	2
Stroke Center	16.5	15.5	2	0
			0	2
			13.5	15.5
			14.5	16.5

Homng Routine Above: When DS102/DS112 Series controller is used and when the Homng Routine Type 3 is executed.
 The coordinates shown are design values. There may be approx. ±0.5mm misalignment on the physical dimensions.
 For details about Homng, see P. 1-1735-97