

# [High Precision] Motorized XY-Axis - Cross Roller



For CAD data, see the MISUMI website.

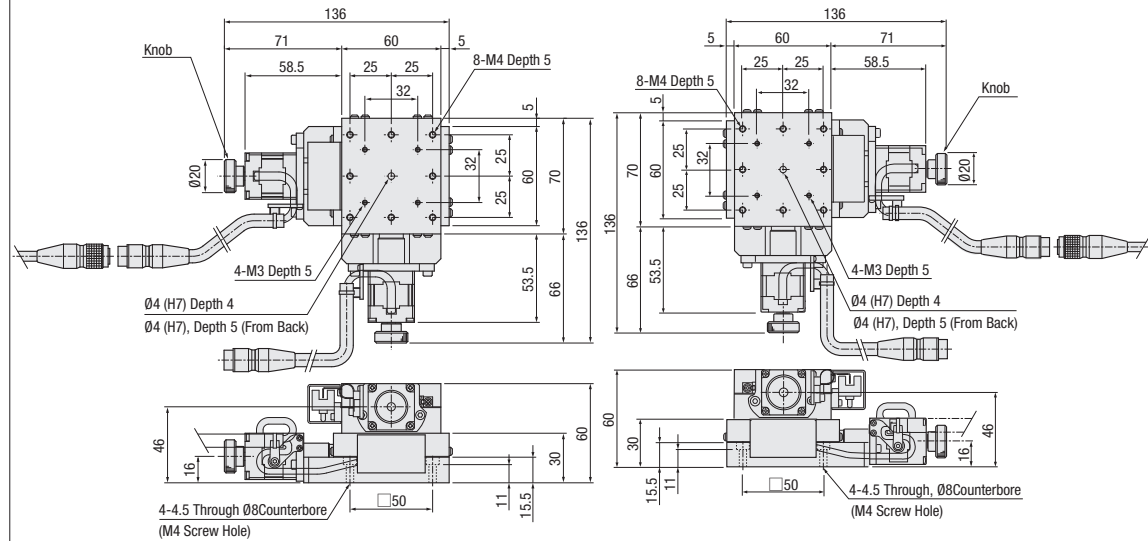
Features: XY-Axis Stage excellent in lightweight, compactness and accuracy.



