

Gain greater working distance and faster focus by integrating a tunable lens focus module with the Navitar Zoom 6000 digital imaging system.

## Key Features

- Fast and accurate fine focus adjustment in a compact design
- Extends working distance range of the 6X lens attachments
- Increases depth of field when coupled with infinity corrected microscope objectives
- Maintains image resolution with the integrated Optotune EL 16-40 tunable lens
- Long cycle life of the tunable lens unit and motorized Zoom 6000 system
- Easy to install USB electrical lens driver with software to control the tunable lens



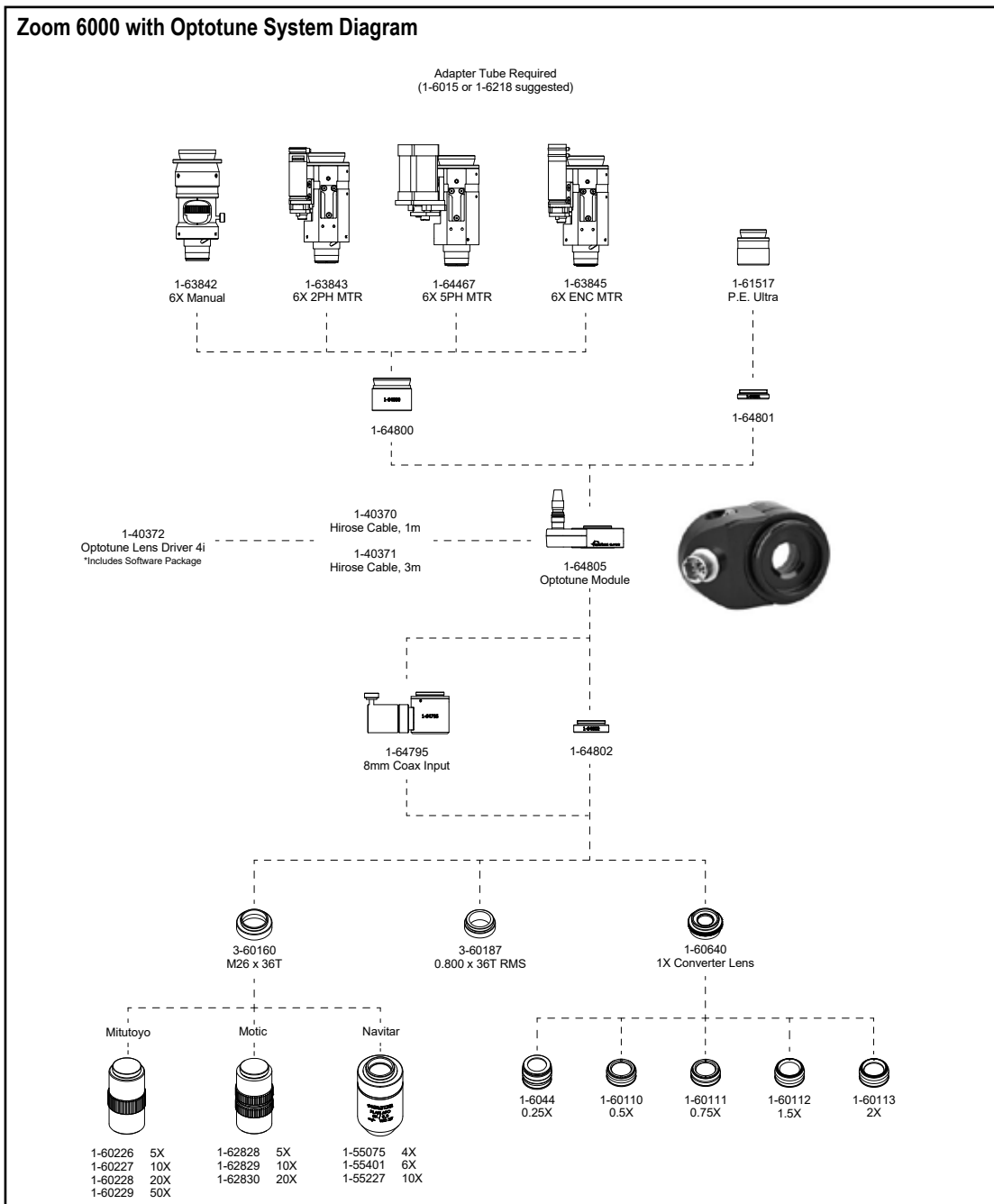
Optotune Module (Navitar 1-64805)  
with Zoom 6000 Motorized System

