

# ART-25 ART-25 Optical Elements Measuring Device



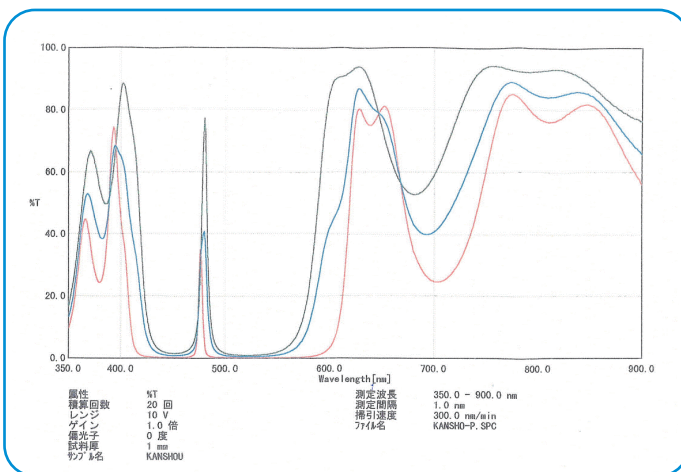
The Model ART-25 has been developed to measure the spectral transmittance and reflectance of optical elements such as lenses, sheet glass, filters, reflecting mirrors, prisms and so on.

The incident angle to the sample at the time of reflectance measurement is variable at an arbitrary angle, and it can be set up to the minimum incident angle of 15° (optical axis angle 30°) at reflectance measurement. By mounting a polarization measurement mechanism, our unique mirror optical system enables the user to perform direct measurement of 45° N polarized light as well as P polarized light and S polarized light measurement

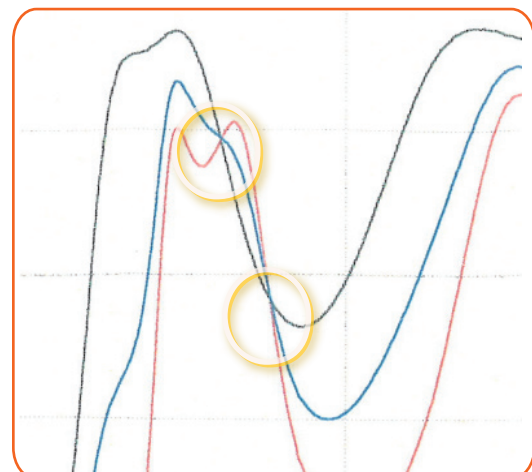
- The standard transmittance measurement range is from 350 to 850nm. And optionally it can be extended to 220 ~ 2000nm.
- Measurement repeatability within ± 0.2% is achieved with our proprietary double beam optical system which cancels variations of light source and detector.
- It also supports transmittance measurement of the prism as an option, and can also measure transmittance of any prism such as a single lens reflex pentaprism or a video camera BGR decomposition prism.
- In addition to P polarization and S polarization measurement, direct measurement of 45° N polarized light is possible.



## Interference filter measurement data (example)



Transmittance data of polarization 0° P, polarization 45°, polarization 90° of the interference filter



At wavelengths where 3 data polarization 0°P, polarization 45°N, polarization 90° S overlap each other, 3 data always overlaps at 1 point.



## Specifications

Wavelength range	350~850nm( option : 220~2000nm)
Measurement mode	Transmittance 0~100(%T)
Measurement precision	Within $\pm 0.2\%$
Measurement method	Back ground measurement method
Correction method	Double beam 2 system correction
Wavelength purity	Approx. 2nm
Wavelength accuracy	$\pm 0.1\text{nm}$
Irradiation beam size	Approx. $5 \times 5\text{mm}$
polarization angle	$0^\circ$ $45^\circ$ $90^\circ$ ( to be set by software )
Light source	Halogen lamp 150W
Integrating sphere	$\Phi 100\text{mm}$
Detector	Photomultiplier



## Standard configurations

- Halogen lamp 150W
- Halogen lamp power supply ( for 150W)
- Halogen lamp holder ( for 150W)
- Light converging optical system
- Monochromator (M25-T)
- Grating 1200 grooves /500nm blaze
- Wavelength driving mechanism
- Auto shutter mechanism
- Auto high order light cut filter mechanism
- High order light cut filters
- Double beam optical system
- Polarizer (Glan-Thompson)
- Polarizer auto-rotation mechanism
- Integrating sphere  $\Phi 100\text{mm}$
- Photomultiplier
- Sample stage
- JQA filters for calibration ( 4 types, with case )
- Amp system for high precision measurement
- Inter face unit
- Large sample chamber
- Frame
- PC
- Dedicated software
- Instruction manual



## Optional intes

- D2 lamp unit ( lamp, power supply, lamp holder )
- Xenon lamp unit ( lamp, power supply, lamp holder )
- Two lamps light converging optical system
- Different type of gratings
- Different type of high order light cut filters
- Silicon photo diode ( for optional long wavelength expansion )
- Integrating sphere moving mechanism
- Various type of sample stage



## Installation environment



- Main unit : Approx.  $W2100 \times D900 \times H1750\text{mm}$
- Power :  $AC100V \pm 10V$  50/60Hz 10A

● specifications and appearance are subject to change without prior notice

<ART-25-1708041E>

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