

# Lens specifications

## Optics

|                         |   |
|-------------------------|---|
| Image sensor            | 1/2.8" Effective image area > 6.4mm   |
| Focal distance          | 5±5% ~ 100±5%mm   |
| Aperture                | f/1.6~f/3.7   |
| Focus range             | <ul style="list-style-type: none"><li>• WIDE: 1.0m - infinity</li><li>• TELE: 1.0m - infinity</li></ul> |
| Field of view (D=6.0mm) | <ul style="list-style-type: none"><li>• WIDE: 66.5°</li><li>• TELE: 3.38°</li></ul>                     |
| Relative contrast       | <ul style="list-style-type: none"><li>• WIDE: &gt;35%</li><li>• TELE: &gt;63%</li></ul>                 |
| Distortion              | <ul style="list-style-type: none"><li>• WIDE: -9.7%</li><li>• TELE: 2.1%</li></ul>                      |

## Mechanics

|                         |  |
|-------------------------|--|
| Mechanical back focus   | -0.92 (in glass t=0.5 BK7)   |
| Lens zoom structure     | The stepper motor is directly connected to the screw   |
| Lens focusing structure | The stepper motor is directly connected to the screw   |
| Lens size               | <ul style="list-style-type: none"><li>• Length: 79.9mm</li><li>• Width: 46mm</li><li>• Height: 46mm</li><li>• Front end diameter: 41.8mm</li></ul> |

## Motor specifications

|                           |             |
|---------------------------|-------------|
| Screw pitch               | 0.4mm       |
| Spiral rotation direction | Right       |
| Rated voltage             | 4.5-5.0 VDC |
| Coil resistance           | 55Ω ± 10%   |

|                             |                                      |
|-----------------------------|--------------------------------------|
| Phase count                 | 2                                    |
| Step angle                  | 18° / step                           |
| Max start frequency         | 800 PPS/min @ at 5.0 VDC             |
| Max operating frequency     | 1200 PPS/min @ 5.0 VDC               |
| Pull torque                 | 2.8 gf-cm min (at 480 PPS @ 5.0 VDC) |
| Push torque                 | 3.8 gf-cm min (at 480 PPS @ 5.0 VDC) |
| Operating temperature range | -20°C ~ +70°C                        |

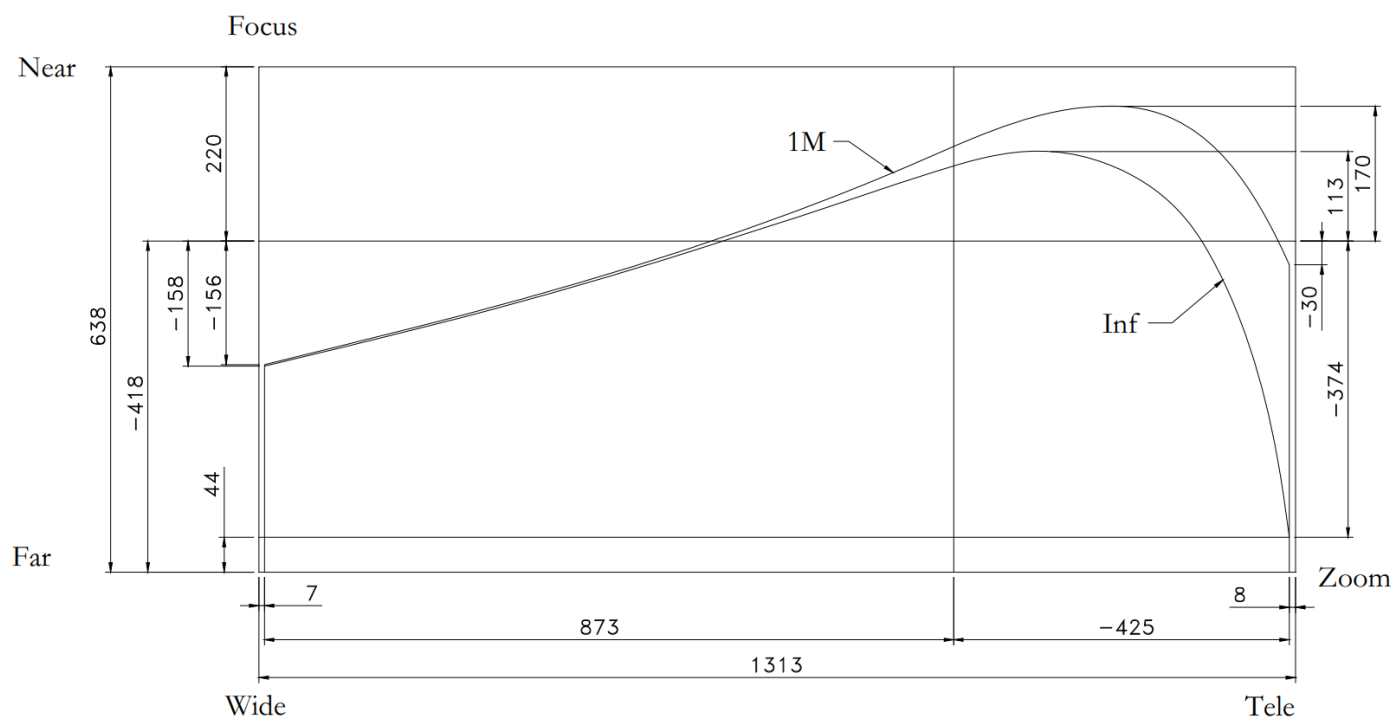
Position alignment sensor PI

|              |                |
|--------------|----------------|
| Model number | RPI-222 / ROHM |
|--------------|----------------|

IR switch

|                     |   |
|---------------------|---|
| Coil resistance     | 25 ± 5Ω   |
| Operation voltage   | 4.5V  |
| Current consumption | 144~200mA   |
| Switching time      | 200-500ms   |
| Filters             | <ul style="list-style-type: none"><li>• Clear glass</li><li>• 420 ~600nm Tavg &gt;95%</li></ul> |

Zoom-Focus curve diagram



Revision #4

Created 1 November 2020 17:15:16 by Saulius

Updated 7 February 2021 19:22:42 by Saulius