



BlueVision Lenses

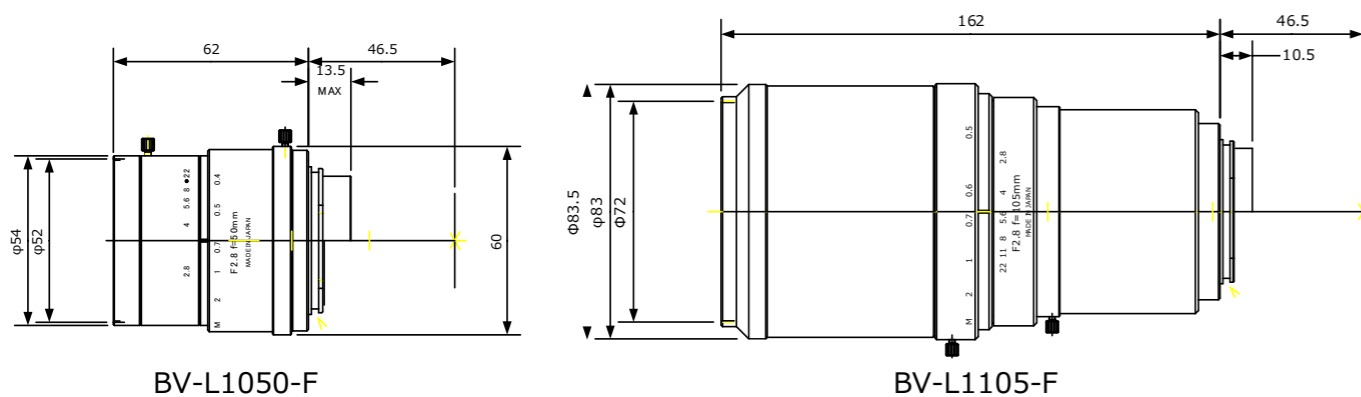
For Prism Spectroscopic Visible Light Cameras



| | BV-L1050-M/-F | BV-L1105-M/-F |
|------------------------------|--|--|
| Image sensor length | 30mm | 30mm |
| Flange back (in air) | 46.5mm | 46.5mm |
| Focal length | f=50mm | f=105mm |
| Maximum aperture ratio | F2.8 | F2.8 |
| Iris diaphragm range | F2.8 ~ F22 | F2.8 ~ F22 |
| Best focusing range (*1) | 0.3m ~ 2.0m | 0.3m ~ 2.0m |
| Minimum object distance (*1) | 0.3m | 0.3m |
| Angle of view | 32.09° @ 2.0m (at image height 15mm) | 15.84° @ 2.0m (at image height 15mm) |
| Spectral wave length range | 400nm ~ 900nm | 400nm ~ 900nm |
| Marginal brightness | 85.3% | 84.3% |
| Exit pupil | -348.94mm @ 2.0m (from imaging plane) | -186.69mm @ 2.0m (from imaging plane) |
| Distortion (*2) | 0.02% @ 2.0m (in TV indication) | 0.004% @ 0.5m ~ 0.12% @ 2.0m (in TV indication) |
| Applicable pixel size | 7μm | 7μm |
| Filter diameter | M52 x P0.75 | M72 x P0.75 |
| Mount | M52 mount, Nikon F mount | M52 mount, Nikon F mount |
| Weight | 340g | 1010g |

(*1) Measured from the lens surface (*2) Specifications are design value.

Notes • All knobs for fixing lens iris and focus are to be set with the torque value=3cN·m or less.
• We recommend to use jigs to support lens in a case of horizontal position setting.
• We recommend M52 mount for setting the lens in a place where the circumstances of its setting location has more than 3G vibration.



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Common Features

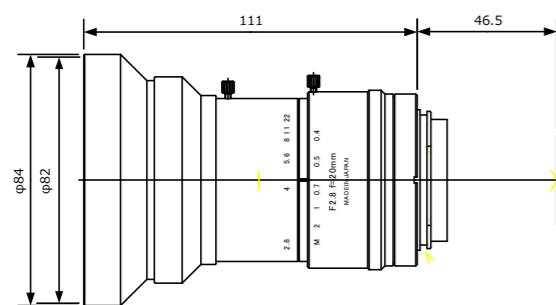
- Designed to be suitable for prism spectroscopic visible light cameras
- New optics designed to improve the longitudinal chromatic aberration (focal point shift for R,G,B channels) and the lateral chromatic aberration (image size difference for R,G,B channels)
- Spectral response extended to near infrared region
- High resolution optics designed for 7μm pixel size (4K sensor)
- Marginal light transmission from 70% to 85% (depends on models)
- F2.8 maximum aperture
- Applicable for 30mm length sensors
- WD (working distance) is 300mm from the front of the lens.
- M52 mount and F mount are available.



