

TZ12-0.5-50-COAX

The TZ coax-series are telecentric measuring objectives for highest demands. Excellent telecentricity combined with extremely good contrast is perfect for machine vision applications. With coaxial illumination they are suitable very well testing smallest surface defects (scratches, grooves, burrs, dips). If requested the optics can be equipped with variable iris, polarizing filter and retarder plates - high end optics for most difficult surface inspections. With Optibench IB/E OPTICS can deliver exact data of distortion, MTF and telecentricity as protocol. The TZ coax-series covers linear magnifications from 0.5 to 3.0. Attachments for the coaxial illumination LED- or fibreguide adapters are available.



| TZ12-0.5-50-COAX | | | | |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|----|
| ∅ Image circle | 1/3" | 1/2" | 2/3" | 1" |
| Width _{object field(VIS)} | 9,6 mm | - | - | - |
| Height _{object field(VIS)} | 7.2 mm | - | - | - |
| Wavelength | VIS 486 - 656 nm NIR 800 - 900 nm | | | |
| Interface | C - Mount | | | |
| Notes | All object fields are tolerated with 5%. OO' indicates the whole imaging length of the image field (typically CCD chip) to the object. s means the object-sided back focus length, i. e. the distance of the front lens to the object. AA indicates the working distance, i. e. the distance of the mechanics of the object. All values are object-sided! | | | |

| Spectral range | VIS | NIR |
|-------------------------------------|------------|------------|
| ∅ object field1/3" | 12,0 mm | 12,0 mm |
| ∅ object field1/2" | - | - |
| ∅ object field2/3" | - | - |
| ∅ object field1" | - | - |
| Working distance _{AA ±2 %} | 50,0 mm | 50,4 mm |
| Imaging length _{OO'} | 122,2 mm | 122,6 mm |
| Back focus distance _s | 53,0 mm | 53,4 mm |
| Linear magnification | 1:2,0 | 1:2,0 |
| MAG (β) _(±5 %) | 0,50 | 0,50 |
| Telecentricity | < 8,7 mrad | < 7,0 mrad |
| MTF @ 32 lp/mm | 75% | 60% |
| Depth of focus @ 16 lp/mm | ± 2,8 mm | ± 2,8 mm |
| Distortion max. | 0,34% | 0,09% |
| Aperture object-side | 0,0400 | 0,0400 |