## Zoom 6000 with Optotune - Additional Working Distances

| Lens Attachment  | Optotune Power (Diopters) | Working Distance (mm) | Magnification |          | Object NA |          | Resolve Limit (μm) |          |
|------------------|---------------------------|-----------------------|---------------|----------|-----------|----------|--------------------|----------|
|                  |                           |                       | Low Mag       | High Mag | Low Mag   | High Mag | Low Mag            | High Mag |
| 0.25X<br>1-6044  | -2                        | 2260.3                | 0.026         | 0.166    | 0.001     | 0.003    | 383.59             | 146.32   |
|                  | -1                        | 531.1                 | 0.104         | 0.673    | 0.004     | 0.012    | 94.91              | 32.37    |
|                  | 0                         | 288.8                 | 0.183         | 1.173    | 0.007     | 0.021    | 54.15              | 20.30    |
|                  | 1                         | 191.3                 | 0.262         | 1.686    | 0.009     | 0.030    | 37.85              | 19.26    |
|                  | 2                         | 139.1                 | 0.341         | 2.202    | 0.012     | 0.038    | 29.06              | 14.30    |
|                  | 3                         | 106.3                 | 0.421         | 2.742    | 0.015     | 0.047    | 24.77              | 11.12    |
| 0.5X<br>1-60110  | -2                        | 301.4                 | 0.212         | 1.348    | 0.008     | 0.024    | 47.14              | 16.86    |
|                  | -1                        | 222.9                 | 0.277         | 1.751    | 0.010     | 0.031    | 36.41              | 13.60    |
|                  | 0                         | 174.0                 | 0.343         | 2.168    | 0.012     | 0.039    | 28.84              | 10.73    |
|                  | 1                         | 140.8                 | 0.409         | 2.587    | 0.015     | 0.046    | 23.95              | 10.17    |
|                  | 2                         | 116.8                 | 0.475         | 3.003    | 0.017     | 0.054    | 20.83              | 12.33    |
|                  | 3                         | 98.6                  | 0.542         | 3.441    | 0.019     | 0.061    | 18.46              | 9.69     |
| 0.75X<br>1-60111 | -2                        | 152.8                 | 0.410         | 2.635    | 0.015     | 0.046    | 24.13              | 9.26     |
|                  | -1                        | 128.8                 | 0.470         | 3.009    | 0.017     | 0.053    | 20.85              | 7.38     |
|                  | 0                         | 110.1                 | 0.530         | 3.389    | 0.019     | 0.060    | 18.48              | 6.42     |
|                  | 1                         | 95.3                  | 0.591         | 3.760    | 0.021     | 0.067    | 16.76              | 6.03     |
|                  | 2                         | 83.2                  | 0.651         | 4.151    | 0.023     | 0.073    | 15.35              | 8.01     |
|                  | 3                         | 73.1                  | 0.712         | 4.567    | 0.026     | 0.080    | 14.18              | 7.81     |
| 1.0X<br>None     | -2                        | 116.6                 | 0.590         | 3.803    | 0.021     | 0.066    | 16.63              | 6.57     |
|                  | -1                        | 104.4                 | 0.644         | 4.144    | 0.023     | 0.072    | 15.38              | 5.36     |
|                  | 0                         | 94.0                  | 0.698         | 4.503    | 0.025     | 0.078    | 14.19              | 4.85     |
|                  | 1                         | 85.2                  | 0.752         | 4.835    | 0.027     | 0.085    | 13.16              | 4.81     |
|                  | 2                         | 77.5                  | 0.807         | 5.199    | 0.029     | 0.091    | 12.52              | 6.01     |
|                  | 3                         | 70.8                  | 0.862         | 5.590    | 0.031     | 0.097    | 11.96              | 6.17     |
| 1.5X<br>1-60112  | -2                        | 58.1                  | 0.956         | 6.210    | 0.034     | 0.107    | 10.57              | 4.24     |
|                  | -1                        | 53.3                  | 1.004         | 6.481    | 0.036     | 0.112    | 9.86               | 3.51     |
|                  | 0                         | 48.9                  | 1.053         | 6.760    | 0.038     | 0.118    | 9.40               | 3.22     |
|                  | 1                         | 44.9                  | 1.102         | 7.047    | 0.039     | 0.123    | 8.90               | 3.46     |
|                  | 2                         | 41.3                  | 1.151         | 7.372    | 0.041     | 0.129    | 8.69               | 4.84     |
|                  | 3                         | 37.9                  | 1.201         | 7.745    | 0.043     | 0.134    | 8.50               | 4.30     |
| 2X<br>1-60113    | -2                        | 41.1                  | 1.309         | 8.473    | 0.047     | 0.146    | 7.79               | 3.28     |
|                  | -1                        | 38.5                  | 1.347         | 8.658    | 0.048     | 0.150    | 7.35               | 2.69     |
|                  | 0                         | 36.0                  | 1.386         | 8.864    | 0.050     | 0.155    | 7.08               | 2.45     |
|                  | 1                         | 33.7                  | 1.424         | 9.084    | 0.051     | 0.159    | 6.95               | 2.50     |
|                  | 2                         | 31.4                  | 1.463         | 9.358    | 0.052     | 0.163    | 6.90               | 3.95     |
|                  | 3                         | 29.3                  | 1.503         | 9.694    | 0.054     | 0.167    | 7.01               | 3.82     |