For Controllers, Handset Terminals, see P. 1-1735-93 - P. 1-1735-94

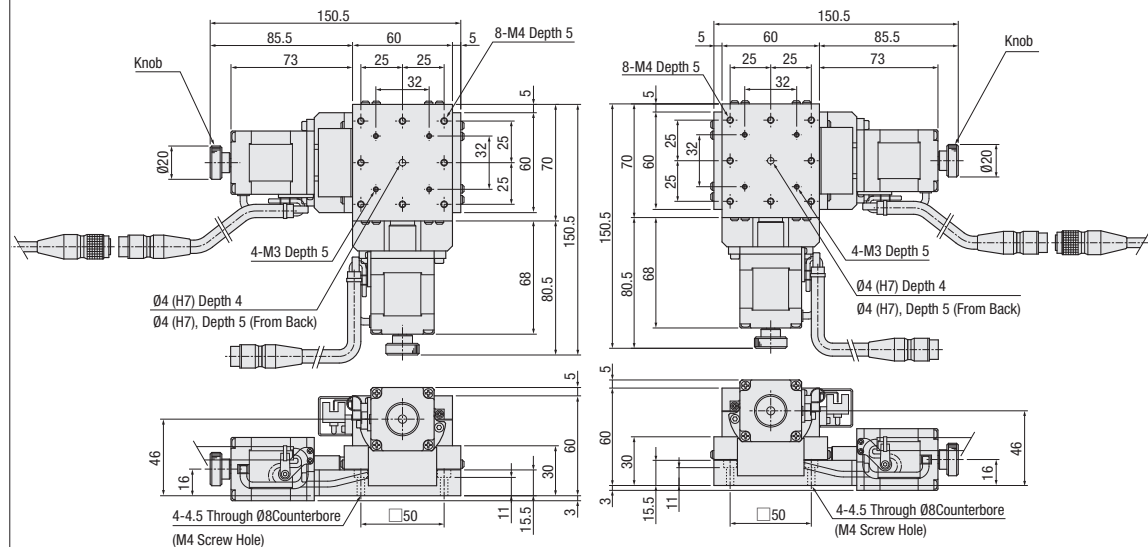
## XYMPG730-L-C

## XYMPG730-R-C



## XYMPG730-L-MS

## XYMPG730-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
XYMPG 730	L (Standard)	C (Standard)	N (Cable not included (separately sold))	60x70	30	1.1	5µm or less / Full Stroke	25"	20"
	R (Reversed)	MS (38 Micro Step)				1.5			

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



Ordering Example  
 Part Number - Sensor - Motor - Cable  
 XYMPG730 - L - C - N  
 XYMPG730 - R - MS - N



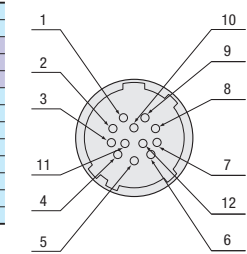
Configure Online

### Common Specifications

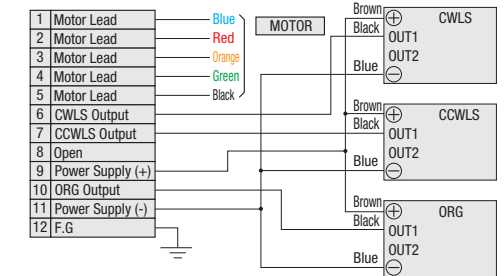
Feed Screw	Ball Screw Ø8, Lead 1	
Guide	Cross Roller Guide	
Resolution *2	Full	2µm(1µm)*3
	Half	1µm(0.5µm)*3
	Fine Feed (upon 1/20 partitioned)	0.05µm
Max. Speed *4	20mm/sec	
Positioning repeatability	Within ±0.3µm	
Load Capacity	44.1N	
Lost Motion	1µm or less	
Backlash	0.5µm or less	
Straightness	3µm 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

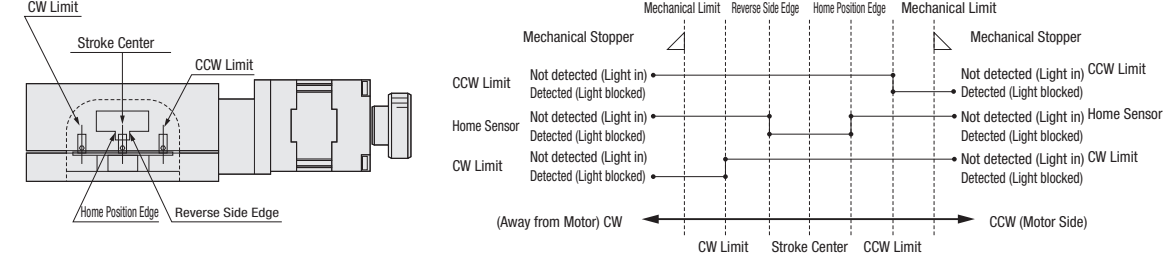


### Electrical Specifications

Part Number	C		MS	
	Standard		38 Micro Step	
Motor	Type	5-Phase Stepping Motor 0.75A/Phase (Oriental Motor Co., Ltd.)		
	Part Number	PMM33BH2-C16-1(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)		

\* Sensors 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



(Unit: mm)	Reference Position	Mechanical Limit	CW Limit	Other Signal Edge	Stroke Center	Home Position Edge	CCW Limit	Mechanical Limit
XYMPG730	Homings	18.5	17.5	4	2	0	13.5	14.5
	Stroke Center	16.5	15.5	2	0	2	15.5	16.5

\* Homing Routine Above: When DS102/DS112 Series controller is used and when the Homing 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 Homing, see P. 1-1735-97