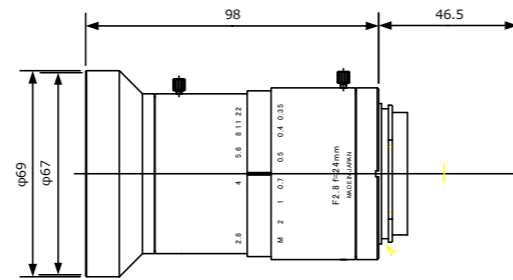
| | BV-L1020-M/-F | BV-L1024-M/-F |
|------------------------------|--|--|
| Image sensor length | 30mm | 30mm |
| Flange back (in air) | 46.5mm | 46.5mm |
| Focal length | f=20mm | f=24mm |
| Maximum aperture ratio | F2.8 | F2.8 |
| Iris diaphragm range | F2.8 ~ F22 | F2.8 ~ F22 |
| Best focusing range (*1) | 0.3m ~ 2.0m | 0.3m ~ 2.0m |
| Minimum object distance (*1) | 0.3m | 0.3m |
| Angle of view | 71.59° @ 2.0m (at image height 15mm) | 63.89° @ 2.0m (at image height 15mm) |
| Spectral wave length range | 400nm ~ 900nm | 400nm ~ 900nm |
| Marginal brightness | 72.4% | 70.3% |
| Exit pupil | -348.54mm @ 2.0m (from imaging plane) | -391.68mm @ 2.0m (from imaging plane) |
| Distortion (*2) | 0.06% @ 0.5m (in TV indication) | 0.13% @ 2.0m (in TV indication) |
| Applicable pixel size | 7μm | 7μm |
| Filter diameter | M82 x P0.75 | M67 x P0.75 |
| Mount | M52 mount, Nikon F mount | M52 mount, Nikon F mount |
| Weight | 660g | 530g |

(*1) Measured from the lens surface (*2) Specifications are design value.

- Notes
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BV-L1020-F



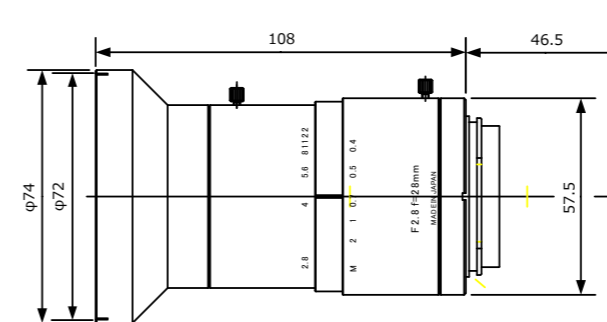
BV-L1024-F



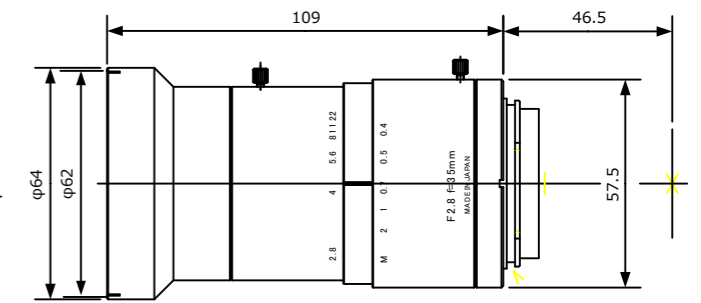
| | BV-L1028-M/-F | BV-L1035-M/-F |
|------------------------------|---|--|
| Image sensor length | 30mm | 30mm |
| Flange back (in air) | 46.5mm | 46.5mm |
| Focal length | f=28.0mm | f=35mm |
| Maximum aperture ratio | F2.8 | F2.8 |
| Iris diaphragm range | F2.8 ~ F22 | F2.8 ~ F22 |
| Best focusing range (*1) | 0.3m ~ 2.0m | 0.3m ~ 2.0m |
| Minimum object distance (*1) | 0.3m | 0.3m |
| Angle of view | 55.23° @ 2.0m (at image height 15mm) | 46.22° @ 2.0m (at image height 15mm) |
| Spectral wave length range | 400nm ~ 900nm | 400nm ~ 900nm |
| Marginal brightness | 71.7% | 78% |
| Exit pupil | -435.7mm @ 2.0m (from imaging plane) | -416.14mm @ 2.0m (from imaging plane) |
| Distortion (*2) | 0.19% @ 2.0m (in TV indication) | 0.11% @ 2.0m (in TV indication) |
| Applicable pixel size | 7μm | 7μm |
| Filter diameter | M72 x P0.75 | M62 x P0.75 |
| Mount | M52 mount, Nikon F mount | M52 mount, Nikon F mount |
| Weight | 550g | 530g |

(*1) Measured from the lens surface (*2) Specifications are design value.

- Notes
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BV-L1028-F



BV-L1035-F