## Zoom 6000 with Optotune and Navitar Objectives - Additional Working Distances

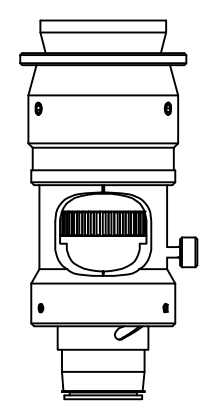
| Lens Attachment | Optotune Power (Diopters) | Working Distance (mm) | Magnification |          | Object NA |          | Resolve Limit (µm) |          | Matching Pixel Size |          |
|-----------------|---------------------------|-----------------------|---------------|----------|-----------|----------|--------------------|----------|---------------------|----------|
|                 |                           |                       | Low Mag       | High Mag | Low Mag   | High Mag | Low Mag            | High Mag | Low Mag             | High Mag |
| 4X<br>1-55075   | -2                        | 25                    | 1.24          | 8.07     | 0.043     | 0.126    | 8.29               | 2.95     | 5.15                | 11.91    |
|                 | -1                        | 22                    | 1.31          | 8.48     | 0.046     | 0.135    | 7.81               | 2.56     | 5.10                | 10.87    |
|                 | 0                         | 20                    | 1.37          | 8.86     | 0.049     | 0.145    | 7.45               | 2.40     | 5.10                | 10.64    |
|                 | 1                         | 17                    | 1.43          | 9.22     | 0.053     | 0.155    | 7.27               | 2.52     | 5.21                | 11.63    |
|                 | 2                         | 15                    | 1.50          | 9.58     | 0.056     | 0.166    | 7.19               | 3.26     | 5.38                | 15.63    |
|                 | 3                         | 13                    | 1.56          | 9.96     | 0.060     | 0.177    | 7.05               | 3.24     | 5.49                | 16.13    |
| 6X<br>1-55401   | -2                        | 27                    | 2.11          | 13.88    | 0.072     | 0.213    | 4.88               | 1.85     | 5.15                | 12.82    |
|                 | -1                        | 26                    | 2.08          | 13.53    | 0.213     | 0.214    | 4.91               | 1.64     | 5.10                | 11.11    |
|                 | 0                         | 25                    | 2.05          | 13.17    | 0.214     | 0.217    | 4.99               | 1.62     | 5.10                | 10.64    |
|                 | 1                         | 24                    | 2.01          | 12.82    | 0.217     | 0.219    | 5.28               | 1.90     | 5.32                | 12.19    |
|                 | 2                         | 23                    | 1.98          | 12.50    | 0.219     | 0.221    | 5.61               | 2.35     | 5.55                | 14.71    |
|                 | 3                         | 21                    | 1.95          | 12.22    | 0.224     | 0.224    | 6.04               | 2.73     | 5.88                | 16.67    |



