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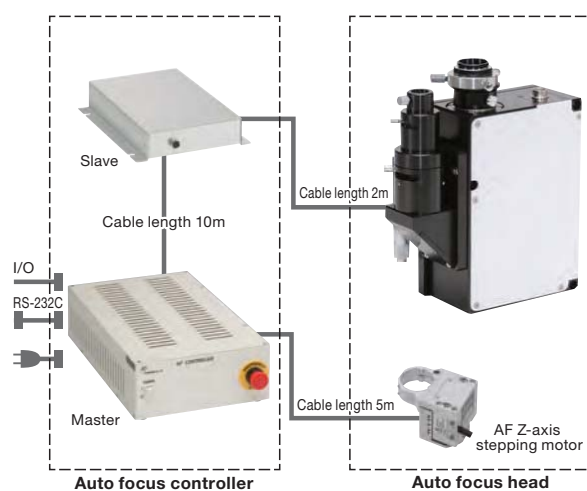
The Through The Lens auto focus method incorporates the focusing system into the microscope body, directing the focus laser through the objective lens. The reflected beam returns through the objective lens and is focused onto the focus sensor.

[Characteristics]

- High speed tracking with real-time adjustment of focus by only moving the objective lens.
- The Laser TTL method focusing system can be used for glass and film inspection.
- The small, compact design makes it easy to integrate into inspection equipment systems.
- Supports 1/2-inch or less CCD camera (C mount).

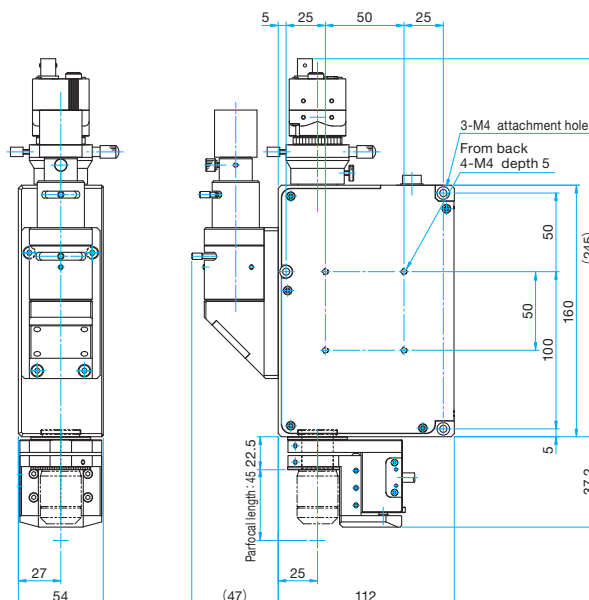
Specifications	
Part Number	TAF-SS-OBL-3
Objective Lens	2x – 100x
Camera	C mount CCD camera (Size is less than 1/2")
Focusing methods	TTL (Through The Lens), active method by semiconductor laser (equivalent to class 2, light output 2mW or less, wavelength 670nm)
Travel	3mm
Trace Range (Tracking capable range)	2x, 5x, 10x : ±1.5mm 20x : ±500μm 50x : ±250μm 100x : ±100μm
Reproducibility (Focus)	±6.0μm(5x), ±1.0μm(10x) ±0.5μm(20x, 50x, 100x)
Response frequency*	5Hz ≤ * The specification differs by the combination of the actuator
Illumination optical systems	Coaxial epi-illumination (aperture stop built in)
Dimension	(W)160 × (H)258 × (D)47mm
Weight (head part)	1.6kg
Focus Actuator	SGSP-OBL-3 (stepping motor driving actuator)

Configuration



Outline Drawing

(in mm)



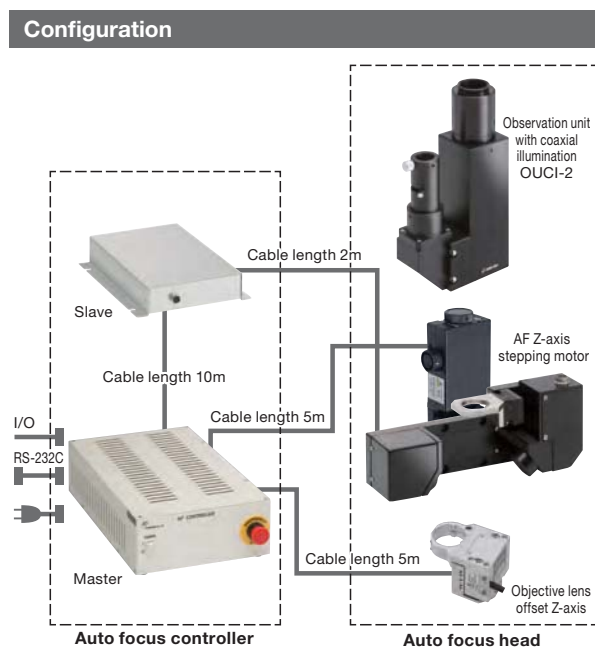
A focus laser with large spot and a separate laser detector are aligned at a large angle outside of the objective lens. Focus is maintained by minimizing the error signal generated by the sensor.



