More Robust Design

Navitar's motorization design, available on the 12X and Zoom 6000 systems, integrates magnetic Hall Effect sensors with reference position location. Hall Effect sensors are solid state devices with no moving parts.

Integrated Hall Effect Solid State Sensor Technology

- Unaffected by ambient light
- Unaffected by environmental contamination
- Unaffected by line voltage

Users can choose to motorize both the zoom and focus axis, or just the zoom. Navitar offers three different motor types:

- 2-Phase Stepping Motor (Faulhaber)
- 5-Phase Stepping Motor (Oriental, Vexta)
- DC Servo with Encoder (Faulhaber)

Most motorized lenses are built to order, which may affect standard lead times.

Motorized Zoom 6000 Options

Version	Motor Type		
	2 ø Stepper	5 ø Stepper	Encoded/ Servo
12 mm Motorized Fine Focus	1-62318	1-64426	1-62310
3 mm Motorized Fine Focus w/ Coax	1-62319	1-64428	1-62311
12 mm Manual Fine Focus	1-62523	1-64430	1-62522
3 mm Manual Fine Focus w/ Coax	1-62525	1-64432	1-62524
Non Fine Focus, Non Coax	1-62605	1-64434	1-62606
Non Fine Focus w/ Coax	1-62608	1-64436	1-62609

Motorized 12X Zoom Options

Version	Motor Type		
	2 ø Stepper	5 ø Stepper	Encoded/ Servo
12 mm Motorized Fine Focus	1-51188	1-52000	1-51190
3 mm Motorized Fine Focus w/ Coax	1-51200	1-52002	1-51202
12 mm Manual Fine Focus	1-51319	1-52004	1-51337
3 mm Manual Fine Focus w/ Coax	1-51311	1-52006	1-51338
Non Fine Focus, Non Coax	1-51314	1-52008	1-51335
Non Fine Focus w/ Coax	1-51318	1-52010	1-51336

Motorized Zoom 6000 UltraZoom Options

Version	Motor Type		
	2 ø Stepper	5 ø Stepper	Encoded/ Servo
12 mm Motorized Fine Focus	1-62316	1-64439	1-62308
3 mm Motorized Fine Focus w/ Coax	1-62317	1-64441	1-62309
12 mm Manual Fine Focus	1-62517	1-64443	1-62516
3 mm Manual Fine Focus w/ Coax	1-62639	1-64445	1-62633
Non Fine Focus, Non Coax	1-62637	1-64447	1-62631
Non Fine Focus w/ Coax	1-62638	1-64449	1-62632

Motorized 12X UltraZoom Options

Version	Motor Type		
	2 ø Stepper	5 ø Stepper	Encoded/ Servo
12 mm Motorized Fine Focus	1-51192	1-52013	1-51194
3 mm Motorized Fine Focus w/ Coax	1-51196	1-52015	1-51198
12 mm Manual Fine Focus	1-51325	1-52017	1-51333
3 mm Manual Fine Focus w/ Coax	1-51326	1-52019	1-51334
Non Fine Focus, Non Coax	1-51320	1-52021	1-51331
Non Fine Focus w/ Coax	1-51324	1-52023	1-51332

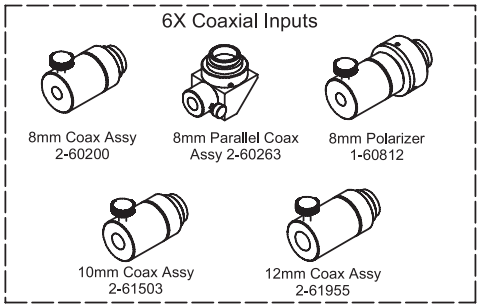
NOTE: Zooms using 5 phase stepping motors require user to order the correct cable harness between zoom and controller.

Mounting Options for Motorized Lenses

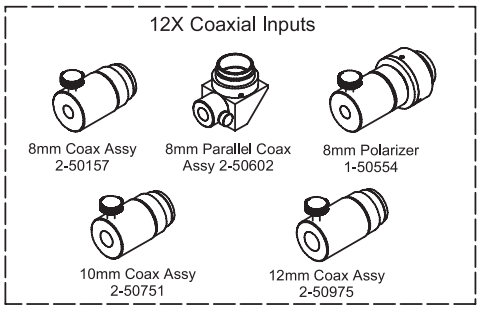
Navitar also offers flat mounting assemblies for easy integration of our motorized zoom lenses into any application. The flat mounts securely attach to the zoom body using 4 hex screws. Four additional ¼-20 thru holes are integrated into the mounts to provide a robust attachment point to a machine surface.

6X	12X
1-62572 (Standard)	1-51272 (Standard)
1-64546 (Imperical)	1-52045 (Imperical)
1-64547 (Metric)	1-52046 (Metric)

Coaxial Inputs for Motorized Lenses



Coaxial Inputs for Zoom 6000	Description and Fiber Input Size
2-60200	8 mm diameter
2-61503	10 mm diameter
2-61955	12 mm diameter
2-60263	8 mm parallel coaxial
1-60812	8 mm polarizer



Coaxial Inputs for 12X Zoom	Description and Fiber Input Size
2-50157	8 mm diameter
2-50751	10 mm diameter
2-50975	12 mm diameter
2-50602	8 mm parallel coaxial
1-50554	8 mm polarizer

***Coax parts must be ordered separately for all motorized lenses.**

Motorized Controllers

All Navitar 12X and Zoom 6000 motorized systems can be ordered with a fully integrated control system, featuring single or dual axis control via serial RS-232 or USB.

Software includes Demo Application User Interface "GUI" for simple axis control. Connections are made via two 15-pin high density d-sub connectors. Arrangements can be made for supplying the underlying software code for OEM platform assimilation.

System Requirements

Operating Systems Supported for Serial RS-232 and USB:
- Windows 7, 8.1, 10 (32 & 64 bit)

Computer Requirements:
- Windows Operating System (OS)
- Port: 1 serial or 1 USB port (can be a hub)
- Hard Disk: 1 M bytes
- RAM: Same as OS (if OS works, controller will work)

Available Control Systems

Part #	Description
Board Level	
1-40241	2 phase stepper PCB Kit
1-40167	5 phase stepper PCB Kit
2-62509	Servo with encoder PCB Kit
Enclosures*	
1-40233	2 phase flanged enclosure
1-40234	2 phase desktop enclosure
1-40168	5 phase flanged enclosure
1-40169	5 phase desktop enclosure
1-62508*	Servo with encoder enclosure
Accessories & Power Supplies	
1-40170	5 phase cable harness
8-62503	24V Domestic power supply
8-62501	USB cable (6 feet)
8-62502	RS-232 cable (6 feet)
1-40040	24V Universal Power Supply w/ Plug Kit

** Servo control system does not include power supply*

Part Number	Output Connector	Input Voltage				Universal Plug Kit
1-62504	2.1mm x 5.5mm	86-286vAC	24vDC	1.5A		Std. US Plug
8-62503	2.1mm x 5.5mm	120vAC	24vDC	1.05A		Std. US Plug
1-40040	2.1mm x 5.5mm	90-264vAC	24vDC	1.25A	Medical Rated	Yes

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