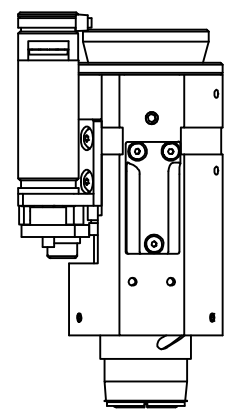
# Zoom 6000 with Optotune System Diagram

Adapter Tube Required  
(1-6015 or 1-6218 suggested)

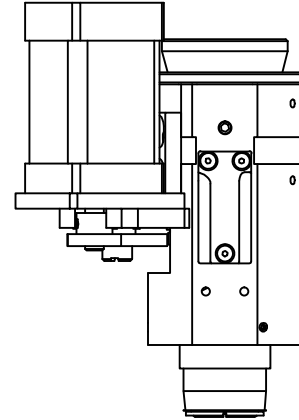
Adapter Tube Required  
(1-61445 suggested)



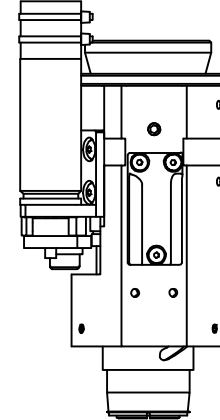
1-63842  
6X Manual



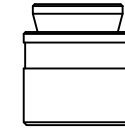
1-63843  
6X 2PH MTR



1-64467  
6X 5PH MTR



1-63845  
6X ENC MTR



1-61517  
P.E. Ultra



1-64800

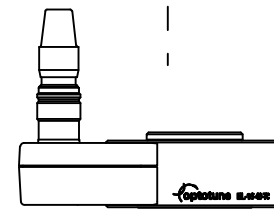


1-64801

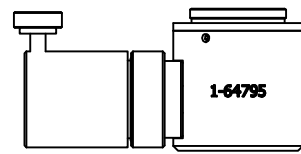
1-40372  
Optotune Lens Driver 4i  
\*Includes Software Package

1-40370  
Hirose Cable, 1m

1-40371  
Hirose Cable, 3m



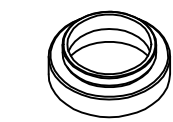
1-64805  
Optotune Module



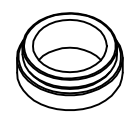
1-64795  
8mm Coax Input



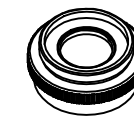
1-64802



3-60160  
M26 x 36T



3-60187  
0.800 x 36T RMS

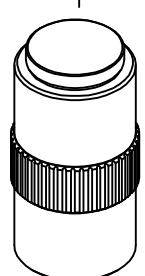


1-60640  
1X Converter Lens

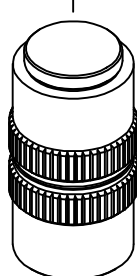
Mitutoyo

Motic

Navitar



1-60226 5X  
1-60227 10X  
1-60228 20X  
1-60229 50X



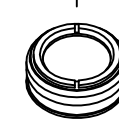
1-62828 5X  
1-62829 10X  
1-62830 20X



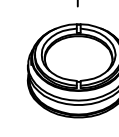
1-55075 4X  
1-55401 6X  
1-55227 10X



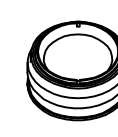
1-6044  
0.25X



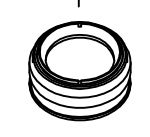
1-60110  
0.5X



1-60111  
0.75X



1-60112  
1.5X



1-60113  
2X