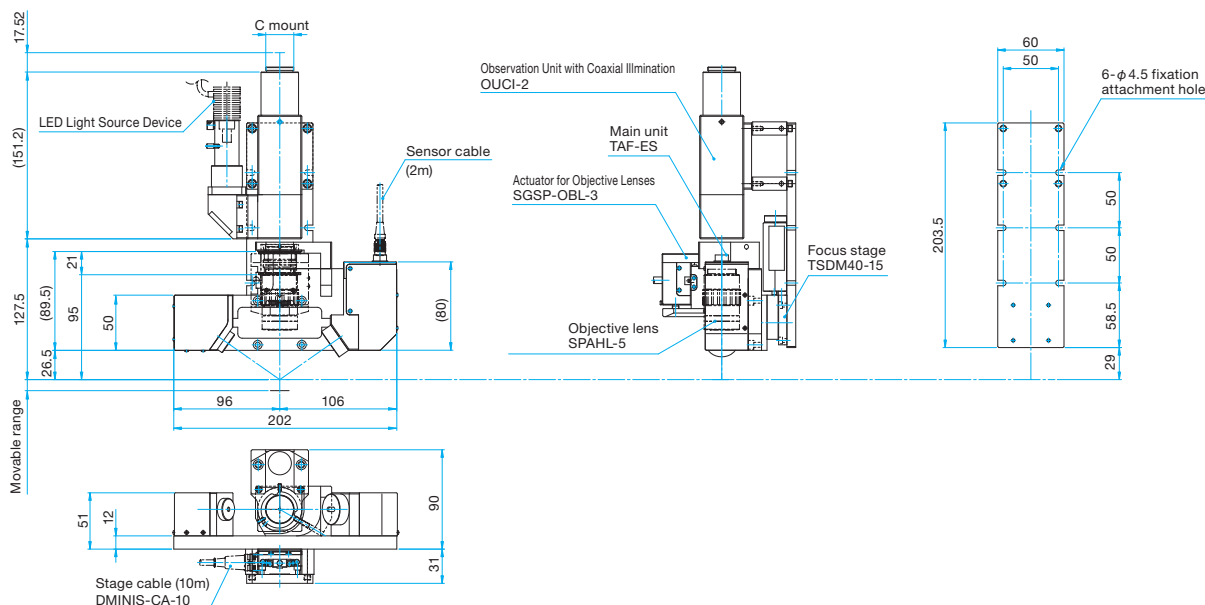
[Characteristics]

- As the optical system being focused and the auto focus optical system are independent, the auto focus system will operate with various magnification objective lenses.
- Focus point can be offset to support focusing through transparent surfaces such as glass and film.
- The small, compact design makes it easy to integrate into inspection equipment systems.

Specifications	
Part Number	TAF-ES-DM-40
Objective Lens	2x - 50x (Outer diameter ϕ 32mm WD11mm Objective lens)
Camera	C mount CCD camera (Size is less than 2/3")
Focusing methods	Off-axis (out of Lens) reflection active system by semiconductor laser (equivalent to class 3R, light output 4.5mW or less, wavelength at 670nm)
Travel	10mm
Trace Range (Tracking capable range)	Regular reflector: \pm 3mm Transparent body: contact us separately Reference) thickness 0.7mm, glass \pm 0.3mm
Reproducibility (focus)	\pm 0.5 μ m
Response frequency	About 5Hz (regular reflector step \pm 10 μ m)
Illumination optical systems	Coaxial epi-illumination (aperture stop built in)
Dimension	(W)202 x (H)230 x (D)87mm
Weight (head part)	2.2kg
Focus Actuator	TSDM (stepping motor drive stage)



Outline Drawing (in mm)



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